



PROJECT VET-EDS
OUTCOME 2

LOCAL AND REGIONAL COMPENDIUM
OF GOOD PRACTICE

National Training Fund

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INTRODUCTION

The Local and regional compendium of good practice is one of the key output of the project Effective Forecasting as a mechanism for aligning VET and Economic Development Strategies (VED-EDS). The purpose of the project is identification of the very best examples of effective VET Policy and economic development planning and to understand the differing ways that labour market and skills intelligence and measures has been used. Other regions and countries could adopt these practical methods and approaches to help the better linking VET policy to economic development strategy.

Each good practice selected by partners explores successful examples of how local and regional authorities/governments have aligned their VET policies with their local and regional economic development strategies and furthermore the potentially critical role that labour market forecasting has played in facilitating this alignment. Each good practice seeks to learn transferable lessons in both the practical aspects and benefits of aligning VET and economic development policy.

The Compendium brings altogether 40 examples from seven countries (Czech Republic, Germany, Italy, Netherlands, Spain, Sweden, United Kingdom) collated by the project partners. These examples are described in two ways – shorter one as a “good practice” and more detailed one as a “case study” however the structure is common. Each of the examples consists of

- Title
- Introduction (how this fits with aim of VET-EDS, why is it successful and a good practice)
- Context and settings (economy, geography, nature of VET concerned, nature of the economic development)
- Description (scale, type of VET policy, target groups, organisations involved and stakeholders, how is it organized, what worked and why, constraints)
- Impact and replicability (how it has impacted on VET and economic developments and in what circumstances could it be replicated)
- Summary
- Contact details

Examples gathered and described in the Compendium represent wide range of approaches and tools aimed at support alignment of VET policy and economic development strategy. For the purpose of the Compendium the examples have been divided into following key themes though several examples focus on more than one theme:

- Matching the education with employers’ needs
- Forecasting
- Sector Specific Training
- Integration of social excluded/immigrants into the labour market
- Analysis

In compliance with the main purpose of the project the most examples concentrate on the approaches to matching the education with employers' needs. The overview of individual theme frequency provides Table 1.

Table 1: Good Practice Examples List according to the main theme

TOPIC	Good Practises (Name)
Matching the education with employers' needs	CZ – TOGETHER initiative
	CZ - Active Matching: Strategic support for counselling within labour market
	ES - Agreement between the regional authorities, training centres and the University of the Basque Country to support action plans in Gipuzkoa' SMEs on a vulnerable situation
	SE - Delta Blekinge
	SE -Teknikcollege Skåne
	NL - GOA PUBLIEK
	NL - Kenniswerkplaats
	IT – Higher Technical Institutes
Forecasting	UK- Marchmont's SLIM Learning Themes
	CZ – Prognosis of the development in selected sectors and changes in the structure of employment till 2033
	DE - Local conferences in the "Forecasting System for the Development of Employment and Qualifications – regio pro"
	NL - Labour market monitor Eemsdelta approach to LMI
	SE- The Forecast on Education and Training in the County of Skåne (UAPS)
Sector Specific Training	UK - Developing a Local Skills Plan;
	DE - Sector-specific professional training for unskilled workers in Hessian SME's
	ES - Sectorial Expert Panel
	IT - The ASLAM Association
	NL-Nordwin approach to developments in the Frisian dairy sector
Integration of social excluded/immigrants into the labour market	UK - Construction Skills Network
	DE - Welcomecenter Hessen
	DE - Hessian Labor Market and Migration Monitor – "HeMonA"
	ES - Aid for local employment promotion actions
	IT – Oliver Twist School
Analysis	SE – Swedish for professionals
	ES - The role of other Regional Agents in the analysis of the Labour Market
	ES - Urban Observatory
	IT – CNOS-FAP Association
	PL (CZ) - Malopolska Observatory
TOPIC	UK - New Economy – Cost Benefit Analysis Model & Unit Costs Database
	Case Studies
Matching the education with employers' needs	ES - Agreement between the regional authorities, training centers and the University of the Basque Country to support

	action plans in Gipuzkoa’ SMEs on a vulnerable situation
	NL - MyTec Noorderpoort
	SE -Teknikcollege Skåne
Forecasting	SE - The Forecast on Education and Training in the County of Skåne (UAPS)
Sector Specific Training	DE - The “Bildungswerk” as intermediary VET actor in the logistics sector in Hesse
	UK - Local Sectoral Skills Analysis
	UK - Hinckley Nuclear Plant Construction (and associated use of LMI)
Integration of social excluded/immigrants into the labour market	DE- Labor market integration as part of the General Concept for Securing Skilled Workers in Hesse. A regional approach
	NL - Working in Germany; a cross-border partnership of the Netherlands and Germany
Analysis & Monitoring	CZ - The Observatory of competitiveness and Labour Market in the Moravia-Silesian Region
	CZ - Regional Innovation Strategy – Ústecký region
	IT- WollyBi

Notes: CZ - Czech Republic; DE – Germany; ES – Spain; I – Italy; NL – Netherlands; PL – Poland; SE – Sweden; UK – United Kingdom

THEME 1: MATCHING THE EDUCATION WITH EMPLOYERS’ NEED

Introduction

This theme consists of ten examples - two from the Czech Republic, Sweden, Netherlands, one from Italy, United Kingdom, Germany and Spain. Two examples are described twice, once in a shorter way (good practice) and once in a more detailed way (case study). It concerns following example Teknikcollege Skåne and Agreement between the regional authorities, training centers and the University of the Basque Country to support action plans in Gipuzkoa’ SMEs on a vulnerable situation.

Common aim of these examples is fostering cooperation between schools and business through different measures and approaches. Table 2 provides a brief overview of the example’s main aim.

Table 2: Practice and their focus

Practice	Focus
TOGETHER 	<ul style="list-style-type: none"> • mapping the current situation and forms of collaboration between VET and firms • designing models of effective collaboration • methodology for establishing such cooperation
Active matching: Strategic support for counselling within labour market 	<ul style="list-style-type: none"> • identify employers’ requirements on workforce and assessing whether the requirements are referring mainly to education, level of qualification and work experience or to competencies

<p>Agreement between the regional authorities, training centres and the University of the Basque Country to support action plans in Gipuzkoa' SMEs on a vulnerable situation</p> 	<ul style="list-style-type: none"> • create a link between education, training and research and regional economy • emphasis on regional transition • assistance for SME in implementation of the viability plan, management model, productive competitiveness
<p>Delta Blekinge</p> 	<ul style="list-style-type: none"> • improve and develop the interaction between school and business • bringing “real” inspiration from the working life to school
<p>Teknikcollege Skåne</p> 	<ul style="list-style-type: none"> • increase the attraction of technology – oriented courses • increase the quality of technology – oriented courses
<p>GOA Publiek</p> 	<ul style="list-style-type: none"> ▪ raise awareness for apprenticeship training (BBL) in the public sector; ▪ support and encourage public organizations to offer apprenticeships; ▪ counsel students during their apprenticeships
<p>Kenniswerkplaats</p> 	<ul style="list-style-type: none"> • create a link between education, training and research (knowledge) and regional economy (demands)
<p>My Tec</p> 	<ul style="list-style-type: none"> • innovative program for technical education • practical oriented teaching methods • collaboration with regional companies
<p>Higher technical institute</p> 	<ul style="list-style-type: none"> • orient young people and their families to the technical professions • experiential learning • development methods for innovation and technology transfer to small and medium-sized enterprises
<p>Marchmont's SLIM Learning Themes</p> 	<ul style="list-style-type: none"> • mechanism to achieve ‘evidence-based’ skills policy • gather information from both research and practitioner experience

>>>[Description of individual practices see Annex 1](#)<<<

THEME 2: FORECASTING

Introduction

This theme consists of four examples from five countries: the Czech Republic, Sweden, Germany and Netherlands. All of them are described as a good practice, Sweden example is described also as a case study.

Practice	Focus
Prognosis of the development in selected sectors and changes in the structure of employment till 2033 	<ul style="list-style-type: none"> • prognosis of employment in eight economic sectors • prognosis of employment in key occupations in these sectors • long-term approach • create a base for social dialog of employers, trade unions and experts
Local conferences in the “Forecasting System for the Development of Employment and Qualifications – regio pro” 	<ul style="list-style-type: none"> • develop and institutionalize framework for regional strategies • overcome mismatches in current and future demand and supply for skilled labour in certain sectors • stimulate information exchange and cooperation
Labour market monitor Emsdelta approach to LMI 	<ul style="list-style-type: none"> • create a base for businesses’ strategic planning • project for the next five years – future staffing, jobs and skills for selected businesses • create a business report for each business • and a database
The Forecast on Education and Training in the County of Skåne (UAPS) 	<ul style="list-style-type: none"> • elaborate a comprehensive approach • regional forecast on education and training • forecast of major occupational areas • establish Regional Competence Platforms
Developing a Local Skills Plan 	<ul style="list-style-type: none"> • project changes in the industrial structure • project change in employment by qualification level • explore for future demand for skills

>>>[Description of individual practices see Annex 2](#)<<<

THEME 3: SECTOR SPECIFIC TRAINING

This theme consists of eight examples from five countries: three from United Kingdom, two from Germany, one from Spain, Italy and Netherlands. Five examples are described as a good practice, three as a case study.

Practice	Focus
Sector-specific professional training for unskilled workers in Hessian SME's 	<ul style="list-style-type: none"> • develop concepts for each participating sector, which enable professional training providers easier and more successful access to companies • increase success rate in training unskilled personnel
The “Bildungswerk” as intermediary VET actor in the logistics sector in Hesse 	<ul style="list-style-type: none"> • support strategic human recourse development in the sector • provide trainings for the subgroup of warehouse and storage workers • provide training for unskilled workers • provide “Meister” trainings for the highly skilled employees
Sectorial Expert Panel 	<ul style="list-style-type: none"> • focus on the renewable energy sector • introduce a new tool to adjust the offer of employment and training to perceived need • transfer information for planning, evaluation and monitoring of the training offer
The ASLAM Association 	<ul style="list-style-type: none"> • training provision related to the Airport • provide EQF certification at different levels • strengthening cooperation between local employers and training institution
Nordwin approach to developments in the Frisian dairy sector 	<ul style="list-style-type: none"> • support regional dairy corporations with a sufficient amount of qualified workers • develop a number of VET programs related to dairy • compliance of VET system with regional economy development
Construction Skills Network 	<ul style="list-style-type: none"> • inform business and strategic planning • identify industry-wide education and training needs • ensure the industry has the right skills at the right time in the right place
Local Sectoral Skills Analysis 	<ul style="list-style-type: none"> • produce the evidence base and recommendations for action • develop a tool for monitoring progress against agreed indicators • develop ten sectoral reports on the skills and labour force needs
Hinckley Nuclear Plant Construction (and associated use of LMI) 	<ul style="list-style-type: none"> • enable local people to take up employment at the site and to compete with people attracted to work at Hinckley from outside the region

	<ul style="list-style-type: none"> • develop and deliver a local skills strategy • identify the employment and skills needs that will be generated by major construction project
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>>>[Description of individual practices see Annex 3](#)<<<

THEME 4: INTEGRATION OF SOCIAL EXCLUDED/IMMIGRANT INTO LABOUR MARKET

This theme consists of seven examples from six countries: three from Germany, one from Spain, Italy Netherlands and Sweden. Five examples are described as a good practice, three as a case study.

Practice	Focus
Welcomecenter Hessen 	<ul style="list-style-type: none"> • support the Strategy for Securing Skilled Labour • provide support for those who are seeking a job, but are grappling with the entry requirements to the German labour market, specifically in regard to qualifications • provide bundle information to the immigrant job seekers
Hessian Labor Market and Migration Monitor – “HeMonA” 	<ul style="list-style-type: none"> • provide detailed information about migrants • present data on a special web-portal • enable easy access to and wide usage of data
Labor market integration as part of the General Concept for Securing Skilled Workers in Hesse. A regional approach 	<ul style="list-style-type: none"> • develop labor market integration strategies in 26 administrative districts • bring together different labor market and VET related stakeholders in each districts • coordinate and a complement structure of measures for the target groups
Aid for local employment promotion actions 	<ul style="list-style-type: none"> • detect new productive possibilities • collaboration between regional employment service and municipalities • promote employment • aid to recruitment
Oliver Twist School 	<ul style="list-style-type: none"> • decrease school dropout • develop training paths in handicraft • develop training paths in tourism

<p>Working in Germany; a cross-border partnership of the Netherlands and Germany</p> 	<ul style="list-style-type: none"> • qualify jobseekers from Netherlands for jobs in Germany • improve the cross border cooperation on trade and industry and labour market
<p>Swedish for professionals</p> 	<ul style="list-style-type: none"> • develop courses focusing on professional Swedish language • shorten the path through the educational system for newly arrived immigrants • help integration

>>>[Description of individual practices see Annex 4](#)<<<

THEME 5: ANALYSIS & MONITORING

This theme consists of eight examples from six countries: two from the Czech Republic, Italy and Spain, one from Poland, United Kingdom. Five examples are described as a good practice, three as a case study.

Practice	Focus
<p>The Observatory of competitiveness and Labour Market in the Moravia-Silesian Region</p> 	<ul style="list-style-type: none"> • facilitate cooperation among the regional partners • provide labor market information • establish LMI – Occupational card
<p>Regional Innovation Strategy – Ústecký region</p> 	<ul style="list-style-type: none"> • complex analysis on innovation capacity • propose the action for enhancing the innovation character of regional economy • put together all regional stakeholders
<p>The role of other Regional Agents in the analysis of the Labour Market</p> 	<ul style="list-style-type: none"> • new methodology of labour market analysis • detect the Professional Profiles demanded by Biscayan Clusters in a short/medium period
<p>Urban Observatory</p> 	<ul style="list-style-type: none"> • provide regional and local information • allow analysis • make more efficient decision making process
<p>CNOS-FAP Association</p> 	<ul style="list-style-type: none"> • provide and the monitoring of the VET system • analyse the differences of Italian territories • generate networking
<p>WollyBi</p> 	<ul style="list-style-type: none"> • analysis of web job vacancies • information on the most required occupation and skills • contribution to redefinition of the VET offer,

	Skills Vocabulary, Occupation Taxonomy
Malopolska Observatory 	<ul style="list-style-type: none"> • conduct research and analytical work with cooperation of local bodies and institutions • gather high quality and reliable information • generate Occupational Barometer and Occupational Cards
New Economy – Cost Benefit Analysis Model & Unit Costs Database 	<ul style="list-style-type: none"> • provide methodology of cost benefit analysis • provide unit costs database • consider the impact of potential VET interventions

>>>[Description of individual practices see Annex 5](#)<<<



PROJECT VET-EDS

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LOCAL AND REGIONAL COMPENDIUM OF GOOD PRACTICE

ANNEX 1

Theme 1: Matching the education with employers' need

National Training Fund

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VET-EDS Good Practice

Project TOGETHER – engineering partnership

Věra Czesaná

Introduction

VET is the most usual educational pathway at upper secondary level in the Czech Republic. Although there are many schools with a very good reputation, in the current period of high speed technological changes many schools are not able to prepare students for using up to date technologies. It is necessary to enhance the quality and relevance of the learning and training offer of VET and overcome skills mismatches in the labour market. This was a reason for implementing a project TOGETHER aiming to foster cooperation between schools and businesses. Project was initiated by the Ministry of Education and was implemented at national as well as regional and sectoral levels. Several regional and sectoral partnerships were created for drafting and piloting the cooperation models. The project was selected as a good practise example because in such a way an information could be provided at regional and sectoral level useful for all partners from both educational and business sectors.

The results of the projects aim to:

- Monitor and evaluate the current state of art and intensity of cooperation in the field, reveal the main problems and opportunities
- Allow to develop general and specific models for cooperation
- Help to better aligning VET policy with economic development in regions and business sectors

<http://www.nuv.cz/pospolu/o-projektu> (only in Czech)

Summary

Project TOGETHER is aiming to foster cooperation between schools and businesses. Project was initiated by the Ministry of Education and was implemented at national as well as regional and sectoral levels. Several regional and sectoral partnerships were created for drafting and piloting the cooperation models.

The main activities within the project were focused on: i) Providing quantitative and qualitative surveys mapping of the existing situation and forms of co-operation in the area of vocational training carried out in real work environment; ii) Designing co-operative models and case studies; iii) Pilot testing and monitoring of co-operative models; iv) Creating methodological publications and teaching materials; v) organising educational events for pedagogical staff and representatives of companies.

Project outcomes are particularly important, since they contribute to reducing the skill mismatch in the labour market and to narrowing the gap between the skills of graduates and the demands of employers. Replicability of project activities by regional Observatories is quite large since all activities can be implemented at national, sectoral and regional level.

Context and setting

In the Czech Republic, there is a persisting high interest in VET. The share of graduates of vocational secondary education stays relatively high in the Czech Republic compared to the European average. IVET students as % of all upper secondary students in 2012 represented in EU-28 – 50.4% and in ČR – 72.7%¹.

However the effectiveness of vocational education is declining in the CR. The rate of elementary skills of graduates from VET study programmes without maturita exam shows rather low standards, especially in areas of reading literacy or IT as it was revealed from the results of international PIAAC survey. Many surveys show that training for highly specialised occupations often remains unused. It turns out that within 5 years after the completion of their studies, the majority of employed graduates work in a different field than the one they graduated from. The graduates from study programmes with vocational certificate also record a high percentage of long-term as well as short-term unemployment (more than twice higher than population average).

In April 2012, the share of unemployed graduates from three-year study programmes represented 16.7%² (for comparison, the share of the unemployed in the total population in the age group of 15-64 amounted to about 7%). In 2014, the overall situation on the labour market further deteriorated and the share of unemployed graduates from three-year study programmes with vocational certificate rated of 18% (April 2014).

As regards four-year study programmes with maturita exam, the share of unemployed graduates is in general lower, mainly due to the fact that higher percentage of these graduates continue to study at the next levels of education and do not enter the labour market. The share of unemployed graduates from four-year programmes was 9.5% in April 2012, however in April 2014 it represented already 12%.

High level of VET graduates' unemployment was caused not only by the continuously declining or stagnating economy during last several years but it was also a result of persistent skills mismatch in the labour market. Employers' demand for technical skilled workforce is permanently high even in the period of economic crisis. This is related to the fact that despite some growth of the service sector Czech Republic remains a manufacturing economy. The manufacturing industry represented about 26 % of the Czech workforce in 2014.

Most industries or technical fields suffer from a shortage of skilled technical workers. The situation will be more complicated in the future due to weaker population cohorts of graduates entering the labour market in coming years, especially in the case of VET graduates. The decline is unavoidable even in tertiary education graduates although the demand for them is growing significantly. The sharp decline in the number of graduates is evident since 2012 and is increasing. There is a risk that employers in certain fields will have problems not only gain new recruits, but even find a suitable replacement and for retiring staff. In this relation the role of schools is to develop the technical talent of students and to prepare the shrinking youth resources for using up to date technologies in real work environment.

¹ Source: Eurostat, table educ_ipart, extracted on 27th May 2014.

² Share of unemployed graduates = share of graduates within 1 year after concluding their studies registered at labour office in the total number of the previous year graduates.

Description

The project called POSPOLU aimed at fostering co-operation between schools and enterprises with focus on VET in practice. Various types of co-operation were pilot-tested in order to analyse the existing situation and, at the same time, to identify obstacles to co-operation and take these conclusions into account when designing systemic measures. Implementation of practical training at working place as a part of cooperation requires enhancing schools' and enterprises' awareness of elements and principles introduced by the European tools ECVET and EQAVET. It fosters transparency and quality of training and internships and contribute to the improvement of quality of graduates' competencies and supports the process of defining the required learning outcomes.

The project identifies and analyses the existing co-operation between schools and enterprises and at the same time it secures pilot-testing of new models of co-operation. The aim of the project is to promote co-operation between secondary vocational schools and employers resulting in higher quality of graduates and increased volume of vocational training in real work environment.

It has been prepared by the Ministry of Education, Youth and Sports in co-operation with employers' associations and is being implemented by the ministry in collaboration with the National Institute for Education (NÚV). In addition, also professional associations, founders of schools, representatives of public sector and a number of experts from schools as well as enterprises were involved in the implementation of the project.

The main activities within the project were focused on:

- Providing **quantitative and qualitative surveys mapping of the existing situation and forms of co-operation in the area of vocational training carried out in real work environment,**
- Designing co-operative models and case studies,
- Pilot testing and monitoring of co-operative models
- **Creating methodological publications and teaching materials,**
- Organising **educational events for pedagogical staff and representatives of companies.**

The project involved a total of 38 schools from across all regions of the CR, nearly 100 companies and other entities. Co-operation between schools and enterprises was monitored in 26 fields of study. Pilot-testing of co-operation was carried out by means of 16 partnerships and its purpose was to determine its possibilities and limits under the existing legislation and to transfer the practical experience from the pilot-testing into proposals of systemic measures. Another 10 partnerships between a school and an enterprise were involved in the so-called monitoring, under which examples of good practice were to be identified and case studies, units of learning outcomes and methodological materials prepared.

Monitoring of the state and problems of cooperation between schools and businesses

Assessment of the current state of art and problems of cooperation between schools and businesses was based on several parallel surveys. A field survey was done through an on-line questionnaire in which all secondary schools and colleges were included. In parallel, another questionnaire survey of selected employers was carried out. The latter were followed by in-depth interviews with representatives of 30 selected schools and 30 employers.

The questionnaire and in-depth interviews were designed to gather all information on different ways of cooperation, i.e. not only information on the current state of training of students in schools and in a real working environment, but also on teachers and pupils of these schools. Employers provide important information on the results of students' training in a real work environment and readiness of graduates of secondary and higher vocational schools to enter the labour market. The investigation was also focused on tracing obstacles and barriers of cooperation and to propose organisational and legislative measures necessary for adjustments and optimising the collaboration between schools and employers.

General and applied models of cooperation

At the national level, a **general co-operative model** was developed. It captures various possibilities of co-operation between secondary vocational schools and enterprises in the following areas:

- Practical training and work placement;
- Involvement of experts from practice in planning and implementation of the practical training of students;
- Profile Maturita examination;
- Internships for pedagogues in companies.

This model represents a framework description of co-operation between schools and enterprises (employers) at three educational programmes levels. At each level individual areas for cooperation are described including general rules that should be followed.

The general model was further developed into applied models of co-operation related to various groups of fields of study and levels of education. Applied models point out sectoral differences while implementing training in real work environment in companies and describe field-of-study specific opportunities of co-operation between schools and employers. In total, there were created 56 applied models.

Applied models have been developed for typical study programmes within a certain group of fields of study, however, they cannot be directly applied to other study programmes within the group. The models are meant to be a source of inspiration for pedagogues from schools and company representatives in the course of the joint planning, implementation and evaluation of specific collaboration.

The models describe the possibilities of cooperation between schools and businesses/enterprises in all aspects that need to be addressed in the design of this collaboration in the chosen field. They point to the branch peculiarities and specific features of this cooperation in different business sectors especially concerning practical training implementation in the real work environment in companies. They contain specific information about objectives, content, methods of evaluation, and

organizational arrangements of cooperation and requirements for staffing, and also describe the legislative environment and contractual conditions.

Models should be a tool for effective interconnection between employers and schools environment, they serve to enrich both sides and to ensure that the graduates were as potential employees for companies and businesses as useful as possible.

The authors of applied models were teachers and practitioners from businesses in particular field. The cooperation of both sides in designing an applied model is very important because the model needs to meet the real requisites of individual groups of educational programmes and also to reflect the requirements of employers concerning the performance of relevant professions. The designing process was coordinated by representatives of the National Institute for Education to ensure the comparable quality and to use common methodology.

The applied models are completed by selected examples of good practice of cooperation between schools and enterprises.

Case studies

Case studies were drafted following a common pattern. They include mainly: characteristics of a school and education programme, description of history of co-operation with the enterprises in the specific field of education; opinion expression what are pros and cons concerning cooperation; assessment of conditions influencing the scale and quality of cooperation; description of legal basis for cooperation (type of agreement, other conditions) which was proved to be useful; assessment of cooperation benefits for students (students achievements, students access to enterprise premises, motivation and selection of students, etc...). They describe also how the monitoring and controlling processes are set-up and how the cooperation results are evaluated. Case studies serve as an inspiration to other interested parties - schools and businesses and enable them to take advantage of positive experiences and vice versa to avoid problems that might occur during cooperation.

Impact and Replicability

Project outcomes are particularly important, since they contribute to reducing the skill mismatch in the labour market and to narrowing the gap between the skills of graduates and the demands of employers. The greatest benefit (impact) of the project is representing by the processed methodologies and patterns that help schools and businesses to establish and implement cooperation so that it had the desired effects for the preparation of graduates. Good results of mutual cooperation contribute on the one hand to improve the quality of VET programmes and on the other hand give businesses greater certainty that young workers get well prepared to work with new technologies and able to tackle practical tasks.

Replicability of project activities by regional Observatories is quite large since all activities related to monitoring and evaluation of collaboration, preparation of methodology for cooperation and experience sharing can be implemented at any level, including regional level. It is clear, however, that the greatest benefits can be achieved when combining the national level, where general conclusions are formulated and uniform models and recommendations for cooperation drafted, and

regional or sectoral level, where specific models of cooperation are designed and good practice is shared.

Observatories can be involved in monitoring the scope and quality of cooperation between schools and businesses in their region. They can also collect examples of good practice and publish them on its website in a specific section dedicated to schools and employers. They can also coordinate the preparation of methodological materials and ensure their dissemination.

To increase the benefits of these activities the Observatories may interconnect/confront information regarding the cooperation between schools and businesses with additional information that they are regularly processed and published on the website of the Observatory (eg. with the data on labour market developments, trends in sectors and professions, trends in vacancies, etc.). The aim is to provide an information for promoting cooperation between schools and businesses in the region.

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VET-EDS Good Practice

Active Matching: Strategic support for counselling within labour market

Věra Havlíčková

Introduction

The presented *good practice* was implemented in the South Moravian Region in the CR by the Centre for Practical and Evaluation Studies (Centrum praktických a evaluačních studií) at Masaryk University in Brno. It verified transferability of the active matching methodology to a different environment / country and its applicability within employment services sector. Its principles can be described as follows:

- It is an innovative approach to monitoring and forecasting employers' skills needs in the local / regional labour markets – applicable also at national level – which is suitable for implementation by the public employment services;
- It provides information on the existing as well as the future skills and qualifications requirements in particular jobs allowing thus for effective matching of job seekers with appropriate vacancies and enhancing the quality and relevance of the learning and training offer;
- It allows to develop more specific and specialised databases of vacancies facilitating job placements and selection of appropriate training;
- It constitutes a source of information for the purposes of short-term projections of skills needs;
- It fosters and improves communication between employers and the Labour Office;
- It is in line with the CR Strategy for Employment Policy 2020.

<http://www.cepres-muni.cz/> (in Czech)

<http://www.cepres-muni.cz/wp-content/uploads/Kvalitativni-monitorovani-a-prognozovani-trhu-prace-Svedskou-cestou1.pdf> (in Czech)

Summary

This practice is focused on identifying employers' requirements on workforce in the South-Moravian Region of the Czech Republic and assessing whether or not the requirements are referring mainly to education, level of qualification and work experience or to competencies. The practice is based on the Swedish approach to monitoring employers' requirements on workforce, which uses competency-based qualitative interviewing. The Swedish scenario of a semi-structured interview was adapted to Czech conditions. 200 employers in the South Moravian Region were interviewed. Pronounced requirements on workforce refer mainly to education, professional qualifications and experience and the resulting specific professional competencies. To a large extent the requirements were focused on values, attitudes and character traits. The general specialized competencies and soft skills were also mentioned, but mostly as last in order. The requirements varied according to the size and orientation of the company and the nature of the vacancy

Context and setting

The nature of issues on the Czech labour market has evidently changed in the course of recent years. Although there has been no systematic study of new trends within the risk of unemployment in the context of longer-term structural shifts of the labour market related to technological development, economic globalisation or economic crisis, there is some evidence of increasing differentiation of social risks on the labour market and diversity of challenges that the unemployed need to deal with.

Also the demand for labour has recorded significant changes. There is a growing number of organisations and HR specialists that carefully specify their requirements for new workforce. There is a tendency to clearly outline the so-called organisational core of employees whose qualifications and skills development becomes the centre of employers' attention. These shifts towards further differentiated identification of the workforce are also evident in the analysis of the labour market demand.

The necessity to differentiate the groups of the unemployed, to place more attention to some of them together with the varied requirements of the employers for workforce create the need for more specific and specialise databases of vacancies. Information on employers' skills needs is vital not only for the job-seekers but also for the personnel of the public employment services. The employment officers are not able to match effectively the job-seekers with the appropriate vacancies without the knowledge of regional or local labour markets, vacancies and qualifications and skills requirements of the employers. Moreover, it is impossible to plan effectively activation and training measures without the information on competency content of individual professions and jobs.

Further development of monitoring methodology and labour market projections is in line with a number of strategic goals, objectives and measures formulated in the Strategy for Employment Policy 2020 developed by the Ministry of Labour and Social Affairs of the CR in 2014. The stipulated priorities include further development of employment services with emphasis on monitoring and projections of the labour market. The introduction and adaptation of proposed methodology will result in obtaining new insights and improved basis for projecting labour market needs.

Description

Active Matching: Strategic support for counselling within labour market

Currently, the need to develop communication between the Labour Office and employers aimed at improving LMI (Labour Market Intelligence) is getting under the spotlight. It becomes more and more evident that due to lack of information on current employers' needs, inadequate (intuitive) matching of job seekers to job vacancies often takes place.

The currently used methodology for skill needs monitoring in the Czech Republic has its strong points as well as its weaknesses. The strong points include, for example, exhaustiveness with which it covers all the employers in regional labour markets. The method of questionnaire surveys is being applied as a basic instrument for monitoring practically in all regions. The weak points include the lack of uniformity resulting in low comparability of the results between individual regional labour markets and the lack of emphasis on monitoring broader range of skills (occupational competencies)

demanded on regional labour markets. Also the abolition of mandatory reporting of employers' vacancies to the Labour Office, that had been effective for many years, reduces the available extent of information on job opportunities. Universally applicable and yet more specific as well as differentiated method of collecting data on employers' skill needs is responding to (1) the current change of situation on the labour market and (2) the current reforms of labour market regulation.

The new methodology for analyses and projections of skill needs is based on the following steps:

1. Setting up a representative sample of enterprises;
2. Developing questionnaires enabling to obtain basic data;
3. Interviewing key persons in selected enterprises;
4. Summarising and processing collected data;
5. Data analysis and placement in broader economic context with the aim to project potential skill needs at regional as well as national levels;
6. Setting up local advisory groups consisting of representatives from state authorities, employers' organisations and the Ministry of Education, Youth and Sports (MŠMT). The task of such an advisory group is to support the implementation of interviews in enterprises, provide feedback related to the results analysis, application of the results within the individual activities of the advisory group members and dissemination of the results among other related stakeholders.

The interviews are carried out on regular basis - twice a year.

The asked questions concern:

1. Labour market development (modification in demand for products/services during the last 6 months, for the following 6 months and the following year);
2. Level of capacity used (how much can the enterprise increase production, or sales of services and products without having to invest into facilities/equipment and without having to hire a new employee);
3. Employment and recruitment (the number of employees one year ago, at present, next year and in two years time, the changes in number of employees last year and the outlook for the future – the number of retirements, the number of new employees, the number of seasonal workers, the professions needed to be hired next year, qualification requirements and required work experience);
4. Workforce shortage (difficulties to fill in vacant positions and the consequences for the relevant workplace, increase in average wage in the last year – the question seeks to ascertain whether the workforce shortage will result in growth of wages – the first sign of rising inflation);
5. Expected development for the following 5 years. It turns out that when being asked about the next 5 years, the employers feel to be less limited by specific numbers and they tend to present their ideas and visions for the future development of their enterprise. When the question concerns the time period of one year, the employers feel to be forced to give a very accurate answer.
6. Workforce competences; as the mere name of the occupation does not fully reflect employers' requirements on workforce competences, they need to be specified in further detail. There are included also questions related to professional competences and soft skills, personal characteristics, etc. Organising the database of job seekers at the labour offices according to competences allows to link employers' requirements for skills directly to the skills bearers – job seekers, or in the absence of required skills to the training/education.

Results of the analyses of data from questionnaire surveys carried out among the employers are presented in the *Report on the projections of labour market development (Zpráva o prognózách vývoje trhu práce)*, which deals with the following topics:

1. Demand for products and services (as business cycle indicator);
2. Employment rate (decrease or growth);
3. Workforce supply and demand (recruitment and job seekers);
4. Information on skills employers require in particular occupations.

Employers are not obliged to participate in the surveys. Experience shows that collected data tend to be more reliable if the employers provide the information on voluntary basis.

Close attention is paid to the presentation of monitoring outcomes both within the public employment services and also externally. In relevant departments of the Labour Office, the employees discuss analyses outcomes and their impact on the activities of individual labour office branches. Operational plans for the activities of the Labour Office and its branches as well as other subjects – such as educational institutions - are developed on the basis of the analyses. Wide public is being informed about the results by means of regular press conferences held at national as well as regional levels or through the Barometer or Occupational Compass (Kompas profesí).

Several local labour markets in South Moravia were selected for the purposes of a pilot survey testing in the CR the new methodology for analyses and projections of the labour market. Emphasis was placed particularly on modification of the existing method of communication with the employers and on collecting a new type of labour market information. Interviews with 200 employers were carried out during the period of October 2013 – January 2014, by specifically trained 10 employees of the local labour offices.

It was not necessary to include all the employers within the relevant area in the survey. The employers were selected based on the Labour Office database created during previously conducted annual Labour Force Survey in the South Moravian Region. The biggest employers from each district were selected. The SMEs were also contacted and the selection within that group was carried out by means of random stratified sampling. Recommended sufficient coverage represents 2 – 5 % of selected employers in a region, in case of the large employers (more than 250 employees) up to 9 %. Emphasis was placed on mapping specifics in sectoral composition of the economy in South Moravia with the regard to the extensively developed agriculture and viticulture.

MS Excel and SPSS21 were used for the purposes of data processing. The transfer of data from the physical forms into electronic form constitutes the first step of the actual analysis. At this stage, it is necessary for the demanded occupations and skills to be specified as closely as possible for the purposes of the subsequent division into categories. The inclusion criteria for the corresponding categories: 1. internal structure of the requirements for the demanded workforce; 2. similarity of the main activities of the organisation; 3. skill level demanded in the profession. For better illustration, we may present the example of identified vacancies divided by categories:

Occupational category	Number of vacancies
Administrative worker	17
Technician	11

Manual worker in manufacturing	27
Managerial position	16

This step involves certain reduction of information in order to facilitate further data processing. It is not always possible to match a demanded profession with one of the categories. It is also advisable to exclude categories with less than 4 vacancies, as well as professions whose data lack the necessary internal cohesion (such as construction worker). Those are the cases when one single term encompasses too many meanings and employers' requirements vary too much both in terms of skills as well as qualifications. On the other hand, some categories might seem to be too broad, e.g. manual worker in manufacturing or positions in management. There are, however, some internal connections to them that can be recorded based on experience. In case of manual workers in manufacturing, it is the requirement for certain level of manual dexterity; for managerial positions – managerial and organisational skills are needed.

The second step of the analysis includes the transfer of the data from the recording sheets into the data matrix, which allows for the analysis of the occupation itself and of related requirements of the employers. The requirements need to be divided into categories in the similar way as the occupations.

Again, for the purposes of illustration, we may use the example of generic competencies that employers demand in vacancies – such as – time flexibility, working experience, empathy – customer orientation, pleasant demeanour, good physical condition – health capability, will to learn, communication and presentation skills, team work skills, etc. Although, employers' demands for the same occupation sometimes vary, it is possible to find characteristic requirements for particular categories of occupations. A broader perspective on occupational characteristics helps us to see a shift in employers' requirements in terms of workforce in the course of time.

Processed data on occupations obtained from questionnaires allowed for verification of active matching of the supply with the demand on the labour market based on qualitative information on job vacancies with employers. The information was, in a standardized format, passed to the staff of the Department for Employment at the labour offices. Their task was to search the job-seekers database for candidates with the skills required by the employers. This process has been longer and more demanding than during commonly conducted mediation of employment, which usually does not make use of qualitative information on candidates. Therefore application of active matching would require strengthening the capacity of the labour offices. The same conclusion has been reached as for the implementation of the questionnaire survey - it counts on personal visits of the labour offices workers to the enterprises. However, it evidently increases the quality of the information obtained

Impact and Replicability

The new procedure aims to improve advisory and counselling services for the unemployed and labour market intelligence including the requirements for education or retraining. In order to achieve this objective, the Swedish methodology of monitoring and projecting skill needs of the employers in regional labour markets was used. This methodology underwent an assessment procedure during which it was compared to methodologies used within the active labour market policies in the CR and it was assessed in terms of transferability to the local environment. Assessment and subsequent evaluation were based on a thorough reflection of the existing state of monitoring and analysis of regional labour markets carried out over a long term by the Czech public employment services (PES).

The pilot study verified transferability of the adapted Swedish methodology to the Czech labour market and confirmed the feasibility of collecting quantitative and qualitative data from the employers in the required structure (combination of qualification and skill requirements). It clearly proved that the staff members of the Labour Office of the CR are fully prepared and competent to carry out the collection of data related to the workforce demand and labour market by means of interviews conducted with the representatives of the employers.

However, the implementation of targeted square monitoring is limited by the existing organisational capacity of the Labour Office of the Czech Republic. Also the follow-up processing of information and specific linking of supply and demand on the labour market face certain obstacles particularly due to the high number of job seekers per mediator and insufficient support from information systems.

Information obtained from interviewing employers does not constitute the only highlight. Also the process itself, in which the employees of the public employment services enhance their professional skills by means of self-learning while collecting data, contributes to the development of the Labour Office of the Czech Republic as a self-learning organisation. It has proved to be able to modify its ingrained practices through knowledge and skills acquired while interacting with employers. Developing co-operation and partnership between public employment services and employers represents an equally important aspect.

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VET-EDS Good Practice

Agreement between the regional authorities, training centers and the University of the Basque Country to support action plans in Gipuzkoa' SMEs on a vulnerable situation

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Introduction

- This good practice understands that regional development networks imply not only the recognition of the existence of a plurality of actors, but the articulation of these actors in platforms with a common structure and process for discussing priorities and making decisions related to common public resources.
- It is a practice based on the use of regional authorities, local development agencies, vocational training centers and the University of the Basque Country, for building a both balanced and sustainable territorial economic development.
- It reflects the nature of the Erasmus + programmes in relation to the need of cooperation between different actors and establishes a cooperative process which should involve all agents on an effective coordination network for sectorial policies and action plans.
- It reflects the close relationship between vocational training centres and SMEs and makes use of it to support the competitiveness of SMEs
- This practice is expected to directly impact on the survival of SMEs on a vulnerable situation by developing actions to improve their situation throughout their life cycle and access new markets.

Summary

Garaituz is a Support Plan for Gipuzkoa' SMEs on a vulnerable situation. It has been developed by the Provincial Government Council of Gipuzkoa through its General Directorate for Territorial Development in 2014 and it is currently active.

The aim is to facilitate coordination and cooperation between different actors (regional authorities, local development agencies, vocational training centres and the University of the Basque Country) for competitiveness of companies with a high degree of vulnerability (commercial, financial, dependence on clients, inheritance, etc.), designing for them an action plan.

It offers SMEs assistance in the following three areas:

- Implementation of the viability plan

-Management model definition and implementation

-Enhancement of productive competitiveness

Context and setting

The Basque Country is a Spanish region situated in the north of the country comprising the provinces of Álava, Gipuzkoa, and Bizkaia, also called Historical Territories. With a total area of 1,909 square kilometers, Gipuzkoa is the smallest historic territory in the Basque autonomous Community. The province has 89 municipalities and a population of 709,607 inhabitants (2011). Donostia-San Sebastián is the capital however, only one fourth of the people from Gipuzkoa lives in the capital. This small but intense territory, considered more as a dispersed big city than as a small province, is divided into comarcas (shires), each with its own character.

Regarding the labour market, the occupancy rate is 70.3% of the working population. The great recession has had an impact on the labour market which results in very high rates of unemployment in Gipuzkoa (the rate is 15,3% while the unemployment rate in 2012 was 12.1). The main sectors regarding employment are: 4.4% work in the primary sector (agriculture, stockbreeding, and fishing), 55.7% in the secondary (industry), and 39.9% in the tertiary sector (services) and today, the strongest industrial sectors of the Gipuzkoa's economy is the machine tool sector.

The Basque Country enjoys a high level of self-government in matters as important as health, education, research, security, housing, employment, economic development or taxation. The Provincial Councils are the executive institutions of the Basque Government with relevant competencies which allow them to prioritise investments in their territories. Under this intricate system, the Provincial Councils administer most of the budget of each of the provinces but are coordinated by the Basque Government.

The good practice selected has been developed by the Provincial Government Council of Gipuzkoa through its General Directorate for Territorial Development in 2014 and it is currently active. The aim is to facilitate coordination and cooperation between different actors, (regional authorities, local development agencies, vocational training centers and the University of the Basque Country) for building a both balanced and sustainable territorial economic development. To do this, the Provincial Council of Gipuzkoa understands that regional development networks imply not only the recognition of the existence of a plurality of actors, but the articulation of these actors in platforms with a common structure and process for discussing priorities and making decisions related to common public resources to address the economic crisis.

The promotion of regional development needs to develop a common overview of all assets, drivers and resources (material and intangible) which are located in Gipuzkoa and which constitute its territorial capital. In the same way, regarding the challenges facing the territory, the EU Territorial Agenda highlights the importance of strengthening territorial cohesion as an ongoing and cooperative process which should involve all agents on an effective coordination network for sectorial policies and action plans.

This process requires a coordinated view of the concepts of "competitiveness and "capital", which are increasingly complex because a competitive territory is not only based on a positive economic dynamics but also on an environmental sustainability, and a social and cultural development of the territory. In this regard, the Provincial Council of Gipuzkoa takes into consideration four-dimensions

for a balanced, sustainable and cohesive territorial development: the social and human development; economic development; sustainable development; and institutional development.

Therefore, according to the Provincial Council of Gipuzkoa the emergence from the economic crisis will not exclusively come from the tools used in the past which were mainly based on subsidies, but from new strategies on territorial, social and economic models developed through a partnership with regional development agencies of Gipuzkoa and other key players. Tackling the crisis requires working with new formulas and innovation processes. In this context the Provincial Council of Gipuzkoa is fostering a cooperative working context and network between different agents: the active involvement of development agencies, educational institutions and companies, in seeking solutions to the crisis.

The current economic situation is negatively affecting most companies due to the domestic market reduction and a greater difficulty in accessing foreign markets. The unemployment rate growth is a clear effect of the crisis in Gipuzkoa. In line with the European strategy for inclusive growth, territorial, economic and social cohesion and improving the employment and sustainable development, the Provincial Council of Gipuzkoa is promoting different initiatives within the framework of an intelligent spatial strategy which supports start ups, business innovation, internationalization; cooperation between SMEs and leading companies, promotion of training and learning, tc. To develop this mix of policies, the Provincial Council of Gipuzkoa has promoted different cooperation networks with the key agents of the territories. The following good practice is located in this context and it is focused on supporting the competitiveness of SMEs.

SMEs are a key player in creating and maintaining employment at European and also Basque level. Taking into account this key role, the Europe 2020 Strategy and various programmes and activities of community support, are directed to SMEs in order to boost growth and employment by developing policies to improve their situation throughout their life cycle and access new markets.

The competitiveness of enterprises is located in multiple sections. While innovation is an important issue, the managing of many other aspects both tangible and intangible is also a strategic point for a sustainable growth. These conditions are particularly relevant for an important number of SMEs that have neither technological knowledge or the time, human and material resources that enable them to access markets with higher levels of demand.

In this scenario, the Provincial Council of Gipuzkoa formalized under the programme Garaituz "an action plan" based, in a first phase, on a collaboration agreement with the local development agencies of Gipuzkoa, grouped in the Basque Association of Development Agencies *Garapen*, with the aim of improving competitiveness and ensuring the sustainability of Gipuzkoa's SMEs which are on a vulnerable situation. This agreement provided support for making a diagnosis of the main difficulties of the industrial sector, especially SMEs, with the objective of providing further guidance for the design of future institutional support plans.

In a second phase, the Provincial Council of Gipuzkoa formalizes under the Garaituz programme a second collaboration agreement with, again the participation of local development agencies of Gipuzkoa but also with education agents coming from vocational training centers and represented by Tknika (Centre for Innovation in Basque Vocational Training promoted by the Basque Department of Education, Universities & Research) and with the University of the Basque Country.

As result of the diagnostic phase, a number of proposals for intervention were identified aiming to tackle the problems on the SMEs on a vulnerable situation. In this second phase the goal is to develop an action plan for each SME focusing on the following activities:

- ❖ Implementation of the viability plan
- ❖ Management model definition and implementation
- ❖ Enhancement of productive competitiveness

The last two activities, management model implementation and improving industrial competitiveness, are to be developed by educational agents. The Provincial Council established an agreement with the University of the Basque Country to support companies on the definition and implementation of the management model through its experts. In addition, the Provincial Council established an agreement with Tknika (Centre for Innovation in Basque Vocational Training) in order for experts from the vocational training centres to support companies to enhance productive competitiveness.

At this point through its own network of vocational training centers, Tknika supports a range of innovative projects where knowledge is transferred to companies through the innovation teams among the trainers of the training centres. This step includes the development of specific projects to advice companies and support them in their innovation process, especially SMEs where the training centres offer technical support to innovate in certain technologies.

Description

a) Scale

The proposed best practice is located on the Gipuzkoa region, one of the three Historical Territories of the Basque Country. The province of Gipuzkoa has 89 municipalities. This small but intense territory, considered more as a dispersed big city than as a small province, is divided into comarcas (shires), each with its own character.

Although the scope of the Garaituz programme is regional, its execution is carried out at local level on the different municipalities (or *shires*). The local development agents in their municipalities are the one who identify and select the SMEs which are on a vulnerable situation to take part on this programme. In addition, the vocational training centres of Gipuzkoa close to these SMEs are the ones who support companies in improving their innovation processes for greater productivity.

It is also important to highlight the specific type of project management of small-scale projects. Each action plan consists of a theoretical part and an empirical part, which can be tailored to the individual SME's needs and interests.

b) Type of VET and policy

The Garaituz programme has been launched by the Provincial Government Council of Gipuzkoa through its General Directorate for Territorial Development which depends of the Department of Environment and Regional Planning.

The Department is committed to a regional strategy aimed at developing a knowledge society (education, knowledge, innovation and territory), based on the people. It is about building a competitive territory based on the knowledge society, where the role is that of the person and the integral development of it. A territory aware of its rights and duties through participation and active attitude of desire to learn and to turn knowledge into the base of an advanced and cohesive society.

Therefore its commitment is to build an attractive space for economic activity and people development, committed to a competitive economy based on a knowledge society and a social and territorial sustainable model. This objective involves promoting the transformation of business models contributing to the generation of new models of relationships based on participation and on shared project organizations where people are actively involved in the business project and where organizations contribute to the mutual generation of shared value.

Gipuzkoa aims to integrate into its economic decision making, social and environmental considerations. A territory that aims to share a model of common values and a participatory approach in the decision-making processes and to encourage good practice and constant interaction among stakeholders, in order to foster innovation, competitiveness, sustainability and social cohesion.

In all regions there is a strong ambition to feed the interaction between the strands of the triple helix, knowledge institutions, companies and regional authorities. All quote the knowledge paradox: an abundance of scientific research on innovation potential and training content, an excellent infrastructure but still disappointingly few new products and services brought to the market. In practically all regions therefore institutional initiatives exist to promote the interaction between the three strands of the helix. These initiatives are particularly aimed at SMEs. Larger industries are better positioned to be involved in joint research projects with academic institutions. They have the structure and the capacity to participate in public-private, often nationally funded, research programmes.

There are few examples of SMEs, whereas this could be a potentially effective way of boosting innovation to the point where it may have a large scale market impact.

Tackling the crisis requires working with new formulas and innovation processes. In this context the Provincial Council of Gipuzkoa is fostering a cooperative working context and network which implies that the new strategies on territorial, social and economic models must be developed through a partnership with different regional agents: the active involvement of development agencies, educational institutions and companies in seeking solutions and promoting innovation in the organizational models of companies.

This is a new model of relationship that the Provincial Council of Gipuzkoa has promoted jointly with the agents of the territory and it is coincident with the proposals of the European innovation strategies facilitating the adoption of a balanced mix of policies. The Provincial Council believes that

competitiveness depends on a set of physical and human resources, knowledge and relationships that interact in the territory composing an ecosystem.

c) Target groups

The competitiveness of companies is linked to multiple factors. While innovation is a key issue, the management of other tangible and intangible aspects is the key for a sustainable growth. These constraints are particularly relevant to a large number of small and medium enterprises which have neither the knowledge nor technological, human and materials resources that enable them to access markets with higher levels of demand.

Small and medium enterprises are a key player in creating and maintaining employment at Basque and European level. Taking into account that SMEs play a key role in the economic recovery of regions, the Europe 2020 Strategy and various support programmes and activities are addressed mainly to SMEs in order to boost growth and employment by developing policies to promote entrepreneurship, improve their situation throughout its lifecycle and access new markets.

In this context, the Provincial Council of Gipuzkoa and the local development agencies Gipuzkoa, grouped in the Basque Association of Development Agencies Garapen, formalized under the programme Garaituz an action plan under a collaboration agreement on February 14, 2014 with the aim of improving competitiveness and ensuring sustainability of SMEs in Gipuzkoa which are in a vulnerable situation. This agreement has provided financial support for making a diagnosis of the main difficulties of the industrial sector, and especially SMEs, with the objective of providing further guidance on the design of institutional support plans.

Basically, the business segment that has led the initiative is characterized by its small size (less than 50 employees) and industrial activity being mainly auxiliary companies. This type of company reached in Gipuzkoa highly significant figures. Totaling 2,834 companies in Gipuzkoa with more than 10 workers, this type of SMEs correspond to 84% of them and 39% of employment.

Under the collaboration agreement, the local development agencies, as intermediate agents for competitiveness on territories, undertake:

- To develop a diagnosis of the situation of Gipuzkoa' SMEs which currently are under an economic, financial, dependency or costs vulnerable situation. This diagnosis is based on the selection and identification of SMEs by local development agencies which require their know-how of the shires/ municipalities they belong to.
- To draw conclusions to establish the methodological framework for subsequent extrapolation to the rest of Gipuzkoa' SMEs on a vulnerable situation and subsequent institutional plan or plans for intervention adapted to the reality of this type of companies.

The economic crisis has accentuated the special difficulties of these small businesses. The major constraints of such businesses are related to the difficulties on obtaining financing, emphasizing their structural weaknesses. At the same time, this structural vulnerability hinders their efficiency in an increasingly open market. Most of these companies have grown under the umbrella of leading

companies without generating skills, equipment, processes or management systems and without a clear market orientation as a competitive advantage to deal with the crisis.

In this open environment, the competitiveness of small businesses depends largely on the collaboration environment that exists in the territory between institutions, agents and companies. The existence of an area of complementary and inter-enterprise cooperation enables a commercial and technological smart specialization between companies. The result of this relationship is that together they might offer a package of complex products or services and can feed a reciprocal innovation process. The small size of companies in Gipuzkoa makes cooperation essential.



Considering the difficulties and shortcomings of small businesses in the conceptualization of their difficulties, the Provincial Council of Gipuzkoa and the development agencies have formulated a model of analysis and evaluation which contains 19 potential vulnerabilities grouped into three groups:

1. Structural vulnerability: strategy, size, participation and management structure
2. Operational vulnerability: marketing area, production area, financial and economic area and R&D area.
3. Economic and financial vulnerability

d) Organisations involved and stakeholders (demand and supply side)

As result of the diagnostic phase, a number of proposals for intervention were identified for responding to the detected problems. These proposals are integrated in six lines of action:

- ❖ Implementation of the viability plan
- ❖ Management model definition and implementation
- ❖ Enhancing productive competitiveness
- ❖ Ensuring business continuity.
- ❖ Diversifying commercial risk.
- ❖ Increasing in dimension.

Due to the restrictions on public economic resources, priority has been given to the three first actions' lines by the Provincial Government Council of Gipuzkoa.

Based on this original diagnosis the [call for tenders](#) that regulates Garaituz programme was published in the Gipuzkoa Official Bulletin on October 6th of 2014. The programme established that the first line of actions will be developed by expert companies or professionals who provide consulting services to SMEs participating in the programme. It also established that the second of the lines will be

developed by the University of the Basque Country -UPV / EHU-, and the third one by Tknika, being Garapen the agent who coordinates the involvement of the various stakeholders.

- I. Garapen was founded in 1992 as the Basque Association of Development Agencies when the local agencies saw that although each of them was autonomous and developed their activity in geographically differentiated territories, there was a need to cooperate and coordinate some of their actions. It was established under the spirit of inter-institutional co-operation between the Basque Government and the Regional Councils and thus Garapen is more a meeting point for agencies than an additional structure that assumes specific services delegated by agencies.

There are 17 Agencies at Basque Country, 15 of which are associated. These cover 76 per cent of the population in Alava, 73 per cent of Gipuzkoa and 51 per cent of Bizkaia. Their closeness to the life in the town allows these Agencies to adapt policies to the reality of their environment. The Development Agencies have developed in this ideological context and, together with them, the need to find an institution able to become a common place for all of them, a place where to exchange information, to offer support and to take advantage of the best of each Agency for the benefit of all of them.

Nowadays Garapen is a professional association that intends to bring together development agencies constituted by local institutions in the Basque Country, with the aim to conceptualise endogenous economic development on the local level; work on its strategic development and operational application. At this point it's a key agent on the support to companies at local level, specially SMEs. Regarding Garaituz program, local development agencies associated in Garapen has been working for too long to promote awareness-raising, dissemination and advice relating to business management and systems for organising the work of businesses in the Autonomous Region of the Basque Country. To do this, various activities are foreseen within different economic sectors and in certain business areas, which are firm up in four working plans, which are in turn broken down into various programs of intervention. In this line, local development agencies in Gipuzkoa have a very close knowledge of the situation of the companies in their territory, which is key issue for their identification and to encourage them to participate as beneficiaries of Garaituz program.

- II. The second agent of the Collaboration Agreement is the University of the Basque Country. The Convention enables, with the thrust of the Vice Rectorate of the Campus of Gipuzkoa, that expert staff of the University- Faculty of Business Studies of Donostia-San Sebastián and Polytechnic College of Donostia-San Sebastián-, in collaboration with students in their final year of degree, postgraduates or graduates of the 2012-13 and 2013-14 classes, support the companies participating in the Garaituz programme in the line of intervention related to management model definition and implementation.

From the perspective of the University of the Basque Country- UPV / EHU-, the Garaituz programme's objectives fully align with its mission, its main general objectives and main lines of action. It should be noted that among these objectives, the University aims to stimulate the transfer of research results to the social environment to which it is due. Furthermore, it also fits with the strategic objective of promoting and encouraging initiatives related to lifelong

learning, voluntary practices, entrepreneurship and employability. Moreover, the territorial approach fits with the vision of the University of the Basque Country of generating a multi-campus model with a clear vocation of adapting to the socio-economic conditions of each of the three Basque Provinces. Therefore, the performance of the University of the Basque Country under Garaituz programme is established in a clear integrative perspective in relation to the various relationships and alliances that are built with other institutions in the Basque Country, as well as other agents, both of public and private nature.

- III. The third agent of the Collaboration Agreement is Tknika, acting on behalf of all the existing vocational training centers of Gipuzkoa. Tknika is the Centre for Innovation in Basque Vocational Training promoted by the Basque Department of Education, Universities & Research, under the direct auspices of the Sub-Department of Vocational Training & Lifelong Learning.

Innovation is at the core of Tknika in its ongoing efforts to place Basque Vocational Training at the European forefront. Tknika is modelled after some of the world's most advanced vocational training centres. Tknika has developed an innovation model for the Basque Vocational Training System. Under the Tknika Innovation Model, the Centre's innovation management model, Tknika incorporates into its activities companies, technology centres, research centres, universities and other institutions that can add value to the system – all based on the dynamic of open innovation.

From the perspective of Tknika, the Garaituz programme's objectives fully align with its mission, with its specialization areas and critical initiatives directed to SMEs. Tknika is a tool for the innovation on vocational training centres and aims to transfer this innovation from the trainers to the students on initial vocational training and to the companies, mainly SMEs, through the training of their workers and through technical assistance to their innovation process. Therefore vocational training centers in Gipuzkoa play an important role on specific transfer to companies based on the acquired knowledge of the innovation teams. In this way, the teachers of the training centres work with SMEs on specific projects. This step includes the development of specific projects to advice companies and support them in their innovation process, especially SMEs where the training centres offer technical support to innovate in certain technologies. Therefore, the performance of the 18 vocational training centres through TKNIKA and under the Garaituz programme is established to improve the competitiveness of SMEs from the province of Gipuzkoa by providing experience and knowledge.

e) How is it organized

- ❖ Line 1. Carry out the Implementation of the viability plan: Many companies are facing a serious financial situation. For some time, the main financial sources have not met the needs of these companies and it has also contributed to the current situation. The local development agencies are responsible for monitoring the overall process. To develop this action line it is necessary to address these two axes:

- Locate the profitability of the company in a positive way, carrying out the adjustments that are necessary.
 - Stabilize the financial situation.
- ❖ Line 2. Definition and implementation of the management model: Over the last years we have had an industrial manufacturing without diversification of customers or products. Businesses that are in a critical situation lack direction so it is necessary to focus on this area to ensure their future, which raises the definition of these three sub-priorities:
- Defining the strategic framework.
 - Institutional reorganization.
 - Definition of the management plan.
- ❖ Line 3. Enhancing productive competitiveness: Technology and organization of industrial manufacturing in Gipuzkoa must be adapted to the needs of clients. Although there might exist throughout this process an strategy of differentiation it is necessary to improve the overall process. In short, there has to be an analysis and an improvement of the production process. There are specific fields for action:
- To increase the productivity.
 - to reduce manufacturing costs.
 - to reduce cost related to purchases.

The preliminary stages of the Garaituz programme related to the diagnosis have been addressed from a methodological framework based on an innovative model of networking with local development agencies, and, the Provincial Government Council of Gipuzkoa keeps and expands this scheme of cooperation in the implementation phase with the effective involvement of academic institutions in the dynamics of partnership between the Provincial Government, local development agencies and businesses. This coordination among different actors facilitates the viability of the plans and enhances through joint learning, the capacities of the companies.

Consequently, the support lines of the Provincial Council under this programme will materialize as follows:

- ❖ Line 1. Carry out the Implementation of the viability plans: The Provincial Council's support consists of subsidizing, at least 80%, and up to 25,000 euros, the cost of counseling or external assistance.
- ❖ Line 2. Definition and implementation of the management model: The Provincial Council establishes an agreement with the University of the Basque Country for the experts to support the SMEs in this task.
- ❖ Line 3. Enhancing productive competitiveness. The Provincial Government establishes an agreement with the Centre for Innovation in Basque Vocational Training for experts from the vocational training centers to support SMEs in this task.

To be eligible SMEs shall commit to participate in all three lines to be coordinated at regional level by their respective local development agency. Applications that do not include the commitment of the company to participate in the three lines will not be taken into consideration.

While for the first line the beneficiary company will receive a direct subsidy, in the other two sections, companies directly receive the support of academic experts both individually or through participation in the groups which will be created at district level between the development agency, the companies and the academic experts. The cost of experts is assumed by the Provincial Council of Gipuzkoa through the agreements with academic institutions. The total budget of the Garaituz programme is 2,500,000 euros.

f) What worked and why

In November 2014, 99 beneficiary SMEs were targeted and all the collaborating agents taking part in the programme have already started working with them. Currently, the technical team composed by academic institutions is doing the work of allocation of centres for each company, to carry out the work of relevant expertise as accurately as possible. To do this, they are making individualized meetings in order to identify the needs of the companies; to assign the most appropriate resources in each case, taking into account the criteria of geographical proximity and technical capacity.

Although it is difficult to reach SMEs and to make them participate in programmes financed by public funds, this has been achieved through the close relationship with SMEs of two major agents included in the agreement: the local development agencies and the vocational training centers. These two agents have a long history of cooperation with SMEs involving them in their transformation, innovation and training projects, and they are the best connoisseurs regarding the needs related to competitiveness of the business of small and medium companies in their territories and fields of influence.

In addition in the Basque Country there is a long history of public-private cooperation that comes from the worst economic crisis of the past decades. This has made again possible a new collaboration in terms of economic and territorial development.

g) Constraints

It is too early to know the barriers that will arise in the development of the projects in the SMEs, but we can point out that one of the main limitations to this type of project is usually the lack of economic resources to develop all actions needed on the defined action plan for each SMEs. At this point where only the diagnosis has been carried out there are three more priorities related to the competitiveness of the SMEs on a vulnerable situation:

- ❖ Ensuring business continuity.
- ❖ Diversification of commercial risk.
- ❖ Increase in dimension.

Due to the restrictions on public economic resources, priority has been given by the Provincial Government Council of Gipuzkoa to the other three action lines.

Impact and Replicability

Current times show that things are moving quickly and unexpectedly, with the development of a new economy and changes in different industries that make our companies have to struggle and survive in an open field of fierce competition. This forces the SMEs also to have to perform better or differently from others. Employability is also evolving towards much more complex levels of professionalism that require increasingly higher professional qualifications. Intense transformations will take place and will make the economy have to rethink many of the existing models and extensively change the current production model.

A scenario in which the sustained creation of value will be a prerequisite for the SMEs to be competitive so they can open new opportunities for growth, job creation and maintenance and social welfare.

Direct collaboration between SMEs and knowledge institutions and territorial development agencies in joint projects is rare and even more rare if established mainly on a regional or local level. Even in so-called 'science parks' where SMEs and knowledge institutions are located in close proximity of each other joint projects are rare. The strongest obstacle from the point of view of SMEs for a collaboration with higher education institutions, however, seems not even to be a lack of communication. It is rather a question of different views on project setup (financially) and expected outcome.

At this point, the economic crisis has a positive impact on bringing together regional authorities, local development agencies, vocational training centers and the university, with the aim of improving competitiveness and ensuring sustainability of SMEs in Gipuzkoa which are in a vulnerable situation.

In addition to this collaborative network, the expected impact is the sustainability of 100 SMEs which are currently on a vulnerable situation by acting on their economic viability, management model and productivity competitiveness. The business segment that has led the initiative is characterized by its small size (less than 50 employees) and industrial activity being mainly auxiliary companies. This type of company reached in Gipuzkoa highly significant figures. Totaling 2,834 companies in Gipuzkoa with more than 10 workers, this type of SMSs are the 84% of them and 39% of employment.

Although it is too early to know medium-long term effects on the sustainability of these businesses, the conclusions of the pilot projects could bring light for providing further guidance on the designing of future institutional support plans.

The transferability of this practice to other European regions could not be so easy depending on the collaborative network available at regional level.

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VET-EDS Good Practice

Delta Blekinge

Victor Tanaka

Introduction

How does Delta Blekinge fit with the aim of VET-EDS?

- The fundamental flaw addressed is that in school *knowledge* is at center whereas the *relevant set of skills* is the key variable for employers. Delta Blekinge improves this relation by bringing “real” inspiration from the working life to school.
- It makes available a business network on-demand, where the demand is formulated by Delta Blekinge on the basis of problems identified within school. As an effective intermediary between two key actors on the labour market, the complex process of skills supply is improved.
- The model offers a general platform for interaction between school, business, and government. The approach may be directly extended to apply to any school form, and contacts with VET at the secondary school level have already been taken.

Why is it successful and a good practice?

- Efforts to improve the workings of the complex process of skills supply create values to a large number of individuals and actors, at very different periods in time. Delta Blekinge is an innovative institutional arrangement capable of addressing such variety of issues in a sustainable way.
- It is an effective intermediary between two essentially different sectors, business and school.
- The approach may be extended to apply to any challenge that requires the interaction between school, business and government.

Summary

Delta Blekinge is a feasibility study which was set up with the aim of addressing “several of the problems that repeatedly are brought up when the issue of how to improve and develop the interaction between school and business is discussed”. As a variant of the so called Triple Helix model, it is a nonstandard organization involving school, business and government at the regional level. The fundamental flaw addressed is that in school *knowledge* is at center whereas the *relevant set of skills* is the key variable for employers. The concept is to improve this relation by bringing “real” inspiration from the working life to school. As a model, the approach is innovative as it is demand-side driven, based on the needs identified in school.

Previous experiences show that there has been an interest to interact between business and school through the years, yet also that this interest in general has failed to implement more permanent forms of cooperation. As a functional organization that represents multiple interests and perspectives, Delta Blekinge has thus attracted vast interest. It is an institutional innovation capable of addressing social values which typically result in the short, medium as well as the long term, for a large number of different actors.

Context and setting

Blekinge is one of the smallest amongst the 21 counties in Sweden. It is located in southern Sweden and adjacent to Skåne County, one of three larger urban areas in Sweden. It includes five municipalities of which Karlskrona is the administrative center, with a population amounting to 63 912 people. In terms of population (152 757 individuals, of a total of 9 644 864 in Sweden) there are two counties with a smaller population in Sweden; and regarding geographical size (2 931 square kilometers, of a total of 407 340 square kilometers in Sweden) it is the smallest mainland county in Sweden, only followed by the island of Gotland which is also a county. The population in Blekinge has been increasing for several years. Yet, without migration, outflows to other counties and ageing would have implied a shrinking population. The regional gross domestic product per capita is one of the smallest in Sweden.³

Delta Blekinge is a one year project – a feasibility study – which was set up with the aim of addressing “several of the problems that repeatedly are brought up when the issue of how to improve and develop the interaction between school and business is discussed”.⁴ The main partners of the project are six public administrations, at the county and municipality level; and Tech Network, an independent organization that is operated by several firms, with the aim of supporting regional interaction to promote the development of business, technique and skills supply. At present, after a successful operative phase of the project, Delta Blekinge is now seeking financial solutions to arrange a more permanent organization.

Manufacturing and the public sector are the most dominant features on Blekinge’s labour market. Agriculture, forestry and fishing is also overrepresented yet still representing a minor share of the labour market. The private service sector is small in comparison to Sweden as a whole. During and after the financial crisis, manufacturing in Blekinge was affected particularly hard; and at the same time, employment growth in both the private and public service sector was significantly lower than the average in Sweden. As a consequence, Blekinge has the second highest unemployment rate in Sweden and the highest rate of youth unemployment.⁵

Delta Blekinge

Scale of the project

As a feasibility study, the Delta Blekinge (from now on **DB**) project started in April of 2014 and ends in May of 2015. The main partners in the project are Region Blekinge (from now on **RB**), the overarching public administration in the county; all the five municipalities in the county; and Tech Network (from now on **TN**), an independent business organization that is operated by some 30 firms. There are also other partners in the project, but only the main partners have contributed financially. The project has been run by a project leader from TN, on a 60 percent basis, together with three

³ The data refers to December 31, 2013, regarding population, and to January 1, 2012, regarding geographical area. The data source is Sweden Statistics and their latest data on regional gross domestic product per capita is from 2009, where it was estimated to 271 000 Swedish crowns for Blekinge. This is significantly lower than the national average (334 000) and implies that only three other counties have lower figures.

⁴ “Delta Project Description 2014”, 2014, Region Blekinge, unpublished.

⁵ Swedish Public Employment Service, March 2015.

other persons, two from business and one from school. The budget of the project is 1.2 million Swedish crowns. The main activities of the project have been to address and implement matchmaking between business and school; to establish a homepage, to support this work; and a major public event at the end of the project. After the public event, the project has been evaluated and the concluding phase of the project consists of finding financial solutions for the arrangement of a more permanent establishment of the matchmaking activities.

Type of VET and policy

The approach of DB was inspired by a business trip to Cern, the world leading physics research center in Geneva (Switzerland), and their work with schools in the region. This inspiration was developed and adapted to the regional context in Blekinge, eventually as a variant of the so called Triple Helix model, and involving school, business and government in the region. The process is designed to be transparent, efficient, and provided at low cost. Not least, it must be institutionally feasible, in the sense that the different categories of member institutions must find a collective solution to establish an organization that is viable in the long term too. This is an important constraint, considered in more detail in the final subsections.

The basic necessity identified in the context of Blekinge is to improve the interaction between business and school. This is based on the perception that business, as employers, is closely affected by the fact that school activities largely determine the outcome of skills supply. More specifically, the fundamental flaw addressed is that in school *knowledge* is at center whereas the *relevant set of skills* is the key variable for employers. Moreover, as a reaction to this flaw, previous experience have showed that, through the years, (i) business have several times taken an initiative to deal with a specific problem related to skills supply, in cooperation with one or several schools, (ii) the initiative sometimes resulted in executive action, yet (iii) only rarely, if ever, was the initiated action capable of persisting, irrespective of the overall social value that the common activities generated.

From the beginning, the overarching aim of the project was to narrow the gap between, on the one hand, the choices that students make and what they learn at school, and, on the other hand, what employers will need from them in the near future. The basic concept is to improve this relation by bringing “real” inspiration from the working life to school. At an initial stage, the idea was to work out a process in cooperation with the not for profit, politically independent organization Transfer. As a “neutral platform between school and business”, this organization “intermediates lectures to school from business”.⁶ Early at this stage, however, it became clear that the approach of Transfer is biased towards business, in the sense that the offer of lectures is more dependent on what business “has” than what school “needs”. The closely related but significantly different approach by DB is thus to provide lectures (as well as other activities) which are not only related to but also initiated by the needs identified in school. The methodological innovation, then, is that the concept of DB is demand- rather than supply-driven. As a consequence, the focus of DB is on issues related to school subjects whereas Transfer’s focus is on issues related to occupations. To a large extent, the approaches of these two closely related organizations offer complementary approaches. As such, the far more

⁶ With the help of lecturers from business, the concept of Transfer is to convey knowledge to students at secondary school, to encourage them to learning, entrepreneurship and own initiatives, and to give them contacts and openings into business. The organization started in 2000 and has grown rapidly, at present involving 3 644 lecturers. It is financed by partners from both the private and public sector. <http://www.transfer.nu/om/>, 17 April, 2015.

numerous services offered by Transfer may well be matched to the specific needs identified by DB. At present the scale of DB is too small to complement the activities of Transfer in the other direction, yet as an innovation the potential is clearly there through integration at the level of scale of Transfer. Another difference in the approach, finally, is that DB works towards secondary school while Transfer's main focus is on primary school and in particular study counsellors.

Target groups

As a feasibility study, DB has developed and tested a general concept through a rather narrow specification, with a small scale and during a very limited period of time. The explicit target group, on the school side, has been all the public schools at the secondary level in Blekinge with programmes within science or technique.⁷ The focus within this specific domain has been on the subjects math, science, and technics. On the business side, the presumptive providers of lecturers and other activities have been addressed within the member firms of TN, and in the end potentially also within their networks.

Despite the narrow and well defined target group of DB, during the short time that the project have operated it has attracted vast interest and clearly appealed to a broader group of stakeholders. This includes different types of contacts and also cooperation with for instance *Teknikcollege*, an educational VET institution at the secondary level; the Swedish Public Employment Service; Lund university and also ESS in Skåne, the European Spallation Source, a research centre based on the world's most powerful neutron source; and the overarching national employer organization *Svenskt Näringsliv* as well as the their member organization *Teknikföretagen*, which organizes employers within manufacturing and other technically oriented segments of industry. Furthermore, schools at the primary school level have showed explicit interest, and if the work by DB is prolonged this level of education has been considered as a relevant expansion of the target group. The broad and extensive interest and contacts that DB has generated, despite the limited period of time and the small budget, is probably explained by the potential in the approach.

Organisations involved and stakeholders

The business network TN, the public administration RB, and the five municipalities in Blekinge are the key actors behind DB. TN, in particular, initiated the foundation of DB and the project leader is from this organization too.⁸ As mentioned above, DB has also involved contacts and cooperation with a number of different organizations, from the public sector (e.g. the Swedish PES) as well as the private sector (e.g. employer organizations).

On the demand side, public schools at the secondary school level and firms within the formal and informal network of TN account for the explicit target. Given the approach and model of DB, these schools and firms are also involved in the essential work by DB. On the one hand, it means to signal

⁷ In Sweden, there is a school voucher system which includes public as well as private actors. "Public schools" thus refers to the schools operated by "public actors".

⁸ TN is a business network and was initially started by *Ronneby kommun*, one of the municipalities in Blekinge. Since 2007, it is organized as an economic association independent of Ronneby municipality. The purpose of the network is to "on the basis of technical understanding and confidence, help entrepreneurs and firms to see and create possibilities for the development of business, products, and production opportunities, based on work with the intermediation of contacts and the creation of new ideas" (<http://www.technetwork.se/om.aspx>, 20 of April, 2015).

and define needs within school, and, on the other hand, to transform these needs into relevant activities to support the addressed needs.

How it is organized

The operative work by DB can be boiled down into the three somewhat distinct stages, described below.

1. Relevant **need within school** is identified. A necessity in school that is related to the working life is identified within school. Key questions are “what” (is the need) and “when” (may the potential activity be arranged), and activities include, for example, lectures, internships and study visits at firms.
2. Identified need is **addressed within the business network**. TN acts as an intermediary between the needs identified in school and the possibilities that may be available to offer relevant measures to these needs. Besides the network that becomes available through TN, the organization adds the value of translating the needs identified by school into adequately formulated demand towards technically oriented firms. The formulated demand, when pertinent, will not only be relevant and feasible in a general sense but will also be packaged to evoke the interest of the receivers.
3. **Provision of relevant activity**. When the match between an identified need and the presumable provider of an activity to address the need is made, the activity is planned and eventually arranged. Part of the concept is to try to ensure replicability of the activity. In doing so, an important part of the approach is to link the identified needs in school to the national frameworks and guidelines which are provided by the Swedish National Agency for Education, formalized through syllabuses and subject plans. With such link, the activity offered is related to an identified need or problem of generic value for school. The value of the activity can then be expected to be of more general value and the activity is more easily replicated. With this approach, scale effects are more likely exploited and normally the provided activities are planned for to be replicated at least five times.

The model employed by DB is demand-side driven. It follows a basic concept where the identification of needs in school is linked to an intermediary vis-à-vis a business, and where this link eventually results in an activity that can be scaled up. The concept has been implemented and developed within the scope of a feasibility study. The major part of the project has been devoted to plan and implement activities, where the major event was one week of scheduled and public activities in January 2015. At the end of this one year project, in March, it was evaluated and at present it is in the process of arranging a prolongation of the project. According to the project leader of DB, a subsequent work of 3-5 years would be necessary to “settle the structure”. This would include, for instance, development of the web application (a very rudimentary version was developed during the first year) and of the methodology, and a successive extension of the target groups and scope of DB. As DB essentially adds value by intermediation activities which create potential value for a large number of different actors in society, the issue of development in terms of methodology and scope would be at center if the work by DB continues. As during the first year as a project, a representative board of work would ensure that this important development caters to the many stakeholders that

can be related to the work by DB. In this board of work half of the members have represent school and the remainder business, the public sector, tertiary school, and other interests and perspectives.

What worked and why

A stylized outline of the work by DB is that it makes available a business network on-demand, where the explicit demand is formulated by DB on the basis of relevant problems identified within school. According to the evaluation that was part of the one year feasibility study, the project has been successful indeed. Following the establishment and development of the operative work by DB under the first three quarters of the project period, the main single event was one week of scheduled presentations in January 2015. During this week, more than 44 presentations were delivered throughout all the municipalities of Blekinge, involving about 15 different organizations from the private and public sector. About 1 000 students from the five targeted public schools in Blekinge participated in the event together with 60-70 organizations from the working life and school. The event attracted mass media's attention and at least three newspapers and radio reported from it. Beyond the large general interest ascribed this public event, a more important outcome appears to be the interest revealed by the numerous stakeholders which have showed up during the course of the project. According to the project leader, the response to the project activities has been "huge" and he "was surprised that a seemingly self-evident subject for cooperation has attracted such an interest".

The great interest can be explained by several factors. Apparently, there is a real value that the work by DB has created, generated in relation to the work by rather different types of actors and activities. Regarding school, previous experiences show that there has been an underlying interest to interact with the business sector through the years, yet also that this interest in general has failed to implement more permanent forms of cooperation. Similarly, business has several times initiated collective work with school yet neither been willing to contribute enough to assure the establishment a more sustainable arrangement of work. In addition to the obvious value of improving skills supply, an important function that DB has in this process is that as a filter towards the private sector. Firms are often overloaded with requests of very different kinds, and DB can act as a credible actor in intermediating relevant demands from school that specific firms may be willing to respond to. Teachers, on the other hand, often lack the capacity to even formulate the relevant questions in relation to the problem identified, as they typically lack sufficient insight into the working life. Arguably, both schools and firms have too narrow emphasis in their operative work to value more than a minor share of the overall values that can be expected to result in any work related to the improvement of skills supply. These social values typically result in the short, medium as well as the long term, for a large number of different actors.

An important reason that DB was actually realized is probably that organizations representing more general interests were involved into the project. TN is clearly a key actor by representing business, whereas RB and the outright participation by all the municipalities of Blekinge assured that public interest at the regional level was entirely represented. The comprehensive representation of interests in the project has probably made it attractive as an institutional innovation that seems to offer a sustainable concept. As a model, in addition, the on-demand approach of DB is innovative and points at obvious scope for expansion in relation to the complementary work (and far more extensive

scale) of Transfer (see p. 3). The vast and heterogeneous interest revealed during the short period that DB has operated is probably explained by the potential that is inherent in the concept.

Besides offering a seemingly sustainable institutional arrangement and an innovative methodology, the model may be seen as a general platform for interaction between school, business and government. The specific approach may thus be directly extended to apply to any school form, and contacts with primary school and *Teknikcollege* (VET at the secondary school level) have already been taken. As a general platform, moreover, this institutional innovation may well be extended to apply to any challenge that requires the interaction between school, business and government.

Constraints

The model of DB is a revised version of the so called Triple Helix model, which in the standard model involves university, industry and government to support a system of innovation. A fundamental value of the Triple Helix model is that it is a nonstandard institutional arrangement, capable of internalizing a substantial part of the many different values which innovations create. As with innovations, efforts to improve the workings of the complex process of skills supply create values to a large number of individuals and actors, at very different periods in time. The fundamental value and potential of DB thus is that it may be a sustainable institutional arrangement. While it remains to be seen whether a permanent implementation of the model will succeed, it is clear that the full participation of all the three key actors – school (all the municipalities), business (TN), and government (RB) – has been both a challenge at the outset and a success factor once the project started.

At the operative level, the cross-sectional nature of the activities implies another important challenge. As the activities in school differ substantially from the activities in business, DB's function as an intermediary is challenging indeed. To be well-functioning, it requires that there is competence, or a process, which is capable of understanding and taking into account the different conditions of school and business. Also, it has been particularly important that DB has access to a large network within business, as made available through TN. A more binding restriction during the short project period of DB has been to be able to involve engaged people from school. Another challenge, finally, is to develop a more functional web application.

Impact and Replicability

As a one year project, DB's approach was exclusively targeted to a distinct subset of the schools in Blekinge at secondary school. As a general platform and institutional innovation, the model has attracted great interest due to its perceived potential. The impact is thus mainly related to the potential of DB and contacts have been taken with *Teknikcollege*, for instance, to see if the approach can be applied to this particular VET-institution. As of VET in general, this potential may be of particular magnitude in Sweden where the interest for VET-programmes is very limited.⁹

⁹ At least regarding VET at the secondary level, the low interest for most of the actual programmes is a problem and one important purpose with *Teknikcollege* is to promote the interest for VET. According to a recent anthology (“Yrkesutbildning för morgondagens arbetsliv”, 2014, Alexandru Panican (ed.), *Dialogos*), there is a pervasive system of norms in Sweden which undervalue VET and works against the interest for this type of education.

Regarding the replicability of DB, there are two critical arrangements which must be in place to successfully implement the basic approach, irrespective of what region or country that is concerned. The first is that the organization must find a structure which includes the perspectives of school, business, and government, in a way that is both representative for the region and at the same time feasible and efficient as of the organization. As an institution representing inherently different interests and perspectives, the fundamental structure of the organization must be capable of dealing with the specific challenges that certainly will arise within such nonstandard coalition. Not least, this includes financial issues and strategic issues related to the approach and its development. The second critical factor is related to the same basic challenge yet at an operative level. As the organization deals with inherently different areas of work, it is crucial to have competence and a process which is capable of effectively intermediating between business and school. Needless to say, competence and network from both areas of work must be tied to the organization. In addition, there must be cross-sectional competence and/or a process which effectively assures that the work with intermediation between school and business internalizes both sides in a functional way.

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VET-EDS Good Practice

Teknikcollege Skåne

Josef Lannemyr

Introduction

Teknikcollege is at concept of VET where municipalities, schools and companies in the manufacturing industry works together to increase the quality of the VET and make it better in tune with the companies' needs. The concept's purpose is to increase the number of students on the technological VET programs and thereby make easier for companies in the manufacturing industry to find qualified and skilled labor. Hence, it plays a vital role in the regional economic development strategy.

What does Teknikcollege offer?

For Students: Teknikcollege offers attractive vocational education and training that can lead directly to a job on the completion of studies or provide a good basis for further studies, i.e. various engineering courses.

For Companies - Teknikcollege helps to secure the needs for skilled workers within manufacturing companies.

For Society: - Collaboration with other municipalities and different providers of education and training guarantees effective use of resources and reduce the risk of outsourcing to other region or countries. Hence, the concept plays an important role the regional development strategy.

Teknikcollege Skåne is a good example of how the regions can work with competence and labour supply in cooperation with companies. It provides a clearer structure that could be used as a blueprint for other regions and that needs to address the problem of shortage of regional competence and labour.

Summary

Technological development and industrial companies are of considerable importance for Swedish economy and a high level of technical skills is essential for growth. Companies are in need of skilled employees with qualifications from upper secondary – as well as post-secondary levels.

In order to increase the number of applicants for technology-oriented courses at different levels, stakeholders in industry have committed themselves to developing the concept of Teknikcollege. Teknikcollege is a model of competence centres where municipalities, education providers and companies collaborate with a common aim to increase the attraction and quality of technology-oriented courses for the needs of industry.

The Skåne region

Skåne is the southernmost county of Sweden. It is a part of the Öresund region which also includes Själland (Zeland), Lolland, Falster, Mön and Bornholm on the Danish side of the Öresund strait. The Danish and Swedish parts of the Öresund Region are linked together by the 16 km long Öresund Bridge, between Copenhagen and the Greater Malmö area, as well as ferry lines that run in northern Öresund between Helsingör and Helsingborg. Operating in an economy oriented toward foreign trade, Skåne is strategically located at the gateway to the rest of northern Europe.

The largest city in Skåne is Malmö, which also is the third largest city in Sweden and the administrative centre of Skåne County. There are roughly 1.3 million inhabitants in the county, which is more than 13 percent of the total Swedish population. The average population density amounts to 176 inhabitants per km². As such, Skåne is one of Sweden's most densely populated regions, yet with a population density that is significantly lower than the OECD average (36 inhabitants per km², in 2011).

Nature of the Economic Development

Like other parts of the western world Skåne is in a structural transition. That is to say that the share of employees in the service sector is increasing, whereas the corresponding share as of manufacturing is decreasing. Yet still the manufacturing industry accounts for roughly 12 percent of employment, and still particular segments of industry play a pivotal role in many of Skåne's municipalities. The economic structure of Skåne is largely the same as for Sweden as a whole. The main difference is that a larger share of the employed are within wholesale and retail trade and a smaller number is employed within manufacturing. According to a recent OECD report (OECD Territorial Reviews, Skåne Sweden, 2012), Skåne has distinguished itself as one of the most innovative regions in OECD. It has increasingly moved into high-skilled sectors and is classed by the OECD as a "knowledge and technology hub". Skåne spends a large share of its resources on R&D (nearly 5 percent of GDP), and "In terms of innovation inputs, the region is second to none". After the financial crisis, Skåne lost its position as the fastest growing region in Sweden, a position which to a large extent seems to be due to the building of the Öresund Bridge in 2000.

Teknikcollege Skåne

Teknikcollege is at concept of VET where municipalities, schools and companies in the manufacturing industry works together to increase the quality of the VET and make it better in tune with the companies' needs. The concept's purpose is to increase the number of students on the technological VET programs and thereby make easier for companies in the manufacturing industry to find qualified and skilled labor.

Organization

Teknikcollege Skåne's is run by regional steering committee. The committee consists of representatives from the stakeholders but also from regional companies and the PES. The Regional Steering committee is responsible for all parts of the Teknikcollege and that the region fulfills the certification requirements made by the Industry Council. The regional steering group is also responsible for the development of the Teknikcollege and should also work with promoting

manufacturing industries. The regional steering committee is chaired by industry representative, and the regional companies representatives are in a majority.



Every Teknikcollege needs a coordinator. The coordinator has a crucial role and the function as a link between the regional and the national organization. The coordinator has also an important role in being the face of the organization and represent Teknikcollege in different forums and meetings. The tasks and responsibilities' of the Teknikcollege coordinator are defined in the statutes of Teknikcollege, He or she shall:

- -Coordinate the inventory of skills needs in the region with links to relevant industries before an application to become Teknikcollege certified education is handed in
- -Coordinate the quality assurance activities (regional and local) with follow-up and development of objectives, time and action plan as well as perform internal audit
- -Establish the concept among local partners, companies, principals, teachers, and other stakeholders
- -Assists the Regional Steering Committee in the application and review process according to schedule
- -Coordinate and development regional Teknikcollege activities.
- -Reporting and establish decisions made by the national association on the regional level.
- -Representing their region at the different activities within the national association

Scale of Teknikcolleg in Skåne

On a national level there are 28 active Teknikcollege regions and 128 certified educational providers and about 2000 affiliated companies. Skåne constitutes one Teknikcollege region which consists of the municipalities of Eslöv, Hörby, Höör, Kävlinge, Landskrona, Svalöv, Svedala, Trelleborg and Vellinge. One of the prerequisite for a Teknikcollege region is that at least three municipalities work together.

At the moment are there 13 different educational programs to choose in between at seven different educational providers. There are about 350 students enrolled in one of the different educational programs during 2015. About 10 percent of the students are girls and the predominant program is

The Industrial Technology Program and in particular the *Welding technology program*. There are about 100 affiliated companies that are partners in the Skåne Teknikcollege region and about 30 of these are participating in the work of a local or regional steering committee.

Target groups

The Teknikcollege concept has three target groups: Students, Companies and Society. The key word is *cooperation* between the target groups.

For Students: Teknikcollege offers attractive vocational education and training that can lead directly to a job on the completion of studies or provide a good basis for further studies, e.g. various engineering courses

A broad technical education gives students significant opportunities to a smooth transition to working life. At Teknikcollege courses are offered and upper secondary school students have an opportunity to gain extended courses, the aim being to increase their lifelong employability. The teaching is based on integration between practical and theoretical subjects and the course is designed according to the skills requirements of the companies that collaborate in the Teknikcollege network. At Teknikcollege the teachers work as a team. Considerable focus is put to the student's personal development and ability to work in groups. The industrial companies of a region are never far from the students. Since the companies are involved in the quality assurance and content of the education, those studying at a certified Teknikcollege are attractive candidates for employment when they graduate from upper secondary school, or on the completion of further studies at a university of technology.

For Companies - Teknikcollege helps to secure the needs for skilled workers within industrial companies.

Teknikcollege makes it possible for industrial companies to influence the planning of courses so that they correspond to future skill requirements. The majority of members in these steering groups come from industry and the steering groups are also chaired by a representative from the industry. This means that the industrial partners play an important role in influencing the scope and structure of the courses as well as their content. Involvement in the Teknikcollege network can take various forms, depending on the size of the company and the resources available. Participation is possible on a large as well as a small scale, thus making it possible for everyone to contribute. A company can collaborate with a provider of education by hosting study visits, by giving lectures or by providing problems and exercises taken from real life. A company can also participate through representation in a regional or local steering group and by offering practical experience and employment during summer vacation. For the individual company, the benefits of Teknikcollege are many. Apart from the possibility to influence the content of courses, there are opportunities to meet prospective employees and to acquire knowledge of their abilities, interests and employability. As a result, the companies' recruitment processes also become shorter.

For Society - Collaboration with other municipalities and different providers of education and training guarantees effective use of resources as far as municipalities are concerned.

An important factor of success within the concept of Teknikcollege is the collaboration of industrial companies with providers of education and training as well as with municipalities within a region. Teknikcollege helps to increase resource efficiency through collaboration in order to improve the quality of the courses. To be certified as Teknikcollege, it is necessary that providers of education and training from a minimum of three municipalities cooperate through agreements. Furthermore, these providers must work closely together with the region's industrial companies. This makes it possible to share costs and to benefit from each other's experiences and networks. The regions in Teknikcollege are a part of the national network. This leads to exchange of experiences and nationally viable quality assurance of the municipality's different providers of vocational education and training. Above all, Teknikcollege provides a larger recruitment base, a higher status for technology oriented education and fresh opportunities for skills development for both companies and providers.

The ten criteria

The Teknikcollege concept exists mainly within upper secondary education, but also as a non – academic tertiary education. The core of concept is the cooperation between educational providers, municipalities and companies which constitute a rather unusual alliance in the Swedish educational system. Ten criteria guarantee the process of constantly developing Teknikcollege, so that the certified education provides industry with the quality that it requires. In order to meet the requirements for certification, and to be approved as Teknikcollege, all the criteria must be fulfilled.

The criteria are described in length in the statutes of Teknikcollege and will be recapped in the following section:

1) A regional perspective

Teknikcollege have always a regional perspective and is a shared resource among the municipalities and companies that are involved.

2) An infrastructure for education

Teknikcollege is primarily working with upper secondary education, but one of the criteria is that a functional collaboration also takes place between different types of non –academic and academic tertiary education, and between adults and adolescents.

3) Clear profile

The Teknikcollege educations should match the skill supply of the regional industry. Each region has its own industrial profile.

4) Collaboration with working life

Put in to practice each Teknikcollege Region have a regional steering committee and local steering groups where the local business are in the majority, and the steering committee is chaired by industry representatives. It is of importance that all major and dominating industrial companies are represented in the steering committee to ensure the regional support.

5) Quality assurance

The regional steering committee is responsible for that all criteria are fulfilled, the quality of the education and the development within Teknikcollege.

6) Creative and stimulating learning environment

The teaching environment should be stimulate creativity, commitment and should be as similar to working life conditions as possible.

7) Equipment and machinery.

The regional steering committee should have knowledge and insight of the machinery and the equipment that is used in booth schools and the companies connected to the regional Teknikcollege. The idea is that machinery and equipment should have high quality and be as modern as possible, this to ensure the learners employability.

8) Coherent study days

The criteria about coherent working days implies that the school day should be as similar as an ordinary working day as possible. This is to prepare the students for the working life to come at an early stage

9) Team work and integration between subjects

Within the Technical College teachers work in teams and take joint responsibility for student learning and development. Emphasis is placed on the student's personal development and ability to work in groups.

10) Learning at workplaces

The companies offering the students a workplace-based learning during good tutorial adds foundations for solid professional expertise. Students also have the opportunity to get project work, secondary jobs, internships and summer jobs.

What worked and why

One of the best proofs of the Teknikcollege concept is that it has spread all over Sweden. As described in in a previous section there are now 28 active Teknikcollege regions and 128 certified educational providers and about 2000 affiliated companies. The key elements to the project's success and why we consider Teknikcolleg to be a concept worth spreading are here listed:

- **Teknikcollege was initiated by industrial firms**

One of the corner stones in the Teknikcollege project is the connection with the regional industrial companies. That the initiative to create Teknikcollege Skåne came from the companies themselves is a very important factor for success. The regional companies become stakeholders and are through their engagement committed to take responsibility for the education of the pupils. Teknikcollege gives employers a real influence over the education which is one of the big accomplishments of the concept.

- **Supply of Competence is a business issue, not a school issue**

The educational providers cannot solely be responsible for cover the manufacturing industries' demand for labor. That the manufacturing industries reached this understanding opened doors to the regional companies and facilitated important parts of the Teknikcollege concept as on the job education (learning at workplaces) summer jobs, internships and so on. In a Sweden companies are accustomed to receive well educated and motivated labor from the educational system. This situation where about to change, as the interest for VET programs have been dropping, and the companies themselves needed to take some action. The Teknikcollege is a proof of this change of mindset and a very important factor for success.

- **Voluntary scheme**

There is a long tradition in Sweden where all, or almost all initiatives on the educational agenda come from the government and are in the form of mandatory requests. Teknikcollege is a different kind of initiative and that it is voluntary to participate, both as an educational provider and a regional company. That the concept is voluntary results in a different and more sincere commitment than if the concept were part of mandatory scheme. That companies puts a lot of time and resources in the project is also in it a proof of its success.

- **Spreading Best Practice**

The Teknikcollege organization constantly works with highlighting and spreading good practices. This is crucial for the development of the concept and one important aspect of the program. A best practice from one of their regions is quarterly appointed by the national Teknikcollege organization and their executive committee. The best practice should be a good example of interaction based on the 10 criteria or a situation where Teknikcollege has reached out to media in a particular good manner. The Best Practice may include examples from a region, a locally Teknikcollege, local company or other activity. Every year there is a Teknikcollege congress where the regional organization met up and presents new and innovative ideas.

- **Open source between actors**

One of the preconditions for being able to spread best practices and knowledge between the different regions is that there is a sense of open source mentality between the education providers and involved companies. To have the open source mentality is stressed as by the Teknikcollege as one of the keys to success.

- **Perseverance among stakeholders**

Teknikcollege Skåne was founded in 2006 project and on a good way to be permanent institution. This gives credibility to the concept and shows on the long term commitment by from regional companies. It takes time to create a strong brand as an educational concept so perseverance is a necessity if the for success and makes the educations more attractive for learners.

Constraints

- **Unknown effects on the students**

Even though Teknikcollege Skåne has existed under almost one decade there hasn't been a complete evolution of the concept. However, there have been several internal audits, evaluations of independent researchers and there are regularly follow ups by the regional steering committee as a

part of the quality assurance criteria. But to answer the million dollar questions: “are students within the Teknikcollege more successful than other VET-students” (i.e. are they more likely to have a job? do they earn more money?) there needs to be a more advanced evaluation. Statistics Sweden has been commissioned to produce longitudinal data that hopefully bring some more knowledge about the effects on the subject but there is no published report yet.

- **Unknown effects on the local labor market**

It is hard to analyze if Teknikcollege Skåne have had an effect on the regional labor market. This kind of studies are hard to carry out because for several obvious reasons. For one: it’s hard to separate the different causes of the downward trend in manufacturing industries production in Sweden. What is due to the low demand in the European market and what is due to the shortage of skilled employment? It is virtually impossible to separate the effects and therefore hard to manifest the positive effects on the regional labor market. However, a recent survey made by an independent research institute¹⁰ confirms that the employers are in general very positive to the Teknikcollege concept.

Impact and Replicability: Teknikcollege as a factor of growth

Technological development and industrial companies are of considerable importance for Swedish economy and a high level of technical skills is essential for growth. Companies are in need of skilled employees with qualifications from upper secondary – as well as post-secondary levels. In order to increase the number of applicants for technology- oriented courses at different levels, stakeholders in industry have committed themselves to developing the concept of Teknikcollege. Teknikcollege Skåne is a good example of how the regions can work with competence and labour supply in cooperation with companies. It provides a clearer structure that could be used as a blueprint for other regions and projects of this kind.

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¹⁰ Yrkesutbildning i förändring: från lärlingsutbildning till yrkescollege, Jonas Olsson, Malmö University, RATIO, 2015:18.

VET-EDS Good Practice

GOA Publiek approach to apprenticeship learning

KWIZ Research & Consultancy

Introduction

GOA Publiek creates and organizes apprenticeship training (BBL) within the public sector. Besides that, the foundation has an obligation to raise awareness on the subject. Apprentices work three to four days a week in a public organization, where they acquire the practical skills required for their field of work. One day a week they receive vocational training and education. GOA Publiek's mission is to:

- Offer new vocational training and employment opportunities to youngsters through apprenticeship training
- Subsequently provide counterbalance to recent and persistent labour market issues and youth unemployment in the province of Groningen

The main goal of the VET-EDS program is to create a better alignment between the VET system and economic development strategies, with the help of effective labour market forecasting. This means that the VET-policy is adapted to be in line with current regional economic developments. Apprenticeship training effectively creates a strong connection between education and professional practice, providing counterbalance to persistent labour market issues; therefore it was chosen to be a good practice within the context of the VET-EDS program.

Context and setting

Youth unemployment Groningen

Statistics from the public employment service show that in August 2014 approximately 5.100 people up to the age of

Summary

GOA Publiek creates and organizes apprenticeship training (BBL) for students within the public sector. It was developed by employers from the regional public authorities. It has a broad base of support and works closely with public organizations, educational institutes and the public employment service. Its goal is to counterbalance to recent and persistent labour market issues and youth unemployment in the Groningen region. This by organizing apprenticeships, new vocational training and employment opportunities to young people. GOA Publiek has three primary roles which are:

- To raise awareness for apprenticeship training (BBL) in the public sector;
- To support and encourage public organizations to offer apprenticeships;
- To counsel students during their apprenticeships

There are certain factors of success which are of great importance in order to align vocational education and the world of work. Research and close contact with the foundation of GOA Publiek resulted in the following three important factors for a successful approach to apprenticeship training, which are:

- To stay close to professional practice;
- To cooperate closely with all involved organizations;
- To have a sufficient amount of (financial) resources.

27 are registered as unemployed in the Province of Groningen. 38% of these youngsters don't have a starting qualification to the labour market. Moreover, statistics show that the rate of youth unemployment in the Province of Groningen is increasing. To reduce the high youth unemployment the Province of Groningen has drawn up an action plan, in cooperation with municipalities, educational institutes and the public employment service, called "Werk in Zicht". The plan contains a number of measures to reduce youth unemployment and strengthen the regional labour market. The establishment of GOA Publiek to organize apprenticeships within the public sector is one of these measures.

Poor state of apprenticeship training (BBL)

The current state of apprenticeship training (Dutch: BBL) in The Netherlands is poor. The amount of available apprenticeships is insufficient to cope with the amount of students in need of an apprenticeship. However, apprenticeship training / BBL often is the only way for youngsters and unemployed in the lower segment of the labour market to find a job. The amount of BBL students has decreased massively since 2009. Statistics show that during the period between 2009 and 2014 it has dropped from 164.581 to 102.661 students. This decrease has several causes; one is the impact of the economic recession. In The Netherlands, students are responsible for finding their own apprenticeship / training company. The educational institute is responsible for the educational guidance in support of the apprenticeships. However, youngsters often have no idea how to organize an apprenticeship. GOA Publiek fulfills this role in order to help students and youngsters to find an apprenticeship within the public sector.

Description

Organization GOA Publiek

GOA Publiek is an independent organization which was founded by regional public employers and authorities. It has a broad base of support and works closely with public organizations, educational institutes and the public employment service. GOA Publiek has a team consisting of a manager, a legal officer and a number of student counsellors. The board consists of people from involved public organizations, educational institutes and social services. The primary target groups of GOA Publiek are youngsters at the lower segment of the labour market. As mentioned before in subchapter 3.1 youth unemployment is a big issue in the region. In order to reduce the youth unemployment it is important to make sure these people have a way of finding regular work. Offering education and apprenticeship training to these people in order to reduce youth unemployment and strengthen the regional labour market is the main goal of GOA Publiek.

In its approach to organizing apprenticeships, GOA Publiek has three primary roles. These are:

- To raise awareness for apprenticeship training (BBL) in the public sector;
- To support and encourage public organizations to offer apprenticeships;
- To counsel students during their apprenticeships

Raising awareness for BBL in the public sector

Currently, public organizations often put very little attention to apprenticeship training and the

importance of it for the bottom segment of the labour market. Public services are partly responsible for the economic development of a region and the wellbeing of its people. By providing apprenticeships for BBL students they can set an example towards other organizations. In order to create more apprenticeships for students, GOA Publiek aims to raise awareness for BBL within the public sector.

Supporting and encouraging public organizations to offer apprenticeships

GOA Publiek has close contact with the public employment service to recruit and select students, after which the students will be deployed within the public organizations. GOA Publiek is responsible for the employment and educational guidance. This is attractive for employers and removes some barriers to create apprenticeships. Also, GOA Publiek organizes all the necessary cooperation between the educational institute and the public organization. By making use of government grants, public organizations pay a favourable price for the services of apprentices.

Counseling students in their apprenticeships

When a student is successfully deployed within a public organization, GOA Publiek will offer intensive educational guidance and counseling. This way GOA Publiek aims to prevent students from dropping their apprenticeships.

Job carving

Job carving is a term for customizing job duties and can be used in different circumstances:

- To create specialist job roles thus freeing up the time of specialist staff;
- To swap job duties to make the most of individual skills

Job carving can be used to tailor a job so that it is suitable for a particular worker. The employment consultant works closely with the employer to analyze a range of different jobs and identify the opportunities to carve out certain tasks that do not require the professional skill of the worker to complete. This can be particularly useful in enabling highly skilled workers to concentrate on the tasks that demand their skills while separating out more routine functions in a new job role.

Job carving creates opportunities for apprenticeship training (BBL). This subsequently leads to more efficiency of specialized workers, as they can fully focus on their actual work duties. In the public sector there are a lot of opportunities to create new apprenticeships through job carving. A research that has been done within a number of public authorities showed that within six of the eight researched departments job carving can be applied successfully.

Financial resources

GOA Publiek was partly funded with financial resources from the action plan “Werk in Zicht” in order to reduce youth unemployment (3.1). Also the Province of Groningen has made a one-off financial contribution to the development and implementation of GOA Publiek. Structural financial revenue comes from public organizations. Public organizations pay a financial contribution in order to receive an apprentice over a longer period of time.

Scale

So far, GOA Publiek has successfully organized and guided 180 students in their education and apprenticeship. 120 of these students have already succeeded their education and apprenticeship. Currently 60 students are participating within an apprenticeship in the public sector. Research is currently being done into the possibility to expand GOA Publiek to other regions within The Netherlands. Furthermore, the same principle of GOA Publiek is applied to some other sectors to organize apprenticeships. However, these are far less developed with fewer organizations involved.

Type of VET and policy

GOA Publiek organizes apprenticeships (BBL) within public organizations. These organizations include municipalities, provinces, the regional water authority and other public social services. For their apprenticeship training, apprentices work three to four days (at least 60% of their time) a week at a public organization, where they acquire the practical skills required for their field of work. In addition to that, students spend one day a week at an educational institute for vocational education, in support of their apprenticeship.

Critical factors for success

There are certain factors of success which are of great importance in order to align vocational education and the world of work. It is important to analyze which factors of success make GOA Publiek a good practice. Research has been done to determine the factors of success behind GOA Publiek and its approach to apprenticeship training within the public sector. These critical factors of success should be included in the toolkit to support the alignment of VET policy and economic development strategy. Research and close contact with the foundation of GOA Publiek resulted in the following three important factors for a successful approach to apprenticeship training:

- To stay close to professional practice;
- To cooperate closely with all involved organizations;
- To have a sufficient amount of (financial) resources.

Stay close to professional practice

It is important to operate on a small scale. Students all need personal counseling and guidance in their apprenticeships. It is important to act quickly to solve possible issues.

Cooperate closely with the stakeholders

Cooperation with the stakeholders creates a broad base of support which increases success and developing more apprenticeships. Aligning vocational education to the labour market will only work when all the parties have the same goals. To achieve those goals you have to know the needs.

A sufficient amount of (financial) resources

Financial resources are crucial when designing and implementing a good practice like GOA Publiek. A project or initiative will fail when there is a shortage of financial resources.

Constraints

There are a number of constraints which affect the foundation of GOA Publiek. There is a limited amount of apprenticeships to offer to students. The amount of available apprenticeships within the public sector is insufficient to cope with the amount of BBL students. Besides the insufficient amount of apprenticeships, there still is a low level of awareness within public organizations. Also, GOA Publiek is limited to the public sector, as it was developed by regional public authorities. This means that GOA Publiek cannot offer apprenticeships to students looking for work outside the public sector. Furthermore, governmental cuts and strict legislation for professional practical skill courses (BBL courses) might be obstacles when expanding GOA Publiek to other regions within The Netherlands.

Impact and Replicability

The foundation of GOA Publiek was launched as a response to the relatively high youth unemployment and labour markets issues in the Province of Groningen. So far, GOA Publiek has successfully organized and guided 180 students in their education and apprenticeship. 120 of these students have already succeeded their education and apprenticeship. Currently 60 students are participating within an apprenticeship in the public sector. For this reason it can be concluded that GOA Publiek is making an effective effort in reducing youth unemployment in the Province of Groningen. It is unclear to what extent GOA Publiek can expand to other regions in The Netherlands and have to same positive effects.

Replicability

This good practice was written within the context of the VET-EDS program. This report could inspire other partner regions on how to make use of apprenticeships, in order to align vocational education and professional practice. Especially the critical factors for success are important to take into account when applying a similar approach to professional practical skill courses. These critical factors were:

- To stay close to professional practice;
- To cooperate closely with all involved organizations;
- To have a sufficient amount of (financial) resources.

Also, job carving could be a possible solution for other regions on how to increase employment opportunities for people in the lower segment of the labour market.

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VET-EDS Good Practice

Kenniswerkplaats

KWIZ Research & Consultancy

Introduction

Kenniswerkplaats – translated as ‘knowledge factory’ – is a regional network of educational institutions, research institutes and regional parties (public authorities, entrepreneurs, NGO’s, residents etc.) with a focus on revitalising the regional living and working environment (Foorhuis *et al.*, 2012)¹¹. Its main objectives are to:

- Create a link between education, training and research (knowledge) and regional economy (demands), in order to develop and innovate knowledge;
- Work towards sustainable and (economically) vital regions.

In doing so, projects related to regional development take place in a learning environment. Students, researchers and teaching staff from universities and vocational education institutes work together on these projects, actively cooperating with involved regional parties.

Currently, Kenniswerkplaats is realized and implemented in seven different regions within The Netherlands. Although these regions differ from each other regarding to the regional living and working environment, each Kenniswerkplaats shares the same aforementioned objectives. In these regions, Kenniswerkplaats plays an important role in the VET system, providing students with practical-oriented education and training.

Context and setting

¹¹http://www.sharefoundation.eu/images/stories/downloads/Publicaties/RegionaleTransitie/artikel%20kwp_en%20def.pdf

Summary

Kenniswerkplaats is a regional network of educational institutions, research institutes and regional parties. It aims to create a link between education, training and research (knowledge), and regional economy (demands). Projects are set in a learning environment. In regions where Kenniswerkplaats operates, it plays an important role in the VET-system.

The regional collaboration of Kenniswerkplaats differs from other collaborations because of its continuity, the diversity of the involved partners and the emphasis on regional transition.

To replicate the good practice of Kenniswerkplaats to other regions it is important to know which questions are relevant to the region, which tasks every involved party has and in which developments and innovation they are most interested in achieving in a specific time frame.

Within The Netherlands there is an increased awareness for the need of collaboration between local and regional parties as well as for involved citizenry on a smaller scale (regional / local). This as opposed to collaborations on a more national level. Over the last few decades, the national governments has taken away several responsibilities from regional and local authorities, citizens, professionals and civil society organisations, in order to have these responsibilities carried out by government services. This led to an extension of the Dutch welfare state, with all its consequences. The welfare state has become too expensive and leaves little space for self-regulation and small-scale collaboration. This makes it particularly difficult for regional parties to collaborate and find an appropriated approach to regional affairs. The Dutch government is looking to change these trends by giving municipalities more responsibilities and by giving citizens and civil societal organisations a bigger involvement (Foorthuis *et al.*, 2012).

Within this context, provinces and municipalities started focusing their policies and strategies on revitalising the regional living and working environment. This shift requires new strategic, multiannual regional collaborations and partnerships, often called regional transition. Kenniswerkplaats and its methodology were developed in 2004 and has been expanded ever since. The focus has also been shifted towards knowledge and innovation where it's not only important to work together but also to learn from each other (Foorthuis *et al.*, 2012). In all seven regions where Kenniswerkplaats operates, it plays an important role in the VET system providing students with practical-oriented education and training and connecting education with labor.

Description

Kenniswerkplaats per region

In this paragraph we elaborate on the different regions in which Kenniswerkplaats operates. As mentioned earlier, Kenniswerkplaats is realized and implemented in seven different regions within The Netherlands (figure 1)¹²:

- Kenniswerkplaats Noordoost Fryslân
- Kenniswerkplaats Veenkoloniën
- Kenniswerkplaats Westerkwartier
- Kenniswerkplaats Noord-Holland Noord
- Groene Kennispoort Twente
- Groene Hart Academie
- Kenniswerkplaats Gelderse Vallei & Eemland



Figure 1: Kenniswerkplaats per region

¹² <http://www.kenniswerkplaats.eu/kenniswerkplaats/kenniswerkplaatsen-per-regio>

These regions are different from each other, regarding their living and working environment. Consequently, each Kenniswerkplaats puts together a different program that is focused on a number of relevant regional topics.

Kenniswerkplaats Noordoost Fryslân

Regional topics: Recreation and tourism, infrastructure, vital rural area

Kenniswerkplaats Veenkoloniën

Regional topics: Agriculture, water, sustainable energy

Kenniswerkplaats Westerkwartier

Regional topics: Recreation and tourism, food industry, bio based economy

Kenniswerkplaats Noord-Holland Noord

Regional topics: Agribusiness, sustainable energy, leisure activities, livability

Groene Kennispoort Twente

Regional topics: Vital rural area, nature and water, entrepreneurship, food and health , green education

Groene Hart Academie

Regional topics: Nature and landscape, water, recreation and tourism, climate and energy, agribusiness, living environment, green ports (horticulture, arboriculture etc.)

Kenniswerkplaats Gelderse Vallei & Eemland

Regional topics: Nature and landscape, environment, sustainable entrepreneurship, recreation

Methodology

The Kenniswerkplaats approach is based on 'learning in, with and from practice', also called action learning / research. Most important in this approach is to learn from each other, and not just to work together. All parties contribute to the collaboration by their own specific needs, qualities, knowledge and creativity. The regional collaboration of Kenniswerkplaats differs from other collaborations, because of its continuity, the diversity of the involved parties and the emphasis on regional transition. The parties are not seen as stakeholders, but as shareholders. Stakeholders have an interest and want to see that interest borne out. Shareholders do too, but they also take personal responsibility in the project and in making it a success for their fellow shareholders as well. You have to give something to get something. Another difference between shareholders and stakeholders is that shareholders (together) carry a responsibility to finance their project. Co-responsibility is the keyword. The goal of this approach is to create a structured learning region (Foorhuis *et al.*, 2012).

The approach of Kenniswerkplaats on regional development of knowledge, innovation and transition can be summarized in the next four steps:

1. Each Kenniswerkplaats deals with various topics and issues that are high on the regional agenda. Examples of these topics are: Recreation and tourism, bio-based economy, agribusiness, sustainable energy, green education etc;

2. Within these specific regional topics, the Kenniswerkplaats and relevant shareholders identify various subprojects to work on;
3. Students, researchers and teaching staff from universities and vocational education institutes work on these projects, actively cooperating with involved regional parties, such as public authorities, entrepreneurs, NGO's and residents;
4. Within these projects the main objectives are to create a link between education and regional parties to develop and innovate knowledge, and to work towards strong and vital regions.

Critical factors of success

Certain factors are of great importance in order for a Kenniswerkplaats to be successful. Within the context of the VET-EDS program it is important to identify these factors as they could be used to replicate the good practice of Kenniswerkplaats in other regions. Desk research and an interview with the managing director of the Kenniswerkplaats Noordoost Fryslân resulted in the following five important factors of success:

- Mutual trust and an open attitude between businesses, governments, educational and research institutions and the environment;
- All involved shareholders are willing to learn from each other;
- All involved shareholders are willing to innovate;
- There is a clear vision on the regional challenges and growth opportunities;
- There is a sufficient amount of financial resources and commitment to execute projects.

Mutual trust and an open attitude between businesses, governments, educational and research institutions and the environment

In order to be successful, a multidisciplinary cooperation between all involved parties is mandatory. Mutual trust and an open attitude between these parties are essential. This will enable knowledge development and circulation, as well as the execution of projects that contribute to sustainable and economically vital regions.

All involved shareholders are willing to learn from each other.

Most important in the approach of Kenniswerkplaats is to learn from each other, and not just to work together. This will trigger long term regional development of knowledge and innovation. Furthermore, it eases the cooperation which in turn is beneficial for the execution of projects.

All involved shareholders are willing to innovate.

Crucial in Kenniswerkplaats is the willingness to learn, innovate and to continuously improve. Central aspect is the development of knowledge. Involved parties must acknowledge the essence of thinking outside the box.

There is a clear vision on the regional challenges and growth opportunities.

After a partnership has been established, further research is needed to figure out which questions are relevant to the region, which tasks every involved party has and in which developments and innovation they are most interested in achieving in a specific time frame. This will be used to define concrete objectives and to develop and execute projects.

There is a sufficient amount of financial resources and commitment to execute projects.

The shareholders have a shared responsibility for the finances. Financial resources are crucial for developing and executing projects as well as for developing knowledge.

Example: Noordoost Fryslân

Kenniswerkplaats Noordoost Fryslân offers a good example to illustrate the process of setting up a Kenniswerkplaats, as well as for the regional approach. The process took off in 2008 in the municipality of Dantumadiel with a pilot study for a Kenniswerkplaats. Together with the education center of AOC Terra and the Dutch Ministry of Economic Affairs, the municipality of Dantumadiel created initial basic structures, such as a steering committee, the first connections with the regional educational institutions and a number small learning projects (Foorhuis *et al.*, 2012). What these three parties also did was to identify and establish a number of minimum conditions for the Kenniswerkplaats Noordoost Fryslân, such as financing, provincial involvement and other essential requirements. At that time, the Agenda Network Northeast was developed, which contains future ambitions and projects to stimulate development and innovation in the region of Northeast Fryslân. One of its ambitions was to make the involvement in Kenniswerkplaats broader than Dantumadiel, creating a regional network of regional businesses, governments, educational and research institutions and the environment. This laid the foundation to expand the Kenniswerkplaats Noordoost Fryslân from municipality to region.

The Kenniswerkplaats Noordoost Fryslân concentrates on three topics: Recreation and tourism, infrastructure, vital rural area. Students and researchers from regional universities and vocational education institutes, such as Wageningen University, Van Hall Larenstein University, NHL University and the vocational education institute of Nordwin are executing a number of projects within these topics. They cooperate with regional municipalities, businesses and residents associations. Kenniswerkplaats Noordoost Fryslân has an annual budget of 225.000 euro.

Impact and Replicability

Kenniswerkplaats is a story of success. The focus on developing knowledge and on regional innovation works.

After a partnership has been established, it is important to create a regional knowledge agenda in which all relevant questions, tasks, goals and the specific time frame are stated. This regional knowledge agenda constitutes the core to replicate and imbed the Kenniswerkplaats methodology to various regions¹³. The lectorate in Regional Transition of the Van Hall Larenstein University of Applied Sciences has determined five different phases in order to come to a regional knowledge agenda. These phases correspond with the critical factors of success. The five phases are:

1. Identifying regional developments and growth potential
2. Determining which knowledge is needed
3. Determining which knowledge universities and vocational education institutes can offer
4. Budgeting of the regional knowledge agenda

¹³ <http://edepot.wur.nl/196263>

5. Establishing commitments in the regional contract

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VET-EDS Case study

MyTec Noorderpoort

KWIZ Research & Consultancy

Introduction

MyTec is a new and innovative educational project focused on technical education, launched by the educational institute Noorderpoort Energy & Maritime in collaboration with regional companies established in Stichting AOT Noord. The project consists of three educational programs. Although these are separate programs within Noorderpoort, they are all part of MyTec. Within MyTec there is a strong emphasis on combining education with practical work. As technology is developing quickly, companies demand new and different skills and knowledge from its employees and jobseekers. MyTec anticipates to these new demands by its practical oriented approach which gives students the opportunity to learn the technical skills that are needed at this point of time. MyTec differs from other educational programs by how they focus on external companies. Students perform a lot of assignments within one of these companies, giving these companies a leading role in the educational program. Subsequently, Noorderpoort in its turn will adapt its classes and guidance to these assignments. This way MyTec strives to be as current as possible.

In its brochure about MyTec, Noorderpoort states: *“During your education you will acquire a lot of work experience and you will be introduced to future opportunities. There is a good chance companies will be interested in your services after you finished your education, because of internships or assignments you have done for them.”* Similar practical oriented study programs offered by Noorderpoort thus far seem to be very successful.

MyTec is a new and innovative VET program primarily focused on technical education, initiated by the educational institute of Noorderpoort in collaboration with regional companies established in Stichting Support AOT Noord. The Eemsdelta is a region in the Northeastern part of the Province of Groningen. Within this region, the technical field of work is developing quickly. New investments have been made and existing companies are expanding. Most of these developments take place in the Eemshaven, the region's port and economic center. 3000-5000 new job vacancies are to be expected as a result of these (technical) developments and investments. There is a shortage of qualified technicians to fill these job vacancies. Moreover, the region isn't economically stable as a result of a declining and ageing population.

MyTec's aim is to bring more qualified technicians on the labour market, as a response to the high demands. MyTec anticipates to development in the technical sector in the Eemsdelta through a practical oriented educational method. Regional companies participating in Stichting Support AOT Noord are being given a leading role in the educational program. They get to offer practical assignments and internships to the students. Students spend the majority of their time in professional practice, gaining valuable work experience. This way students learn the necessary skills and knowledge at this point of time, effectively aligning technical education to professional practice.

Why was this chosen as a case study?

The main goal of the VET-EDS program is to create a better alignment between the VET system and economic development strategies, with the help of effective labour market forecasting. This means that the VET-policy is adapted to be in line with current regional economic developments. The close cooperation between MyTec and its partner companies effectively creates a link between vocational education and regional economic activity. As a result of this cooperation the discrepancy between supply and demand within the technical labour market in the province of Groningen is bound to decline. The company and demand-driven approach that is used by MyTec could also be applicable to other regions within the VET-EDS program to create the same connection between vocational education and economic activities. MyTec is therefore a case study that could be included in the toolkit to support the alignment of VET policy and economic development strategy.

Context and setting

Economic developments Eemsdelta

The “Eemsdelta” is a region in the Northeastern part of the province of Groningen. In the last couple of years there has been an increase in economic activity within the Eemsdelta. Recently, multiple new investments have been made as a reaction to the quickly expanding technical sector in this region. Most investments have been made in the Eemshaven (port), the region’s economic center. A large investment has been made in the wind power industry. By developing and expanding both existing and new (off shore) wind farms, many households are now provided with so-called green energy. As these wind farms are under construction, the Eemshaven functions as a logistic center supplying man force and materials. Another ongoing technical development in the Eemshaven, is made by Google. Google is investing in the construction of a large datacenter to support its enormous servers, resulting in 150 new jobs. Altogether, these economic developments will create 3.000 – 5.000 new job vacancies in the Eemsdelta.

Shrinking population East Groningen

Currently in The Netherlands there is an increasing mismatch between supply and demand in the labour market. At certain parts of the labour market there is a great demand for skilled professionals, whereas in other parts and sectors there is a high rate of unemployment of skilled labour force. In the province of Groningen, especially industrial sectors are suffering from a mismatch in skills. The economic activities occurring in the Eemshaven don’t necessarily benefit the entire region of study. Recently, parts of East Groningen, including the Eemsdelta as well, are suffering from a phenomenon called ‘shrinkage’. Shrinkage often leads to a decrease in economic vitality as a result of young, highly educated people leaving the area looking for better opportunities. Elderly people stay behind, which causes an ageing population and ultimately a loss of total population. In the Eemsdelta, forecasters expect a 7% population decline in the year of 2020, rapidly increasing to more than 20% in 2040. Facilities will start to disappear and the occupancy of houses and business premises will drop. Moreover, the rate of unemployment will increase, because of the ageing population and a lack of highly educated people. Partly due to the lack of educated work force and declining population, there is an insufficient amount of qualified technicians to fill the amount of job vacancies in the

Eemshaven. Besides that, a lot of technical workers are approaching their retirement, while there is a small influx of new workers, causing an even bigger discrepancy between offer and supply.

MyTec as response to demands

As mentioned before in subchapter 3.1 there is a growing demand for technical workforce in the Eemsdelta. Because of the insufficient amount of qualified technicians in Groningen to fill these jobs, companies are being forced to expand their search for workers outside its province borders and possibly even crossing national borders. On the other hand, job seeking technicians in Groningen that do possess a diploma or qualification often fail to meet the required skills, as their knowledge is outdated. As a response to the high demand for technical workers in the Eemsdelta, MyTec was launched to decrease the shortage of technical work force. Also, through its practical approach MyTec ensures its students that their acquired knowledge and skills suit the needs of professional practice.

Description

Organisation

As mentioned before, MyTec is a new and innovative educational project, launched by the educational institute Noorderpoort Energy & Maritime situated in Delfzijl, in cooperation with with Stichting Support AOT Noord. Stichting Support AOT Noord is a collaboration between multiple (technical) companies from the region Delfzijl. Their goal is to offer practical assignments and internships to students in order to create a larger and well educated technical work force. The participating companies are all leaders in their respective field of work when it comes to technical development, innovation and sustainability. In addition to their big market share in The Netherlands, most of these companies operate internationally. They have great awareness of the practical skills and knowledge needed for professional practice. Therefore, they are given the leading role in arranging the educational program of MyTec. The following companies participate in Stichting Support AOT Noord:

- AVEBE
- Delesto
- ESD-SIC
- GDF Suez
- Lubrizol
- Kisuma Chemicals
- NAM
- Nedmag
- Nuon
- RWE
- SCA
- Stork
- Teijin Aramid
- Waterbedrijf Groningen

Stichting Support AOT Noord applies 5 successive steps to the educational program of MyTec, which are:

1. To perform a strict selection procedure;

Every student will be tested at motivation and affinity, before they are being allowed to take part in one of the MyTec programs, This assessment will be carried out by an employment agency.

2. To offer appealing study conditions;

Students get a laptop and pay a small amount of money for their learning tools. After finishing the MyTec education students receive a partial compensation for the costs.

3. To determine content educational program;

Before the MyTec program begins participating companies will be involved in determining the contents of the educational program.

4. To offer internships and practical assignments;

From the second year onwards participating companies in Stichting AOT Noord will offer students practical assignments and internships.

5. To assure job security;

After finishing MyTec, students will be offered optional job opportunities.

Stakeholders and target groups

When analyzing MyTec it is important to know which parties are involved and which position they occupy within the process of developing and executing MyTec. This concerns both stakeholders and target groups. These are the most important involved parties:

Stakeholders:

- Noorderpoort Energy & Maritime
- Stichting Support AOT Noord

Target groups:

- Students
- Unemployed / jobseekers

Noorderpoort Energy & Maritime

With 17 locations ROC Noorderpoort is the biggest provider of vocational education in the northern part of The Netherlands. Energy & Maritime is one of Noorderpoort's locations and is primarily focused on technical education. It is situated in the city of Delfzijl. As the initiating educational institute behind MyTec, Noorderpoort is responsible for the implementation, and organization of MyTec. Also, Noorderpoort Energy & Maritime will adapt its classes and guidance to the assignments given by participating companies.

Stichting Support AOT Noord

14 companies from the technical and chemical industry in the Eemdelta have collaborated in

Stichting Support AOT Noord. Its goal is to create a connection between regional economic activity and education. They offer practical assignments and internships within their organization to the students participating in the MyTec program. Also, after finishing MyTec they offer students optional job opportunities. This way it aims to increase the influx of new technical workers, in order to reduce the considerable imbalance between supply and demand.

Students

The shortage of qualified technicians on the labour market causes problems for the technical sector in the Eemdelta. The amount of available workers cannot meet the amount of job vacancies, holding back the growth in the technical sector in the Eemdelta. Moreover, technical work and education often is looked down on and has a bad reputation, causing very few pupils to pursue a career in this field of work. MyTec looks to encourage young people in particular to choose for a technical education. For that reason, they are the primary target group of MyTec.

Unemployed / jobseekers

In the eastern part of the Province of Groningen the unemployment rate is way above national average. Currently there are 9.000 people looking for work in the region, with an increase of 1.800 people in the year of 2015. The technical sector offers many opportunities to reduce the amount of unemployed people, because of its high demand for work force. Although, many of the unemployed don't have an education or left school early. Without significant retraining, it will be very hard for these people to find work in the technical sector. MyTec provides new opportunities for these people in order to gain necessary skills and knowledge.

Type of VET and policy

The educational project of MyTec is a BBL-learning track in vocational education. BBL means students combine study and work. Pupils who choose BBL spend at least 60 per cent of their time as apprentices working for an employer. The students spent their remaining time at college. The BBL-learning track equals to level 4 of the European Qualifications Framework (EQF).

Critical factors for success

Within a project there always are certain factors contributing to its success and the project reaching its objectives or not. These so called critical factors for success are from significant importance to identify, as they can be used in other projects as well. These factors can be made transparent with the help of statistics and research. Within the context of the VET-EDS program it especially is important to identify the factors of success behind the case studies and good practices, because they will be included in the toolkit to support the alignment of VET policy and economic development strategy. Within MyTec we distinguished four critical factors of success. These are:

- Organizational commitment
- Support of regional economy and government
- Involvement of regional companies
- Sufficient amount of (external) financial resources

Organizational commitment

Characteristic for the organization of MyTec is the constructive cooperation of all parties involved.

The collaboration between the educational institute of Noorderpoort and Stichting Support AOT Noord results a lot of administrative power. In fact, the organizational commitment and cooperation makes it possible to align the interests of both parties, in favour of the educational program of MyTec. It would be very difficult to align vocational education and the world of work if education and regional economy do commit itself to achieving a certain goal.

Support of regional economy and government

As described in subchapter 3.1 there is a high demand for qualified technicians in the Eemsdelta. Also there is a lot of unemployment in the Province of Groningen. Because its goal to achieve a better match between offer and supply and the positive contribution to the regional labour market, MyTec is widely supported by both governmental parties and regional economic activity. In order for an initiative reach its goals and be successful, a broad base of support within society and regional economy is indispensable.

Involvement of regional companies

Education in the Netherlands traditionally is aimed at training students to reach a certain educational (thinking) level. In general there is not a lot of attention for actual economic demands, neither for practical work experience. MyTec differs from those traditional education, because of its educational focus on practical assignments and internship. This way the MyTec educational program comes very close professional practice. Involving regional companies in shaping the educational system is an important part of aligning VET-policy and economic development strategies.

Sufficient amount of (external) financial resources

Financial resources are crucial when designing and implementing an initiative like MyTec. A project or imitative will fail when there is a shortage of financial resources to work with. The educational institute of Noorderpoort and regional companies joined forces to make MyTec possible. Provincial sector funds were used for the development and implementation of MyTec. Also, the participating companies in Stichting Support AOT Noord make a financial contribution, in return for apprentices. Noorderpoort itself will bear some of the costs and sets the tuition fees for the students.

Constraints

There are very few constraints which affect the program of MyTec. There are enough financial resources to work with. Besides that, the participating economic parties can offer a sufficient amount of practical assignments and internships. Because of its innovative and new educational method, MyTec benefits from the market being relatively open. There are not a lot of similar educations like MyTec. Although, MyTec is limited to a certain amount of internships. MyTec will contribute to decreasing the shortage of technical workforce in the Eemsdelta, although because of its limited amount of internships it won't meet the total demand for technicians in the Eemshaven.

Impact and Replicability

Regional impact

The educational program of MyTec was launched as a response to regional economic developments and recent labour markets issues in eastern parts of the Province of Groningen. It is particularly directed at decreasing the shortage of technical workforce in the Eemsdelta. To what extent MyTec

can contribute to the regional demand for educated technicians cannot be quantified for a couple years yet. For that reason it is unclear what future impact MyTec will have on the (technical) labour market and economic developments in East Groningen. The leading role given to companies in the development of the educational program of MyTec is new and innovative. Traditionally, educational institutes pay very little attention to practical skills and real-life assignments. It is to be expected that more institutes will adapt to a more practical educational approach in the near future.

Replicability

This case study was written within the context of the VET-EDS program and could inspire other partner regions on how to align vocational education and the world of work. It won't be useful to directly duplicate MyTec's educational approach to other regions, as it is specifically developed for the region of East Groningen and its labour market. What does matter, however, are the critical factors which contribute to MyTec's success. These could be taken into account when applying a similar kind of educational method to support to alignment of education and the regional labour market. These critical factors of success were: Organizational commitment, support of regional economy and government, the involvement of regional companies and the presence of a sufficient amount of (external) financial resources.

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More information about the educational programme of MyTec can be found on Noorderpoort's website. Also, Stichting Support AOT Noord has its own website with a lot of information. Note that these websites are written in Dutch.

Noorderpoort Energy & Maritime: MyTec:

<http://www.noorderpoort.nl/Scholen/Energy%20en%20Maritime/Paginas/MyTec.aspx>

Stichting Support AOT Noord:

<http://www.aotnoord.nl/>

VET-EDS Good Practice

The ITS

Silvia Dusi

Introduction

The ITS (Higher Technical Institutes) were created to meet the demand of enterprises of new and high technical expertise and technology.

They are forming higher technicians in strategic technology areas for economic development and competitiveness, and are the segment of non-university tertiary education. They are in the form of participation of the Foundation which includes schools, training institutions, enterprises, universities and research centres, local authorities.

We choose this policy as Good Practice because of:

- the interesting starting point (i.e. the direct needs of firms);
- the good way the policy was structured: it implies the constitution of a Foundation participated by the Labour Market players, especially firms;
- the high impact that has on the national territory, both on the employment rate side and the territorial economic development side;
- the easy replicability or comparison possibility for other countries.

Summary

The contribution of this kind of policy is manifold:

- The increasing of youth employment rate: to acquire, after the diploma, an high technological specialization is essential for a qualified entrance into the Labour Market;
- Supports the development of methods for innovation and technology transfer to small and medium-sized enterprises;
- Forms Higher Technicians able to fit in the strategic sectors of the economic and productive system of the country;
- Emphasises any experiential learning where learning takes place through action;
- Orients young people and their families to the technical professions, supporting the decreasing of NEET phenomena.

Context and setting

The ITS, that stands for Higher Technical School, is a "special school of technology", and provides a channel formation of post-secondary level, parallel to the academic courses to form high technicians in strategic technology areas for economic development and competitiveness.

The total number of ITS established in Italy is 74:

- 30 in the area of new technologies for the "made in Italy";
- 12 in the area of sustainable mobility;
- 11 in the area of energy efficiency;
- 9 in the area of innovative technologies for heritage and cultural activities;
- 7 in the technologies of information and communication;
- 5 in the area of new technologies of life.

The Regional distribution is the following:

- Abruzzo (n° 4 ITS)
- Calabria (n° 4 ITS)
- Campania (n° 3 ITS)
- Emilia Romagna (n° 7 ITS)
- Friuli Venezia Giulia (n° 3 ITS)
- Lazio (n° 7 ITS)
- Liguria (n° 4 ITS)
- Lombardia (n° 16 ITS)
- Marche (n° 3 ITS)
- Molise (n° 1 ITS)
- Piemonte (n° 3 ITS)
- Puglia (n° 3 ITS)
- Sardegna (n° 1 ITS)
- Sicilia (n° 5 ITS)
- Toscana (n° 3 ITS)
- Umbria (n° 1 ITS)
- Veneto (n° 6 ITS)

The Figure below represents the territorial distribution: it is interesting to notice that the different courses reflect the type of Economy of the Regions: observing the Macro-areas for instance it is clear that the Technological core of Italy is in the North part.



1 ◆	ENERGY EFFICIENCY
◆	1.1 - Supply and energy generation
◆	1.2 - High efficiency and energy saving systems/plants
2 ▶	SUSTAINABLE MOBILITY
▶	2.1 - Mobility of people and goods
▶	2.2 - Production/maintenance of transports + infrastr.
▶	2.3 - Mobile information managem. and logistics infrastr.
3 ●	NEW TECHNOLOGIES OF LIFE
●	3.1 - Industrial and Environmental Biotechnology
●	3.2 - Production of equipm, diagnostic devices and biomedical
4 ■	NEW TECHNOLOGIES FOR THE "MADE IN ITALY"
■	4.1 - Agri-food system
■	4.2 - Home System
■	4.3 - Mechanical System
■	4.4 - Fashion System
■	4.5 - Business Services
5 ◀	INNOVATIVE TECHN. FOR HERITAGE FOR CULTURAL AND HERITAGE AND ACTIVITIES
◀	5.1 - Tourism and cultural activities
◀	5.2 - Cultural and artistic heritage
6 ★	INFORMATION AND COMMUNICATION TECHNOLOGIES
★	6.1 - Methods and technolog. for software systems developm.
★	6.2 - Organization and use of information and knowledge
★	6.3 - Architectures and infrastructures for communication

Description

The ITS, that stands for Higher Technical School, is a "special school of technology", and provides a channel formation of post-secondary level, parallel to the academic courses to form high technicians in strategic technology areas for economic development and competitiveness. It was established by the decree of the President of the Council of Ministers on 18 March 2008, "... At the aim of contributing to the dissemination of technical and scientific knowledge and support, in a systematic way, the measures for economic development and competitiveness of the Italian economy ... ».

It provides training paths two-three years long to give both young people and adults a degree of technical specialization related to technological areas as priorities in Italy and the European Union.

The interesting aspect is that ITS are managed by a foundation of participation, which complements public and private entities as partners.

In Italy, since October 2011, 74 ITS are active, aimed at the realization of postgraduate studies for obtaining the title of Senior Technician. They represent a new industry training and opportunity for young people who want to form inside the most strategic technology areas in the Labour Market. They are a novelty to the Italian school system: a parallel path to university education, strongly oriented to the inclusion in the workforce, responding to the need for figures of high professionalism.

Each path is organised as follows:

- Duration: 4 semesters for 1,800/2,000 hours (or 3,000 hours and 6 semesters in special cases if the ITS makes an agreement with the University)
- Teaching in the laboratory
- Apprenticeship required for at least 30% of the total hours, even abroad. The work experience in business can be conducted under apprenticeship, ensuring greater integration between training and work, to reduce the mismatch between supply and demand figures and professional skills ("skills mismatch") The apprenticeship contract, understood in the type higher education and research (art. 5 of Legislative Decree no. 167 of 14 September 2011 - Consolidated Apprenticeship) is, in fact, a privileged instrument of action for youth employment, because it is able to provide students with skills of high level of specialization immediately spendable in the working world and businesses respond to their needs for specialized figures to be included in business processes.
- 50% of the teachers from the business world and the professions
- Requirements for the access to the paths: the diploma of higher secondary education and the knowledge of English and Computer Science (however, there is the opportunity to attend special training modules, aimed to "re-align" lacking competence)

The courses end with a final assessment, conducted by an examination boards composed of representatives of school, university, vocational training and experts in the world of work.

The awarded title is "Diploma of Senior Technician" with the indication of the technological area and the national figure of reference. The EQF level is the V.

To support the circulation at national and European level, the title is accompanied by the Europass diploma supplement.

ITS offer non-academic training opportunities at tertiary level, for a total of 29 national professional profiles, as identified and described in the inter-ministerial decree of 7 September 2011, laying down general rules for ITS diplomas and related national professional profiles, assessment and certification of skills, and supplemented by ministerial decree of 5 February 2013 (Decree 82/2013). These programmes train specialised technicians in six technology areas considered strategic for the country's development. Both

young people and adults with at least an upper secondary education diploma can access ITS programmes. They also represent one of the possible ways to complete an apprenticeship with the purpose of promoting young people's return to the VET system.

The contribution of this kind of policy is manifold:

- Regards the youth employment rate: to acquire, after the diploma, a high technological specialization is essential for a qualified entrance into the Labour Market. It is also an opportunity for the ones that need to be re-trained to enter the Market again;
- Supports the development of methods for innovation and technology transfer to small and medium-sized enterprises, which are the majority in the Italian context and the most affected by the economic crisis;
- Forms Higher Technicians able to fit in the strategic sectors of the economic and productive system of the country;
- Emphasises any experiential learning where learning takes place through action and testing of situations, tasks, roles addressed in situations of uncertainty and complexity, similar to real employment every day;
- Orients young people and their families to the technical professions, supporting the decreasing of NEET phenomena.

ITS are set up as foundations (Fondazione di Partecipazione). The national legislation provides that the founders include:

- a higher secondary education institution, either private or public that, in keeping with Article 13 of Law 40/2007, belongs to a technical or vocational association (based in the foundation province);
- a training provider accredited by the region for higher education (based in the foundation province);
- an enterprise in one of the sector covered by the ITS;
- a university department or other body;
- a local authority (municipality, province, metropolitan city, mountain community).

Impact and Replicability

The Ministry of Education, University and Research (MIUR) presented at the end of 2013 the data about the results of ITS, which in 2013 were 64, 10 less than today.

- The 59% of graduates in the ITS courses has found a job. The table below shows the employment per Specialization Areas:

Technological Area	Total N. of graduates of 73 courses	N. of Female graduated on 73 courses	% of Female graduated on 73 courses	Total N. of employed on 68 courses	% of employed on 68 courses
Energy efficiency	154	10	6.49%	66	58.93%
Sustainable mobility	298	33	11.07%	245	82.21%
New technologies of life	18	5	27.78%	14	77.78%
Technologies of information and communication	124	20	16.13%	78	73.58%
Innovative technologies for heritage and cultural activities -Tourism	120	68	56.67%	57	47.50%
New technologies for the “made in Italy” - Services for firms	67	30	44.78%	36	53.73%
New technologies for the “made in Italy” - Agri-food	125	47	37.60%	43	39.45%
New technologies for the “made in Italy” - Home System	15	3	20.00%	5	33.33%
New technologies for the “made in Italy” - Mechanical System	251	12	4.78%	163	64.94%
New technologies for the “made in Italy” - Fashion System	128	86	67.19%	78	66.10%
Total	1,300	314	24.15%	785	64.66%

- The number of students attending the courses exceeded 5,000, there are 247 training courses and 825 students have already graduated.
- The monitoring and evaluation of training are done by the MIUR with the aim of promoting, in view of a mutual integration, measures to enhance the elements of excellence, overcome the difficulties and ensure transferability of results.
- A special technical group has developed and shared a tool that describes the criteria and procedures for the application of the indicators of output and results provided by the Guidelines: the National Institute of Documentation, Research And Educational

Innovation (INDIRE), through the analysis of information in the ITS data bank will provide, for each training course organized, a score to rate them all, on the basis of the instrument prepared by the group. The ITS system is very recent and is taking root in different areas of the country with a diversified pace. The regions that have launched the largest number of courses are Lombardy, Liguria, Emilia Romagna, Lazio and Veneto.

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VET-EDS Good Practice

Marchmont's SLIM Learning Themes

Dr Andrew Dean

Introduction

This example is included specifically as a technique that fits perfectly to VET-EDS in that it is a mechanism that engages Vocational Education and training provision (VET) and economic development. It seeks to bring both together within the process of regional strategy and policy formation. Between 2001 and 2010, SLIM (a function of the Marchmont Observatory) ran a series of Learning Themes providing an opportunity to explore specific issues with researchers and practitioners from across the South West. Topics were chosen to reflect the priorities of strategic partners and practitioners. These explored areas such as Adult Learning, Green Skills and Craft and Trade Skills and sought in all cases to bring together training and learning practitioners with the people responsible for policymaking for both education/training and economic development. The format combined an relatively large workshop (30 – 60 people) modelled on a facilitated Action Learning Set that sought specifically to address questions (a kind of Enquiry-Based Learning) that had been posed by policymakers seeking solutions and other questions that the prior supportive research had produced.

The Marchmont Observatory is a self-financing research centre within the University of Exeter's Research and Knowledge Transfer Unit, which is responsible for delivering the University's role as an economic anchor and driver of regional prosperity. Marchmont was founded in 1999, funded by the South West Regional Development Agency, to support the development and delivery of regional employment and skills strategy. It also receives ESF Technical Assistance to support the effective delivery of the South West ESF Competitiveness programme. Following the 2010 election, Marchmont has been working increasingly with Local Enterprise Partnerships to provide:

- Evidence and advice with the effective targeting of public funds; and

Summary

Marchmont were given the freedom by the SWRDA to design an evidence-based approach to ensuring that the RDA's new powers in relation to skills policy were addressing real need and were informed by both research and practitioner experience.

A Learning Theme model was designed that combines Facilitated Action Learning within a bespoke Community of Practice – supported with online and paper-based resources all aiming to identify issues, practices and to ultimately focus discussions at a Workshop that would lead to practical Recommendations for Action by Policymakers.

The model was used effectively for nearly 10 years until the RDAs were abolished and replaced by Local Enterprise Partnerships.

Though relatively time-intensive, the Learning Theme model proved highly popular and successful and can be replicated in part or whole by those looking to ensure evidence-based policy making.

- Research, training and facilitation to disseminate and mainstream good practice.

Marchmont is the provider of SLIM, the Skills & Learning Module of the South West Observatory, responsible for providing evidence for the development and implementation of the regional employment & skills strategy and Technical Assistance to support the effective delivery of the South West ESF Competitiveness programme.

Context and setting

The South West of England Regional Development Agency (SWRDA) which established the South West Observatory of which SLIM was a function (Skills and Learning Intelligence Module - SLIM) was one of the nine Regional Development Agencies set up by government in 1999. Its purpose was to lead the development of a sustainable economy in South West England, investing to unlock the region's business potential. It was abolished along with all the other RDAs on 31 March 2012, with some of its functions being replaced by local enterprise partnerships.

The New Labour Government elected in 1997 administration sought to bolster regional decision-making, leaving each region to decide whether this would go so far as to include a full regional tier of government. As part of this shift, each region received a Regional Development Agency (RDA) and was required to establish a Regional Observatory to drive home 'evidence-based' policy-making. How each region set about doing this was left to each RDA to decide. The result was a network of observatories covering many aspects of policy-making (planning, skills, education, transport, environment etc.) and with their own network – the Association of Regional Observatories. The incoming Conservative Government of 2010 abolished the RDAs and their associated Observatory functions. Figures published in 2010 showed that the SWRDA's work had:

- Created or safeguarded 43,600 jobs
- Helped start-up 3,100 new businesses
- Attracted £1.3 billion of additional public and private sector investment into the region.
- Provided 130,000 people with new work-related skills
- Through the regional Business Link network, helped over 100,000 businesses improve their performance and save over £220 million in costs.

The Marchmont Observatory itself predates the RDA observatories and is still actively involved in labour market analysis and policy support. It is best understood as a university research centre specialising in employment, skills and labour market studies (both academic and applied). There are a number of such organisations within UK Universities, but Marchmont is one of only a handful to bear the name 'observatory'. Its expertise made it the logical place to house the SLIM functions required by the incoming RDA. For a more detailed discussion on the history of Observatories in England see

Chaos and Opportunity – The Labour Market Observatories of England (Dean, A., and Pye, J., in Larsen *et al* 2013)¹⁴.

Topics for the Learning Themes were chosen to reflect the priorities of strategic partners and practitioners specifically to aid the formation of regional policy. This was needed to help build the evidence base for the new 'regional' skills function that the RDAs were given by government.

Description

Marchmont were given the freedom by the SWRDA to design an evidence-based approach to ensuring that the RDA's new powers in relation to skills policy were addressing real need and were informed by both research and practitioner experience. A Learning Theme model was designed that combines Facilitated Action Learning within a bespoke Community of Practice – supported with online and paper-based resources all aiming to identify issues and practices and to focus discussions at a workshop that would lead to practical recommendations for action by policymakers.

As would be anticipated for an 'Enquiry-based learning' exercise the Learning Themes started by posing questions, problems and/or scenarios as an alternative to simply presenting established facts or portraying a recognised and well-worn pathway to knowledge. Enquiry-based learning is primarily a pedagogical method, developed during the discovery learning movement of the 1960s as a response to traditional forms of instruction - where people were required to memorize information from instructional materials. The philosophy of inquiry based learning finds its antecedents in constructivist learning theories, such as the work of Piaget, Dewey, Vygotsky, and Freire among others it can be considered a constructivist philosophy.

Early Policymaker Involvement

It is important to recognise that the Themes were essentially chosen by the RDA lead policymakers who wanted a mechanism to achieve 'evidence-based' skills policy. Consequently initial work was undertaken in ensuring Marchmont had a full and frank understanding of what the policymakers were seeking to achieve and what vehicles and means they had at their disposal. This information and intelligence was then used to inform the development of a series of pre-workshop activities.

To advertise the event a 'Flyer / faxback' describing the content and focus of the Theme is developed and sent to potential participants¹⁵.

Pre-Event Analysis and Discussion

The Marchmont Observatory would identify and research the problems/topics identified by policymakers and would build and share an informed perspective (prior to the workshop and indeed at the workshop via the facilitator). This initial exercise was shared via a number of resources that proved over time of variable effectiveness:

¹⁴ Larsen, Christa/ Rand, Sigrid/ Schmid, Alfons/Atin, Eugenia, Serrano, Raquel (Eds.) (2013): *Shifting Roles and Functions of Regional and Local Labour Market Observatories Across Europe*, München, Mering, Rainer Hampp Verlag.

¹⁵ Usually around 500 flyers were distributed for each Theme

Research Briefs

Initially there were typically three or four 4-page (A4) briefings that would include elements such as:

- *Introduction to the Theme*
- *Literature review*
- *Data Review*
- *Policy Review*
- *General discussion of the topic highlighting its importance, linkages and where further information could be gathered.*
- *A section highlighting the workshop and how to register*
- *Good Practice Investigation.*
- *Case Studies*
- *Summary of the accompanying email and forum discussions.*

They could also be thematic, for instance a 2003 Learning Theme exploring more flexible training solutions included two Research Briefs:

Research Brief 1: Matching provision to employers - reviews of recent literature in which a trend is charted towards increasing flexibility of provision to respond to the needs of employers, including examples of reported good practice.

Research Brief 2: Linking demand to delivery - focused on innovative delivery of workplace learning tailored to the preferences of employers and their staff.

Participants would register online (or via traditional means) and would be supported in advance of the meeting by a series of resources, including online links to papers and publications and good practice case studies. In advance of the workshop, participants received: Research Briefs summarising existing knowledge; contributions to a facilitated e-mail discussion; the opportunity to participate in the Theme workshop; copies of the Final report and its recommendations.

Good Practice Database and Online Links

The initial work of the Observatory included the building of an online Good Practice Database that included elearning and other 'skills' practices. With each Learning Theme this was expanded. Topics would include 'Reproducibility' and 'Policy setting'. Though a useful resource in itself this was relatively little used and was slowly phased out as costly to maintain and quickly out-of-date. In addition to the database there was a single web page with a number of key papers and links that participants could explore.

Online Discussion Forums

Initial Themes included an online forum dedicated specifically to the theme, to which anyone could subscribe and details of which was passed to anyone interested in the theme. It included an online

facilitator, provided by the Observatory or with support from an 'expert' in the Theme topic. This was done in the early days of such online communities of practice and people were still somewhat reluctant to use them. Nonetheless a lot of interesting discussion took place and this would be summarized via the email discussion threads that were passed to anyone registering to the Theme (this, like the forum, was optional). With the global success of Facebook and other social media that came long after the Forums, it could well be appropriate to re-explore this kind of mechanism. The Forums persisted for a number of years until they were phased out in favour of email only communications.

Email Discussion Threads

These summarized the online forum comments and could be daily or weekly. The email thread was also one to which people could post entries and help generate discussion and thought.

The pre-workshop activities consciously sought to build a short-lived (but actually with so many attendees taking part in successive events it became a long lived) community of practice:

A group of people who share a craft and/or a profession. The group can evolve naturally because of the members' common interest in a particular domain or area, or it can be created specifically with the goal of gaining knowledge related to their field. It is through the process of sharing information and experiences with the group that the members learn from each other, and have an opportunity to develop themselves personally and professionally'. ([Lave & Wenger 1991](#)¹⁶).

The Workshop

The workshops themselves were always popular and the format changed little. The role of an event facilitator was critical to their success and this person would need to ensure that the discussions remained inclusive and focussed on the topics (though some flexibility was always positively tolerated). The agenda would begin with an introduction to the event and the theme and setting out the format of the day, this would be followed by a deliberately challenging presentation by a subject expert – often an academic or senior researcher/practitioner. Subsequent presentations (2 or 3 maximum) would look far more at the topic from the perspective of the practitioner and would ideally look at existing practices and what worked and what didn't.

Participants would work in groups in 2 or 3 intensive sessions tackling questions that were introduced by the facilitator. Rapporteurs were placed one each round-table of a maximum of eight people (ideally from experience, of 6 or 7). Each table group would be deliberately structured to include people from differing sections of the audience (policy, practitioner, academic etc.) and they would take detailed notes, writing these up and contributing them to the senior researcher who would produce the Final Recommendations Report. The facilitator would typically draw out some themes via table feedback, but this was often slightly repetitive and was reduced in scale over time but never altogether removed as some participants actively sought to share their experiences and learning.

¹⁶ Situated Learning: Legitimate Peripheral Participation. Book. 1991. By Jean Lave, Etienne Wenger

This generation of information and interpreting it based on personal or societal experience is often referred to as constructivism. Vygotsky approached constructivism as learning from an experience that is influenced by society and the facilitator. If successful the results would influence not only policymaking but the outlook of the participant. Transformative learning is the expansion of consciousness through the transformation of basic worldview and specific capacities of the self and is facilitated through consciously directed processes such as critically analysing underlying premises. This 'transformative learning' resulted from changes to:

- psychological (changes in understanding of the self)
- convictional (revision of belief systems)
- behavioural (changes in lifestyle).

The workshop embraced elements of Action Learning in that it sought to solve real problems that involve taking action and reflecting upon the results. The learning that results helps improve the problem-solving process as well as the solutions the team develops. The action learning process normally includes:

1. a real problem that is important, critical, and usually complex
2. a diverse problem-solving team or "set"
3. a process that promotes curiosity, inquiry, and reflection
4. a requirement that talk be converted into action and, ultimately, a solution, and
5. a commitment to learning.

In many, but not all, forms of action learning, a coach is included who is responsible for promoting and facilitating learning as well as encouraging the team to be self-managing. In addition, the learning acquired by working on complex, critical, and urgent problems that have no currently acceptable solutions can be applied by individual, teams, and organizations to other situations. The theory of action learning and the epistemological position were developed originally by Reg Revans (1982) who applied the method to support organisational and business development, problem solving and improvement.

Post Workshop

Recommendations for Policymakers (ultimately the aim of the Theme) were captured through:

- Feedback from Group Working
- Feedback captured by rapporteurs based on each workshop 'round-table'
- Subsequent feedback to Marchmont from those attending
- Nuanced understanding of the presentations and feedback as interpreted by Marchmont researchers

Recommendations and the evidence underlying them, were presented in a detailed Final Report which was accompanied by a considerably shorter Executive or Policy Summary. Marchmont staff

were also available to present the recommendations from the Theme to the appropriate policy forum / audiences.

The list of the Themes themselves (details available online at the SLIM website or via Marchmont) are worth exploring as they indicate that past issues for VET and economic development... have certainly not gone away.

List of Successful Learning Themes:

- Employment and Skills: The Role of Regeneration in Supporting Communities
 - Start: 12/02/2010 | End: 23/03/2010
- Green Skills, Green Jobs: Opportunities for the South West Low Carbon Economy
 - Start: 26/08/2009 | End: 27/11/2009
- Barriers to Training and Skills Development in Rural Areas
 - Start: 24/03/2009 | End: 24/03/2009
- Regional Funding Advice
 - Start: 18/11/2008 | End: 18/11/2008
- ESF - Position and Progress/Alliance Meeting
 - Start: 13/10/2008 | End: 09/12/2008
- Level 3 Skills - Challenge for the South West
 - Start: 05/09/2006 | End: 17/10/2006
- Migrant Workers - Issues for the South West
 - Start: 11/01/2006 | End: 22/02/2006
- Regional Implementation of National Sector Skills Agreements
 - Start: 21/09/2005 | End: 19/10/2005
- Young People: Employment without training
 - Start: 20/06/2005 | End: 15/07/2005
- Age and Employability: the challenge for the South West
 - Start: 17/01/2005 | End: 11/02/2005
- Improving Training and Development Opportunities for Graduates in the South West
 - Start: 07/09/2004 | End: 20/10/2004
- Tutor training: building capacity in Skills for Life
 - Start: 07/06/2004 | End: 08/07/2004
- Flexible Training Solutions for Business
 - Start: 03/11/2003 | End: 05/12/2003
- Improving Information, Advice and Guidance Services in the South West
 - Start: 08/06/2003 | End: 15/07/2003
- e-Learning - widening participation in the region
 - Start: 12/01/2003 | End: 13/02/2003
- Skills and Learning: Improving Public Health
 - Start: 28/10/2002 | End: 27/11/2002
- Craft and Skilled Trades
 - Start: 22/04/2002 | End: 30/05/2002
- Adult Basic Skills in the Workplace
 - Start: 01/11/2001 | End: 31/01/2002

Impact and Replicability

As resources for policy support dwindled with the incoming Coalition Government and the commitment to regions disappeared the outputs from SLIM were scaled down to a new format was developed that could no longer include the online-forums and Research Briefs, but instead simply framed the questions for discussion and summarized the findings of the associated Workshops. Eighteen such 'research papers' were designed along these lines, with the last produced in 2012.

Evaluation of the full Learning themes effectiveness took two forms:

1. Specific evaluation of the activity carried out via feedback sheets placed in packs at the event and gathered immediately following the workshops
2. A regular evaluation exercise involving the whole of South West Observatory that looked across all outputs at the results and impacts of the activities under-taken.

Critical to the success of the formula was the prior commitment from policymakers to both engage and attend the Workshop and more importantly to utilise the recommendations that arose from the event and were combined into a Final Recommendations Report. The sponsoring body was the South West of England Regional Development Agency which was committed to evidence-based interventions such as this.

All evaluations were positive about the Learning Themes and particularly positive comments were garnered in relation to the Workshop orientation and the welcome involvement of practitioners who themselves welcomed the opportunity to feed into policy. The overall result was a growing, supported community of active and engaged policymakers and practitioners that persisted for a number of years post-RDA funding and is unlikely to be replicated at the new sub-regional policy level of Local Enterprise Partnerships.

Typically, enquiry-based learning includes problem-based learning, and is generally used in small scale investigations and projects, as well as research and proved ideal for this type of investigation. The Learning Theme approach is replicable and could be considered by other observatories. The need to support policymaking in VET and Economic Development with evidence is recognised by the European Commission (2020 Strategy for Growth and Jobs) and the Learning Theme model brought VET and economic development practitioners and policymakers together – most notably at Regional (RDA) and local (Local Government) level. Critical to its success was the initial work to define questions and problems that needed attention and the quality of facilitation at the workshops that needed to ensure all were able to safely reflect on practice and existing policy.

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PROJECT VET-EDS

OUTCOME 2

LOCAL AND REGIONAL COMPENDIUM OF GOOD PRACTICE

ANNEX 2

Theme 2: Forecasting

National Training Fund

Zdeňka Matoušková, Marta Salavová

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VET-EDS Good Practice

PROGNOZIS OF THE DEVELOPMENT IN SELECTED SECTORS AND CHANGES IN THE STRUCTURE OF EMPLOYMENT TILL 2033

Zdeňka Šimová

Introduction

The prognosis was commissioned by the Confederation of Employers' and Entrepreneurs' Associations of the Czech Republic. The project comprised two main purposes:

- a) to provide background material for future strategies and policies especially with regard to ageing workforce, that may include various following actions related to in-company VET,
- b) to facilitate social dialog on a bipartite basis, as the projects involved close cooperation with partners and experts from the employer's organizations and trade unions.

The approach showed high potential to create a platform for topical discussion of social partners on future challenges of economic and demographic development while providing concrete qualitative and quantitative analytical data as a basis for discussion.

Context and setting

The prognosis was commissioned by one of a major employers' organizations in the Czech Republic, Confederation of Employers' and Entrepreneurs' Associations of the Czech Republic (KZPS ČR) which is an umbrella organisation for employers' unions in several sectors of economy. Within the context of ageing workforce, necessity to prolong working life and envisaged changes in the pension system, the KPZS ČR outlined a wider project that aims to assist their members to prepare

Summary

The prognosis commissioned by one of a major employers' organizations in the Czech Republic, Confederation of Employers' and Entrepreneurs' Associations of the Czech Republic provided basic intelligence about future developments of selected economic sectors, especially in the context of changing employment structure, ageing workforce and necessity to prolong working life. The project seeks to facilitate activities among the Association members reflecting current changes in the economy.

The prognosis was deliberately elaborated in the environment of social dialog of employers, trade unions and experts of the sectors with an aim to facilitate mutual communication and finding ways to joint approach to the forthcoming challenges.

for forthcoming challenges. The project seeks to facilitate activities among the association members reflecting current changes in the economy with a special emphasis on the demographic change and tries to find recommendations on how to prolong active working life, retain these employees at the labour market and assist them to cope with working tasks in older age.

Within the framework of this project it was necessary to gather relevant data on the future development of the workforce in the selected sectors, therefore eight prognoses of selected sectors were commissioned. The selected sectors were: textile and clothing, construction, mining industry, agriculture, land transport, culture (libraries), education and printing and publishing. The so called bipartite platforms were involved in the project. It is a scheme for social dialogue developed earlier within another project, where employers' organisations as well as trade unions are brought together for individual sectors. A key purpose of the project was also to initiate a discussion on the coming challenges among the platforms and facilitate social dialogue about these topics, while gathering data and drafting basic principles of supposed future development.

The results of the prognoses will at one hand form a basic background material for shaping future recommendations and policies adopted by the KPSZ, its individual members and sectoral platforms, that involve, depending on their specific conditions, also various VET strategies, and on the other hand they serve also a tool for facilitating the mutual communication of social partners.

Description

Eight prognoses of economic sectors defined by the KZPS were elaborated, using qualitative and quantitative prognostic methodology, covering an optimistic, neutral and pessimistic scenario. The goal was to identify key problems and trends that are likely to shape future development of the sector and will probably require also a developments and changes in the policies and strategies of involved partners. Each prognosis consists of initial general part which is further elaborated based on individual availability of data for each individual sector.

Stakeholders involved

The Confederation of Employers' and Entrepreneurs' Associations of the Czech Republic (KZPS ČR) represents one of the major employers' organisations in the Czech Republic. It is an umbrella organisation for seven dominant employers' unions in the following sectors: construction, textile industry, small and medium entrepreneurs, cooperatives, agriculture, mining and oil industry, wood-working industry, education, healthcare, culture and social care. It represents in total over 22 thousand economic subjects with together more than 1.300 thousand employees which equals about one quarter of Czech Republic's employed workforce. Geographically the members are spread all over the country, with individual differences according to the sectors (e.g. the mining industry has its base traditionally in the North of Bohemia and in Moravia-Silesia region, textile industry has its base mainly in the northern Bohemia, culture has majority of its workforce located in larger cities while agriculture is more dominant employer in rural areas).

The project was based on social dialogue principle. Bipartite platforms (established earlier) that brought together representatives of employers' organisations and their counterparts from trade unions participated in the project, one platform representing one industry. The end target groups of the project are member organizations of the KZPS, employers and their employees.

The creation of the prognoses was commissioned to the National Training Fund via public tender procedure. The NTF's team of National Observatory of Employment and Training that possesses the necessary expertise elaborated the prognoses based on close consultations and regular dialogue with the representatives of the bipartite platforms.

Analyses of the current trends

Initially, the existing trends and developments in the period of ca. last decade (mainly since 2008) in the sectors were analyzed as one of the main starting points for the future prognoses. The available statistical data were analyzed and a secondary analysis of relevant literature and other sources was conducted. Mainly the data from Labour Force Survey and national accounts and the qualitative materials as sectoral documents, plans, strategies, available sector studies and expert articles. The analyses concentrated on following questions: What is the position of the sector in terms of the international competitiveness and within the economy of the Czech Republic? What are human resources in the sector? What are the most important occupations within the sector? What is current position of the sector and the basis for its further development? The resulting analyses, the data included and their interpretations were extensively commented by the experts from bipartite platforms. The details of methodological steps and possible drawbacks were identified and the concrete methodological specifics of individual sectors were determined.

For each sector also several key occupations were identified (based on quantitative data about e.g. the numbers of employees in the occupation and on the consultations with the bipartite platform experts on what occupations they see as the most important for the sector). For these occupations also the prognoses of employment were elaborated.

Prognoses of the future development

The prognosis covered future development of the sectors, of the employment in the sectors and of the selected occupations within the sectors until 2033. The data used for prognoses reflect real development until 2012 and build on the analysis of the existing trends. As a prognosis of economic development for the period of next twenty years does not exist at the national level, a Cedefop's forecast of gross value added and employment for 41 economic sectors till 2025 was used as a quantitative base for the prognoses. The forecast is available for all EU member states and is published online. So as to adjust the Cedefop's forecast according to specific needs and conditions, the following methodological adaptations have been done:

1. The scope of the sectors as needed by the KPZS differed in most cases from the sector definitions used in the Cedefop's forecast, therefore the adjustments to the Cedefop's forecast must have been done. The extent of adjustments varied for individual sectors, according to the level of compatibility with KZPS scope of the sector and with the trends identified in the Czech Republic for the sector as defined by KZPS.
2. The time horizon of the forecast was prolonged until 2033.
3. Specific factors of the development of the sectors were taken into account when creating the optimistic, neutral and pessimistic scenarios.

The initial assessment of the sectors resulted in the decision that for culture (libraries) and education a different methodology of prognoses is necessary. The reason for that is the non-market orientation of these sectors that to the large extent defines the character of available data and that also means that different drivers take place and different factors shape their future development.

An important background material for the projection of gross value added and for the construction of the three scenarios were the opinions of the experts recommended by the bipartite platforms. Their opinions were collected in the form of an electronic poll where they assessed the importance and impact of the identified trends and factors existing, emerging or likely to emerge in the future. The prognoses also built upon the trends identified in the initial analyses.

The resulting prognosis for each sector consists in the following three outcomes supplemented by the explanatory commentaries:

1. Prognosis of gross value added and overall employment in the sector in the form of three scenarios;
2. Expected future development of structural changes in employment in the sector (mainly related to the age, education and regional structure);
3. Prognosis of employment for selected key occupations.

Communication and cooperation – facilitating social dialogue

Besides the factual results of the project, an important component was also a close cooperation with the representatives of the social partner institutions associated in the bipartite platforms and the sectoral experts whom they recommended. The content of the communication was following:

- discussions of premises and decisive factors of the future development,
- discussing the specific requirements of the bipartite platforms for their sectoral prognosis,
- determination of the key occupations,
- identification of the key sectoral studies and materials relevant for the analysis, providing statistical data that exist at sectoral level,
- commenting on the interim and final outcomes and studies.

The basis for communication was created by the preliminary and background materials drafted by the realization team. The cooperation took form of workshops with all the bipartite platforms, individual meetings with representatives of the platforms, e-mail and telephone communications and the abovementioned electronic poll.

Outcomes

As the project ended only in February 2015 its main outcomes and resulting measures are yet to come. It can be said that the final target group are the future employees. The main projects outcomes so far are following:

A background materials outlining probable future development in the selected industries were created, identifying its main factors and basic trends related to the structure of the workforce and employment in most important occupations, especially with regard to age and education.

Also a communication pattern was created that helped to facilitate social dialogue among representatives of employers and trade unions to identify key problems and engage in finding ways to deal with them including especially policies towards older workers and VET.

Strengths and weaknesses

The close cooperation with the social partners proved as successful especially in terms of increased quality and relevance of the analytical results, but it also (as intended by the KZPS) facilitated informal bipartite social dialogue about constraints that would likely the industries face in the future. The mutual understanding and sharing the notion about the necessity of some changes facilitated the commitment of all involved parties to search for appropriate solutions.

The difficulties that had to be tackled included mainly the lower availability of relevant data for some of the industries, or not sufficient representativeness of the data in case of smaller sectors and less frequent occupations. The forecast for such a long period as 2033 in this context means rather identification of probable trends that will pronounce if no unexpected forces influence the economy. Nevertheless, it can still serve as a basis for the social dialogue.

Also a lower availability of experts from some platforms for the participation in the consulting process and meetings belonged to the obstacles. It was caused mainly by their lack of time and a high workload from their business activities.

Impact and Replicability

The project provided mainly analytical background materials for future decisions and a facilitated a topic oriented and structured social dialogue on the challenges that will probably be faced in more or less close future. Although it is so far not possible to fully describe the concrete impact of the projects on the target groups and concrete ways its results will be translated to actions and policies, it can be regarded as successful tool to promote joint approach to future decision making related to VET, especially in the context of employment policies, recruitment policies, older workers policies etc.

The project is relatively easy to replicate by a team of experts in the field of analytical and statistical methods, as the main data sources (Cedefop's forecast, Labour Force Survey, national accounts, sector related expert literature and materials) are in general available in EU member states. The concrete methodology of replication, nevertheless would have to be adjusted to the national context and to the context of the action. It will differ especially with regard to the sectors involved, their definition and scopes, national availability of sectoral data and national availability of relevant long-term forecasts. In terms of the social dialogue, the key factors for replicability will be features of existing structure and processes of the bipartite dialogue – e.g. willingness of experts to participate and availability and character of a platform that engages relevant partners.

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VET-EDS Good Practice

Local conferences in the “Forecasting System for the Development of Employment and Qualifications – regio pro”

Author

Daniel Kahnert

Introduction

How this fits with aim of VET-EDS

- The local conferences in the regio pro project bring together regional labor market and VET-system actors. They seek to develop an institutionalized framework for developing regional strategies, which can overcome mismatches in current and future qualification demand and supply for skilled labor in certain sectors.
- The strategy building is grounded on sophisticated medium-term forecasts and therefore effectively influence regional economic planning for different sectors. In the process, current problems and future problematic developments are addressed.

Why is it successful and a good practice

- Empirical results from regio pro forecasts serve as a solid basis for further discussion and strategies.
- In the regional conferences, actual measures are developed and put to work.
- There is a real influence on regional policy and labor market and VET-system developments.

Summary

regio pro and the local conferences in the regio pro project bring together regional labor market and VET-system actors. They seek to develop an institutionalized framework for developing regional strategies, which can overcome mismatches in current and future qualification demand and supply for skilled labor in certain sectors. It bridges different stakeholders from different institutions all involved in regional planning and labor market development acting as intermediary stimulating information exchange and cooperation.

The local conferences are organized in a format of three separate workshops and are grounded on sophisticated medium-term forecasts form the regio pro project as well as other official statistics.

It provides moderated platform, which serves as basis for joint action by the involved stakeholders.

By directly involving professionals and policy stakeholders, there is a high influence on regional economic planning for different sectors, which directly addresses current problems and future problematic developments.

Context and setting

The Odenwald Administrative District (AD) is a rural area in the south-eastern part of Hesse in the close vicinity of urban centers such as Darmstadt and the metropolitan area Rhine-Main around the city of Frankfurt am Main. Its population in 2012 was 96,648 inhabitants with an average age of 44.9 years and a share of population over 50 of 44.2 per cent in 2013. This population is continuously diminishing and ageing.

The region's regional economy has no dominant industries or industrial clusters. The availability of skilled labor in the regional labor market is strongly influenced by the close proximity to urban centers such as Darmstadt and the Rhine-Main area.

There are severe disadvantages in the areas of economic competitiveness and innovation through low levels of economic performance compared to the economically flourishing industrial districts of Rhine-Neckar and Darmstadt as well as the Rhine-Main area. One of the major drawbacks for enterprises is the inadequate infrastructure in the region, which negatively affects company's decisions to settle there. A prominent example is the fact that it is not connected to the federal system of motorways, which leads to relatively isolated position in the otherwise economically flourishing south of Hesse.

A major current and future problem for the Odenwald VET-system is the rate of school-leavers without basic school education, the lowest qualification in the VET system enabling to take up an apprenticeship after 8 years of schooling. However, many professions in the VET system require a school-leaving certificate even higher. Despite this problem, the VET quota (the share of young people in the vocational education and training) is rather high and the VET participation rate (share of enterprises engaged in VET activities) is average compared to other administrative districts in Hesse.

Description

The regio pro project carries out labor market forecasts on three different levels:

1. state-wide for entire Hesse
2. for the three regional administrative districts (AD, "Regierungsbezirke")
3. for the 21 administrative districts ("Landkreise") and five independent urban districts ("Kreisfreie Städte")

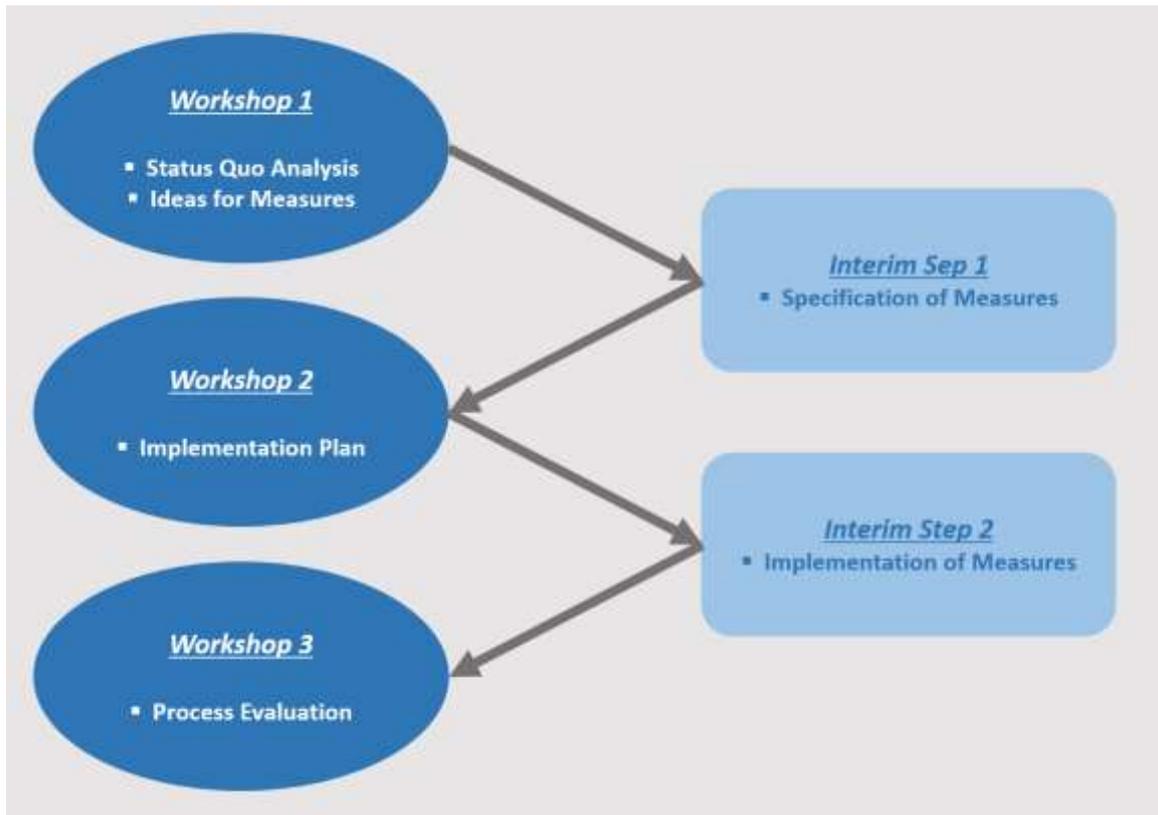
Thus, the smallest scale forecasts are made for the third, the AD level. Here is where another major activity of regio pro, the local conferences, are organized. This is a series of workshops, conceptualized by IWAK in Frankfurt, which all three together are the main parts of a comprehensive strategy development process. They address different relevant regional actors to join a process of building strategies to develop and secure supply of skilled workers in a region. The whole strategy development and implementation process takes about 1,5 years and is based on empirical data from the regio pro forecasts to systematically analyze the specific situation of the VET-system and the labor-market of a region.

The local conferences are organized in a format of three separate workshops which build the foundation of the local conferences. These workshops all have specific goals:

- During the first workshop, data from the regional forecast is analyzed and interpreted to identify possible future problems and fields of action. The specification of measures to be taken follows in a next step between the first and the second workshop.
- The second workshop is held to work on a plan for the implementation of identified measures by regional actors into current regional policies, programs and projects. A time schedule as well as a plan for who is responsible and who is in charge is set up. Between the second and third workshop the measures were taken into action.
- Within a third workshop the measures and the implementation process so far are evaluated and possibilities of future means and adjustments discussed. The participants voice specific demands to ensure an effective long-term functionality of the newly established means. Policy actors are given the opportunity to state their view on these demands and give an outlook into the possibilities of making long-term resources available to firmly establish taken measures in the regional VET-system and the labor-market policy.

For the local conferences, a cooperation with the Statistical Office Hesse and Regional Hesse Directorate of the Federal Labor Agency was established. Both institutions contribute additional data and support working with and evaluating the data they supply. The different sources supply complementary data, showing past developments, the current situation and forecasts about the VET-system and the labor-market situation. That way it is made sure that the whole process and all decision-making is based on solid empirical evidence.

Local Conferences process in regio pro



Source: Own Illustration derived from "Abschlussbericht von regio pro"¹⁷

The Odenwald AD local conference

To illustrate the process of a local conference process, instead of just describing the concept from an outside perspective, the example of the Odenwald AD was chosen. It gives a very detailed impression of how different actors are involved, which topics are discussed and what is actually done in the process.

Workshop 1

During the first workshop an overview was given about the 17 most important occupations in the Odenwald AD, which cover 77% of all employees in the region. In this overview, the forecast results from the regio pro forecast model were presented and on this basis, 7 occupations were selected for a closer inspection, also integrating expert knowledge from regional actors in the decision. For the selected 7 occupations, detailed information about expected future developments were given by IWAK and discussed by the participants. The participants narrowed the most relevant fields of action and the most important occupations down to a selection of three. The selected three occupations were:

¹⁷ IWAK (2015) Entwicklungen auf dem Arbeitsmarkt in Hessen und seinen Regionen bis 2020 - Prognoseergebnisse und Strategieentwicklung - Abschlussbericht von regio pro (not published yet)

- Technicians, metalworkers, electricians
- Health/Elderly care professions
- Cooks and other catering trades.

For each of the occupational groups a workgroup formed and discussed

- future developments in this occupational group,
- existing measures and programs relevant for the occupation,
- where potential for future improvements can be identified,
- which ideas for future means exist and
- which actors are and should or can be involved.

Interim Step 1

After the first workshop, during interim step one specific measures for each occupational group were selected as well as the persons responsible for further work on the selected measures. The most important task in this step was to establish and steady communication among the members of the workgroups and get them to actually work on the further development of the ideas and measures. The participants also had to clarify whether or not measures are discussed that could be applied to more than one if not all of the selected occupations who was therefore responsible.

Workshop 2

During the second workshop, the participants of each workgroup presented the selected measures and elaborated the reasoning behind their results. The results were:

- Technicians, metalworkers, electricians:
A first major problem identified by the workgroup was a rather bad public image of the occupational field. Thus, one measure was to improve this image and by doing so, attracting more young people to this field. Target groups for such a measure were parents, teachers and students. To make the occupation more attractive, image videos could be produced, better print and online publications about the content of the vocational training could be published, VET-fairs could be attended and holiday jobs for young people could be offered to have them gain insight into this field of work.
The second major task identified was to attract new target groups, especially women who are currently underrepresented in the occupation and skilled immigrants. Two ideas how to achieve this were to offer a part-time vocational training and to intensify cooperation with the Technical University Darmstadt. Another measure was the implementation of the “Arbeitgebermarke Odenwaldkreis” a label to represent the region and its employers in public to improve their image.
- Health/Elderly care professions:

The first relevant field of action was mobility and infrastructure. Measures discussed here were concerning public transport and childcare. The public transport system of the Odenwald AD was identified as expensive, very incomplete and especially not suited for the needs of shift workers. The program “Garantiert Mobil”, a program to improve mobility of workers in the region was developed, aiming to provide better means of public transport in the region. The public childcare system was also identified as very limited and not suited for the need of large parts of the workers. Especially the opening hours of kindergartens in the region should be made more flexible.

The second measure was to expedite the one-year training of Elderly care professions to increase the supply of desperately needed personnel in this occupational field. Also a platform “Gesundheit & Pflege” should be established to represent the occupation and give information about work and training in this area.

- **Cooks and other catering trades**

Like the other workgroups, the third workgroup identified the public image of the occupation as a field of action. They identified the need to communicate a more realistic image of the occupational field and publish more detailed and better information on all possible channels. In addition, a self-assessment test for potential apprentices was proposed.

Another major problem identified was the huge lack of young people in vocational training for this occupation. Measures to tackle this problem could be to attend job-fairs, establish joint-trainings in different fields of work and support the program “Arbeitgebermarke Odenwaldkreis”.

Following this, the participants identified infrastructure, trainees and skilled workers in general as three main fields of action for all three occupational groups.

Interim Step 2

For all selected measures a concrete implementation strategy was developed. This included required resources, involved actors, sub-steps to be taken, milestones, project coordinators and a time schedule. Until the third workshop, the workgroups met and coordinated progress of the implementation.

Workshop 3

The third workshop had a very structured approach. In this structure, every workgroup presented the results of their work, illustrated their experiences and outlined what worked so far and where improvements should take place. Each presentation concluded with a specific demand towards VET and labor-market politics in the region. After each

presentation, the present District Administrator of the Odenwald AD responded to each demand and gave a statement on possible realization of the proposed measures. The demands of each group were:

- Technicians, metalworkers, electricians
The demand of this group was directed towards the effort to attract more young people to technical occupations. The measure proposed was a “Tour der Ausbildung” (apprenticeship tour). In this tour, several companies in this economic sector join in an event that makes it possible for everybody interested to visit a number of companies on different local routes over a day and get brief information about training programs and insight into everyday work.

- Health/Elderly care professions
The first demand was the establishment of a “Cluster Gesundheitswirtschaft” (health and elderly care cluster). In such a cluster of health and elderly care professions, especially small and medium sized firms of the sector should join and build a central coordination unit for future programs in the region.
The second demand was to establish the theoretical part of the one-year training for Elderly care professions in the Odenwald AD. Currently no school in the whole AD offers the theoretical part of this training therefore a lack of elderly care professionals exists. This is especially important, as the one-year training often functions as an entry step into elderly care professions.
The third demand was also concerning the one-year training of elderly care professions. The local elderly care professions school should be financially supported to ensure the theoretical part of the training can take place even if resources are scarce at the school and attendance is low.

- Cooks and other catering trades
The first demand was to rise interest in trainings in the branch. This should be done by several measures in public relations and information dissemination. Specific information instruments for each target group should be developed.
The second demand was to win trainees and personnel from new target groups, such as women and immigrants. This should mainly be done by cooperating with local employment agencies.

Implementation of results

Each of the presented results and demands were directed towards the District Administrator of the Odenwald AD who was given an opportunity to respond immediately and discuss the possibilities of implementing the proposed measures. Like that, a very close communication

of field professionals and policy actors was achieved with the local conference workshops format.

Even though not all proposed measures could be realized and some compromises had to be found, specific problems, goals and strategies developed for each economic sector identified as relevant field of action were brought on the political agenda of regional VET and labor-market policy. Thus, the local conferences promoted not only information exchange, but also close cooperation of different regional actors from different domains to join strategic problem solving processes and improve the situation of the regional VET-system and labor-market.

Impact and Replicability

The local conferences directly influence regional development processes by establishing new measures in a certain economic sector. This is done in a joint strategic process of policy actors, field professionals, with the support of IWAK and based on detailed empirical data from different sources, evaluated by experts in the field. The implemented measures also immediately gain a good amount of legitimacy, because they were developed by the actually affected actors themselves and based on their own ideas and with the knowledge of what is needed, what is possible and what not.

The approach itself is very structured and aims directly at the implementation of measures that tackle specific problems in a region to develop the regional economic situation in a sector. It follows a clear path and clear rules and nevertheless opens large space for creativity, idea generation and discussion.

The approach is also very transparent and well documented. It should therefore be possible to replicate it, given the empirical data for a region exists on which further decisions are based upon.

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VET-EDS Good Practice

Labour market monitor Eemsdelta approach to LMI

KWIZ: Research and Consultancy

Introduction

The Centre of Applied Labour Market Research (KCA), linked to the Hanze University of applied sciences (Hanze UAS), is a socio-economic research centre that focuses on regional labour market issues.

Its objectives are to:

- Provide regional labour market intelligence which helps businesses and education aligning supply and demand;
- Organize the labour market more efficiently;
- Organize public-private partnerships for business and education.

These objectives are supported by a research programme that provides applied and evidence based information and solutions. This good practice highlights one element of the applied research programme, of the Centre of Applied Labour Market Research (KCA):

The Labour Market Monitor Eemsdelta is a research methodology which can be used to get a detailed and transparent insight into future staffing for business and education.

Context and setting

The “Eemsdelta” is a region in the Northeastern part of the province of Groningen. In the last couple of years there has been an increase in economic activity within the Eemsdelta. Recently, multiple new investments have been made as a reaction to the rapidly expanding technical sector in this region. Most investments have been made in the Eemshaven (port), the region’s economic center. A large investment has been made in the wind power industry. Another current technical development is the building of a large datacenter to support the enormous

Summary

The Centre of Applied Labour Market Research (KCA) is part of Hanze University. It is a socio-economic research centre that focuses on regional labour market issues. The KCA is of great value to the innovation capability of the industry in the North of the Netherlands.

It creates regional-level Labour market intelligence that can be used for VET in a particular region.

The Labour Market Monitor Eemsdelta provides labour market information about the demand for future labour and skills in a certain region or sector. It helps businesses to react to future demand for jobs and staffing. Further it is beneficial to policymakers and the VET by providing suitably skilled and qualified labour.

servers of google, resulting in 150 new jobs. Altogether, these economic developments will create 3.000 – 5.000 new job vacancies in the Eemsdelta.

On the other hand the region is dealing with a strong decrease of the labour force: A lot of young people leave the area and the population is aging. The expected decrease of the labour force in the near future is 10 percent.

The Eemsdelta region can be characterized by the paradox of economic growth versus a decreasing workforce. This paradox creates a shortage of employees, especially in the technical professions. To anticipate to this shortage, the regional actors need more detailed information; not only quantitative information for the future staffing, jobs and skills but also for vocational and educational demands.

The Centre of Applied Labour Market Research (KCA), linked to the Hanze University of applied sciences, is a socio-economic research centre that focuses on regional labour market issues. They have developed a research methodology which can be used to get a detailed insight into future demands for staffing.

The LMI is intended to provide business demands for certain jobs and skills. This information can be used for vocational and education training programmes. Also, it can be used by policymakers on a regional level.

Description

The Centre of Applied Labour Market Research (KCA) is a part of Hanze University. It is a socio-economic research centre that focuses on regional labour market issues. The KCA is of great value to the innovation capability of the industry in the North of the Netherlands.

The KCA has developed the Arbeidsmarkt Monitor Eemsdelta, which provides information to businesses in order for their strategic planning. Strategic planning entails examining the current needs of an organization, creating goals or a vision for an organization's future, and developing a plan to meet those goals. Strategic planning may address planned growth in an organization, the development of new programs or service delivery techniques, and strategies for ensuring the sustainability of an organization. It involves planning for funding and staffing to meet immediate and future needs. Staffing needs include replacing current workers who retire or move on as well as hiring new workers if expansion or change is planned.

The Arbeidsmarkt Monitor Eemsdelta projects for the next five years:

- Future staffing;
- Future jobs;
- Future skills.

The result is a business report for each business and a database which includes the data of all participating businesses. In the future the database will be extended and must be aligned to other LMI like unemployment, graduating students and other regional LMI.

The business report contains:

1 Current staff and job structure

Identify the divergence between the current staff and job structure.
Are there gaps between staff and jobs?

2. Future staffing

How many positions will be needed in the next 5 years?
What is the projected turnover rate due to competition?
What is the projected turnover rate due to anticipated retirements?

3. Future job structure

Identify the future job structure of the next 5 years.

4. Future staff and job structure

How many employees are needed and for which sort of jobs?

The database contains data of all the participating employers. These data can be used for projections of future jobs and skills in the region. Also, it can be used as LMI for policymakers and VET providers in order to provide skilled and qualified labour in the northern part of the Netherlands.

Scale

So far, there are nine companies who participated in the Arbeidsmarkt Monitor Eemsdelta. However, it still is a pilot. Currently the Monitor is seeking to include more businesses and sectors. The labour market information will also be used by regional actors, like policymakers and VET programmes.

Vet and policy

The main goal of the VET-EDS program is to create a better alignment between the VET system and economic development strategies, with the help of effective labour market forecasting. This means that the VET-policy is adapted to be in line with current regional economic developments. The LMI coming from the Arbeidsmarkt Monitor Eemsdelta can align the local business needs to vocational training programs. The approach can also be used in other regions within the VET-EDS program to create the same connection between vocational education and economic activities.

What is working?

The businesses are the core of the methodology, the data is real time information of businesses in the region. The period of forecast is 5 years. This means that the forecast for staffing, jobs and skills is available on an individual level and on a regional level. By developing the central database, the forecast is useful for the demand of training for the region but also for the businesses itself.

Business level

The model has proved to be a good instrument to identify the necessary information that businesses need. Future changes can be processed into the datasheet so current information about staffing is available. It is an instrument for businesses to monitor and anticipate to developments in future

staffing, jobs and skills. The reports provide both the current and the projected staffing situation, information that wasn't available to businesses in the past. The report gives the employers insight into the future so that they can determine future policy and aims to anticipate on future staffing.

Regional level

The individual business reports are a projection on a regional level. The number of participants was not big enough in order to make a regional picture. However there is a general picture:

- Increase of jobs
- Education level does not change
- Demand for VET will grow

The pilot provides information for projections of future planning, jobs and skills. For the near future it is important to get more businesses to participate in the Arbeidsmarkt Monitor Eemsdelta. By increasing the number of participants it is possible to make a projection about the whole region. In addition it will be possible to make the projection by sector.

The Labour Market Monitor Eemsdelta provides labour market information about the demand for future labour and skills in a certain region or sector. It helps businesses to react to future demand for jobs and staffing. Further it is beneficial to policymakers and Vet to provide suitably skilled and qualified labour.

Because of the high unemployment rate in the Netherlands policymakers are making regional plans in order to create new jobs and to train people to be qualified for these jobs. This methodology can bridge the gap between demand of qualified skilled labour and the VET needed to provide skilled and qualified labour.

Constraints

For a successful outcome it is necessary that businesses cooperate. The methodology constitutes of individual businesses reports. Participation in the survey is voluntary and the employer must be prepared to provide the requested data available in time. When new participants join the Monitor, it is important to inform them about the methodology and the expected time investment and the data they have to provide. Clear instructions will have a positive impact on the cooperation of the participants. Because the data comes from individual businesses collecting data is very time consuming.

The number participants was too small to create an overall database. As a consequence, it was not possible to create a projection for the whole region. The projections are only at an individual level. This means that the methodology has to be expanded with more businesses.

The participating businesses have a shared responsibility for the finances. Financial resources are crucial for developing and executing projects as well as for developing knowledge.

Overall it is not yet a regional labour Market Monitor. On an individual company level the information is very useful. The demand for jobs, staffing and skills is very detailed for an individual employer.

Impact and Replicability

The methodology developed by the KCA forms a part of the base of regional labour market intelligence that is available to support business in their policy for development and strategy around staffing, jobs and skills. Regional stakeholders also need detailed labour market information which enables them to anticipate to the potential labour market developments and opportunities.

The methodology aligns the future demand for skills and the (future) supply of suitably skilled and qualified labour. The database provides regional and sectorial information about future staffing jobs and skills. It is specified on a vocational training level and an educational level.

Replicability

The Labour Market Monitor Eemsdelta provides labour market information about the demand for future labour and skills in a certain region or sector. It helps businesses to react to future demand for jobs and staffing. Further it is beneficial to policymakers and VET by providing suitably skilled a qualified labour.

This good practice was written within the context of the VET-EDS program. Although it is a pilot, it is an interesting example of gaining detailed insight in future staffing, jobs and skills in a region. Business can use it for their strategic planning and policymakers can use it in order to achieve an increase in jobs and growth. VET providers can use it for preparing Vocational Educational training programmes.

More information:

<https://www.hanze.nl/eng/research/centre-for-applied-research/centre-of-applied-labour-market-research>

<https://www.hanze.nl/assets/kc-arbeid/Documents/Public/pilotprojectarbeidsmarktmonitoreemsdelta2013.pdf>

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VET-EDS Good Practice

The Forecast on Education and Training in the County of Skåne (UAPS)

Victor Tanaka

Introduction

How does UAPS fit with the aim of VET-EDS?

- UAPS is a regional forecast on education and training for the county of Skåne. It is **comprehensive** both in the sense that it covers all the major occupational areas of the labour market and in that the short, medium and long term sight is accounted for. As a regional LMI of such scope and quality, UAPS is unprecedented and has filled an important gap in the LMI infrastructure of the region.
- In the long and complex collective process of planning, producing and disseminating UAPS, a “**competence platform**” has been established and developed for crafting a consensus on the current states of view in the region.
- This process has also **generated knowledge** for key actors within Region Skåne, the leading partner of UAPS, which is expected to support more informed decisions by decision makers throughout the region.

Why is UAPS successful and a good practice?

- The comprehensive approach has implied that the **interest** has been vast and virtually ubiquitous across regional actors in Skåne.
- The elaborate approach has been possible through an **inter-county project**.
- **Targeted national policy** triggered the project.

Summary

When UAPS was first released, as one of three regional forecasts, it became apparent that it catered to a great and broad underlying interest for this kind of comprehensive and elaborate LMI. There was also an interest for the methodology, and in the forthcoming release of this inter-county project seven regional forecasts will be delivered. Besides the published results, the complex process of producing UAPS have established a “platform” for crafting a consensus on the current states of view in the region, through dialogue, discussion, and input.

There are large thresholds present to initiating and realizing an LMI of the scope of UAPS. At the same time, the interest for UAPS has been vast indeed. The historical absence of a regional counterpart to UAPS in Sweden, before 2012, is explained by the absence of a collective solution to provide such elaborate LMI. As the benefits of this kind of LMI are both scattered across numerous actors and often not realized before the long run, targeted policy is necessary. In the case of Sweden, UAPS was not realized until a formal directive was given to all the public administrations at the regional level to establish “Regional Competence Platforms”, from the highest political level.

Context and setting

Skåne is the southernmost county of Sweden. It is a part of the Öresund region which also includes several regions on the Danish side of the Öresund strait. These are linked to the Swedish parts of the Öresund Region by the Öresund Bridge. There are roughly 1.3 million inhabitants in Skåne, more than 13 percent of the total Swedish population. The population is increasing, mainly in the vibrant hubs of Malmö and Lund, due to high fertility, net inflow of population from the rest of the country, and increasing immigration.

The seminal release of “Education and labour market forecast for Skåne – targeting 2020” (*Utbildnings- och arbetsmarknadsprognos för Skåne – med sikte på 2020*, from now on **UAPS**), in 2012, has filled an important gap in the infrastructure of Labour Market Information and analysis (**LMI**) in Skåne. It followed on the government commission given to all the regional administrations in Sweden to establish “regional competence platforms [**RCP**:s] for cooperation on the provision of skills and educational planning in the short and long term” (UAPS, foreword, 2012). UAPS offers a comprehensive account of the labour market and the educational system with exclusive reference to Skåne, including analysis and forecasts on a broad range of specific occupations and educational options, covering both the short, medium and long term sight.

The share of the labour force with tertiary education in Skåne is large both in comparison to Sweden as a whole and to the OECD average. The corresponding share of individuals with education at compulsory school level is low compared to OECD countries whereas it is somewhat high in a Swedish context. Like in modern economies in general, the service sector is increasing in Skåne and largely at the expense of the manufacturing sector. The Swedish economy is export oriented, however, and Skåne’s manufacturing firms still employ about 12 percent of total employment. The last decades or so, Skåne has distinguished itself as one of the most innovative regions in OECD. It has increasingly moved into high-skilled sectors and is classed by the OECD as a “knowledge and technology hub”.

Description of UAPS

Scale

The range of UAPS, as a regional labour market forecast, is comprehensive regarding both the time perspective and the coverage of educational groups. Published in 2012, the time span of the forecasts in UAPS ranged from 2012 to 2020. Considering the numerous options available in the Swedish educational system – covering a large span of educational lengths and prerequisites – it is reasonable to assume that this time span covers demand (private individuals) and supply side (decision makers) decisions on the short, medium, and also the long term sight. In the basic approach educational groups are studied, and thus occupational groups are only addressed indirectly. Following the overarching taxonomy of study options in Sweden, all educational groups are covered at the secondary and tertiary level (about 90 educational groups). Total demand and supply at the primary school level is also covered, as well as programs at secondary school level which are targeted to forthcoming tertiary studies and thus not primarily to specific labour market demands. Besides the labour market forecasts, UAPS also offers rather extensive related background and general information.

Type of VET and policy

As a labour market forecasting tool, it is within the reach of UAPS's comprehensive approach that the VET system is aligned with economic development strategies. There is no exclusive focus on the VET system and neither are there regional economic development strategies with very specific links to the VET system. The importance of achieving a "broader labour market" is indeed stressed, both by providing low- and high-income jobs and by improving cooperation between business in general and educational institutions, but VET per se is not mentioned.

Arguably, national policy has been more important than regional policy regarding the link between the VET system and regional economic development. In particular, UAPS, which was published in 2012, should be seen in the context of two important reforms, both based on national policy. These are the establishment of The Authority for post-Secondary Vocational Education and Training (MYH), in 2009, and the government mission to develop RCP:s, in 2010. UAPS has been the most concrete result following on this important government commission. Regarding VET at the secondary level, UAPS has probably narrowed a gap between this part of the VET system and economic development. It offers a planning tool given predicted shortages, balances or surpluses which simply did not exist, at least not in such a comprehensive scale, not with such a level of complexity in the methodology, and not with such general approach.

As a planning tool for VET at the post-secondary level (yet not at the tertiary level), UAPS's focus on education at the secondary and tertiary level implies that it is flawed: there is no direct correspondence between the forecasts in UAPS and the educational options offered within the realm of MYH. In general, the educational programs offered under the administration of MYH are difficult to grasp with forecasts on the basis of register data, which is dependent upon the existence of continuous time series of reasonable length. Nevertheless, in the present work with the second UAPS (forthcoming, in 2016), there is an explicit attempt to also provide forecasts on the set of educational groups addressed by MYH.

The decision to produce UAPS has established a "regional competence platform" in two ways. On the one hand, through published and publicly available LMI in the form of UAPS. On the other, and more interestingly, this has been done through learning-by-doing in the process of providing UAPS. This second, less visible contribution to the building of a "RCP" thus accounts for the accumulation of relevant human capital; yet, less apparently, also for the establishment and strengthening of informal expert networks which may be counted as another result of the "learning-by-doing process". These positive yet "non-formal" side effects, on human capital and networks, are relevant for the planning of VET at the post-secondary level. The reason is that MYH normally depends on Region Skåne's analytical capacity in this respect. The analytical capacity of Region Skåne on this matter is important as even though MYH has its own expertise, it does not produce any own LMI that is as comprehensive and rigorous as UAPS. In fact, UAPS is the only existing LMI of its kind and covering Skåne. In addition, there is normally a standard procedure where MYH is supported by Region Skåne to evaluate program applications, where Region Skåne's analytical capacity obviously is at centre.

Target groups

UAPS main target group are stakeholders in a broad sense, including decision makers in for example private or public providers of educational programs at different levels, or in political organizations or different organizations within public administration. Another important category of stakeholders are, of course, the different kinds of analysts in Skåne that somehow are related to educational issues or labour market issues. Finally, study counsellors at different levels of the educational system account for an important target group. Study counsellors, as professionals, outnumber by far all the other groups of professionals working with LMI. Moreover, study counsellors have a key role in aligning the educational system with future labour market demands. The reason is that the educational system at the secondary level in general, and regarding VET at the post-secondary level, implies strong incentives for educational providers to cater to the demands of present and future students. No matter how accurate claims on future developments that UAPS may establish, these predictions will not have an effective impact unless translated into specific demands by prospective students, at least not in the current policy context.

As of VET, UAPS include forecasts on specific VET programs at the secondary level, and thus stakeholders within this part of the educational system are clearly part of the main target group. In particular, *Teknikcollege* and *Vård- och omsorgscollege* are educational VET institutions at the secondary level which are especially important target groups when considering VET and UAPS. These institutions offer a certification system with the purpose of improving the standards of technical education and health and care education, respectively, at the secondary level. In addition, stakeholders related to MYH are a potentially important target group, yet this is crucially dependent upon whether the second, forthcoming version of UAPS will succeed with making forecasts on MYH:s specific programs.

How UAPS is organized

The production of UAPS, as an LMI, can be described as the result of the following four stages.

1. Interregional dialogue. Following the approach from the first UAPS, also in the second version an “interregional dialogue” has initiated the project. This time, however, four other public administrations have been added to the initial three, as a result of the successful first launch. For Region Skåne, then, as for the other six regional public administrations, the first stage of the project consists of general planning together with the other public administrations involved.

2. Internal dialogue. The second stage consists of anchoring the project plan, outlined in the first stage, within the internal organization. This includes major decisions, economic issues, and the like. UAPS is decided upon on a project basis, yet there is long-term political support for it in Region Skåne.

3. Project group. Together with Statistics Sweden a project group is established. In an early phase of this third stage, an **external consult** is procured and made responsible for quantitative calibration and estimation. This means, in particular, to estimate the demand side of the forecasts and in general apply the regional statistical tool that is employed. At the second phase of this third stage, **Statistics Sweden** uses the demand side figures to generate the numerous forecasts, after adding the supply side to the calculations and using a gap analysis on the basis of register data. Faced with the

statistical outputs, finally, there is a dialogue with the analysts of the **regional public administrations**. At this final phase, the work of analysis consists of evaluating the reasonability of the results, which means that a qualitative analysis takes on after the preliminary quantitative results. As register data cannot capture all the variables attributable to the skills which are indeed significant on the labour market, quantitative estimations on the basis of this input is only a rough predictor of shortages, balances and surpluses. The qualitative analysis, then, is important to secure the quality of the results. This is a major task given the comprehensive approach of UAPS, covering all the major areas of the private and public sector on the labour market.

4. Communication and dissemination.

This final stage deals with the communication and dissemination of the results to the public. For Region Skåne, it includes three channels, where one is obviously the publication of UAPS on the web. A second channels is that, in conjunction with the publication, a press conference is arranged where stakeholders, media, and others are invited. At this event, the results are presented and discussed and printed versions of UAPS are offered. Thirdly, an additional venue for disseminating the results is through additional and numerous on-demand presentations of UAPS.

What worked and why

Once UAPS was first released, in 2012, it became apparent that it catered to a great and broad underlying interest for this kind of comprehensive and ambitious LMI. At least in this respect, UAPS has been an indeed successful LMI. After the publicity generated by the initial press conference, the first printing of 1 000 versions was finished and approximately 1 500 printed versions has been distributed. In addition, an unknown number of copies have been printed or read through the web. The great interest for UAPS was also revealed through numerous on-demand presentations that took place after the press conference, primarily during the first year thereafter. In sum, about 60 presentations have been delivered by the two project leaders from Region Skåne, addressing an audience of approximately 2 000 persons. Given that the main target group are stakeholders in relation to LMI, this is a large number indeed. The audience has been broader than the target group, including study counsellors and teachers, decision makers at educational institutions and from municipalities around Skåne, representatives from business and industry, and also decision makers and analysts at the national level.

Whereas the approach of UAPS is narrow in that it is targeted towards decision makers and analysts, at the same time it is broad as it covers all the major areas of the labour market as well as all the relevant time perspectives (the short, medium and long term sight). The broad approach, apparently, catered to a broad audience. Besides a miscellaneous group of stakeholders, it also includes an audience which is more closely related to decisions at the individual level, most apparently represented by study counsellors. Interestingly, there has also been an interest from analysts which is related to the methodological approach. Most essentially, this interest has been realized through the proliferation of the approach, implying that the forthcoming second forecasts will represent seven and not three counties.

The broad interest for UAPS, and for the corresponding and closely related forecasts of the other six counties, can be boiled down to the fact that it can be categorized as *public good*. Typically, a public good is *nonrivalrous* (can be consumed by many) and has a *low degree of excludability* (it is difficult

to charge the consumption of the good), implying that it will be underprovided unless there is a collective solution to coordinate a more satisfactory level of provision. In other words, it is not surprising that the large costs accrued to launch UAPS have not been rationalized previously, even though numerous actors have showed interest in the eventually generated results. Many, and probably most of these actors, are part of the public sector, so UAPS must be seen as an innovative solution also within the domains of public administration. Neither this is surprising, though, given the almost ubiquitous value of providing efficient forecasting as an LMI, often realized in the long term. The value of providing LMI which improves the capacity to take more informed decisions, at the individual level and by decision makers, can be related to virtually all the major entities within the public sector. The long term character of the rewards of allowing for such informed decisions, moreover, makes it particularly difficult to coordinate efforts on the provision of this kind of LMI. In the particular case of UAPS, it is clear that the government commission to establish RCP:s, given in 2010, was necessary to coordinate incentives on this important problem. When this formal mission was stated at the highest political level, and simultaneously for all the regional governments, it did not take long before the work with the seminal release of UAPS was initiated. In 2012, then, UAPS was released on behalf of Region Skåne, by Swedish Statistics, and after close cooperation with the public administrations in the other two larger urban areas in Sweden.

Besides the value for external actors, UAPS has also improved the collective knowledge on labour market issues that has become available within Region Skåne. As argued by the interviewed project leader, the two project leaders of UAPS have accumulated considerable knowledge in the process. It is knowledge that is closely related to their regular duties and valuable also to external actors, for example regarding the standard procedure where MYH relies on analytical input by Region Skåne to evaluate the external applications to provide VET-programmes.

The production of UAPS has thus contributed to the establishment of a “Regional Competence Platform” also by accumulating human capital within Region Skåne, besides the more obvious external value of delivering the product. To considerable extent, UAPS also serves as a platform for discussing, aggregating, and improving the quality of the large amount of labour market information and analysis that is dispersed across numerous actors in the region. The function as a “platform” also establishes important links between key stakeholders on labour market issues, as a valuable side-effect in addition to the value of immediately generating new LMI. As a “platform”, then, the value of UAPS may also be seen as that of establishing a network for discussing, aggregating and improving the quality of LMI also in the future.

Constraints and challenges

Two major constraints can be identified in relation to the work with UAPS, as experienced by Region Skåne. The first is that the “qualitative assessment of the current state” has proved to require access to a broad network of stakeholders, including labour market analysts and stakeholders in general. Also prior to the initiation of UAPS, Region Skåne had an extensive network related to LMI. This is probably a prerequisite for being able to effectively deliver an analysis which evaluates “the reasonability of the results, which means that a qualitative analysis takes on after the quantitative results” (p. 5). The project schedule can be pressing, and the quantitative results which need to be evaluated cover the whole labour market in Skåne, including segment specific trends and developments at the national and even international level. Needless to say, to establish a well-

functioning procedure for generating LMI on an ad hoc basis of evaluation, within the project framework that UAPS is part of, is a major challenge. To considerable extent, it seems that the development of a relevant and effective network and procedure is part of a learning-by-doing process. This “qualitative” part of the production process is crucial for the quality of the eventual results of UAPS, yet it is probably not possible to completely establish an effective network and procedure ex ante. Rather, this important qualitative analysis will probably need to develop sequentially, as part of the preparation for improving the release to come.

The second major constraint identified is to adequately account for the user’s perspective: to anchor the results, interpret them, and to make them useful for the particular organization addressed. As the approach of UAPS is comprehensive, the potential users are numerous. As a result, the user’s perspectives are many and various, and it is not possible to cater to them all through one single LMI. In the present approach, UAPS is mainly targeted towards secondary and tertiary school, and probably the use of this range is an important explanation for the large interest that UAPS has generated. These two educational institutions are, by large, the most numerous amongst the educational institutions which are closely related to the labour market. Relevant data on this is also readily available so there seems to be no reason, and there is no plan, to change the basic approach.

Also with this rather straightforward and conventional target, however, there is important scope for improving the possibility to anchor the results of UAPS, as emphasized by the interviewed project leader. At the end of the day, this is closely related to the overall aim of UAPS as an LMI, which is to have an effective impact on the (uninformed) choices that decision makers and individuals do. Often, decision makers in the private and public sector have proved to react particularly reluctant when faced with results showing surpluses for educational options, or related professions, within their specific area of work. In marked contrast, the reaction is often the opposite when the corresponding results show present or forthcoming shortages. The basic point, made by the interviewed project leader, is that it is obvious that stakeholders often have an agenda, with significant influence on the eventual response to the results delivered in UAPS. Put differently, special interests may well conflict with the results in UAPS, such that it cannot be assumed that these results will in general be effectively translated into correspondingly adequate measures, taken by decision makers. UAPS’s function as a “platform”, then, may be an effective and potentially very important venue for crafting a consensus on the current states of view in Skåne, through broad dialogue, discussion, and input. This notwithstanding, effectively targeting the presentation of the results of UAPS to the right decision makers may be an effective complementary measure to improve the impact. As of individual decisions, in contrast to the decisions implemented by decision makers, UAPS is not primarily targeted towards this group. Indirectly, however, individuals may to a large extent be reached through study counsellors, which is of fundamental importance as the educational system in Sweden strongly caters to the often uninformed demands of potential students.

Regarding VET in particular, in the current approach of UAPS it is only VET at the secondary level that is targeted. In the ongoing work with the second UAPS there is an explicit attempt to produce forecasts on study options at the post-secondary level, as offered by MYH, yet the difficulties with register data implies that it may not be feasibly accomplished. Irrespective of the outcome, it is a specific example of the perceived need of, as well as the difficulties related to, developing the target in the approach of UAPS.

Impact and Replicability

As has been described in more detail previously, the interest for UAPS after the seminal release in 2012 was almost overwhelming. The vast interest pointed at the fact that, as an LMI, UAPS was unprecedented in terms of its scope (broad and covering all the relevant time perspectives) and quality (elaborate method and ambitious overall approach). Whereas the effective impact on the labour market is hard to evaluate and of long term character, the interest that followed on the release of UAPS signaled that the potential impact of this LMI is vast. Besides the eventual yet unclear impact that the specific publication and dissemination of the results may have on the functioning of the labour market, a probably more important impact is that related to the function of UAPS as a “platform”. This implies that it may continue to develop to “be an effective and potentially very important venue for crafting a consensus on the current states of view in Skåne, through broad dialogue, discussion, and input” (p. 7). Finally, a less visible yet perhaps as important impact of UAPS, is the “informal” generation of knowledge. In the long and complex process of production and release, that is, in particular the two project leaders accumulate considerable knowledge on a broad range of labour market issues. Given the key role of these two analysts on issues of regional development, this side-effect probably has substantial impact by more generally supporting the implementation of more informed decisions throughout the region.

An important point to be made here, regarding replicability, is that there are very large thresholds present to initiating and realizing an LMI of the scope of UAPS. Yet at the same time it is apparent that, once realized, the interest for UAPS has been vast. The historical absence of a regional counterpart to UAPS in Sweden in combination with the great success, once released, may appear as a contradiction. It is explained, however, by the fact that UAPS, as an LMI, is a public good. By definition, then, it is valuable for many and at the same time likely to not be provided at all, unless an effective collective solution is arranged for. As the benefits of this kind of LMI are both scattered across numerous actors and often not realized before the long run, the arrangement of such collective solution appears to be necessary indeed. In the case of Sweden, UAPS was not realized until a formal directive was given to all the regional governments to establish RCP:s, from the highest political level.

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VET-EDS Good Practice

Developing a Local Skills Plan

Dr Andrew Dean

Introduction

The current UK Government strategy stresses the importance of localism: the idea that local people and businesses know best what is needed in their area. This move to localism has resulted in Local Enterprise Partnerships – locally-owned partnerships between businesses and local authorities - being set up to play a central role in determining local economic priorities and undertaking activities to drive economic growth and the creation of local jobs.

One new responsibility for LEPs is the requirement on LEPs to consult with partners to agree a Strategic Economic Plan which will be used to bid for a share of a new Local Growth Fund, providing LEPs with at least £2billion funding each year between 2015 and 2020.

In 2013, the Solent LEP commissioned Marchmont Observatory to produce a standalone Skills Plan setting out the overall strategic priorities for skills and providing an investment framework that could be used to influence concurrent negotiations for the City Deal, the European Union Strategic Investment Fund (SIF)¹⁸ and the Local Growth Deal.

The Skills Plan process included the assembly and interrogation of the skills evidence base drawing on local and national statistics and research as well as informed opinion gathered at consultation events and conferences. The research and planning process was overseen by the Employment and Skills Board for Solent and a special Steering Group convened for the process.

It is included here as a good practice as the plan seeks to marry how a local area is seeking to boost the skills (including vocational education and training – VET) of the workforce to match with the demands placed upon it by employers and the needs of economic development. It is

¹⁸ £43 million over a 6 year period.

Summary

The UK has abolished its regional infrastructure and instead now places greater emphasis on local policies and structures.

Skills are a policy area that the new policymaking bodies (Local Enterprise Partnerships 'LEPs') have to develop new strategies.

This has necessitated the creation of a suite of new publications and reports – a fine example of which is the Solent Skills Plan.

It is also an interesting example of how the UK has passed responsibility of this kind to external consultants and experts as the UK slowly loses its public sector expertise as a result of ongoing austerity and a determined slimming down of the scale of government.

The LEPs will have specific responsibility for the spending and allocation of many millions of European funding (ESF and ERDF) consequently accurately scoping need was a critical requirement for all LEPs in advance of their Strategic Economic Plans.

regarded as a good practice based largely on the positive response to it by policymakers from business and local government and its role in informing subsequent policy decisions.

Context and Setting

With a population of more than 1.3 million (2011) and more than 50,000 businesses, the Solent LEP is an internationally-recognised economic hub anchored around the Isle of Wight, the two cities of Portsmouth and Southampton, the M27 corridor and the Solent waterway. Located 120km to the south west of London, Solent accounts for 17% of the South East’s land area and borders three other LEPs: Coast to Capital; Enterprise M3 and Dorset.

The economy has a significance that extends beyond the locality, making an important contribution to the national economy. Adjacent to the English Channel, one of the world’s busiest shipping lanes, and close to mainland Europe, Solent is home to internationally-important marine ports. Solent also has immense natural advantages supported by strengths in key economic sectors, world-class universities, a strong base of high quality FE colleges, renowned heritage, countryside and coastline, and excellent transport links by road, rail, air and sea. The economy is summarised in the diagram below¹⁹ and sourced from Oxford Economics, Annual Population Survey (2013 apart from NVQ 4+ which is 2012).



Description

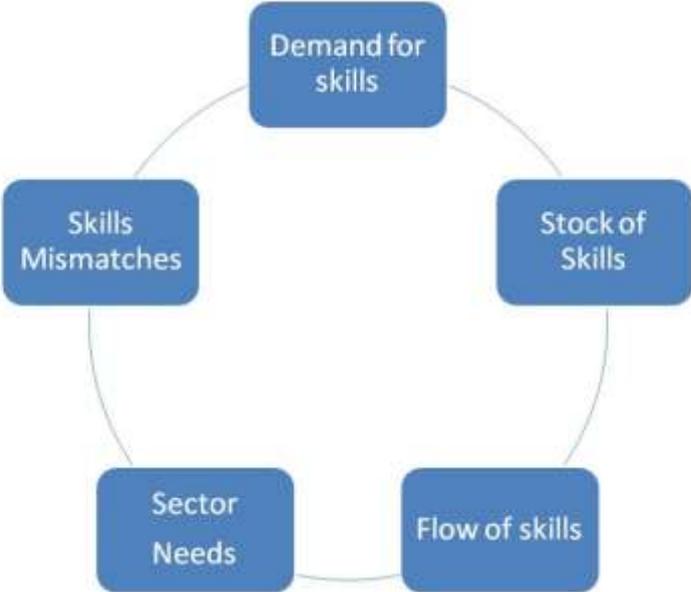
¹⁹ Transforming Solent Growth Strategy. 2014. Report by Solent LEP.

The primary target groups for the work of producing the skills plan are specifically the LEP board. This is a business-led group with representatives from organisations and local authorities within the geographic area. The secondary targets groups for the work are those that were influenced through the evidence and recommendations made – these included national government (and government departments), funding bodies, and stakeholders working in partnership with the LEP.

The Evidence Base Report providing the underpinning LMI for the Skills Strategy drew together:

- A review of latest policy developments;
 - Analysis from a wide range of data sources, including forecasts from Working Futures and Oxford Economics, separately commissioned by Solent LEP, and data on learning provision made available by the Skills Funding Agency (SFA).
 - A range of reports on key sectors which draws on evidence from Sector Skills Councils (SSCs) and UKCES.
 - An online survey which secured responses from thirty four stakeholders, including businesses, learning providers, business support agencies and Local Authorities and interviews with eight key partners.
 - A series of consultation events, working groups, and meetings with Solent Further Education (FE) colleges, representatives of PUSH local authorities with responsibility for skills and employment, meetings of the Solent Employment and Skills Board (ESB) and a meeting with Association of Learning Providers for Hampshire and the Isle of Wight (ALPHI).
- This evidence report also draws on the extensive consultation that underpinned the development of the *European Union Structural and Investment Funds 2014 - 2020 Draft Strategy*.

The evidence base looked at:



Skills and employment forecasting formed an important component of the work since determining future jobs and skills priorities requires an examination of predicted changes across different occupations and sectors. The Solent Skills Plan evidence base drew upon the latest Working Futures forecasts, covering the period from 2010-2020. As with all projections and forecasts, the results are regarded as indicative of likely trends and orders of magnitude given a continuation of past patterns of behaviour and performance, rather than precise forecasts of the future. The Solent LEP Skills Plan used forecasting information in presenting a picture of:

- Projected changes in the industrial structure – exploring projected changes in total employment for the area overall and by sector including prospects for ‘priority sectors’ (identified by the LEP).
- Projected change in employment by qualification level – exploring to what extent the general movement towards higher-level occupations will generate rising demand for higher levels of skills and qualifications.
- Exploration of future demand for skills differentiating between expansion and replacement demand across occupations. Expansion demand reveals where new jobs are anticipated and replacement demand is the demand for labour which arises due to retirement and thus which requires jobs and skills to be replaced (because of retirement), even where the sector is not in expansion mode. Expansion and replacement demand interact to generate a ‘net requirement’ for each occupation.

This exploration of the Solent skills evidence base was structured as follows:

1. The policy and economic context
2. The demand side of the economy, identifying the nature of employment and the demand for skills.
3. The supply of labour and skills available in the Solent LEP economy and the flow of new skills into the economy due to new entrants into the labour market and skills development within the exiting workforce.
4. The data on provision and draws together the analysis of demand and supply to examine issues and skills gaps.
5. The skills needs of a small selection of priority sectors.
6. The issue of raising employer investment in skills.
7. The key issues emerging from the data analysis and feedback from partners and stakeholders.

Forecasting models of labour demand were complemented by official population projections – predicting the size of the working age population - and an analysis of residents’ qualification attainment at various stages or route-ways through the education system (i.e. from primary to Higher Education). This exploration of the labour supply ‘pipeline’ suggested, for instance, that the local area may struggle to meet the demand for highly-skilled workers solely from resident workers.

The approach enabled the identification of four strategic themes:

- Developing World-class skills
- Transitions to employment

- Raise business investment in skills
- Responsive skills and employment system

A number of key issues, or themes, were identified and these were set out under specific headings for action.

‘Developing a World Class Workforce’ sought to focus on skills identified as critical to economic success. These included raising the number of people in the economy with higher-levels skills (typically thought of as University level skills) and consequently included within this was a recognition of the need to improve graduate retention (most university students leave the area after graduating and those from the area often also migrate towards wealthier work in the London and South East region). Further, there was recognition that there needed to be stronger pathways between VET and higher education.

Science Technology Engineering and Mathematics (STEM) skills are a priority for many LEPs. Demand for young people and adults with qualifications in these subjects is often higher than supply and the Skills Plan recommended a couple of actions; fostering better linkages between work and schools to help pupils get a broader understanding of the kinds of skills they need in employment and secondly to seek to improve achievements in these subjects in school-age qualifications.

Apprenticeships are a priority nationally as well as locally and though numbers have increased there is still a major issue to be addressed at higher levels where take-up has not been sufficient. Similarly the Skills Plan identified the need locally for more Apprenticeships in STEM subject areas/careers.

The Skills Plan was created in partnership with employers, consequently it closely reflected their own worries and reflections. An example of this was the perceived need for a more responsive skills and VET system that had an ability to meet sectoral needs, with provision that “reflects the needs of a knowledge economy and supports new emerging high growth sectors and service industries”.

The importance of transitions was recognised both in interview with stakeholders and through literature review/research. This had come under pressure from UK government budget cuts and had suffered significantly. The Skills Plan recognised a major need for better Careers Information Advice and Guidance (CIAG) in schools, which often under-value apprenticeships and VET. Attached to this was the recognition that to get young people into work following the 2008 economic crisis there was work to be done in boosting their ‘employability skills’. There was also a need to promote talent retention and job mobility for those unemployed and faced with redundancy – the social partners would have a role here.

The analysis identified that not everything could be done within the skills and VET providers – indeed there was a real need for employer investment in skills and a commitment to leadership and management skills. Further support for innovation in the workplace and promoting entrepreneurship were also specified.

Finally the analysis recognised that providers needed to be able to respond quicker to the needs of employers supported by effective labour market intelligence at the local level.

Impact and Replicability

While the utilisation of the LMI provided by the Skills Strategy process has not been formally evaluated, feedback from LEP personnel and observations by the research team suggest that the process has raised awareness of the strategic implications of known local phenomena. For example, while local stakeholders were aware of that there were pockets of under-performance at primary and secondary school level (particularly in urban levels) the broader implications of this in meeting future labour demand (for higher skills) had not fully been explored, in particular for housing and transport.

The evidence base and emerging strategic priorities were validated through fairly extensive consultation with local partners. This validation by partners was crucial in 'getting everyone on the same page' and achieving a shared understanding of the issues. This shared understanding is crucial in securing a collective response (i.e. priorities for investment). The need to agree investment priorities for an identified budget provided momentum and focus to the work.

The Skills Plan process included the assembly and interrogation of the skills evidence base drawing on local and national statistics and research as well as informed opinion gathered at consultation events and conferences. The research and planning process was overseen by the Employment and Skills Board for Solent and a special Steering Group convened for the process.

This is a good example of a sub-regional/local strategic approach to tackling the need for accurate skills intelligence to enable forecasting and strategic planning.

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PROJECT VET-EDS

OUTCOME 2

LOCAL AND REGIONAL COMPENDIUM OF GOOD PRACTICE

ANNEX 3

Theme 3: SECTOR SPECIFIC TRAINING

National Training Fund

Zdeňka Matoušková, Marta Salavová

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VET-EDS Good Practice

Sector-specific professional training for unskilled workers in Hessian SME's

Daniel Kahnert

Introduction

The project "Sector-specific professional training for unskilled workers in Hessian SME's" aims to further professional trainings of unskilled workers in different economic sectors in the Federal State of Hesse in Germany. Its goal is to develop decentralized concepts for each participating sector, which enable professional training providers easier and more successful access to companies and a higher success rate in training unskilled personnel. By bringing together regional training providers and unskilled employees, it supports the goal to overcome the gap between demand and supply for skilled personnel with innovative methods and makes a vital contribution to regional economic development in several different administrative districts in Hesse.

The practice is a great example that shows how an initiative can bring a theme on the political agenda of important policy stakeholders and lead to long-term political action in a field.

Summary

The German VET-system, while being widely viewed upon as successful, has the limitation of being very formal and focused on certification of skills. Thus, all people, whether actually skilled or not face problems when competing on labor markets without certain formally certified qualifications.

The biggest problem for these people is that it is very difficult to obtain such qualifications outside of the standard path laid out by the system and after an initial vocational training phase.

Thus, it is important to establish possibilities for un- and low-skilled workers for professional trainings and involve companies in initiatives to train their employees.

The project "Sector-specific professional training for unskilled workers in Hessian SME's" is a purposeful approach to further professional trainings of unskilled workers in different economic sectors in the Federal State of Hesse in Germany. Its aim is to develop concepts for each participating sector, which enable professional training providers easier and more successful access to companies and a higher success rate in training unskilled personnel.

Context and setting

Hesse is a federal state in the Federal Republic of Germany. It is situated in the Southern part of Germany, has an area 21,115 km² and a population of 6.07 million. The number of employees subject to social security amounted to 2.27 million in 2011 and the unemployment rate in the same year was as low as 5.6%.

Hesse is divided into three administrative regions (Regierungspräsidien – Kassel, Gießen and Darmstadt), which in their turn comprise of 21 administrative districts (Landkreise) and five independent urban districts (Kreisfreie Städte). Most of the economic activity takes place in the Southern part of the federal state – an urban conglomeration called the Rhine-Main Area – whilst the Northern part faces challenges arising from shrinking and ageing population and loss of jobs. Nonetheless, the logistics- and especially the automotive industry sectors are particularly strong drivers for the economy in northern Hesse.

Unskilled workers in Hesse

When looking at unskilled workers, two different groups of employees are covered by this term. The first group is those workers that do not have a formal vocational education at all and never completed a relevant professional training officially approved by for example a trade or industry chamber. The second group consists of workers that have such an education but now work in an industry or a job, in which that education is not relevant. Workers in the second group although often very well trained in a certain occupation typically do jobs with fairly low skill requirements, but often have better career chances due to their better general education and the sheer fact that they obtained an official certificate. Nevertheless, workers in both groups are labeled unskilled.

Some economic sectors in Hesse have an especially high share of unskilled workers. The project “Sector-specific professional training for unskilled workers in Hessian SME’s” covers five different sectors in the state of Hesse. The sectors were identified in a previous study conducted by IWAK²⁰, based on data from the Federal Employment Agency in Hesse. All five sectors have a very high share (about 50%) of unskilled workers. In these sectors, roughly 20% are without any vocational education (group1). In some regions and sectors, the share of unskilled workers without vocational education is even above 25%, e.g. the manufacturing industry in the Odenwald AD. Thus, these sectors are especially interesting to develop a strategy for, which aims at training those unskilled workers, to tackle the issue of a supply gap among skilled personnel.

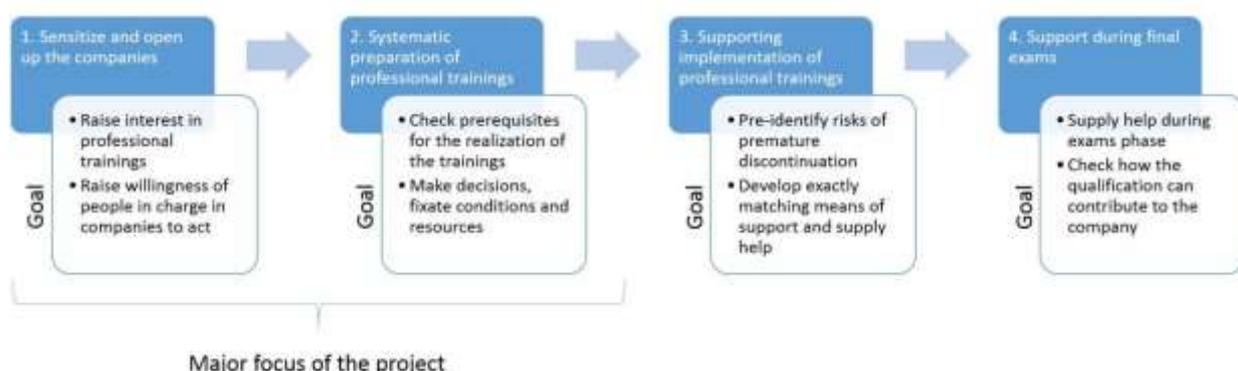
²⁰ IWAK 2014: Weiterbildung Un- und Angelegener in kleinen und mittleren Unternehmen Hessens. Branchenspezifische Handlungsansätze.

Description

In Germany as a whole as well as in the state of Hesse in specific, many industries struggle to cover their demand for skilled workers. This phenomenon was labeled “Fachkräftemangel”²¹ by political actors and the media. It reached great attention in public discussions and rose high on the political agenda of every labor-market-related stakeholder. In the past years, many strategies have been developed and discussed to fight the “Fachkräftemangel”. In Hesse, a unique approach was developed by IWAK and put into work in cooperation with several different partners, which focuses on searching for and developing skilled personnel within the sectors and among the personnel of the companies in need of certain qualifications and skills. The concept is to cooperate with these companies and providers of professional trainings to especially train unskilled workers and thus, transform them into qualified professionals.

The complete process of training unskilled workers is made of four main phases, where the first two phases are composed of planning and preparing the trainings and the second to consist of implementation and support during the implementation. For each of the four phases a detailed guide was developed by IWAK in cooperation with the training companies. This guide serves as a blueprint for training providers who seek to educate and train unskilled personnel. Very often, it has proven difficult to get access to companies and raise their awareness and interest in professional training for their employees. The guide provides important support based on experiences from IWAK as well as the cooperation partners. It includes general information about the role of the training providers in the process as well as detailed information about specifics of each sector the cooperation partners specialize in.

4 phases of professional training of unskilled workers – perspective of training organizations



Source: own illustration based on IWAK 2014: Nachqualifizierung in Hessen. Leitfaden zur Bildungsberatung.

²¹ A literal translation would be “lack of skilled workers”

The major focus of the project “Sector-specific professional training for unskilled workers in Hessian SME’s” lies on the first two phases, planning and developing the contact with companies, preparing the trainings and setting up the cooperation of the company and the training provider. During the second two phases, IWAK provides support while the responsibility lies in the hands of the training providers.

Core of the project is to develop individual approaches for training concepts in each sector and to take into consideration the distinct conditions and settings under which workers and companies in these sectors work. The sectors are:

1. Retail industry
2. Manufacturing
3. Health/Elderly care professions
4. Logistics
5. Hotel and catering sector

The training companies IWAK cooperated for the project with are:

- *Retail industry:* South-Hessian Trade-Association (Handelsverband Hessen-Süd e.V.)
- *Manufacturing:* MyPegasus (HR and training company), Technical inspection association Rhineland (TÜV Rheinland)
- *Health/Elderly care professions:* maxQ im bfw Unternehmen für Bildung (professional training company)
- *Hotel and catering sector:* ib international federation for youth, social and education work (ib Internationaler Bund)
- *Logistics:* Bildungswerk Spedition und Logistik e.V. a training organization of the logistics association, triple nova GmbH (training company)

Taken into account were the specifics of each sector, especially with regard to the following four different dimensions:

1. Market-related factors
2. Industry-structure and –culture
3. Employment-structure
4. Qualification-structure
5. **Four dimensions of sector-specific factors for professional training**



Source: own illustration based on IWAK 2014: “Nachqualifizierung Hessen. Leitfaden zur Bildungsberatung”

Market-related factors are external factors that can have significant influence on the demand for certain skills and skill development within a company. Such factors can be technical innovations, bigger market shifts due to changes in political or economic frameworks of the market.

The industry-structure and -culture are important factors for developing a strategy to contact a company and to raise their interest in professional training of their employees. Knowledge about typical issues in an industry, VET-related and non-VET-related, helps a lot when it comes to establishing trust among the VET-providers and the companies.

Taking the employment-structure into consideration means knowing about what groups of employees typically work in which positions, understanding their issues and knowing how one can approach a company. This is crucial when trying to get access to a company for trainings.

The qualification-structure of an industry in general and a company in specific is fundamental to the development of a professional training strategy. Only when being able to determine which qualifications are available and where supply does not match demand, trainings can be planned effectively.

For each of the different economic sectors different important factors were identified.

- In the retail industry, an extremely important factor is direct contact with customers. To identify this and place it at the center of the training focus is extremely important to signal an understanding for the industry and gain access to relevant decision makers within companies while raising their interest in the training offers. This way they can easily identify the utility such trainings can provide for their company.
- In manufacturing, interest in professional trainings is generally very low. Initially there is no will to react to offers and get in contact with training companies' offers. The most important factor here is to gain trust of relevant persons within a company. The aspect of quality is also very important in this sector. Making companies aware that via better-qualified personnel better-quality production can be achieved is key to raise their interest in trainings.

- In health/elderly care professions, the interest in professional trainings is generally high. This is partly due to legal constraints that set quotas for skilled personnel in care organizations. The major problem in this sector is the general shortage of financial means to organize or join professional trainings. One key strategy to overcome this problem is to initiate networks or groups of participating organizations, to lower the individual cost for trainings. Another important factor is to provide information about possible financial support.
- In the logistics sector, many companies do not see a need for further qualification of their workers. Two factors play a large role for that. First is that most companies are on very dense schedules and do not have the time and resources to train their employees or have them trained during worktime. Second is that many employees have a very low affinity for education in general. They never express an interest in furthering qualifications themselves. Key strategy to hold foot in this industry is to very carefully individualize offers for the companies and be as flexible as possible when setting up courses.

This example shows the relevance of a strategic approach to overcome specific constraints when trying to further vocational education and professional training in different industries. Without taking specific industry factors into account no successful training initiatives can be launched. Therefore, an approach to identify the market-related factors, the industry-structure and –culture, the employment-structure and qualification-structure of each industry and derive strategic approaches for each is extremely viable when having a sectoral focus on regional economic development. Intermediary actors who bring together trainings and unskilled employees contribute largely to sector specific development of skills. This plays a significant role for future economic development of an economic sector.

What the project does not focus on is the implementation of the training activities themselves. Here the companies and training providers have the responsibility for the process and the success of the means. This is one of the constraints of the project that could be addressed with future initiatives. Providing vital support in the implementation phase might lead to a higher success-rate and a lower number of premature drop-outs.

Impact and Replicability

The success of the project “Sector-specific professional training for unskilled workers in Hessian SME’s” had great impact on the political agenda of the Hessian state government and their policy regarding unskilled workers in the Hessian labor market. Recognizing the potential, which lies in the purposeful training of yet unskilled employees and thus, working on closing the gap in supply for certain skills and qualifications, has led to the launch of a new statewide political initiative called “ProAbschluss” (ProCertificate). This initiative financially supports companies that are training their unskilled personnel to have them gain a formal qualification and become certified professionals. Such qualification means are

supported with up to 4.000€ per person and include professional consultancy by professional coaches and in cooperation with “Weiterbildung Hessen e.V.”, the umbrella organization for professional training organizations in Hesse.

In addition, the project has indeed led to a large number of newly qualified workers that gained their professional qualification due to the initiative in their sector and company. Especially in the hotel and catering sector as well as in among the health/elderly care professions, the project was very successful.

The replicability of such a project is very high. Identifying economic sectors with a high share of unskilled workers is the first step that has to be taken. Finding cooperation partners for trainings in each sector the second and developing sector specific approaches the third. The greatest challenge lies in the last step, putting the concepts into work and making companies participate in training their personnel.

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VET-EDS Good Practice

The “Bildungswerk” as intermediary VET actor in the logistics sector in Hesse

Author

Daniel Kahnert

Introduction

The logistics sector is one of the biggest and most important economic sectors in Germany and in Hesse. It also is an important driver for regional economic success. One of the specifics of the sector is a large share of unskilled workers, especially in the subgroup of warehouse and storage workers. On the other hand, the industry faces large gap between skill demand and supply. This is partly due to the low attractiveness of the sector for talented young graduates and limited career options in many occupations. Therefore, a chance to close the gap of skilled personnel lies in the training of unskilled workers.

The “Bildungswerk” is the professional training provider of “Spedition- und Logistikverband Hessen/Rheinland-Pfalz e.V.”, one of the logistics associations in the state of Hesse in Germany. The “Bildungswerk” not only acts as training provider but also as strategic actor in developing human resources in the sector and taking part in strategic planning and program development. It represents an intermediary actor that bridges different stakeholders in the sector and brings together labor market intelligence via dense information networks, professional trainings for employees in the sector and an influential position in strategic decision-making processes. Establishing such a training organization is the purposeful approach of the sector association to meet one of the sectors biggest challenges.

Summary

The “BSH – Bildungswerk Spedition und Logistik e.V.” is the primary training institution of the logistic sector, one of the most important industries in Germany and in the state of Hesse.

As many of the companies in the industry are SMEs, they often do not offer in-house trainings and therefore the trainings of the “Bildungswerk” are very important for the companies and the industry as a whole.

This becomes especially evident when taking into consideration that large parts of the employees in the sector are unskilled or lowskilled.

For those employees, the German VET-system provides very limited options to improve their skills and enhance their career options.

The “Bildungswerk” acts as intermediary, bringing professional training and unskilled workers together, while also being strategic stakeholder and taking part in industry policy processes and decision-making.

Context and setting

The State of Hesse

Hesse is a federal state in the Federal Republic of Germany. It is situated in the Southern part of Germany, has an area 21,115 km² and a population of 6.07 million. The number of employees subject to social security amounted to 2.27 million in 2011 and the unemployment rate in the same year was as low as 5.6%.²²

Hesse is divided into three administrative regions (Regierungspräsidien – Kassel, Gießen and Darmstadt), which in their turn comprise of 21 administrative districts (Landkreise) and five independent urban districts (Kreisfreie Städte). Most of the economic activity takes place in the Southern part of the federal state – an urban conglomeration called the Rhine-Main Area – whilst the Northern part faces challenges arising from shrinking and ageing population and loss of jobs. Nonetheless, the logistics- and especially the automotive industry sectors are particularly strong drivers for the economy in northern Hesse.

*Logistics Sector in the State of Hesse*²³

Germany has by far the biggest logistics sector among European countries with a total annual turnover of about 230 billion €, being almost twice as large as the French, which is the second largest in Europe and contributing about 20% to the total European logistics turnover. The sector is a very important economic factor in Germany, being one of the three biggest in terms of annual turnover. Also with DHL, the biggest logistics company in the world (annual turnover²⁴) is from Germany.

The logistics sector is also one of the most important sectors in the State of Hesse. According to HessenAgentur, about 170.000 employees subject to social insurance requirements are currently working in this sector. A large number of self-employed workers as well as workers in minor employment add up to a total number of a little under 200.000 employees. This makes the logistics sector one of the three most important sectors in the state. The State of Hesse is also a very important location for the nationwide logistics sector. Twenty of the Top100 most important enterprises within the sector are rooted in Hesse. These enterprises alone generate an annual total turnover of about 10 billion €. Companies in northern Hesse generate about 25% of this turnover, whereas the majority of 75% comes from companies in the southern part. Even looking at the forwarding industry alone, about 1.300 companies are registered in Hesse. About 1.000 of these are organized in the “Fachverband Güterkraftverkehr und Logistik e.V.”, whereas another 300 are organized in “Speditions- und

²² HA Hessen Agentur GmbH: Hessen 2012: Facts and Figures, http://www.invest-in-hessen.de/mm/DaZa_2012_englisch_webansicht_300dpi.pdf, last downloaded on 26 July 2013.

²³ More detailed figures in: https://wirtschaft.hessen.de/sites/default/files/HMWVL/grundsatzpapier_logistik.pdf

²⁴ Source: Statista 2014: Transport- und Logistikbranche Deutschland - Statista-Dossier.

Logistikverband Hessen/Rheinland-Pfalz e.V.”, which also inherits the “BSH – Bildungswerk Spedition und Logistik e.V.”, the VET institution of the organization.

VET-System in Hesse

In Germany it is the responsibility of the federal states to organise and regulate the VET system for most professions on the basis of strategic information on the future needs for skilled labour. In the federal states, the different stakeholders in the regions communicate their expected needs for skilled labour to the planning organs who take the decisions on increasing or decreasing the VET capacities. Most German employees have medium-level professional education²⁵; this is also true for the logistics sector. In the VET system, there are two ways to obtain professional qualifications – there are school-based and dual courses of studies, the latter combining school-based education and apprenticeships, which is the standard for most VETs in the logistics sector.

In the Federal State of Hesse, two ministries are involved in developing strategies for medium skilled labour: the Hessian Ministry for Economy, Energy, Transport and Structural Development (generally responsible for the employed persons; in the case of VET its competences lie in the area of the dual VET system, whilst they cooperate tightly with the Chambers of Commerce and Trade as well as the Chambers of Skilled Crafts and Trades) and the Hessian Ministry for Social Affairs and Integration (responsible for the unemployed; however, it also coordinates the part of the VET system which has to do with health professions including the labour market forecasting and the planning). A third ministry – the Hessian Ministry for Culture, is also responsible for some school-based strands of qualifications (outside the dual system) and further education, whilst the higher education organisations are under the control of the Hessian Ministry for Science and Art. Depending on their competences, certain aspects of policy fields are addressed by different ministries through different programmes: lifelong learning, for example, is a competence field of the Hessian Ministry for Economy, Energy, Transport and Structural Development if it concerns further learning in the context of employment and is supported through the European Structural Funds programmes. However, should it involve unemployed persons, it is coordinated by the Hessian Ministry for Social Affairs.

Further actors in the field of VET on the federal level are the industry and trade or skilled crafts associations influencing the politics, such as the aforementioned logistics organizations. Also on the level of the administrative districts (NUTS 3 level) the Head of the District Administration (Landrat) can initiate regional development strategies in cooperation with the representatives of professional associations in the concerned region, the representatives of Chambers and VET providers. There are also associations for economic development responsible for setting up strategies supporting the companies in their region.

²⁵ Employees with a dual professional education in Germany belong to a group of medium skilled workers, while still being very well trained, as the dual professional education system has very high standards for professional training. Nevertheless, these workers often do not reach the highest career ranks as these are typically reserved for higher education (university degree) graduates.

Description

Scale and target groups

This section explains what the “Bildungswerk” is, what its goals and actions are where it is located and which regional reach it has.

The “BSH – Bildungswerk Spedition und Logistik e.V.” is the primary training institution of one of the most important industries in Germany covering one the central locations of this industry in the country. Taking this into consideration, the importance of the training activities of the “Bildungswerk” is very significant as a factor of regional economic development.

It was founded in 1977 by the “Speditons- und Logistikverband Hessen/Rheinland-Pfalz e.V.”. The goal was to support strategic human recourse development in the sector by means of professional training. Furthermore, in the year 1992 the Verkehrsfachschule e.V., a school for professional trainings in the logistics sector was founded. The “Bildungswerk” is also part of “Weiterbildung Hessen e.V.”, an association of VET organizations in the State of Hesse.

As many of the companies in the sector are SMEs, they aren’t able to or at least do not offer in-house trainings and therefore the services of the “Bildungswerk” are very important for the companies and the industry as a whole.

The “Bildungswerk” has a strong focus on the Rhine-Main Area. This is mainly due to its location in the area and the fact that most participants of its courses are rather not willing to travel from farer away. Therefore, the reach of the institution is mainly the Rhine-Main Area and some cities in the surrounding areas such as Fulda, Wiesbaden, and Aschaffenburg. There also exists a smaller office in northern Hesse, which is partly organized by companies of the Kassel region and does the trainings for trainees in the logistics occupations in Kassel.

All occupations in the logistics sector are covered by the “Bildungswerk” and the trainings they offer, but a strong focus is set on the trades occupations. A growing field in recent years has been the trainings for the subgroup of warehouse and storage workers. Also important are training for unskilled workers and the “Meister” trainings for the highly skilled employees.

Trainings for drivers are not very important part of the portfolio, as many drivers are not even employed by the forwarding companies, but by sub-contractors, which often have very little to no interest at all in training their personnel. Also other institutions such as TÜV and DEKRA also offer trainings especially for drivers; therefore, there is quite some competition in this market.

Type of VET and policy

The “Bildungswerk” offers a large variety of trainings and means of qualification of many different types. In this section an overview of the different means is given.

1. Initial vocational training

The occupations of the logistics industry are usually learned in a dual training. This means that the trainees have to go to school part time and part time work and learn on the job in a company. The “Bildungswerk” supports this dual principle in two ways: first, it offers additional courses for the trainees that can be booked to deepen and increase knowledge of specific aspects of their future jobs. Second, it offers courses for the trainers in the companies. Only if the personnel responsible to train the apprentices is skilled and has up-to-date knowledge, the trainees can get the excellent education they need.

2. Preparation courses for exams

The vocational trainings are usually finalized with a major exam at the end of the training. This exam is extremely important as it hugely influences the final grade and therefore the attractiveness of a future worker for searching companies. In addition, there are interim exams that have to be passed during most vocational trainings. For both types of exams, the “Bildungswerk” offers courses that aim to support the trainees’ preparation specifically for these.

3. Further education for skilled personnel

The “Bildungswerk” not only offers trainings as part of the initial vocational trainings, but also for personnel at later stages of their careers. Such courses of further education cover the entirety of the important occupations within the logistics sector and the most important corresponding fields of their expertise. These courses are viewed upon as very important for the workers to stay up-to-date in terms of required knowledge and skills in an ever changing industry as well as for the companies to meet the modern requirements of the industry with their already present personnel. In addition, these courses can be used to strategically plan and shape careers on an individual level and to strategically develop human resources on the company level. These trainings also involve courses for the “Meister” exams, the highest possible educational status the industry has to offer outside of higher education from universities.

4. Training courses for lateral entrants and unskilled personnel

To train personnel without an educational background in the logistics sector, the “Bildungswerk” offers two types of courses. The first type of courses aims to have participants gain basic qualifications and skills for their job. This covers entry-level knowledge and basic certificates mostly aimed towards unskilled workers. The second type of courses aims to have participants finish a course program with a full vocational education in one of the relevant occupations of the industry including a Chamber of Industry & Commerce certificate. While open for different types of participants, these courses often

attract workers originally from other sectors who want to increase their career opportunities in the logistics sector.

5. General courses in adult education

Following the concept of lifelong learning, the “Bildungswerk” also offers courses that do not focus on specifics of the logistics sector but aim to refresh or improve knowledge, skills and competences in general work related fields. Such courses cover a large bandwidth of topics and are open for all employees in the sector.

With such a broad spectrum of offers in the field of vocational and general education, the “Bildungswerk” is an important strategic partner for many companies in the logistics sector. Especially SMEs who do not have in-house means of training and education heavily rely on these services. Therefore, the “Bildungswerk” as part of one of the major logistics associations is also an important political actor in terms of regional development of the sector.

How is it organized

The „Bildungswerk“ is part of the logistics association “Speditions- und Logistikverband Hessen/Rheinland-Pfalz e.V.”. Thus, it is an actor with a very large and dense network of stakeholders within the sector and outside. This section explains how it is embedded and which relevant actors and institutions it is in close contact with.

The “Speditions- und Logistikverband Hessen/Rheinland-Pfalz e.V.” as umbrella organization of the “Bildungswerk” is a regional organization and part of the German logistics association “DSLVL Deutscher Speditions- und Logistikverband e.V.”. Thus, it is embedded into a network of organizations that are directly involved in policymaking, agenda setting, lobbying, interest groups and general communication processes in the sector.

This is especially relevant for at least three different reasons: first reason is that the “Bildungswerk” is largely recognized as a competent and professional institution in the field and the one go-to organization when it comes to vocational and professional trainings in the logistics sector in Hesse. They are recognized as having the right pedigree and are therefore trusted to do a good job. This gives the “Bildungswerk” a competitive edge over other actors offering comparable education and training courses. The second is that the “Bildungswerk” has access to lecturers, trainers and teachers with a strong background in the field, with a good reputation and great experience and skill. Thus, the advantage over other, not as specialized organizations is not only perceived by the target audience but it is actually real in term of quality and experience. The trainers and teachers giving courses for the “Bildungswerk” really know the latest developments in the sector, they also know the requirements for a useful training and know how to approach the typical workers of the different occupations within the sector. Third, by being part of the network of actors in the Hessian and German logistics sector, the “Bildungswerk” has easy access to the latest

information, current trends and needs in terms of skills and occupations. Via such valuable information, it can steer its courses to match the current demand for specific education in a best possible way and can act as a strategic partner to shape future developments in the sector. Thus the course program of the “Bildungswerk” usually represents what is needed in the sector instead just of what some trainers are able offer.

Many of the communication and information processes the “Bildungswerk” is involved in are institutionalized. The “Speditions- und Logistikverband Hessen/Rheinland-Pfalz e.V”. has several different committees, in which issues relevant for the “Bildungswerk” are discussed. For example, there is the “Fachausschuss Berufsbildung”, a committee, which has the single purpose of discussing VET-related issues of the logistics sector on different regional levels. The “Bildungswerk” is of course part of that committee and therefore in a position to get the latest information on the one hand and be involved in strategic processes in the VET-related discussions on the other hand. Being involved in institutionalized communication and information processes and channels is the major way of strategic action and linking VET-related strategies with economic development of the sector as a whole. In such institutionalized settings close and continuous contact with important actors from inside and outside the sectors, like company representatives, politicians, association members of different regional levels, VET-stakeholders and other regional actors with relevance for the economic development of a region are established. This is the most important source of information for strategic activities of the “Bildungswerk” and how it is involved in policymaking processes. Here it works together with actors such as the “Fachverband Güterkraftverkehr in Hessen”, an organization for cargo and freight transport in Hesse, the “Straßenverkehrsgenossenschaft”, the cooperative for traffic-issues, the different associated industry chambers and other VET-related organizations like the “Bundesinstitut für Berufsbildung in Bonn”, a federal institute for professional trainings. Being involved in as many processes and actions as possible is important to be recognized as an important stakeholder in the field and as an actor with a large expertise.

What worked and why

When planning and developing new courses the „Bildungswerk“ relies on information directly from the companies in the region. By having contact persons in most of the larger and many of the smaller companies in the Rhine-Main area, it is usually no problem to find out which new demands are developing, which supplies of skills and qualification are short and which trainings and courses might raise an interest among the companies. Thus, finding topics and content for courses is usually not a big issue.

It can be much more problematic to convince the companies that they benefit from training their employees and explain them in which way they benefit. Same goes for the individual level of the workers themselves, many of which are in no way interested in professional training and in enhancing their skills and qualifications.

Different strategies have proven successful to overcome these problems.

1. Communication as access factor into companies within the logistics sector

The first and most important is to develop a communication strategy to get in contact with the companies. Many of the companies are under large pressure, dealing with their day-to-day work and are therefore not interested in dealing with additional issues, which might even hinder their work. Especially not issues they are not familiar with and have no experience with yet. This is the case for many companies, as continuous and regular professional trainings are not common in the sector yet. Understanding this and offering solutions for this problem has proven crucial to reach the companies. Most companies are not interested in standard offers in a “one-size-fits-all” style. It has proven successful to offer specific solutions that match the conditions under which the company works and functions.

This is one of the major results of the project “Nachqualifizierung in Hessen”²⁶, which investigated the most important factors for a successful access to different sectors for professional training activities. One of the important results was that companies significantly more often react positive to approaches that take into consideration the specific factors of the sector in general and the company specifically. This can for example be achieved by knowing specifics of the qualification structure within the sector and the company, by knowing who is employed at the company and how the company works. Visiting the company personally, holding courses at the company’s facilities and designing course material specifically for the individuals in the company can be solutions, according to “Nachqualifizierung in Hessen”.

2. Communication among the workers the as access factor

Very often initial contact approaches fail because information is not spread within the company and does not reach the workers. This can be due to an interest of the companies to actually not train their employees. Reasons for this can be fears that trained workers might claim a pay rise, might leave the company after they were trained, might claim another/better position within the company or might in general become unhappy with their job. Sometimes the companies also just do not see any benefit from having better qualified employees. Due to these difficulties, it is important to establish information paths to the workers themselves. The most important way to achieve this is by doing successful trainings and having attendees spread the word. This has been crucial to raise interest among the workers is a major success factor of the “Bildungswerk”. Only if it is known that the courses are actually good and the workers benefit from participating, more will do so.

3. Flexibility

Flexibility in organizing the courses and reacting to ad-hoc obstacles has been the third major factor to successfully reach the companies and workers and secure their participation in the trainings. Flexibility is important in two different ways. The first is flexibility in terms of

²⁶ <http://www.nachqualifizierung-hessen.de/>

content of the trainings. Being able to include company- or even attendee-specific issues into the courses without diminishing the general utility for all participants, is important to attract companies and workers in the first place and meet their needs within the courses. The second is flexibility in terms of organizing the courses. This covers issues of time and place where and when the courses are held.

Projects within the logistics sector

1. Bachelor in logistics

In cooperation with the University Of Applied Sciences Hamburg a bachelor study in logistics was developed. This is one of the first higher education paths directly leading to a position within the logistics sector. A major benefit for the sector is that by offering a sector-specific study, highly skilled young people can be attracted for a career in logistics. Until now, this was a major drawback the sector suffered from: many highly skilled and ambitious young people found the sector unattractive for a career and decided a career path somewhere else.

2. Blended learning concepts

To meet the current media and learning requirements especially of younger people, the “Bildungswerk” will establish learning scenarios that make use of eLearning in addition to the usual courses. One reason is to attract other target groups to the courses, which would otherwise be less interested or not interested at all. Another reason is that with such an approach, it is easier to increase the number and variety of the courses without having to expand into more trainers, teacher and space. Blended learning concepts that mix both, online self-learning and classic course interaction are going to be designed more for the more skilled audience than the workers with less education affinity. It is expected that less skilled workers would not benefit from these courses in way that more skilled workers would. In addition, using a computer and the internet can still be an obstacle for some.

3. Training unskilled workers

Unskilled workers are a large part of all the employees in the logistics sector. Especially among the store and warehouse workers, many are without professional education – at least in this field. Here lies a great potential for trainings and qualification gain for the whole sector. Thus, a big focus of the “Bildungswerk” lies on this target group and how they can be trained. Courses that are specifically designed for this audience and programs that lead to a certified professional qualification are one of the core offers of the “Bildungswerk”, as it is their believe that this is the easiest way to increase the number of skilled workers in the sector.

Impact and Replicability

The impact the “Bildungswerk” and its activities have on the economic development of the Rhine-Main area is hard to grasp in hard figures. But the approach, to have specialized training organization within one of the main associations of the sector that profits from the network and the strategic position it is in, this approach has to be viewed upon as a great way to develop the logistics sector and therefore have an important part in the development of the region. By giving professional training an institutionalized position within the sector, logistics associations makes it one the major themes of sector development.

Especially interesting is the way the “Bildungswerk” gathers information about (mis)matches of the demand and the supply side of qualifications and the developments in the logistics sector in general. Instead of monitoring the sector with surveys and evaluating numbers, Information given by the companies in more or less institutionalized exchange channels is most important. To gain the most out of the knowledge the companies have about what they need and what they have, some part of the information exchange process has been canalized in the VET committee of the logistics association. In this committee, strategic decisions are made and all matters VET-related are discussed. In addition, by being involved in many other policy making processes the “Bildungswerk” directly or indirectly via the “Speditionen- und Logistikverband Hessen/Rheinland-Pfalz e.V” gathers valuable information to strategically plan its activities and make a major contribution for the development of the whole sector.

Such an approach is not easy to replicate by a labor market observatory with its standard routines. There are at least two major reasons for that.

First is that the major precondition for successfully pursuing such an approach is to be very well embedded into the network within the sector. This means not only being involved in informal information flows via contact persons in the sector but also by holding official positions in relevant committees and holding relevant positions in strategic decision making processes.

Second is that this approach does not make use of the classic means labor market observatories use to monitor regional labor market developments and gain intelligence from. The “Bildungswerk” does only to a very minor extend rely on numbers from studies. Thus, within a labor market observatory would have to develop new means of gathering information, evaluate it and gain intelligence from it. Such new means have to be developed, tested and experience has to be gained to make adjustments and improve their reliability and effectivity.

While two major obstacles to the replicability of the described approach have been presented it might nevertheless be worthwhile to look into the development of a monitoring strategy that takes in aspects of what the logistics sector has developed with the strategic position of the “Bildungswerk”. To be able to gather information in institutionalized

exchange settings as well as unofficial channels via a dense network in the sector should prove an extremely viable strategy to gather labor market intelligence. This way labor market observatories could support strategic decision making and policy processes with unique knowledge to align VET activities in a way that they systematically help the economic development of a region.

For such an approach, new methods of monitoring would have to be looked into. One direction could be a qualitative approach to mimic the way information is gathered in communication settings such as official committees or informal talks between different stakeholders from the sector. Such a qualitative, innovative approach has for example been used with the RMQ approach in the EQUIB²⁷ project in the Bremen region in Germany to gain detailed insight into regional skills developments by constantly and repeatedly interviewing a large number of different regional experts in the field.

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²⁷ <http://www.iaw.uni-bremen.de/equib/>

VET-EDS Good Practice

Sectorial Expert Panel

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Introduction

- This good practice performs approaches under the sectorial perspective, conducting studies and analysis based on innovative and adapted methodologies.
- This is a good practice based on aligning public and private efforts to create and maintain employment.
- It reflects the nature of the Erasmus + programmes in relation to the need of cooperation between different actors and establishes a cooperative process which should involve all agents on an effective coordination network for employment policies.
- The geographical scope of the project covers all the Basque Country, its scale is local and it is linked to the sectorial development.
- It reflects the close relationship between the companies of strategic economic sectors and the labour market and training policies.
- This practice is considered a success because one of the traditional demands of employers is the gap between formal education and actual skill needs. With this practice we get to transfer these needs into specific aspects to consider (catalog of qualifications) when deployed to the catalog of training actions.

Summary

The Sectorial Expert Panel has been developed by Lanbide-Basque Employment Service.

Lanbide proceeded to a reflection process of a new Prospecting model of the labour market, introducing a new key tool to adjust the offer of employment and training to the perceived needs and transfer this information for planning, evaluation and monitoring of the training offer.

The Sectorial Expert Panel is focused on the renewable energy sector.

This process has been based on the collaboration with some of the largest companies in this sector in the Basque Country represented by the highest level managers together with the Environment Department of the Basque Government, and with the educational representative of those institutions dedicated to offer education for employment.

Context and setting

The Basque Country is a Spanish region situated in the north of Spain comprising the provinces of Álava, Gipuzkoa, and Bizkaia. The Basque Country accounts for 4.7% of Spain's population- 2,172,877 people- but nearly 6% of Spain's GDP. The Basque Country is therefore one of the most prosperous regions in Spain, with the highest GDP per worker. The Basque Country occupies is also the leading region in the Spanish economy as measured by workforce with tertiary education (it is the 7TH EU region in number of university graduates), business R&D intensity and share of employment in high-technology industries and knowledge-intensive services (KIS). The economic success of the region, which has suffered less from the economic crisis than other regions in Spain, reflect the advanced and complex nature of the Basque economic and administrative system, which is related to the high levels of autonomy in regional policy and its industrial strength and skilled workforce.

On the other hand, the great recession has had an impact on the labour market which results in very high rates of unemployment in the Basque Country the rate is 15,3%. Due to the economic crisis, the youth unemployment rate, including those between 16 and 24 years old, is 42.8%. Therefore, the crisis has had a higher impact on employment and especially on employment related to industry. In addition, despite these good data about qualification of the labour force in Basque Country, there are signs of a mismatch in the development of technical professional skills to match the skill needs of the regional industry and it is possible that in the short term future Basque Country presents significant gaps to meet the demands of qualified workers by the companies and strategic sectors of the economy.

The Basque Country is a territory with strong industrial tradition even though the weight of the sector has been declined in recent decades. It is a still symbol of our identity and remains above the European average. The strongest industrial sectors of the Basque economy are machinery, aeronautics and energy. This last one is the focus of the following best practices based on Sectorial Expert Panel on renewable energy sector. The renewable energy sector generates over 9000 jobs in Basque industry and has leading companies internationally which has driven the Basque energy renewable policy right from the start. Furthermore the business fabric has a solid support in the resources for research in new technologies and applications performance by the stakeholders of the Basque science and technology network and also for our public university.

Taking into account that the employment in the crisis period has fallen approximately to 100,000 jobs, the potential job opportunities coming from the renewable energy sector are a focus of the Basque Employment Service- Lanbide- and its observatory. The role of the Basque Observatory must evolve from being mere descriptors to active prescribers based on the existing knowledge by acquiring a commitment to society and specifically to those individuals who either want to improve their skills and thus be able to get a better job, or want to enter the job market. Thus, this role of the observatory and, therefore, of Lanbide as a means to activate the labour market is its greatest contributions to the social structuring of the job market of the Basque Country

Description

The Basque Government has full competences on active policies regarding employment. This means that from the total budget of 725 million of euros, 150 million are for employment active policies. This budget is managed by the Basque Employment Service, Lanbide.

In Lanbide, one of the tasks before us is to optimize the human capital we have and advise the one we haven't got registered, in order for them to have a better fit in the production system considering their educational level. To this end, Lanbide experiences a range of needs:

- Incorporate a greater value to the offer of Employment and Training programmes, getting closer to the needs of the driving productive sectors of our economy.
- Innovation and competitiveness are presented as critical levers to future economic growth
- Align public and private efforts to create and maintain employment.
- Lanbide should play the role of labour activation tool contributing to the social structure of the labour market in the Basque Country.
- Perform approaches under the sectorial perspective, conducting studies and analysis based on innovative and adapted methodologies.
- Designing an agile, practical and result oriented tool, to adequately match Lanbide's training offer to the needs of the labour market.

As a result of these needs, Lanbide proceeded to a reflection process of a new Prospecting model of the labour market, introducing a new key tool to adjust the offer of employment and training to the perceived needs and transfer this information for planning, evaluation and monitoring of the training offer. Lanbide called it sectorial expert panel model.

The mission was to tailor the LANBIDE training available to the needs of the job market of the Basque Country. The vision was to make Lanbide an effective instrument with the aim to identify the contractors' demands envisaged by the experts and to identify the qualification and training needs associated to the sector being studied.

Thus, the first panel of experts arises. It started by identifying and given priority to the sectors of interest. Secondly the related priority sectors or sub-sectors were identified, then the profiles of the experts of the panel were analyzed, and lastly it came to skills building.



Therefore this good practice started by identifying and prioritising the sectors of interest. At his point it was taken as a reference for the implementation of the pilot, the field of Renewable Energy and Smart Grids for its special presence in the Basque industry because it generates more than 9,000 jobs in the field of renewable energy and the sector is leader in international markets. Also, it is worth noting that the business is complemented by a solvent support of resources for research in new technologies and applications developed by the agents of the Basque network of science and

technology (CIC Energigune, technology centers (Tecnalia and IK4) and TIM UPV) in the field of renewable energy.

Structural Status	Economic Weight	Exposure to International Competition	Technology Component	Mainstreaming	Growth opportunity associated to Macro-trends
New sector	High	High	High	High	High
Three sub-sectors : <ul style="list-style-type: none"> • Energy generation • Capital goods manufacturing • Energy engineering services. Iberdrola, Petronor and Naturgas also help to the creation of a engineering and manufacturing goods sector with strong international positioning. Renewable energy would mean a change in the structure of the sector.	Key sector in the Basque economy. 34,000 jobs and a turnover of 15,000 million euros.	Need to compete against the key international players, both in energy generation and in the manufacturing of capital goods and energy engineering services	Both the engineering and capital goods sub-sector and the power generating companies in the Basque Country are world leaders in renewable energy. Their development will have a great impact on the ICT and electronic equipment sector and the bioscience industry.	Key role in the competitive development of Basque traditional sectors, with great energy dependency, such as the metal, paper, chemical sectors. Development of renewable may drive the Car Industry or the Eco-industry and traditional industries (ship-building, chemical, metal)	It is the driving sector in sustainability and clean technologies (together with the environmental goods and services sector) and will also be greatly affected increasing use of bio-nano technologies.

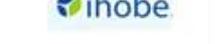
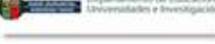
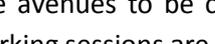
Specifically, the Expert Panel focused on the Wind Power sub-segments (Manufacturing wind turbines, construction and maintenance of wind farms (including offshore) and Smart Grid technologies to integrate renewable energies in the electrical grid.

On a second phase, the characteristics of the model of the Sectorial Expert Panel it were established. These characteristics are described below:

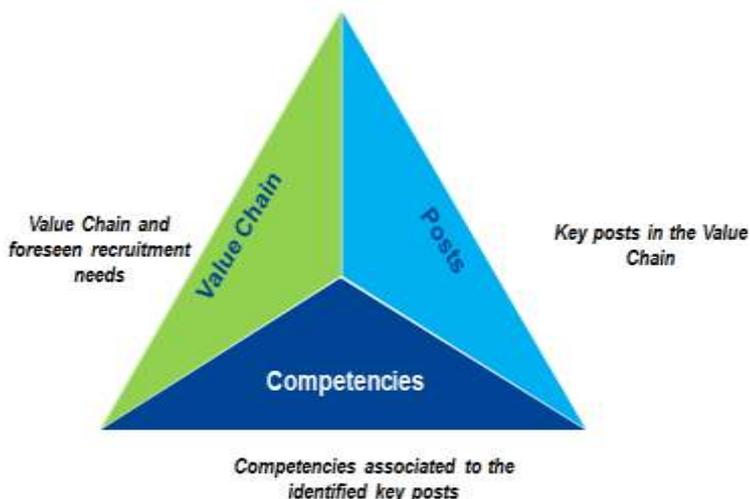
- The starting point is the identification and prioritisation of the sectors of interest.
- The related priority sectors or subsectors are identified.
- The profiles of experts that will be part of the Panel are analyzed.
- Recruitment of experts.
- Number of sessions (to take into account the profile of the attendants; real chances of them taking part).
- Duration (sessions of no more than two hours are recommended).
- It is complemented by a series of surveys to be performed on employment demand forecasts conducted between the first and the second working sessions with experts

On a third phase, Lanbide invited the largest companies in this sector in the Basque Country represented by the highest level managers together with the Environment Department of the Basque Government, and with the educational representative of those institutions dedicated to offer education for employment.. There were two main workshops.

Renewable Energy Expert Panel participants

	Company/Organisation	Participant	
	Aeroblade	HR Director	Josu Lacorzana
	GES – Global Energy Services	HR Director	Victoria Moral
	Arteche Group	Corporate Social Director	Inazio Iribar
		Corporate Social Deputy Director	Elena López
	Iberdrola Renovables	HR Development & Training Director	Kepa Zubieta
	Ingeteam	Corporate Marketing Director	Eduardo Giménez
	JMP Ingenieros	General Manager	Eduadro Ramirez
	Sener	Bilbao Division Director	Iciar Urrutia
	Tamoín Energías Renovables	Manager	José María Montans Argüello
	EVE (Basque Energy Board)	International and Studies Division	Txetxu Sáenz de Ormijana
		Director	
	Hobetuz	General Manager	Juan Carlos Ibarrola
	IHOBE	General Manager	Fernando Barrenechea
		Manager of Sustainable Consumption and Production Dept.	Ander Elgorriaga
	Vitoria-Gasteiz Construction Vocational Training Centre	Thermal Solar Energy and Energy Efficiency Manager	Juan Eduardo Iriondo
	Basque Government's Ministry for Education	Advisor	Francisco de la Peña

The avenues to be considered on which the dialogue with the experts was based during the two working sessions are described below:



- **Critical phases** in the value chain and its foreseen evolution in recruitment needs
- **Key positions.**
- **Competencies/ Skills** associated to the key posts.

This practice serves to monitor a specific sector, defining by phases, first its value chain and activities, and then explore into the key job positions and the skills required for each activity sector. The scheme for the initial analysis is shown below:

VALUE CHAIN

WIND

0. BUSINESS DEVELOPMENT/STRATEGY

1. DEVELOPMENT

2. MANUFACTURING & ASSEMBLY

3. OPERATING

4. REPOWERING

ACTIVITIES	0. BUSINESS DEVELOPMENT/STRATEGY	1. DEVELOPMENT	2. MANUFACTURING & ASSEMBLY	3. OPERATING	4. REPOWERING
2014 Job Forecast	<ul style="list-style-type: none"> Development of the global business strategy 	<ul style="list-style-type: none"> R&D Project development Design 	<ul style="list-style-type: none"> Manufacturing Assembly Facilities 	<ul style="list-style-type: none"> Operating management Facility Operations Maintenance Repairs 	<ul style="list-style-type: none"> Dismantling Repowering Consolidation
Origin of the employment	<ul style="list-style-type: none"> Maintenance of employment/Moderate growth in recruitment needs 	<ul style="list-style-type: none"> Growth of the recruitment needs 	<ul style="list-style-type: none"> Maintenance of employment/Moderate growth in recruitment needs associated to new wind farms in new markets 	<ul style="list-style-type: none"> Maintenance of employment/Moderate growth in recruitment needs associated to new wind farms in new markets 	<ul style="list-style-type: none"> Not currently considered a critical phase Maintenance of employment arising from the current average period to tackle Repowering: 10 years
Comments/Barriers/Opportunities	<ul style="list-style-type: none"> BAC 	<ul style="list-style-type: none"> BAC 	<ul style="list-style-type: none"> Manufacturing: BAC Assembly: residents in destination location of the wind farms Temporary secondment of local teams Secondment from other sectors: <ul style="list-style-type: none"> Naval (for off-shore wind farms) 	<ul style="list-style-type: none"> BAC Temporary secondment of BAC workforce for training/supervision (Maintenance Heads) 	<ul style="list-style-type: none"> NA
Comments/Barriers/Opportunities	<ul style="list-style-type: none"> Even though it is a critical phase, high-volume recruitment is not envisaged due to the small number of posts associated to this phase in each company. 	<ul style="list-style-type: none"> Possibility of creating jobs for research profiles who can be employed at Technology Centres and other research stakeholders related to Energy. 	<ul style="list-style-type: none"> Experienced local workforce: <ul style="list-style-type: none"> Low level of English Few willing to travel 	<ul style="list-style-type: none"> Hard working conditions associated to maintenance. Need to rotate/relocate in other sectors/positions Experienced local workforce: <ul style="list-style-type: none"> Low level of English Not willing to travel 	<ul style="list-style-type: none"> Technological advances in the new machines may improve the yield associated to repowering, resulting in a shortening of the period to tackle this phase.

SMART GRIDS

ACTIVITIES	<ul style="list-style-type: none"> Measuring, recording, integration of technologies & telecommunications Energy distribution – advanced approach
2014 Employment Forecast	<ul style="list-style-type: none"> Moderate growth, subject to the telecommunications and network evolution and development. On a longer time horizon (4-6 years): higher growth in recruitment needs
Source of the jobs	<ul style="list-style-type: none"> Local
Comments	<ul style="list-style-type: none"> Possibility of adapting other posts Traditional training in electronic systems/Automation + additional training in distributed smart systems

The main conclusions are set out regarding recruitment needs in the different phases identified in the Value Chain. The analysis showed that this sector in general and wind power in particular are clear areas of opportunity for the Basque Country in the medium and long term, even though current expectations do not point to a notable hike in employment in the short term. In any event, the majority of the jobs generated will clearly come from the demand on international markets, creating job opportunities associated to the strategy, development and manufacturing phases in the Basque Country and linked to the assembly and operating of wind power facilities outside the Basque Country

Furthermore, each of the identified and included key positions were then characterised. In order to have a detailed view of each position and its associated skills, a standard datasheet was prepared with the following fields:

Example of Job Position Form

KEY POST DATASHEET				
Post	PRODUCTION TECHNICIAN (blades)			
Associated phase	2. MANUFACTURING AND ASSEMBLY			
Description	<ul style="list-style-type: none"> - In charge of manufacturing blades for wind farms. - Very similar skills profile to the repair technician (in Phase 3. OPERATING). 			
Recruitment needs forecast/trend (1-3 years)	- Employment sustainability/Moderate growth of recruitment needs associated to new wind farms on new markets.			
General Knowledge areas	<ul style="list-style-type: none"> - Machine manufacture - Installation and Maintenance - Computers and Communications - Safety and Environment - Energy and Water - Other Areas 			
Details of technical or specific competencies	Professional Group	Qualification	Unit of Competency	Competencies
	MACHINE MANUFACTURE	<ul style="list-style-type: none"> RME46_3 RME87_3 RME36_2 - Surface treatments RME57_3 PRODUCTION IN METAL CONSTRUCTIONS RME87_3 PRODUCTION IN MACHINING, SHAPING AND MECHANICAL ASSEMBLY 	<ul style="list-style-type: none"> Various UC0104_2 UC0102_2 UC3153_3 Programming automated systems in metal constructions UC0591_3 Programming automated systems in machine manufacture 	<ul style="list-style-type: none"> Machining operations Surface Treatments Automated systems Automated systems Materials (fibre glass, new materials corrosion reactions) Methods and times Infusion technol Operating forklift trucks, gantry cranes, Documentary interpretation of drawings
		Others – Qualification/Unit of Competency of the National Catalogue of Professional Qualifications has not been identified for the following competency(ies)		

Name of workplace

Brief description of functions / objectives of the job position.

Stage of the value chain in which the position is developed.

Areas or Professional Families of the National Catalogue of Professional Qualifications identified by the experts for the job.

Forecasted trend of labor demand based on the input from participating companies.

Detail of personal skills. Transversal competences.

Detail of technical or specific skills:

- Identification of the skills associated with the job analyzed according to:
 - Associated Professional Family
 - ✓ Specific sector (energy and water).
 - ✓ Other Professional Families whose competency units qualify to persons employed in the job position: Electronics and Electricity, Safety and Environment, Information and Communications, Mechanical Manufacturing, Installation and Maintenance, Marine Fisheries, Physical Activities and Sports, Administration and Management.
 - ✓ Other type of skills for which a specific professional family has not been identified.
 - Competency units and specific qualifications that apply in each Professional Family, identifying where appropriate skills for which no competence unit or relevant qualification has not been identified.

At this point, the core competencies were identified:

- Skills required **to work in the wind power sector**: importance of component specialisation (blade, tower, generators, foundation ...), particularly in manufacturing.
- **Off-shore** facilities will require specific competencies that are different for the **on-shore** facilities, in this case linked to ship building or the oil industry in the **off-shore** case.
- The identified technical **competencies** are mostly **associated to training specialities** with a specific emphasis on those in the Basque Country, including: Machine Manufacturing, Installation and Maintenance, or Computers and Communications. The latter in the development of Smart Grids.

- Additionally, other competencies could be introduced by means of training to be found in the Energy and Water Professional Group. (**Underwater Welding and Cutting, Hyperbaric Interventions, etc.**).
- In addition, experts have highlighted the importance of directing professionals towards **more international profiles, and stress mobility and willingness to travel**, both for average periods linked to the execution of a specific project and for longer periods linked to the operating.

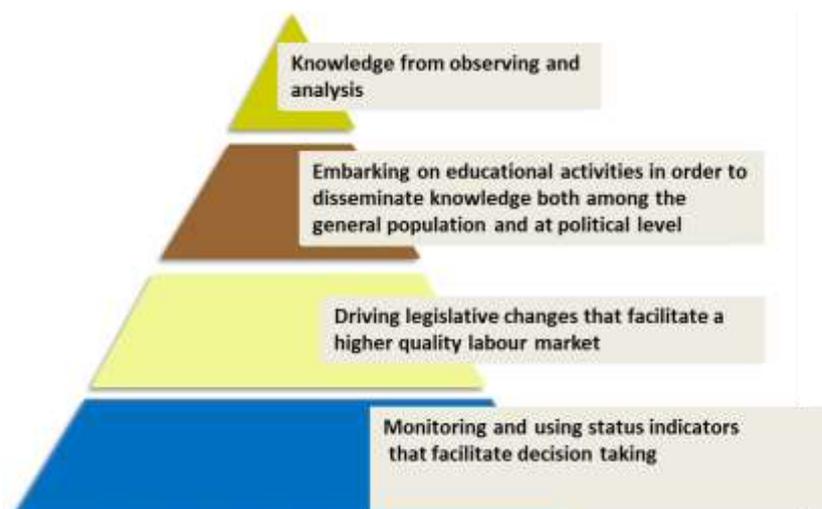
In this line, value is given to personal skills such as: **team management, financial economic vision, document management and languages, particularly English.**

At the end of the practice the main points were summarized that had been pinpointed by the pilot Expert Panel regarding training needs:

- Health and safety training, particularly at *off-shore facilities*
- Capacity building in climbing/abseiling
- Specific certifications at destination for: fork-lift trucks, quality control
- Training to obtain the State Ultrasound Inspection Certificate
- Training related for gas motors, turbines, combustion motors.
- For the future positions linked to the Smart Grids, distributed smart systems (data and voice networks, new technologies).
- In general: languages, communication skills and team management.

Impact and Replicability

The role of the observatories within the labour market analysis is the fundamental cornerstone. We all agree that this role must evolve from mere descriptors to active prescribers based on the knowledge they already have, acquiring a commitment to society and in particular to those who either want to improve their skills to achieve better employment quality or access the labour market. In this regard, the role of the observatory and therefore Lanbide as an instrument of labour activation, is the best contribution to the social structure of the labour market in the Basque Country.



This practice is considered a success because one of the traditional demands of employers is the gap between formal education and actual skill needs. With this practice we get to transfer these needs into specific aspects to consider (catalog of qualifications) when deployed to the catalog of training actions.

The results of the Sectorial Expert Panel were used for across-the-board measures:

- Job finding. Job offers, career counselling
- Promoting employment. Employment companies with specific initiatives
- Local Development. Specific council actions in the area
- Training. Courses in professional groups on topics relevant to the area

There were also specific measures adopted: an agreement with the company Aernnova on training with hiring commitment and the Green job programme.

In the first measure, this trail-blazing training programme with hiring commitment, involving Lanbide-the Basque Employment Service and AED (Aernnova engineering division), is aimed at capacity-building with a hiring commitment of 100 unemployed technicians (70 engineers and 30 VT technicians).

Lanbide- the Basque Employment Service will contribute with 3.4 million euros to train 100 new technicians under the age of 30 for the Aernnova engineering division, at least 70% of whom will then join the company. The students will take a 2620-hour course and those that successfully complete the training will be contracted by the company for at least two years. The training programme will run for three years (June 2012 to May 2015).

Regarding the second measure, in 2013, LANBIDE, the Basque Employment Service, in conjunction with IHOBE (the Basque Government's environmental management public corporation) designed and



implemented the Green Jobs Programme. Its dual goal is to encourage green job skills building for unemployed highly-qualified young people, and, in turn, to contribute to growth of the business sector of the Basque Country based on knowledge and sustainable development.

The programme allocated with 4,983,000 euros and was set up as a networking project, where the intermediaries, including regional and local development agencies, business

associations and training centres, they all made up a network for the deployment of the programme in the Basque Country. Green Jobs tried to introduce each and every one of the skills required and had very positive results:

- Immediate job placement **37%** . The areas with the highest demand:
 - Managing Industrial Energy Efficiency **56%**
 - Plastic Industry Efficiency **47%**
 - Environmental Certificates for the Market **41%**
 - Designing Renewables for Buildings **41%**
 - Ecodesign **40%**
- **17** individuals have become entrepreneurs
- **553** unemployed people trained (270 hours on average)
- **524** young people produced an eco-innovator project during 5 months at a company
- **40%** women **and 60%** men
- **37** training-work placement projects of **26** intermediaries
- **100%** of companies consider the qualification level appropriate
- **70%** of companies believe that the young worker with his/her project has made the company more competitive
- **513** organisations have embarked on green projects, **76%** industrial and private companies
- **50%** of the participating companies have substantially improved their environmental performance

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VET-EDS Good Practice

The ASLAM Association

Silvia Dusi

Introduction

ASLAM is a not for profit association, accredited by the Lombardy Region to operate in the areas of Education, Orientation and employment services.

Among all the activities carried out by ASLAM we focus especially on the most successful experience: the training course developed to reply to the needs of the biggest reality affecting the territorial economy, i.e. the Malpensa Airport. In particular the key aspect is the whole path developed during the years to provide more EQF certification at different levels as we will explain in the following pages.

This practice allows to implement local development strategy– e.g. the Airport Centre, and connect regional development needs with VET. Secondly, it provides linkage between LM and VET, through strengthening cooperation between local employers and training institution

“A series of research initiatives were also launched, aimed at identifying the training needs of companies in the aircraft industry located in Lombardy and to "translate" these skills needs for training courses offered. The research consisted in focus groups with business actors participating in the network of the training centre; the results were an input for the design of the first training course started for aeronautical engineer.”

Context and setting

The name of the association, ASLAM, is the acronym of “Associazione Scuole Lavoro Alto Milanese” that

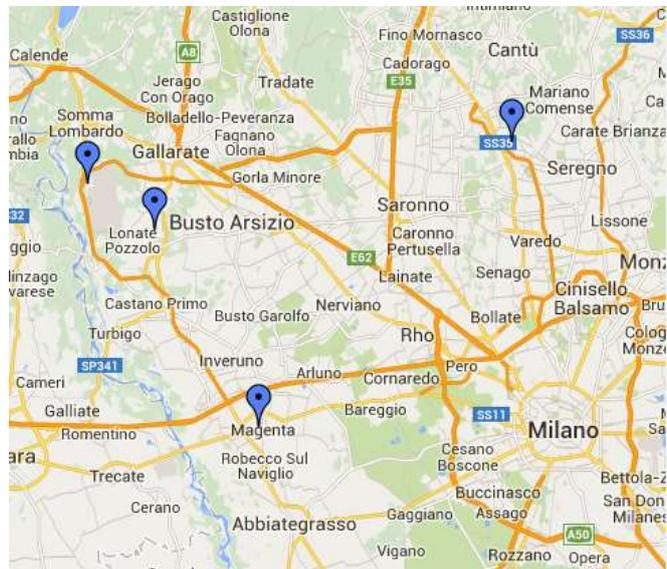
Summary

ASLAM is a VET player that provides training courses at different level. The interesting aspect of this GP is the capacity of intercept and reply to the market needs, as evidenced by its formation in 2002 on explicit requests of the local firms.

The focus of the description is on the particular case of the training provision related to the Airport, which is in the same local area. This is an interesting example because of the aid to the growth of the Airport Centre, and consequently to the local economy and because of the development of the training provision, which arrived to cover an entire specialization chain, going from the provision of training at vocational school course to a master, passing through the opening of a bigger Centre.

means Association School for Work in the North part of Milan. ASLAM is a not for profit association, accredited by the Lombardy Region to operate in the areas of education, vocational guidance and employment services.

ASLAM operates in four locations namely an office in Magenta in the province of Milan with five classrooms including 1 computerized laboratory plumbing and heating and a welding laboratory; two in the province of Varese, a San Macario di Samarate, with 10 classrooms including 2 computerized machine tools and a mechanical workshop, the other in Case Nuove Somma Lombardo, with 15 classrooms including 2 computerized, a mechanical workshop base, one of maintenance of aircraft; a Camnago Lentate in the province of Monza and Brianza, with four classrooms and a laboratory where a computerized technology.



Description

ASLAM has been established in 1996 as Association of people, establishing itself as a training organization in response to the entrepreneurs of the area, that wanted to have their own companies resources trained and qualified. This is the first point of interest: the fact that the Association was formed to respond to a direct need of the territory. As we will illustrate in the following pages this is the key aspect of this Good Practice, the strict link with the territory and the dialogue with the firms that allows to start success experiences and to meet their needs.

ASLAM staff consists of professionals specialized in different areas of expertise related to the world of Professional Training and Guidance, in particular: design experts, tutors, administrators, experts in the field of accounting, experts in the field of accreditation and quality.

The courses are aimed primarily at young people looking for their first job, to long-term unemployed, who wish to re-enter the labour market and to local businesses and shall be implemented as follows:

- Projects funded through the dowry system of Lombardy Region;
- Projects IFTS (Higher Technical Education and Training);
- Projects funded through calls;

In 2002 ASLAM, between bodies selected to implement the three-year courses Professional (Memorandum of Understanding between the Lombardy Region, Ministry of Education, University and Research and the Ministry of Labour and Social Policy of 03 June 2002), has enabled the first class of the three-year course for "Operator Mechanic" by launching the initiative of experimentation in the school system.

The thematic areas of the courses for the unemployed vary depending on the training needs expressed by local companies, in particular geographical location of ASLAM, placed near the airport of Malpensa, has fostered a network of relationships with companies in the sector and the development of training activities related to the aeronautical world.

Another area of specialization is the mechanical industry, the craft sector and business services from which originate numerous requests for companies looking for young and unemployed adults for internships or any entries in organic.

In order to facilitate the reintegration into the labour market of unemployed adults ASLAM has implemented concrete actions to overcome the segregation of women in terms of equal opportunities, retraining people in employment difficulties, due to qualifications hardly expendable, or following periods of inactivity and progressive removal from the workplace. ASLAM has, in fact, actively participated in the Project "Varese in the network for equal opportunities", organized by the Department of Employment and Professional Training of the Province of Varese and other companies operating in the VET system.

ASLAM also realizes refresher courses and professional training for companies and public administrations. These initiatives are designed to provide training in those cases where the small size of the company or the specific nature of the issues to be addressed would not allow the realization of business courses.

The thematic areas of the courses made mainly concern: the management area (in particular for SMEs: management control, budget and financial management, debt collection), internationalization, information technology, the Business English and foreign languages, security, quality, marketing and business communication.

The Airport Sector

Aslam in collaboration with the Technical School "Andrea Ponti" and "JC Maxwell", the Carlo Cattaneo University, Augusta Public Company, Neos Public Company, City of Somma Lombardo, Province of Varese, Air Vergiate and CFLI, participates to the Foundation "Technical Institute for Transportation Supply Chain and Logistics Intermodal - Sustainable Mobility".

One of the most interesting experiences of ASLAM is the one born around the **Airport Sector**, developed during the years to the building of a Training Centre.

For a training body as ASLAM, which had always seen the relationship with the territory and the firms as the primary condition to design and implement training actions aimed at a real source of employment, the Airport of Malpensa (close to the headquarter) has always been a strong call and a pool of activities. The Airport is a strategic asset for the area because it generates added value and levels of regional growth and development higher than the national ones. The airport of Malpensa generates about 10 billion of euro, creating jobs for 15,000 workers at the airport, as well as 30,000 in the surrounding territorial area.

Since the beginning of 2000 ASLAM, along with several players in the (air) transport sector and logistics, has realized the first training actions:

- Clerk Maintenance of Aircraft;
- Intermodal Logistics of Goods And People;
- Clerk to Airport Systems;
- Intermodal Logistics Officer of Goods And People.

In previous years, in collaboration with Lauda Air (now Group Livingstone) and SEA had implemented several training activities on the figure of a flight attendant and clerk at the check-in.

An important development was given by the constitution of the **training centre** in 2006, for the study and implementation of the production chain of intermodal transport and logistics: the centre was formed with a collaboration between ASLAM, Politecnico of Milano Foundation, Polo Scientifico Tecnologico Lombardo, Malpensa Logistics Europe, ISIS Gallarate, IIS Maxwell Milan, Intermodal Logistics Training Consortium, AIR Vergiate, Insubria University, Objective Work with the participation of the Province of Varese, Varese CISL Union, Varese Artisans Association, CDO Altomilanese, OL Training, SEA, Aermacchi, Livingstone.

The first concrete result of the training centre was to identify the network of operators in the (air) transport sector and logistics with particular reference to Malpensa and give a first formalization.

Also as a part of the research for the definition of the centre, aside the definition of the vision, the mission, the organizational structure and services, has taken form a structured way of reply to the training needs (and not only) expressed by the sector.

The area where the centre is located is in the town of Somma Lombardo. The strategic location (it is an area adjacent to the Malpensa airport grounds) allows to achieve the main objective of the pole: boosting development of Malpensa airport, both in terms of employment and revenues, through the promotion of services training, employment services and infrastructure services. The project is just a few hundred meters from the area of the maintenance hangar and operational offices of the Airlines.

A series of research initiatives were also launched, aimed at identifying the training needs of companies in the aircraft industry located in Lombardy and to "translate" these skills needs

for training courses offered. The research consisted in focus groups with business actors participating in the network of the training centre; the results were an input for the design of the first training course started for aeronautical engineer.

FEEL - Vocational Education Excellent in Lombardy

After the creation of the Centre a further development was given by the acknowledgment within the programme "Excellent Lombardia", that aims at enhancing and supporting the VET system. 41 institutions were awarded at regional level, selected for the validity of the submitted projects and for having been able to meet the precise criteria: quality of the training activities, the results achieved, the orientation to the person and the strong local rooting.

The mission of FEEL is to consolidate the training activities already underway in related airport area in particular Malpensa by a localized solution that allows one hand to give an appropriate forum training offer in evolution from the point of view of the completeness and breadth and the other to develop and strengthen interaction with the business system.

The project intends to involve the actors of the training centre for the implementation of the production chain of intermodal transport and logistics, and all those public and private entities that have collaborated, collaborate now and want to collaborate on the development of Malpensa and its suppliers.

The Master

The realization of the Master in "Airport Management" stems from explicit needs of the airport system to build new skills in technical and management that can combine technical skills, interpersonal and management, in order to deal with greater effectiveness and efficiency planning and management activities related to air transport.

The aim of this Master's degree is to provide the necessary tools to executives and managers in the near future to better understand the dynamics of the industry and develop specific management skills grafted on a consolidated scientific-technical background. The renewed knowledge and skills will give students the ability to hold positions of responsibility in areas related to airport management, with increased relational skills, and management techniques.

The participation of many companies during the provision of educational content will give the opportunity to students to show up to the industry and to establish personal relationships with most of the entities involved in the management of air transport as well as entities for which it is important to the management technical and economic.

One of the key aspect regarding the training providing Airport-related is the development, during the years, of a **whole path** of specialization: the training, for those who are interested in a future career in the field of aircraft maintenance or assembly lines for aircraft construction, starts after the eighth grade and is completed after seven years articulated in the following training cycles:

- leFP (i.e. vocational education and training programmes) that can last 3 years or 4 years (EQF 3, EQF4) +
- IFTS (i.e. higher technical training) that lasts 1 year, and acts as bridge to the University or ITS level (EQF 4) +
- ITS (i.e. higher technical programmes) that can last 2 or 3 years (EQF 5).

Already after the first three-year cycle, the student obtains a vocational qualification recognized nationally and reaches of competence for use in the field of maintenance, which should be implemented with in-company training. Obviously at the end of each subsequent cycle the student will increase the skills acquired in training.

At the end of the seven years (or eight years) and the Diploma of technical specialization the student has reached a large number of skills that will allow him to work in an excellent aeronautical placement.

Impact and Replicability

This Good Practice has an economic impact on the territory in two ways:

- It provides the skills needed by the territory (in particular we focused on the Airport related courses) training young people and placing them directly in the workplace;
- Putting the needed skill on the territorial market it helps the Airport economical context to grow, favouring the expansion of the local economy that revolves around it.

The possibility to replicate this GP at Local level are really high, as the Airport experience suggests through its mode of action: individuate a big economic pole and try to reply to its needs, contributing to its own development in a virtuous cycle. Another distinctive characteristics of the practise is the support to the mentioned development through a provision of training at different levels, included in a **whole path** of specialization (here expressed in several EQF 3, EQF 4, EQF 5, EQF 7 courses).

This training offer not only covers the entire needs of the market but also gives more opportunities to young people, in terms of specialization and consequently of job seeking.

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VET-EDS Good Practice

Nordwin approach to developments in the Frisian dairy sector

KWIZ Research & Consultancy

Introduction

There is a great demand for Dutch dairy products. Also, with the abolition of the milk quota in 2015, a 20 – 30% increase in production is to be expected. The arrival of new major dairy companies such as A-ware, Fonterra and Ausnutria Hyproca to Heerenveen, together with the ambitious expansion of Friesland Campina in the province Groningen, guarantee over 500 million euro of investments in the northern dairy sector over the next few years. Altogether this will create a large number of new job vacancies.

‘Dairy Chain Friesland’ was developed by educational institutes, trade and industry and local authorities in the province of Friesland. Its main objective is to:

- Support regional dairy corporations with a sufficient amount of qualified workers

Nordwin is a vocational education provider in the Province of Friesland and is primarily focused on green education. Within the context of Dairy Chain Friesland, it has developed a number of VET programs to support the Frisian dairy sector and associated labour market. Its objectives are to:

- Support the dairy sector by training and educating students for work in that particular sector, in order to:
- Get a better match between supply and demand on the regional dairy labour market

Summary

Many developments are taking in the Frisian dairy sector. The arrival of new mayor dairy companies and the ambitious expansion of existing companies, results in a high demand for qualified workers. Dairy Chain Friesland was developed by regional vocation education providers, dairy companies and public authorities to support the developments in the dairy sector.

In the context of Dairy Chain Friesland, the vocational education provider of Nordwin has developed a number of VET programs related to dairy. Its goal is to enlarge the active work force in the dairy sector, in order to cope with the high demands.

Recent years have shown a shift towards a VET system that is based on economic developments. This was not common in previous years. Important aspects within this approach are knowledge of the regional economical developments in combination with knowledge of the skills that are needed at this point in time.

Context and setting

The Frisian dairy sector has to deal with a fast growing demand for well-educated personnel. In order to respond to these demands, educational institutes, trade and industry and local authorities in the province of Friesland have joined forces and developed 'Dairy Chain Friesland'. Dairy Chain its main objective is to support regional dairy corporations with a sufficient amount of qualified workers. Furthermore, an important objective is to develop and innovate knowledge about dairy. Vocational education will play an important role to train and educate students for work in this sector. For the coming six years, a total investment between 15 million euro and 20 million euro has been done to execute the Dairy Chain Friesland.

The arrival of new major dairy companies such as A-ware, Fonterra and Ausnutria Hyproca to Heerenveen, together with the ambitious expansion of Friesland Campina in Groningen, guarantee over 500 million euro in investments in the Frisian dairy sector over the next few years. This way the corporations take advantage of the increasing global demand for dairy products. With the abolition of the milk quota in 2015, a 20 – 30% increase in production is to be expected.

Different scenario's expect that the developments in the Frisian dairy sector will create over 1000 new jobs. In addition to new employment opportunities in primary dairy farming, many new jobs will be created in the supply, manufacturing and service sector related to the dairy market. It is expected that the regional labour market for the dairy sector will be under severe pressure coming years. Therefore it is important that more students will be educated and trained to find work within this sector.

Description

Nordwin is a vocational education provider in the province of Friesland and focusses primarily on green education. Its mission is to *"inspire current and new generations to develop their talents, so they can be of value to themselves, to a sustainable economy and to a liveable and healthy world"*. Currently, Nordwin is looking to intensify the link between VET and the outside world. This means vocational education is based on regional labour market developments. Apprenticeship training plays an important part in reaching this goal. In the context of the Dairy Chain, Nordwin has developed a number of vocational education programs in cooperation with a number of dairy companies. The education programs includes a number of apprenticeships and real assignments. Nordwin has made an agreement with Ausnutria Hyproca with regard to apprenticeships for students.

In the past, labour market developments and economic shifts often were not taken into account by vocational education providers and VET policy makers. Recent years have shown a shift towards a VET system that is based on labour market developments. Important aspects of this approach is to know what regional economic developments are taking place and which skills and knowledge is needed to support these developments. Nordwin's approach as a response to the high demands in the dairy sector can be a concrete example on how this shift in the VET system takes place.

The objectives Nordwin has with its vocational education program in the dairy sector are to:

- Support the dairy sector by training and education students for work in that particular sector, in order to:
- Get a better match between supply and demand on the Frisian dairy labour market.

Scale

Currently, 370 students are participating in one of the dairy related VET programs Nordwin offers within the context of the Dairy Chain Friesland. 130 of the students participate in a BBL-learning track, which means they spend four days in a dairy company and one day at school. 210 students participate in a BOL-learning track, which means students spend four days at school and one day working at a dairy company. Another 30 students participate in other VET programs related to dairy and food.

Involved parties

Even though Nordwin is an independent institute for vocational education, there are a number of involved parties which are of great importance for the VET programs in the context of Dairy Chain Friesland. An important aspect of Nordwin's approach is the link with professional practice. It is thus logical and important that business parties from the dairy sector are involved in the shaping of the VET programs. This is in line with the ambition of Nordwin to intensify the link of VET with the outside world. Moreover, Nordwin involves public authorities and the regional unemployment office. The dairy sector offers opportunities for the unemployed and jobseekers to find work. Public authorities and the unemployment office have a good overview of this group of people. Nordwin cooperates with these authorities to explore the possibilities to place these people into one of the vocational education programs.

Role of VET

In The Netherlands, there are no fixed frameworks within which the VET policies are being made. The legal framework within which providers operate, are the Vocational Education Act (Dutch: Wet Educatie en Beroepsonderwijs) and the Act on Higher and University education (Dutch: Wet op het Hoger en Universitair onderwijs). All these acts state the professional requirements for the programs that are being offered. Funding for education is based on the number of students that manage to leave the program with a diploma. Whether this diploma has any relevancy to the labour market is unimportant. The main providers are general education institutions. In addition, there are institutions that offer specific sector-oriented education programs.

The main goal of the VET-EDS program is to create a better alignment between the VET system and economic development strategies, with the help of effective labour market forecasting. This means that the VET-policy is adapted to be in line with current regional economic developments. Within the context of the dairy chain, vocational education is essential to train and educate workers that are suited for the jobs coming as a result of the developments in the Frisian dairy sector. Nordwin makes use of a practical oriented education method in order to train students the necessary skills at this point in time.

Critical factors for success

There are certain factors of success which are of great importance in order to align vocational education and the world of work. It is important to analyze which factors of success make the Nordwin approach to VET a good practice. Research has been done to determine the factors of

success behind Nordwin's approach to VET. These critical factors of success should be included in the toolkit to support the alignment of VET policy and economic development strategy. Research and close contact with an account manager of Nordwin resulted in the following three important factors for a successful approach to apprenticeship training:

- Involvement of regional companies
- Cooperation between enthusiastic stakeholders
- Regional demand for labour

Involvement of regional companies

Education in the Netherlands traditionally is aimed at training students to reach a certain educational (thinking) level. In general there is not a lot of attention for actual economic demands, neither for practical work experience. Nordwin's approach differs from traditional ones, because of its educational focus on practical assignments and internship. This way the educational programs come very close professional practice. Involving regional companies in shaping the educational system is an important part of aligning VET-policy and economic development strategies.

Cooperation between enthusiastic stakeholders

Cooperation with stakeholders creates a broad base of support which increases success. The partnership with the dairy industry makes it also easier to develop apprenticeships. It would be very difficult to align vocational education and professional practice if education institutes and regional business parties don't move forward together. Organizational commitment is thus an essential component in reaching certain goals.

Regional demand for labour

As described there is a high demand for qualified workers in the Frisian dairy sector. This is essential for the vocational education programs of Nordwin to be successful. When there are no available jobs in a particular sector, there is no reason to educate and train people for that kind of work. Also, when companies are not in need of personnel, they are not encouraged to create apprenticeships for students. Preliminary research is needed to determine labour market demands.

Constraints

Apprenticeship training (BBL) is an important part of the Dutch VET system. However, the current state of apprenticeship training in The Netherlands is poor. The amount of available apprenticeships is insufficient to cope with the amount of students in need of an apprenticeship. However, apprenticeship training often is the only way for youngsters and unemployed in the lower segment of the labour market to find a job. For that reason, vocational education shifted towards a BOL approach, which means students spend the majority of their time at school. The link with BOL towards professional practice is much less compared to BBL (apprenticeship training). However, with the recent arrival of new dairy companies, it is to be expected that more apprentices will be available for students, easing BBL.

Impact

Nordwin developed the vocational education programs as a response to the developing Frisian dairy sector and rapidly increasing labour market as a result of that. There is a high demand for new workers and the programs are aimed to decrease the shortage of workforce in this particular sector. Currently, 370 students are participating in one of the programs offered by Nordwin related to the

dairy sector. This is a significantly large group of people to have a high impact on the dairy labour market.

On its turn, the economic developments dairy sector impacts the VET system in the province of Fryslan. In recent years VET education shifted from BBL more towards a BOL approach. However, because of the expansion of the Frisian dairy sector, there is a high demand for workers. This creates opportunities for the BBL programs offered by Nordwin. While in the past there was a low amount of apprentices for students, companies now put effort into creating apprenticeships. This enabled students to get valuable work experience in which they learn the skills and knowledge that is really needed at this point in time.

Replicability

This case study was written in the context of the VET-EDS program and could inspire other partner regions on how to align vocational education and the world of work. Main topic of this good practice is to highlight link between Nordwin's VET approach and labour market developments. When creating a more labour market based VET system, it is important for education providers and policymakers to do preparatory labour market research. It is important to know what regional economic developments are taking place and which skills and knowledge is needed to support these developments. Subsequently VET programs can be developed that suit the skills and knowledge that is needed at this point in time.

Furthermore, in the context of the VET-EDS program it is important to take into account the critical factors for success when applying a similar approach to cross-border cooperation and internationalization of vocational education and training. These critical factors were:

- Involvement of regional companies
- Cooperation between enthusiastic stakeholders
- Regional demand for labour

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VET-EDS Good Practice

Construction Skills Network

Dr Andrew Dean

Introduction

The Construction Industry Training Board (CITB) is the Industry Training Board for Construction and a partner in the Sector Skills Council for the construction industry²⁸. It is a social enterprise devoted to building competitive advantage for the construction industry and the people who work in it. It collects a Training Levy from construction employers and uses this to provide: Employer support; Information, advice and guidance for those seeking Careers in construction; Research including labour market forecasting to anticipate and plan for skills needs; and Qualifications & standards for the industry.

The CITB also sells and delivers training and skills related products and supports or manages services on behalf of other organisations (such as the industry card scheme). It receives funding from the UK Commission for Employment and Skills to fulfil functions of the Sector Skills Council (for example, strategic planning²⁹).

The CITB's main vehicle for the provision of market intelligence and insight is the Construction Skills Network (CSN)³⁰. The CSN has two principal components: forecasting models, designed and managed by a private research company, Experian; and a membership body of 700+ representatives drawn from government, federations and employers whose primary role is to validate and test the forecasts and assumptions produced by the CSN.

²⁸ In partnership with the Construction Industry Council (CIC) and CITB North Ireland. The Sector Skills Council is responsible for developing training strategy and influencing supply and funding for the whole construction sector.

²⁹ Including the production of the joint CITB and Construction Skills "Construction Skills Strategy 2012-2017".

³⁰ <http://www.citb.co.uk/research/construction-skills-network/>

Summary

Sectoral approaches to LMI in the UK are typically developed through Sector Skills Councils (SSCs).

Arguably the most effective of these SSCs is the Construction Skills where there has been a history of sectoral LMI activity over many years that crucially is supported by the presence of a training levy – the only large scale levy of its kind in the UK.

Consequently Construction Skills have been able to utilise a suite of LMI approaches that combine traditional analysis of datasets – both generated for their own sector and national cross-sector data sets plus a very important formative approach where they work at local and regional level actively with their industrial partners and with colleges and training providers.

It is included here as the presence of CSN in most LEP regions and their overall approach makes it an example of a sectoral LMI activity that actively jointly seeks to support VET and economic development policy.

Context and setting

The 1964 Industrial Training Act gave the then Minister of Labour statutory powers to create industrial training boards which would be responsible for training in a number of UK industries, setting standards and providing advice to firms. This Act (amended in 1982) gives CITB its mandate to collect a levy from construction employers and to use this to support training and skills in construction. Services provided through the levy system include:

- Financial support to employers
- Advice for employers about training needs
- Information, advice and guidance for those seeking careers in construction
- Research including labour market forecasting to anticipate and plan for skills needs
- Qualifications & standards for the industry
- Specialist training facilities and services

As a social enterprise and charity, CITB sell training and skills related products that its beneficiaries need; so that any profit can go towards its work for industry.

CITB are seeking to influence the demand and supply of training and skills delivery. They influence demand through working closely with individuals and employers to help them appreciate the opportunities available and skills needs of the future construction workforce in a changing sector and simultaneously work with training providers to ensure they appreciate how the training they provide will need to evolve and where potential issues (skills gaps etc...) may be appearing. The CITB has a long history of using labour market intelligence to inform its work. Today, market intelligence (or 'insight') is primarily used:

- to provide career-related information for people considering or developing careers within the industry;
- to help employers become more competitive through skills development (i.e. offering more and/or better training)
to help the skills infrastructure respond swiftly to changing and emerging areas of skills demand (including, for example, within industry re-training to correct imbalances in supply and demand and identifying the training implications of emerging markets, technologies or practices).

Description

The CITB and Construction Skills also draw heavily on labour market intelligence to inform their own (internal) business and strategic planning. For example, the joint CITB and Construction Skills "Construction Skills Strategy 2012-2017" draws on CSN intelligence to identify industry-wide education and training needs and help shape organizational direction to ensure the industry has the right skills at the right time in the right place.

CSN intelligence also underpinned the development of an awareness raising campaign, articulating the impact of the industry to Central Government at a time of intense competition for funding.

More specifically, CSN intelligence and trend insight is designed to

- Pinpoint the associated, specific, skills that will be needed year by year
- Identify the sectors which are likely to be the strongest drivers of output growth in each region and devolved nation.
- Track the macro economy
- Understand how economic events impact on regional and devolved nations' economic performance
- Highlight trends across the industry such as national and regional shifts in demand
- Plan ahead and address the skills needs of a traditionally mobile workforce
- Understand the levels of qualified and competent new entrants required into the workforce.

The CITBs research needs are determined by its role at SSC and ITB and are influenced by economic drivers, immediate and emerging policy issues and industry skills challenges. To meet these needs, the CITB harnesses a research process that includes:

- Continuous labour market intelligence
- Analysis of industry change – economic, demographic and technological
- Forecasting labour and skills requirements
- Bespoke primary research
- Evaluation work

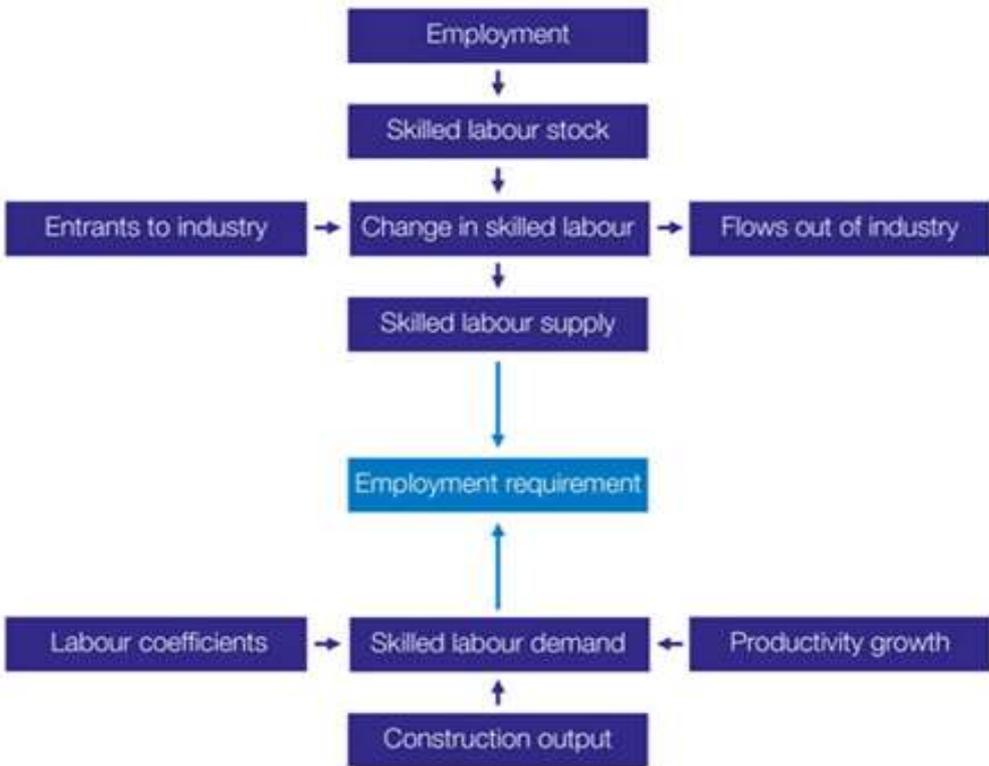
The CITB deploys an evolving but highly effective model for generating and validating its labour market intelligence – the Construction Skills Network (CSN). The CSN has two primary components: a skills forecasting model; and a 700+ strong membership body that supplements and validates the results generated by the model.

The membership network functions at the regional and national level. It comprises of a National Group, Observatory Groups operating across the English regions and devolved administrations; and a Technical Reference Group. The groups are made-up of representatives from industry, Government, education and other SSC, all of whom contribute knowledge and views on training, skills, recruitment, qualifications and policy.

The forecasting models generate forecasts of employment within the industry for a range of occupational groups. The models are designed and managed by Experian under the independent guidance and validation of the Technical Reference Group, comprised of statisticians and modelling experts. The forecasts for total employment are derived from

expectations about construction output and productivity: essentially, estimating ‘How many people will be needed to produce forecast output, given the assumptions made about productivity?’”. Demand and supply of workers are forecasted separately, with the difference between the two representing the number of new employees that need to be recruited into the construction each year in order to realize forecast levels of output. A summary of the model is shown in Figure 1.

Figure 1 The CSN forecasting model.



Source: Experian

The final CSN outputs are a set of authoritative forecasts, scenarios and findings, published annually, that spells out the challenges facing the industry over the next five years. The main “Blueprint” report covers the UK but supplementary reports are also published for Northern Ireland, Scotland and Wales, and for each of the nine English regions).

The CITB has also commissioned or undertaken a range of supplementary research. This has included:

- an annual Sector Skills Assessment exploring drivers of skill demand, current skill needs; anticipating future skill needs and geography³¹.
- A survey³² exploring current skills needs/deficiencies and commitment to workforce development in the UK (“Skills and Training in the Construction Industry”).
- Specific studies exploring: the impact of the recession on Construction Professional Services; UK training provision; the number of people entering construction; workforce mobility; employment by occupation; and Nuclear New Build Employment scenarios.

The following are examples of how the CSN is used;

1. Association for Consultancy & Engineering use primarily macro-economic, construction and employment forecasts. They use the CSN data for essentially enhancing its comprehension of where the market is going, combined with providing key market intelligence to our member firms through its own economic bulletins and other outputs.
2. Glasgow Caledonian University use the CSN workload and recruitment forecasts to plan intake of students and to identify trends in demand for particular professions. They also use it to develop and support business cases for academic programme developments.
3. Cross River Partnership have used both the CSN construction output and its breakdown into sectors (i.e. commercial) and recruitment requirements. They run a project which works with unemployed and economically inactive people to recruit, train and facilitate access to employment opportunities. The data has been used to understand where gaps will be in the industry and where opportunities will still exist.
4. Preston College use the skills forecast from the UK Blueprint for Construction. They identified from the skills forecast the following two areas as key skills needs in terms of annual recruitment requirement to the industry:
 - Carpentry and Joinery
 - Electrical Installation
5. This helped the College to plan growth in these two areas. They have also increased the number of Electrical Installation apprentices and the number of Site Carpentry apprentices accordingly.
6. Oldham & Rochdale Metropolitan Borough Council have used the CSN forecasts to ensure funded training and funded support into employment meets the demands of the industrial sector. They identify a fundamental difficulty in ensuring long-term training will meet employment needs of companies, when employment opportunities

³¹ See http://www.citb.co.uk/Documents/research/evidence-report-65-construction-building-services-ssa_tcm17-33271.pdf for 2011/12 report

³² This covered output constraints, recruitment activities and difficulties, skills gaps and upskilling, training and apprenticeships. See http://www.citb.co.uk/Documents/research/Training-Skills-Survey-Reports_tcm17-27270.pdf for the 2011 report.

arise at short-notice. The CSN helps them to address the short-term visibility of employment opportunities that are a consequence of short-term subcontract packages being awarded. They state:

- *“CSN forecasts, for example, evidence the demand for chartered surveyors and site managers. This would not necessarily be evidenced by potential new entrants with little direct experience of construction but possessing significant transferable skills. Similarly, employers might have no employment opportunities on average, and then suddenly have vacancies for roles requiring long-term training.*
 - *“The CSN forecasts have meant that J21 can work with the University College Oldham Construction School and the Chartered Institute Of Building to provide information, advice, and guidance and partnership working on an informed basis.”*
7. Lincoln College use is mainly the recruitment requirement, to plan new and existing curricula. The data is used in the School's business planning cycle. This helps us plan both new and existing curricula. The data is also circulated amongst partners including both training providers and employers and is used at employer network meetings. As a result of the data we have significantly increased technical and professional training as these are two areas that were identified as potential growth areas.

Constraints

One key issue here is the lack of comparability across sectors. The construction sector is able to engage with employers and training providers across the country whilst this is more challenging for other far less well-resourced sectors. Ten years ago, Dainty *et al.* (2005a³³) reported that according to the small firms who make up the vast majority of employers within the sector, labour market and taxation policies and attempts to control the industry's employment and training practices have seemingly done little to safeguard the long-term sustainability of skills provision. This criticism is probably less valid today, but nonetheless despite the best efforts of Construction Skills to lobby, analyse and encourage, their remain consistent and hard-to-tackle skills gaps in the sector.

Impact and Replicability

The CITB have a long history of LMI use and have developed a sophisticated and integrated model for generating and validating the intelligence drawn from their flagship research project. The contribution of industry experts and employers is integral to the model and there is strong representation from the devolved administrations and English regions, reflecting differences in the construction industry across the UK.

³³ Dainty, A. R. J., Ison, S. G. and Briscoe, G. H. (2005a) The construction labour market skills crisis: the perspective of small-medium sized firms, *Construction Management and Economics*, **23**, 387 – 398.

Other observatories would struggle to replicate such work, but elements of it – especially the linkages between employers and training providers and the use of sectoral LMI are transferable.

This is the only sectoral practice included from the UK – and the construction sector is the best example of the coordinated and pro-active use of LMI for helping supply side organisations to establish their provision. The continuation of the Training Levy in this sector (not found in other sectors) has been pivotal in enabling this service (along with other CITB services) to continue.

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VET-EDS Good Practice

Local Sectoral Skills Analysis

Dr Andrew Dean

Introduction

In 2012, the Marchmont Observatory was asked to undertake a range of work to enhance the economic evidence base of the Dorset Local Enterprise Partnership (LEP). This included work to:

- Produce the evidence base and recommendations for action for a Dorset LEP Skills Plan
- Develop a Dashboard to enable the LEP to monitor progress against agreed indicators

Critical to the work was a series of sectoral LMI reports that painted a picture of the skills and labour force needs within a number of economic sectors:

- Finance and banking
- Tourism, leisure, hospitality and international education
- Advanced engineering
- Food and drink
- Health
- Adult Social Care
- Creative industries
- Environmental goods and services
- Property and Construction
- Retail

This Good Practice looks specifically at the work in the economically significant Care Sector.

The work was very well received and helped the LEP design its Skills Strategy and Strategic Economic Plan – an element of which will be critical to the delivery and targeting of European funds (ERDF and ESF)

Summary

This Case Study summarises the approach taken in analysing a major sector in the Dorset Local Enterprise Partnership (LEP) Area. This is best thought of as a sub-region by European standards. The work was part of a suite of reports that used a mixed methodology to analyse the skills needs and challenges for a series of sectors.

It is included in VET-EDS as the ultimate aim of the study was to seek to inform policymakers concerning what types of VET and skills provision will be needed in the short and medium term.

The approach is reproducible given it combines a mixed methodology of quantitative analysis of datasets, and qualitative analysis of research, interviews and general sector intelligence.

The work proved successful and popular and during subsequent work in the area the Sector Reports were cited amongst the most useful LEP outputs.

Context

Marchmont was engaged to produce the evidence base for the proposed Dorset LEP Skills Plan. The purpose of the Skills Plan was to inform provision planning, particularly in Further Education (FE), and drive growth in Dorset by identifying the skills gaps and eliminating skills shortages. It would also provide the basis of any future potential requirement on the LEP with regards to skills commissioning.

The Dorset LEP region contains a population of 745,300. Its rural areas hold a population of some 213,900 people and contains some vibrant, growing towns. The coastline between Lyme Regis and Swanage has World Heritage status. Dorset is not as productive as it could be; GVA per employee is below the national average. This varies across the area, and is up to 21 percentage points below the national average. The area is characterised by a relatively low wage economy.

Average earnings are not particularly high in Dorset. Wages are on average lower across the majority of sectors compared to when the national average. The public sector is a significant employer across Dorset. It represents 30% of employment across the area (compared to 27% nationally). The level rises to 40% of jobs in the West Dorset area. The average salary in Dorset is now only £19,219 while the average home costs £254,891 – 13 times the average wage (National Housing Federation, 2014).

In 2011, GVA in the Dorset LEP area was £12,465 million. This is projected to rise by 0.3% to £12,498 million in 2012 and by 20.2% to £14,987 million in 2021 (average growth of 1.9% per annum).

Detailed analysis was to focus on demand and supply of skills in the priority sectors:

- Finance and banking
- Tourism, leisure, hospitality and international education
- Advanced engineering
- Food and drink
- Adult social care
- Health
- Creative industries
- Environmental goods and services
- Property and Construction
- Retail

Detailed sections on each of these sectors were produced, which could be used as stand-alone documents for the purpose of sector based discussions and consultations. The analysis included a review of data on college provision. Reviews of this kind – ‘supply side’ – are not common in the UK and the exact provision of training is often not known (other than that which is directly paid for by the state).

In addition Marchmont conducted interviews with a small selection of training providers, employer networks and strategic partners, to identify key issues and challenges that the Skills Plan should address. In addition to the review of the evidence, Marchmont produced a set of key messages and recommendations which could form the basis of the Skills Plan.

The final document sought to be easily digestible with a clear layout and indexing to assist the selective reader. The Skills Plan will be refreshed at agreed intervals and therefore needed to be written initially with a view to ease of updating. This case study looks specifically at the Adult Social Care Sector which is critical to the region and its ageing demographic.

Description

The report was set out as follows:

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The various analytical sections are set out below looking at the kinds of data and conclusions that could be made.

Introduction

A general introduction to the sector was build explaining that Dorset LEP identified Adult Social Care as a priority sector. The sector was defined using enterprises falling under the following Standard Industrial Classifications (SIC):

- SIC 87.1 Residential nursing care activities
- SIC 87.30 Residential care activities for the elderly and disabled
- SIC 88.10 Social work activities without accommodation for the elderly/disabled.

This identified that the Adult Social Care sector provides services to people who, for reasons to do with age, disability, mental health, or social exclusion, are unable to look after themselves and require care, support, or protection. The majority of people working in the sector provide practical help with daily activities to service users. They also help people to adjust positively to changes in their lives, assist them in making choices about how they live, and help them to live more independently.

It is a growing sector, which offers significant employment flexibility, predominantly in the private business and third sectors. Many people enter work in care motivated by a desire to help others. Most draw significant pleasure from their work, from improving their clients' lives and making them feel happy. However, it is also a sector characterised by low pay, long and unsocial hours of work; and one in which pressure to raise efficiency is sometimes felt to leave little time for eye-to-eye contact and the compassionate engagement so valued by clients and workers alike. Despite this, in a recent survey of people working in Social Care, 88% of respondents said they were happy in their jobs, 54% of them very happy, 99% agreed that they liked feeling that they helped people and 96% felt that their work really made a difference .

Sector Profile

To analyse the sector profiles we used a variety of LMI. According to the National Minimum Dataset for Social Care (NMD-SC), this revealed that there were 499 establishments providing social care in the Dorset LEP area. Of these:

- 31% were Care Homes without Nursing;
- 10.5% were Care Homes with Nursing;
- 13.5% were providers of Domiciliary Care; and
- 12.5% were providers of Adult Community Care.

Just over half of these establishments (53%) were in the private sector. One third (33%) were statutory organisations and one-in-eight (13%) was a voluntary or 'third' sector organisation. Most (61%) of the care establishments in the Dorset LEP area are small, employing between 10 and 49 staff. A further 25% have fewer than 10 employees.

The Inter-Departmental Business Register (IDBR) data suggested that there were 200 Establishments in the sector in the Dorset LEP area in 2012, 5% more than there were in 2009. The large difference between the IDBR and NMD-SC data is due to the fact that NMD-SC includes all social care activities, including those supporting children. The IDBR data is a sub-set of this.

Employment profile

Data on employment by industrial sector is sourced from the Business Register Employment Survey (BRES) as this is a more reliable source for employee numbers than the IDBR, albeit one that is only available for 2009 to 2011. BRES also allows the analyst to drill down and look at the proportion of employment at district level, although considerable caution is needed when interpreting BRES data at this level BRES is based on a sample survey, so estimates are subject to sampling errors. This revealed that in 2011 there were around 10,200 people employed in the Adult Social Care sector in the Dorset LEP area. Figure 1 shows that this equates to 3.2% of total employment. This is a significantly higher proportion of employment than that found in the South West (3.1%) or across Great Britain (2.5%) and the South East (2.5%).

BRES suggests that the number of people employed in Adult Social Care grew by 57% (or 3,800 employees) in the Dorset LEP area between 2009 and 2011. This is a much faster rate of growth than that for England (21%) and the South West (38%). In fact, the rate of growth is almost suspiciously large, but the regional and national data also suggests that the sector is growing extremely rapidly. Long-term data showing employment growth over 20 years, broken down by occupation, is available from Working Futures. However, this is provided for 'Health and Social Work', of which Social care forms just part. The data is, nonetheless, interesting in showing:

- rapid (87%) growth in employment in the broad sector between 1990 and 2010; and
- exceptionally rapid (157%) growth in employment in Caring, leisure & other service occupations within the sector.

Occupational structure

A breakdown of the main job roles was revealed by analysis of the Annual Population Survey (October 2010-September 2011) estimates downloaded from NOMIS (Government data portal) and the Office for national statistics' (ONS) Labour Force Survey. This showed that 55% of employees in Social Care are employed as 'Care Workers', with a further 8% employed as 'Senior Care Workers'. One third of all jobs are not in front-line caring occupations or other management roles. Nationally, roughly a third (36%) of jobs are in residential care, almost half (45%) are in domiciliary care, 5% are in day care services and 14% are community-based.

Workforce characteristics

Analysis of the National Minimum data Set for Social Care (NMDS-SC) took place. This is an online database which holds data on the adult social care workforce. It is the leading source of workforce intelligence and holds information on around 25,000 establishments and 700,000 workers across England. It reveals that the vast majority (83%) of employees working within the sector in the Dorset LEP area are female and that the Care Sector workforce is also relatively old, by comparison with the workforce as a whole. The average age of workers in the sector is 43. As Figure 2 shows, the proportion of employees aged between 50 and 64 within the sector (31%) is significantly larger than that seen across all sectors (26%). There are also fewer people aged between 25 and 34 working in the sector relative to all sectors of the economy, and significantly fewer people working in Social Care who are aged 16 to 19. Although the workforce is relatively old, this has always been the case and there is little evidence of workforce 'ageing'.

Migration

Analysis of census data reveals that a significant minority (27%) of Care Sector employees within the Dorset LEP were born outside the UK. This is much higher than the average for all sectors, where just 8% of employees were born outside the UK. The most common countries of origin were Poland (which accounts for 16% of non-UK born workers), the Philippines (15%), India (9%), Zimbabwe (8%) and South Africa (5%). All but the first of these are countries outside the European Union (EU). Whereas previously senior care workers and various forms of health workers (e.g. nurses working in nursing homes) could be recruited from outside the EU, all care-related occupations have now been removed from the last Migration Advisory Committee Shortage Occupation List. This change in national migration policy is a concern for employers who worry that it will exacerbate recruitment difficulties and could result in existing staff being required to leave the country when their work permits expire. Although this legislation does not apply to EU citizens, there is some evidence that the number of EU nationals entering care work in the UK may be in decline.

Employment projections

Projections of future employment in the sector highlighted LMI issues. The United Kingdom Commission for Employment and Skills (UKCES) 'Working Futures' data suggests that the number of people employed in 'Health and Social Care' is expected to fall very slightly between 2010 and 2020, despite overall employment in the Dorset LEP area being projected to rise by 7% between 2010 and 2020. This conflicts with other projections, such those made by Willtenburg *et al*, who predict that the social care workforce caring for older people will rise by 79% nationally between 2007 and 2032.

It also conflicts with projections made by W. Fenton for the Personal Social Services Research Unit. These suggest that the number of jobs in adult social care could grow by anything between 24% and 82% between 2010 and 2025. This research generates four scenarios:

- A Base Case scenario - which assumes patterns of service remain constant, while demand increases as anticipated, resulting in a 65% rise in the number of jobs (to 2.8 million in 2025), and the number of people working in the sector rising by 53% (to 2.4 million).
- A Maximising Choice scenario – in which all who wish to have their publicly-funded social care provided in a highly personalised way in their own homes, resulting in the number of jobs nearly doubling, to 3.1 million by 2025, and the number of people working in adult social care rising to 2.6 million.
- A Contain and Community scenario - which envisages most care and support being provided by a largely unpaid workforce of family carers and community volunteers, resulting in paid jobs increasing by 37% to 2.3 million in 2025, and the number of people paid to work in the sector rising by 26% to 2.0 million.
- A Restricted Resources scenario – which assumes that future resources for adult social care will be very limited, with higher client-staff ratios in publicly-funded residential care, resulting in the number of jobs increasing by 24%, and the number of people working in the sector increasing by 14% to 1.8 million.

A further set of scenarios, developed by Skills for Care in 2008, suggest that if all citizens were to be afforded the capacity to acquire personalised Care, for example through ‘Direct Payments’, this could result in a near 80% rise in the overall workforce by 2025, with a nine-fold increase in the number of Personal Assistants and a static picture for employees in residential care settings.

Occupational projections

Occupational projections for the Care sector are only available at national level from the Working Futures III data. These suggest that employment growth is likely to be concentrated among Professional occupations and Caring occupations. The number of Administrative and Elementary jobs is projected to fall, suggesting that the sector will become increasingly skilled and knowledge-intensive over time.

Demographic change

On Census day 2011, 22.4% of the population of the Dorset LEP area (166,000 people) was aged 65 or over. This is significantly higher than the national average, of 16.3% being aged 65 or over. According to ONS population projections, the number of people in this age group is expected to grow by 31%, or 52,000, between 2010 and 2025. The rate of population growth among people aged 85 and over is projected to be even higher: 49% between 2010 and 2025. Although older people are not the only ones who need care (and not all older people need care), this demographic trend is expected to be a major driver of employment expansion within the sector. The Dilnot Commission estimated that approximately three-quarters of people aged 65 and over will need some form of care, of which half can expect care costs of up to £20,000 and a quarter, costs of over £100,000. It also pointed out that, over the last four years, demand for care services has outstripped expenditure and that funding for care has not kept pace with general NHS funding. Real expenditure on Adult

Social Care increased by 70% over the period 1994/5 to 2009/10, compared with a 110% rise across the NHS as a whole.

Pay and wages

The National Minimum Data Set for Social Care shows that wages in the Care sector are low, averaging £15,444, compared with £18,461 for all sectors in Bournemouth, £18,500 in Dorset and £21,140 in Poole. The average wage for Care Workers, the largest employment group in the sector, is just £14,237. According to the NMDS-SC, in September 2011, Senior Care Workers were paid an average of £7.15 per hour while Care Workers were paid an average of £6.65 per hour, a figure roughly 10% higher than the national minimum wage (£6.08 per hour in October 2011). National analysis of the 2009 Annual Survey of Hours and Earnings suggests that residential care workers are paid around 62% of the all-industry average earnings.

Skills Supply

In this section, we looked at the flow of skills into the sector, focusing on trends in:

Further Education (FE) courses started by 16 to 19 year-olds with 'learning aims' relevant to the sector;

- the number of Apprenticeship starts and achievements relevant to the sector; and
- the volume of HE qualifications gained in subjects relevant to the sector.

Further Education

In 2011/12, 7,960 16 to 19 year old residents of Dorset LEP were learning within FE. Not all of these young people attended FE providers located within the Dorset LEP area, which is evident from the fact that LEP-based providers supported 6,260 learners in the same academic year. Together, these 7,960 young people were enrolled onto programmes with a total of 28,670 'learner aims' (essentially a measure of courses). The number of learner aims exceeds the number of learners, as most young people study three or four subjects.

Between 2009/10 and 2011/12, the number of 16 to 19 year olds resident in the Dorset LEP area who were learning within FE fell by 730 learners, or -8.4%. The number of young people learning at Dorset LEP-based providers also fell, but by a smaller number - 390 learners, or -5.8%. This decline, which provides important context for the figures below, is due to a combination of factors, including the decline in the total number of young people and a rise in the proportion of young people remaining within school sixth forms from age 16 onwards.

In 2011/12, 910 enrolments were in subject areas relevant to the Adult Social Care sector. The number of enrolments in these subjects has risen significantly over the last three years, from 640 in 2009/10. Dorset LEP providers accounted for 760 enrolments with learning aims relevant to the sector, suggesting that 150 or more residents of the LEP area were studying subjects relevant to Adult Social Care in other geographical areas.

Impact and Replicability

The work enabled the LEP to identify particular sectoral challenges and to seek to address these. The approach is replicable where similar data can be found. It combines quantitative with qualitative intelligence from a mixture of academic and non-academic sources alongside interviews and sector intelligence.

Incidence of training

Perhaps unsurprisingly, given this regulatory requirement, the incidence of training, particularly accredited training, within the sector is high. According to the Labour Force Survey, 40% of Care sector employees reported receiving training in the last 13 weeks, a figure far higher than the all-sector average of 13%. 84% of Care sector employers, interviewed for the Employer Skills Survey 2011 (ESS), reported that they provided training for staff, compared with 59% of employers across all sectors. ESS 2011 also showed that employers in the Social Care sector are more likely to have training plans and budgets in place and to adopt high-performing working practices, such as formal procedures for identifying 'high potential' individuals. The inference here is that, by comparison with other sectors, the availability of development opportunities for those pursuing careers and progression within the sector (as opposed to 'jobs') is relatively good.

Motivations for training

It would also certainly be wrong to suggest that compliance with legislative standards was the key driving force behind training within the sector. When interviewed by Inter-logistics, managers in the Care sector identified their primary motivations for encouraging staff to obtain qualifications as being to enable them to deliver high-quality, person-centred care, through being better at the job, with higher levels of skill and knowledge. Through doing this, they also aim to enhance their organisation's reputation and marketability, to reduce costs and to attract and retain good quality staff, promoting them to more senior posts as opportunities arise.

Qualification levels

However, despite this focus on training, large numbers of people in the Social Care workforce continue to have low levels of qualification. When providing data for the NMD-SC, managers of care service providers in the Dorset LEP area reported that:

- 49% of their staff had no qualifications;
- a further 8% had qualifications below Level 2;
- 14% had qualifications at Level 2; and
- 8% held qualifications at Level 3 and Level 4.

This is a dramatically different qualifications profile to that for the working age population as a whole, derived from the Labour Force Survey (LFS), which suggested that just 4% of employees in the Dorset LEP area as a whole had no qualifications and 34% held qualifications at Level 4 and above. At the national level, managers completing the NMD-SC reported that 60% of Social Care staff had no qualifications directly relevant to their employment, while national analysis of LFS suggested that 17.25% of the Skills for Care & Development workforce were qualified to Level 2 or below, compared with just 1.35% of people working across all public service-focused Sector Skill Council (SSC)

footprints. The overall conclusion is clear: the highest level of qualification held by employees working is significantly lower than the average.

Skills gaps

According to the ESS 2011, 17% of employers in the Care sector had a skills gap (a member of staff who was not fully proficient to perform their current job). This is slightly higher than the all-sector average (13%). The proportion of all employees (52 per 1,000) considered to have a skills gap was very little different to that for all sectors (54 per 1,000). It is difficult to know exactly how to interpret this data. Employer responses may, for example, reflect the extent to which they feel that 'skills' are required in a sector which can sometimes be referred to as 'low-skilled' relative to other sectors, such as Engineering, where the concept of 'skill' (as opposed to 'aptitude' or 'attribute') may be more obvious. However, we do know that, where skills gaps do exist, they are most common among Caring and Professional occupations and that the skills that are most often found to be missing are:

- job-specific skills, which are cited by 54% of Social Care sector employers with Skills-Shortage Vacancies (SSVs), compared with 67% of employers in all sectors;
- customer-handling skills, which are cited by 49% of Social Care sector employers with SSVs, compared with 43% of employers in all sectors;
- planning and organisation skills, cited by 49% in Social Care, compared with 43% in all sectors;
- written communication skills, 46% in Social Care, compared with 35% in all sectors;
- oral communication, 44% in Social Care, compared with 40% in all sectors.

Other skills that employers find more difficult to obtain in Care, relative to other sectors are:

- Basic IT Literacy, cited by 26% of Social Care sector employers with skills gaps, compared with 17% of employers in other sectors;
- literacy skills, cited by 34% of Social Care sector employers, compared with 29% in all sectors;
- numeracy skills, cited by 22% of Social Care employees, compared with 18% in all sectors.

These skills gaps most often occur as a result of people being new to a role and having not yet completed their training. However, where they occur, they can have serious implications for employers, increasing the workload for other members of staff and creating difficulties in introducing new working practices and meeting quality standards. They point to a skills and training requirement in both core job-related competencies, such as customer-handling and a need for a focus on basic IT skills, literacy and numeracy.

Financial returns to progression

One of the challenges facing the sector is that the financial rewards associated with gaining higher levels of qualification or Senior Care Worker status appear relatively limited. Although hourly rates of pay do rise with the level of social care-related qualification held:

- Care Workers with a Level 3 qualification earn 26 pence per hour (3.9%) more than Care Workers whose highest qualification is at Level 2;

- Care Workers with a highest qualification at Level 2 earn four pence per hour (0.6%) more than those with no qualifications at all; and
- Senior Care Workers with a Level 4 as their highest qualification earn 17 pence per hour (2.3%) more than Senior Care Workers with a Level 3.

The differential in earnings between Care Workers and Senior Care Workers with the same level of qualification is also fairly small, amounting to:

- 46 pence per hour (6.9%) for those with Level 2 qualifications;
- 43 pence per hour (6.2%) for those with Level 3 qualifications; and
- 55 pence (7.9%) for those with qualifications at Level 4.

Recruitment and retention

Care sector organisations in the Dorset LEP area had to replace 19.6% of their workforce during 2011. Turnover rates are particularly high among lower grades, with employers in the Dorset LEP area having to replace 28% of Care workers, compared with 15% of Senior Care Workers and 10% of Social Workers. The most common reasons for staff leaving employment were 'personal reasons' (21%), 'transferral to another employer' (14%), Undisclosed (11%) and 'career development' (11%). High turnover rates clearly impact on continuity of care. In a sector where the quality of personal relationships are critical, excessive staff turnover can have a negative impact on clients' experiences.

Improving staff retention through measures such as improving supervisory management, Human Resource (HR) systems and progression opportunities, are a priority for the sector. Many of these processes are also central to effective staff recruitment, which is a linked concern for employers.

Interestingly, however, ESS 2011 also found that employers in the Care sector were less likely than average to find their vacancies hard to fill. This may owe something to there being fewer entry requirements than exist for many other industries or to the role of employment agencies serving the sector. It may also be indicative of a highly mobile and transient workforce moving rapidly between posts, enabling employers to fill vacancies fairly readily, albeit on a short-term basis.

Apprenticeships

The 2012 Department of Health strategy, Caring for our future: reforming care and support, sets out an ambition for:

- doubling the number of Apprentices in the Care sector to 100,000 over the next five years; and
- establishing Higher Level Apprenticeships as a progression route for Care managers.

Historically, Apprenticeship take-up up in Adult Social Care was low, partly due to a requirement that personal care could only be provided by people aged 18 or over. This requirement has been relaxed and care can now be provided by 16 to 18 years olds provided that they are suitably trained, competent and supervised. This change, allied with the drive to increase Apprenticeship numbers,

particularly among young people, has resulted in a rapid rise in Apprenticeship numbers in recent years at both Intermediate (Level 2) and Advanced (Level 3) Level.

Other actions

Other actions that Dorset LEP could take to promote and develop the opportunities that the sector provides include:

- supporting networking and collaboration within the sector,
- development of a centre of excellence for the Care sector within the Dorset LEP area to complement, build and promote the spread of best practice in skills development;
- development of sector-focused appropriate business support programmes, including management and leadership and the effective utilisation of Superfast Broadband by the sector;
- promoting better use of sector intelligence, such as through interrogation of NMDS-SC as a business tool.

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VET-EDS

Hinckley Nuclear Plant Construction (and associated use of LMI)

Dr Andrew Dean

Introduction

In October 2014, the European Commission gave final approval for the construction of a new €20bn nuclear energy plant in the Heart of the South West. It will be the first new nuclear build in the UK for almost 20 years and the first of a new generation of European Pressurised Reactors (EPR) in the UK, producing electricity for around 5 million homes. At the peak of construction, around 5,500 people will be employed at the site, across a wide range of construction and civil engineering occupations. The site at Hinkley Point is in a remote rural location. As no similar plants have been built for many years, the skills needed to build the reactor will not be available locally. There is a large-scale VET requirement, focused on enabling local people to take up employment at the site and to compete with people attracted to work at Hinkley from outside the region.

The Heart of the South West Local Enterprise Partnership (HotSW LEP) is responsible for the economic development of the area. It has responsibility for the targeting of EU Structural & Investment Funds (ESIF) and the development and delivery of a local skills strategy. In this capacity, it has been working with local strategic partners to assess the nature and scale of the opportunities arising from new nuclear build at Hinkley; to identify the employment and skills needs that will be generated by the development; and to support VET providers in making a co-ordinated and adequate response.

This case study examines the tools that HotSW LEP has used to analyse the employment & skills needs arising from this major construction project.

Summary

Major infrastructure developments give policymakers the opportunity to boost GDP, GVA and numerous other measures of economic success. They also bring jobs and skills.

The new Nuclear Power Plant planned for Hinkley in Somerset will, at its peak, employ around 5,500 people in its construction. It will also employ large numbers of skilled staff over its lifetime.

Sensibly it is a priority for the local policymakers associated with its employment geography. Chief amongst these are the HotSW LEP who have the ability to target ESIF funds in support of the developments and who have particular responsibility for driving economic growth in the area.

The LEP have used a suite of tools to explore what skills will be needed and when – and it is these that this report concerns itself with.

Context and setting

The UK VET system is highly market-oriented. Training providers compete with one another, seeking to build relationships with employers focused on meeting their training needs. The amount they charge employers is generally for the college or training provider to negotiate with employers, being dictated by:

- a) the employers requirements – e.g. whether the VET provider is being asked deliver training or just accredit training that is largely delivered by the employer; the amount of ‘off-the-job’ training that is required; the number of people the employer wishes to train and the consequent economies of scale; the cost of capital equipment and materials; whether training takes place at anti-social hours and so on; and
- b) the size of the public subsidy – which is dictated by the age of those being trained; trainees’ employment status prior to training; the level of the qualification being gained; and, key to our interest, whether a type or sector of training is considered a local strategic priority and has been identified as a priority for the targeting of funds (such as the European Social Fund) over which LEPs and local partners have discretion.

UK VET providers are not, therefore, just involved in responding to data on anticipated labour market needs. They are players in a competitive market, weighing up a wide variety of financial factors and making complex commercial decisions about how they best position their organisation in the market and in relation to other players in the market.

HotSW LEP – strategic responsibilities & priorities

A highly influential review of economic development in England³⁴ conducted in 2012 argued that *‘Unfortunately, as a whole, the (UK VET) system is not delivering what the economy needs. The current system does not incentivise FE providers to run the courses that deliver the greatest economic benefit... In most instances, skills funding flows to the courses that students demand and which colleges can fill. It is hardly surprising then, that there is often a mismatch between the skills being taught and the skills that employers are demanding or the jobs likely to be on offer. This either results in employers needing to retrain students, or not being able to fill vacancies.’*

Key recommendations were to:

- Put an increasing amount of VET funding in the hands of employers, including through the tax system; and to
- Devolve VET budgets to local areas, with Local Enterprise Partnerships (employer led-forums) having a key role in identifying priorities for expenditure.

Although these changes are still in progress and the amount of funding devolved to local areas was significantly lower than that originally recommended, HotSW LEP has some considerable control over the targeting of European Structural & Investment Funds and Further Education Capital Funding in

³⁴ Hesaltine, M. No stone unturned in pursuit of growth, BIS, 2012

the area; as well as the scope to sponsor and prioritise local applications to a competitive pot of ‘Growth Deal’ funding, which can be used for skills development.

HotSW LEP & Hinkley Point

In its Strategic Economic Plan, HotSW LEP has identified the Hinkley nuclear development as being a one of four ‘immediate Golden Opportunities that are unique to our area and have the potential to transform its economic prospects’. While only 5,500 workers are expected to be employed on Hinkley’s construction at any one time, taking account of multiplier and the fact that some of these jobs will be relatively short-term, Hinkley is expected to generate 27,000 job opportunities over the entire period of its development, spread across construction, hospitality, accommodation, logistics, engineering and other sectors.

Through its Board, its ‘People’ sub-group³⁵ and supported by the Somerset Employment and Skills Board³⁶, the LEP has taken the decision to support the market for delivery of skills required at Hinkley through the following steps.

1. Immediately establishing a £1.7m **Skills Fund for Hinkley**, funded the 2007 - 2013 ESF programme, to help employees of local SMEs to acquire the range of skills they need to gain work as part of the overall Hinkley supply chain. The fund is managed by a single VET provider (Bridgewater College) on behalf of consortium of training providers. The level of subsidy provided for each incidence of training is flexible. Funding is routed through the VET providers to reduce the cost that employers would normally pay for this provision.
2. Setting up a **Hinkley Point Training Agency** to drive demand and support the supply of skills to the Hinkley development over the longer-term. Through this initiative the LEP aspires to secure a budget of between £5m to £15m per year for Hinkley-related training, by allocating part of the 2014 – 2020 ESF resources it effectively controls and by using this to leverage in additional ‘Growth Deal’ funds from central government.

The Hinkley Point Training Agency is also born of a concern to stop multiple providers from simultaneously knocking on the door of employers coming to the area to work on Hinkley, delivering competitive messages and potentially under-cutting each other on price; and a desire to instead to provide a co-ordinated suite of high quality training opportunities.

Given the importance in the UK VET market of achieving ‘critical mass’, i.e. sufficient volume of work to adapt provision or make expansion into new areas worthwhile, working through HTPA to co-ordinate and differentiate the offer of different institutions is clearly in VET providers’ interests.

³⁵ The LEP has three sub-groups, focused on People, Business and Place

³⁶ The Somerset Employment & Skills Board represents the Sub-LEP geography in which Hinkley Point is located. It feeds local priorities up to the wider LEP.

Description

Economic and Labour Market Models

To support Local Enterprise Partnerships (LEPs) in developing their thinking about the employment & skills needs of their areas, the UK Government³⁷ has, for many years, sponsored 'Working Futures', a set of freely available labour market projections at the regional and sub-regional level³⁸. Many LEPs supplement this information by buying into additional projections and models, such as the Local Economy Forecasting Model³⁹.

While these models contain a high degree of sophistication, by necessity they are largely constructed on the basis of historic data, casting historic these into the future, with adjustments for known factors, such as demographic changes. For obvious reasons, fixed models do not and cannot anticipate economic 'shocks' or examine the potential impact of these on an area. Nor do they allow partners to explore the impact of large-scale developments, such as the building of a €20bn nuclear reactor on employment in other sectors, on female / male employment, migration, consumer spending, GVA, the occupational balance and so on.

Scenario Modelling

There are, however, more flexible modelling tools that allow users to generate projections for a variety of different growth scenarios, including the Heart of the South West Scenario Model, which HotSW LEP commissioned from Oxford Economics. This was commissioned to allow the LEP to consider the impact of a wide range of scenarios, such as the impact on that different economic growth rates in the area would have on employment levels and the implications of this for setting local employment targets. The HotSW LEP Scenario Model, provided in Excel format, allows users to generate scenarios for the following.

- **Faster or lower jobs growth** - Users can adjust a baseline average employment growth rate of 0.37% p.a. distributing the additional employment growth across 29 sectors. They can allocated this to specific sub-sectors and adjust the productivity of the additional growth. The productivity uplift can be adjusted for different sub-regional geographies.
- **Job targets at LEP level.** Users can examine the impact that the creation of a specific volume of additional jobs will have on the area (above the baseline scenario). They can distribute the additional jobs across the 29 sectors and adjust the productivity of the additional jobs.
- **Jobs targets for sub-regions within the LEP area** - As with the jobs targets at LEP Level, however allowing flexibility users to allocate the additional jobs to specific sub-regions, examining the impact across the LEP area.

Once scenarios are run, the model displays longitudinal data for the scenario, the baseline and difference between the two. Graphs for key variables, such as employment, unemployment, migration, GVA growth, workplace wages and consumer spending are automatically generated, as shown in

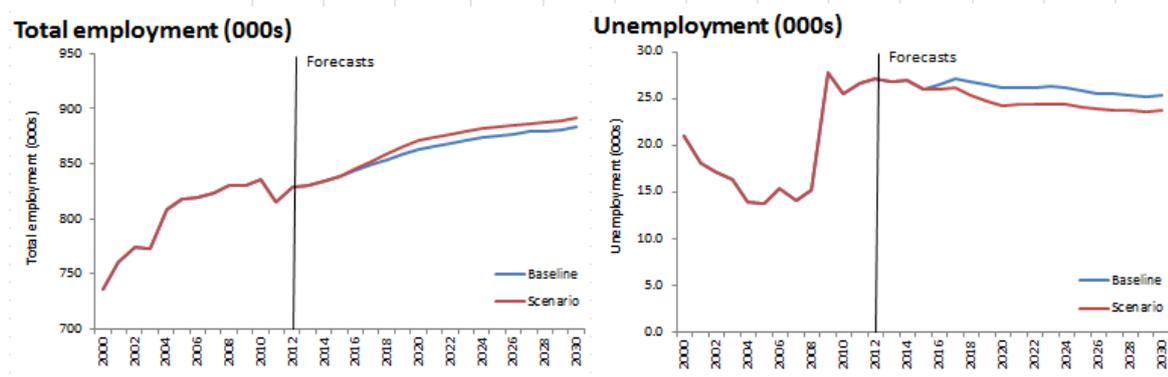
Figure 1 below.

³⁷ via the UK Commission on Employment & Skills

³⁸ These are discussed in greater detail later in this case study.

³⁹ <http://www.camecon.com/SubNational/SubNationalUK/ModellingCapability/LEFM/LEFMOverview.aspx>

Figure 1: Examples of outputs of the HotSW Scenario Model



However, for labour market purposes, the ability to extract annual data on the longitudinal impact of the scenario on employment across 29 sectors and nine occupations is of particular interest. These are produced both for the LEP / Region and 15 sub-regional geographies. The tool also allows users to examine the multiplier effects of growth in particular sectors and locations (e.g. relating to a nuclear new build); the geographical distribution of these multiplier effects outside the immediate area; and the impact that growth in one sector (such as construction) has in others (such as accommodation & hospitality).

The HotSW LEP Scenario Model has been useful preparation of economic assessments for the Somerset and HotSW LEP economies, which take account of the Hinkley nuclear development and also provide a backdrop for the development of skills strategy for the area. However, by itself, the model does not produce outputs that are sufficiently precise to allow for VET planning. Its outputs do and have, therefore, been considered alongside other more specifically labour market oriented projections.

Working Futures Projections

The Working Futures projections are commissioned by the UK Commission for Employment and Skills⁴⁰⁴¹ and are freely available to LEPs. Like the HotSW LEP Scenario Model, Working Futures provides projections of annual employment change both by occupation and sector. However, importantly, the model also provides projections of employment change by occupation within sectors, allowing users to assess how future employment growth in a sector such as construction will be spread across different occupations (Skilled Trades; Plant process & machine operatives etc.).

Usefully, alongside projections of employment growth, the model also produces projections for replacement demand; the labour recruitment requirement generated by the need to replace people leaving the sector for reasons such as retirement. Combining these two dynamics allows users to identify a 'Total Requirement' for new labour in a sector. This is a much better indicator of any training requirement than data employment growth data alone. Figure 2 provides projections of change in Construction in the Heart of the South West.

⁴⁰ <https://www.gov.uk/government/publications/working-futures-2012-to-2022>

⁴¹ Produced by the University of Warwick & Cambridge Econometrics

Figure 2: Working Futures projections for Construction in the South West, 2010 – 2020.

Heart of the South West : Construction Employment Levels (000s)	2010	2015	2020	2010-2020		Total Requirement
				Net Change	Replacement Demands	
1. Managers, directors and senior officials	4	5	6	2	2	4
2. Professional occupations	5	6	7	2	2	4
3. Associate professional and technical	3	4	4	1	1	2
4. Administrative and secretarial	3	4	4	1	2	2
5. Skilled trades occupations	32	36	40	8	12	20
6. Caring, leisure and other service	0	0	0	0	0	0
7. Sales and customer service	1	1	1	0	0	1
8. Process, plant and machine operatives	4	5	5	0	2	2
9. Elementary occupations	3	3	3	0	1	1
Total	55	63	69	14	21	36
Percentage Shares	2010	2015	2020	Percentage Changes		
1. Managers, directors and senior officials	7.5	8.0	8.6	43.7	42.2	85.9
2. Professional occupations	8.9	9.4	9.9	39.4	37.0	76.4
3. Associate professional and technical	5.4	5.7	6.0	39.7	36.7	76.4
4. Administrative and secretarial	6.1	6.2	5.8	18.4	47.9	66.2
5. Skilled trades occupations	58.1	57.6	57.8	25.2	38.1	63.3
6. Caring, leisure and other service	0.1	0.1	0.1	36.0	44.2	80.3
7. Sales and customer service	1.4	1.5	1.5	32.2	33.0	65.2
8. Process, plant and machine operatives	7.8	7.2	6.6	6.0	40.3	46.2
9. Elementary occupations	4.6	4.1	3.8	3.9	34.0	37.9
Total	100.0	100.0	100.0	25.8	38.8	64.6

These projections are useful. They show that the Construction sector in the Heart of the South West is projected to grow rapidly over the next five years with the majority of this growth will be focused within Skilled Trades, which might lead a VET provider to conclude that it is worth expanding this broad area of their provision. However, they still lack the degree of specificity that college managers might want when deciding which curriculum areas within construction they might sensibly expand over the next five years.

Construction Skills Network Forecasts

These are a series of specific projections produced by Experien⁴² for Construction Skills, and employer-led body responsible that supports ensuring that the training needs of the sector are met. The projections, which are updated every six months, cover a projected change in output and employment broken down by construction sub-sectors (e.g. infrastructure, housing, commercial etc).

In relation to VET planning and VET providers' responses to the nuclear development at Hinkley, the most useful outputs are:

- a) The projections produced for total employment growth across 28 different construction occupations, shown in A RAG Traffic Light coding system identifying occupations in which the recruitment requirement (equivalent to replacement plus expansion demand) is projected to be highest, as a proportion of overall employment, shown in
- b) This data shows considerable growth and a high annual average recruitment requirement is expected across a fairly broad range of construction occupations in the South West.

⁴² [https://www.citb.co.uk/documents/research/csn%20reports%202014-2018/csn_south_west_interactive%20\(new\).pdf](https://www.citb.co.uk/documents/research/csn%20reports%202014-2018/csn_south_west_interactive%20(new).pdf)

However, the data produced by this model is only available for the South West region, an area with a population of c3 million people. The Heart of the South West, which has a population of 1 million, forms only a part of this wider area.

The data is interesting in that it shows that total construction employment in the South West is expected to rise by 22,000 over a five year period, at a much faster than the national rate. The Hinkley development, at its peak, is expected to employ around 5,500 people. The Hinkley development therefore sits within a much wider picture of construction expansion across a number of industry sub-sectors, particularly private housing. This wider picture is generating growth and a high recruitment requirement in sectors not normally associated with a nuclear build, such as floorers, glaziers and plasterers.

VET planners are therefore presented with a conundrum of whether to focus provision on a specific, potentially short-term development at Hinkley, or on broader and, in all likelihood, longer-term expansion within the construction sector.

c) **Figure 4.**

d) **Figure 3.**

e) A RAG⁴³ Traffic Light coding system identifying occupations in which the recruitment requirement (equivalent to replacement plus expansion demand) is projected to be highest, as a proportion of overall employment, shown in

f) This data shows considerable growth and a high annual average recruitment requirement is expected across a fairly broad range of construction occupations in the South West.

However, the data produced by this model is only available for the South West region, an area with a population of c3 million people. The Heart of the South West, which has a population of 1 million, forms only a part of this wider area.

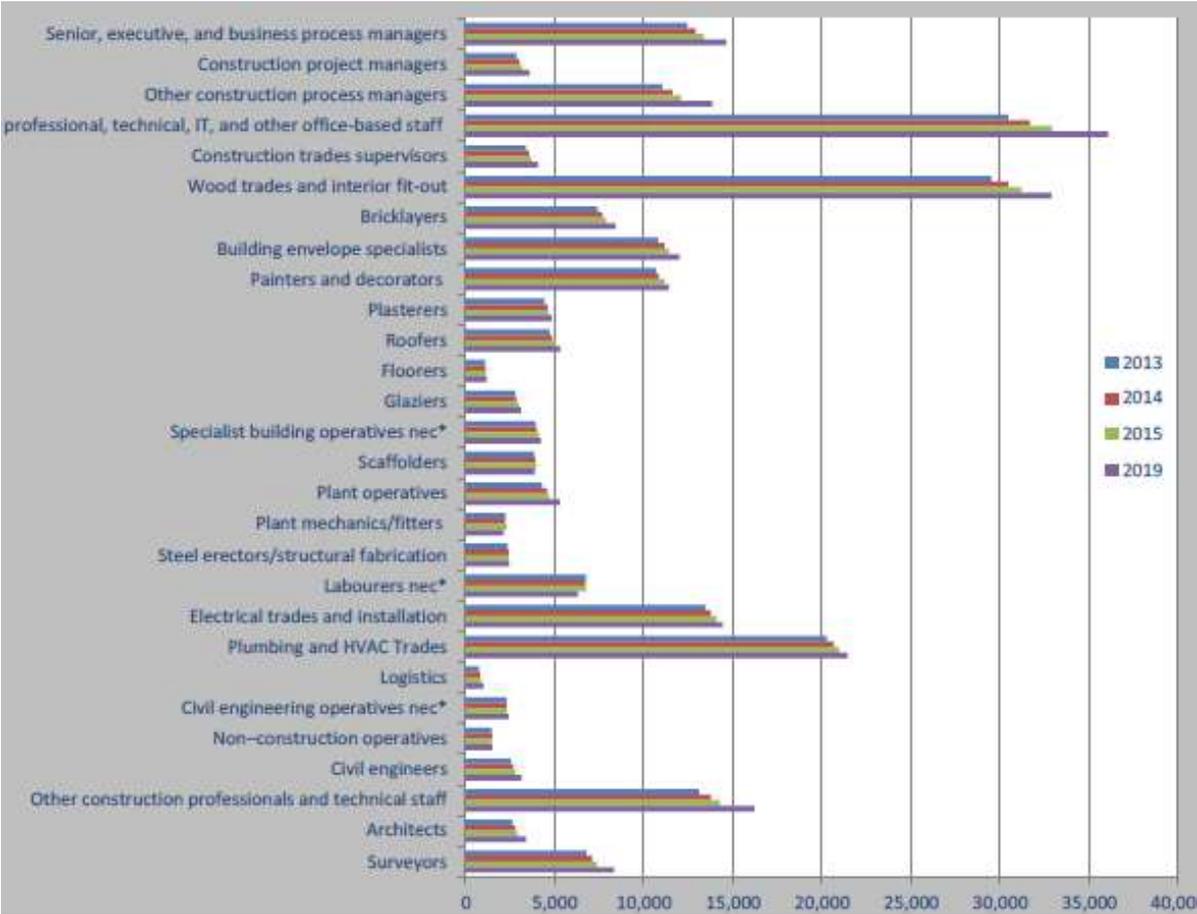
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g) **Figure 4.**

⁴³ Red / Amber / Green

Figure 3: Experien / Constructionskills projections for employment in construction occupations, South West England



This data shows considerable growth and a high annual average recruitment requirement is expected across a fairly broad range of construction occupations in the South West.

However, the data produced by this model is only available for the South West region, an area with a population of c3 million people. The Heart of the South West, which has a population of 1 million, forms only a part of this wider area.

The data is interesting in that it shows that total construction employment in the South West is expected to rise by 22,000 over a five year period, at a much faster than the national rate. The Hinkley development, at its peak, is expected to employ around 5,500 people. The Hinkley development therefore sits within a much wider picture of construction expansion across a number of industry sub-sectors, particularly private housing. This wider picture is generating growth and a high recruitment requirement in sectors not normally associated with a nuclear build, such as floorers, glaziers and plasterers.

VET planners are therefore presented with a conundrum of whether to focus provision on a specific, potentially short-term development at Hinkley, or on broader and, in all likelihood, longer-term expansion within the construction sector.

Figure 4: Experien / Constructionskills projected recruitment requirement, South West England, 2015 - 2019

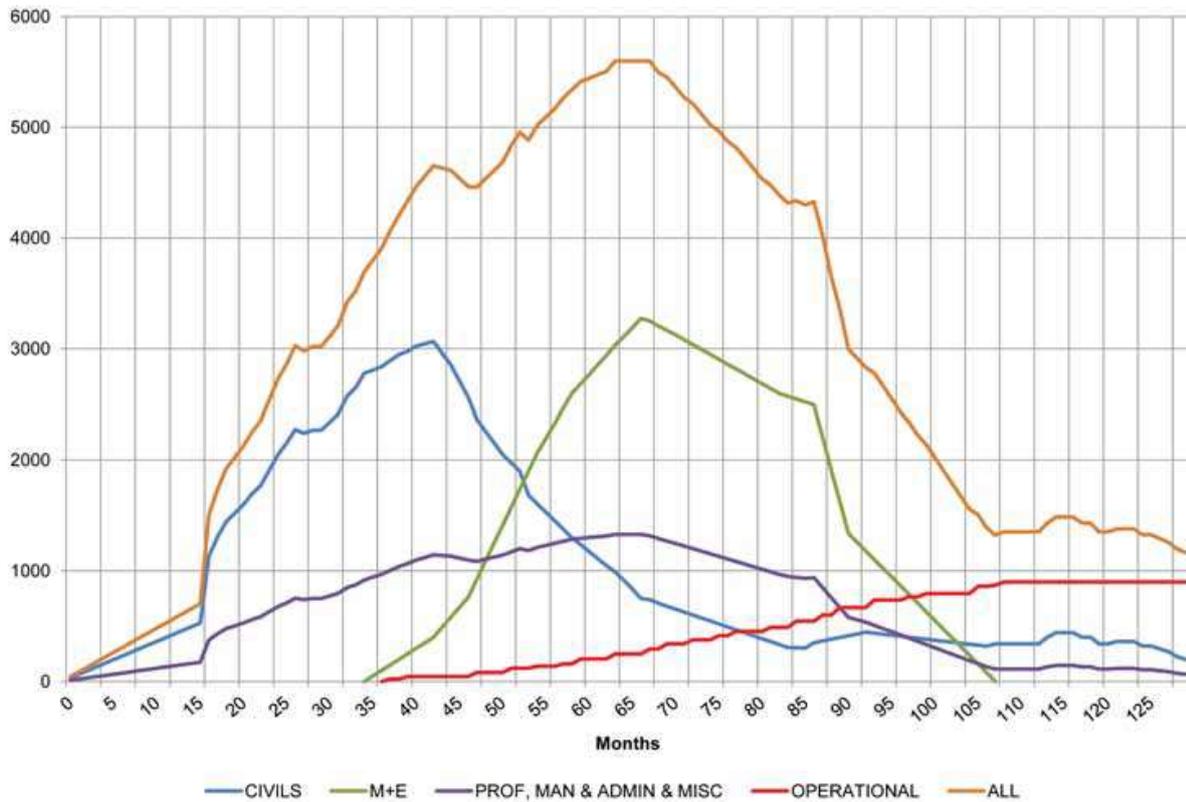


EDF Workforce Profiles

Based on their experience of building nuclear power stations elsewhere, EDF energy have a pretty clear understanding of the employment and skills requirement build Hinkley point. Relative to the data reviewed earlier, these projections are clearly extremely precise.

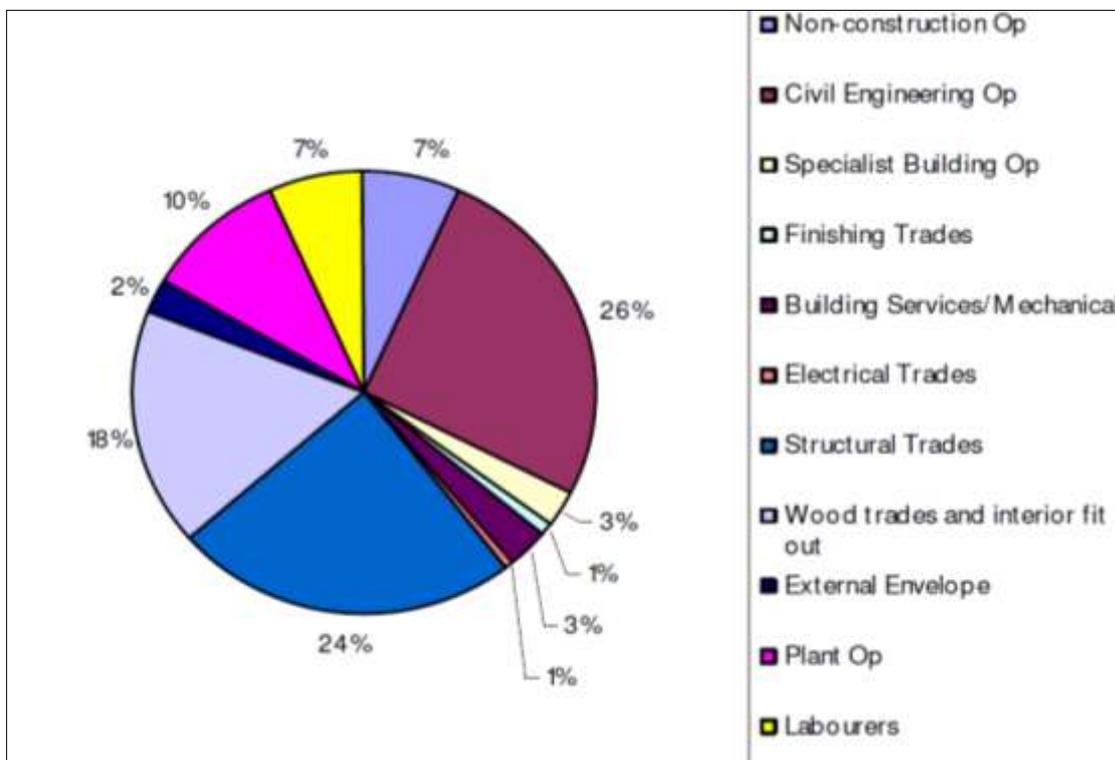
Timelines showing the profile of the Hinkley workforce during construction is shown in Figure 5 below. For each of the broad categories shown in the graph ('Civils' = Civil Construction / 'M&E' = Mechanical & Electrical workers) – additional information on the expected recruitment of specific occupations over specific periods of time, as shown in Figure 6.

Figure 5: Hinkley Workforce Profile during construction, EDF Energy



Source: EDF Energy Construction Workforce Development Model / Workforce profile

Figure 6: Occupational Profile – Months 17 to 22



Source: EDF Energy Construction Workforce Development Model / Workforce profile

Clearly this information is the most useful to VET managers and planners considering how expand or adjust provision in response to the anticipated relatively short-term peak in demand that will be generated. However, the task for planners remains complex, with decision informed by issues such as their proximity to the development; the impact this has on the balance between demand generated by Hinkley and training demand generated by wider growth in the South West construction sector (which requires a fairly different set of skills); the duration over which demand is expected to rise; and the incentives that have been made available.

Impact and Replicability

The focus of the case study is on demand-side analysis at the sub-regional level. HotSW LEP has a population of c1 million people. With the exception of the Oxford Economics Scenario Model, which is available for cities and regions across Europe, the tools described are focused on England and are only available in the English language.

Effective VET and skills planning depends on partners sharing a clear understanding of the economic changes taking place in an area and the impact that these may have on local labour markets, both in the immediate and longer-term future.

VET providers in the UK exist in a highly competitive market and have been encouraged to be flexible and responsive, i.e. to be able to deliver training required by employers almost immediately on demand. This approach works well, where existing facilities are available and / or the training is to be delivered at the workplace, making use of employer facilities. However, this approach has its limits. Where capital investment and start-up costs are involved (e.g. due to the need to recruit new specialist staff) in anticipation of future expressed demand from employers, VET providers require a measure of assurance about the type and volume of training that will be needed in order to make a timely response.

In this case study, we examine the employment forecasts that were available to HotSW LEP and VET providers and the extent to which these allowed them to consider and respond to the skills needs generated by the Hinkley Point nuclear development.

At this stage, it is too early to tell how well co-ordinated or how well differentiated the overall balance of Hinkley-related VET provision is likely to become. However, in response to the intelligence of all kinds described above, it is that some local providers have invested heavily in responding to the opportunity.

Bridgewater College, the nearest college to the site, has invested heavily in building new training facilities and designing new courses in response to the opportunity, including:

- An Energy Skills Centre with a Realistic Working Environment (RWE) that offers training in subjects including robotics, welding, electronics, process control, engineering, renewables and material science;
- A fully-operational Construction Skills and Innovation Centre at Cannington (close to Hinkley C) where all forms of groundwork, formwork, concrete pouring, construction plant and lifting operations will be taught.

- A new 13-day selection and pre-employment programme for people wishing to compete for steel fixing Apprenticeships that will be offered by contractors working with concrete at Hinkley Point.

Training providers that are further away from the development, for whom this is a more peripheral opportunity, are still considering how to respond and how to position themselves in the market.

In doing so, they will be considering a wide range of market signals and projections of future demand, including the quantitative tools described in this report. They will be assessing not just the demands driven by Hinkley, but how the demand generated by Hinkley sits within the overall dynamics (e.g. employment growth, occupational change, changing skills requirements) of the sectors, such as construction, that they serve. They will also be considering the market opportunity in terms of the plans of competitor institutions and, to an extent, the availability of public subsidies.

While projections of future market demand arising from the Hinkley development have been important (and will continue to be important) in driving VET responses to this particularly opportunity, they form only one part of the picture. Partners agree that bringing a measure of co-ordination to the Hinkley-related VET offer is important. However, given UK arrangements, there can be no central 'planning' and new VET providers will be always be able to enter the market (albeit without access to additional Hinkley-related subsidies).

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PROJECT VET-EDS

OUTCOME 2

LOCAL AND REGIONAL COMPENDIUM OF GOOD PRACTICE

ANNEX 4

Theme 4: INTEGRATION OF SOCIAL EXCLUDED/IMMIGRANT INTO LABOUR MARKET

National Training Fund

Zdeňka Matoušková, Marta Salavová

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VET-EDS Good Practice

Welcomecenter Hessen

Sigrid Rand

Introduction

The development of regional labour market policies in Hesse is coordinated by the Hessian Ministry of Social Affairs and Integration (HMSI) in close cooperation with the Hessian Ministry of Economy, Transport and Regional Development (HMWEVL). One of the strategic fields of action identified in the *Gesamtkonzept Fachkräftesicherung Hessen* (General Concept for Securing Skilled Labour in Hesse) involves internationalisation as an important location factor. Therefore, immigration and integration of immigrants are perceived to have a strong potential for enhancing the supply of skilled labour.

Consequently, in 2013 the Federal State of Hesse established a Welcomecenter to aid those who had recently moved to Germany or were planning such a move with acquiring a job and applying for a recognition of their qualifications. Assistance is available also concerning questions of everyday life or specific aspects of the German social insurance system. As the Welcomecenter is embedded in the important support networks for immigrants, it can refer those looking for advice to the competent authority or organisation. The centre cooperates closely with the Regional Directorate of the Federal Employment Agency and the Chamber of Crafts and Trade of Frankfurt-Rhein-Main and thus offers targeted support for those immigrants looking for a job.

Summary

The access to the German labour market depends highly on formal qualifications which have to be recognised as equal to the German professional qualifications. For those who have newly arrived in Germany, pursuing the recognition can therefore be a time-consuming and costly process due to the complicated regulations and differences in the procedures.

Welcomecenter Hessen supports the Strategy for Securing Skilled Labour in Hesse, developed by the Hessian Ministry of Social Affairs and Integration in close cooperation with the Hessian Ministry of Economy, Transport and Regional Development. As internationalisation is considered essential for tackling skilled labour shortages, Welcomecenter Hessen provides support for those who are seeking a job, but are grappling with the entry requirements to the German labour market, specifically in regard to qualifications.

Welcomecenter Hessen acts as an important node in the network of labour market support, providing bundled information to the immigrant job-seekers.

Context and setting

Hesse is a federal state in the Federal Republic of Germany. It is situated in the southern part of Germany, has an area 21,115 km² and a population of 6.07 million. The number of employees subject to social security amounted to 2.27 million in 2011 and the unemployment rate in the same year was as low as 5.6%.

Hesse is divided into three administrative regions (*Regierungspräsidien* – Kassel, Gießen and Darmstadt), which in their turn comprise of 21 administrative districts AD (*Landkreise*) and five independent urban districts (*Kreisfreie Städte*). Most of the economic activity takes place in the southern part of the federal state – an urban conglomeration called the Rhine-Main Area – whilst the northern part faces challenges arising from shrinking and ageing population and loss of jobs. The main drivers for the economy in northern Hesse are the logistics sector and the automotive industry.

Immigrants in the Hessian labour market

Hesse has a total population of little over 6 million people, of which 678.000 people do not have German citizenship (approximately 11.2%; the rate in the working population is 13%). While the general unemployment rate in Hesse is at about 4.7%⁴⁴, the unemployment rate among immigrants is almost twice as high at 8.7%⁴⁵. This indicates a significant problem when it comes to integrating foreigners into the labour market. The labour market monitoring instrument HeMonA provides information on the degree of integration of those without German citizenship into the German labour market and creates a basis for developing labour market integration measures.⁴⁶

Description

The Hessian Ministry of Social Affairs and Integration (HMSI) is a central actor in regional labour market policies in Hesse. Work-related issues – especially those concerned with labour market policy, labour market integration and professional training of employees – are addressed by Department III. The HMSI coordinates the federal state-wide labour market strategy in cooperation with the Hessian Ministry of Economy, Transport and Regional Development (HMWEVL): the *Gesamtkonzept Fachkräftesicherung Hessen* (General Concept for Securing Skilled Labour in Hesse). It is based on a resolution by the Hessian Cabinet adopted in 2012, stating that the relevant ministries in Hesse were to develop a general

⁴⁴ Counting all employees, not only employees subject to social security

⁴⁵ Source: Bundesagentur für Arbeit 2015: Analyse des Arbeitsmarktes für Ausländer, März 2015.

⁴⁶ <http://www.kreisoffenbach.hemona.de> and <http://www.wetteraukreis.hemona.de/>.

concept guiding the labour market programmes and initiatives of the Hessian Federal Government. It was expected to incorporate the recommendations made by the *Fachkräftekommission* (Commission for Skilled Workers).

Based on the forecast⁴⁷ that until 2018 there will be a lack of about 100.000 skilled workers, the main goal of the concept was to launch measures, which aim at closing this gap.

In the coordinated strategy, three major strategic fields of action were identified:

- Professional education and professional training (initial and secondary)
- Potential-oriented labour market policy
- Internationalisation as important location factor shaping immigration and integration

Immigrant workers are seen as a chance to meet the needs for skilled labour in many Hessian economic sectors. Therefore, it was considered necessary to develop a strategy for attracting in particular skilled and highly skilled foreigners to the region. One of the biggest topics in this strategic field is the development and establishment of a “welcome culture” to make Hesse an attractive place to move to and work in. One of the core elements here is the Welcomecenter, which aims at supporting foreigners who come to Hesse to seek employment. This includes providing information as well as offering specific courses and services. The second tier of the initiative was concerned with extending bi- or multilingual content on all institutional levels of the education system to minimise entry barriers for foreign students. Several cooperation with European partner regions shall be expanded and a better support structure will be established for attracting workers from these regions.

The major policy fields described above were broken down to sub-themes. For the internationalisation initiative, which is seen as an important location factor, following sub-themes were defined:

- Activating migration potentials
- Enhancing the welcome culture
- Optimising the immigration process
- Attracting foreign students and ensuring their stay after their graduation
- Optimising the procedure of recognising foreign degrees
- Activating potentials of people with a migration background

Each of the subthemes is addressed with at least one initiative and in some cases with many different initiatives. Those are implemented by various ministries or in cooperation with them, but the strategic coordination lied with the HMSI, which acts in cooperation with the HMWEVL. The Hessian strategy for securing skilled labour in the federal state built on a

⁴⁷ Forecast made in the project regio pro coordinated by the Hessian Ministry of Economy, Transport and Regional Development (HMWEVL) and the Hessian Ministry of Social Affairs and Integration (HMSI) and carried out by IWAK. Detailed information is available at: <http://www.regio-pro.eu/>.

broad understanding of regional development and demonstrates that securing skilled labour is seen as key in this process.

However, the statistics show that there are obstacles to the integration of immigrant workers into the labour market. As the German VET system and labour markets are highly regulated, labour market success depends heavily on formal certificates. Those without formal qualifications are not just disadvantaged when looking for employment – non-standard skills sets can also impede participating in further education and training measures. To facilitate the utilisation of formal qualifications acquired outside Germany, the *Gesetz zur Verbesserung der Feststellung und Anerkennung im Ausland erworbener Berufsqualifikationen* (Recognition Act) came into effect on 1. April 2012. It defines the conditions under which the equivalence of formal qualifications (in some cases also skills acquired through working experience) can be recognised. Even though immigrant workers are entitled to the validation of their qualifications, the regulation framework involves different actors depending on the profession. Furthermore, it incurs considerable costs for the applicants. To assist immigrant workers with providing the documents for the recognition process and identifying the right contact points, an *Integration durch Qualifizierung Landesnetzwerk Hessen* (Integration by Qualification Network Hessen) has been established. However, immigrant workers need support not just with the recognition of their qualification, but also with issues concerning the social, health care or tax system. Sometimes finding a suitable language course can be challenging.

Welcomecenter Hessen⁴⁸ was established on 2 July 2013 as a central intermediary organisation for bundling different information crucial for those who have recently arrived in Hesse from outside Germany (also – but to a lesser extent – those who are planning to do so) and are looking for a job. Thus, the Welcomecenter is set up as a first contact point for immigrants trying to establish themselves in Hesse. Since July 2013, 1545 persons have sought advice at the Welcomecenter⁴⁹, most of them from EU Member States (1103). Most of them come from Spain (353), Romania (119) and Bulgaria. Approximately 29% of the persons (442) come from non-EU countries, India (44), Serbia (24), Brazil (20), USA (20) and Iran (18) being among the most frequent countries of origin. As only the first contact with a person is counted, the number of individual consultations is considerably higher. In total, 94 countries have been covered in consultations.

The main issues addressed by those seeking advice are the recognition of qualifications acquired outside Germany and learning German. Also questions related to acquiring a work or residence permit are often asked. The advice given by the Welcomecenter can involve referring to a competent authority or organisation (e.g. *beramí* involved in the IQ Network consulting in the field of for recognition of competences). To be able to fulfil this function, the Welcomecenter is part of regional networks involving different actors. It also increases

⁴⁸ www.work-in-hessen.de

⁴⁹ As of 31 March 2015.

the visibility of the centre. In order to establish a personal contact, addressing those who look for advice in their mother tongue is crucial. The languages spoken by the consultants of the Welcomecenter (besides German) are English, Spanish and Arabic.

Most of the clients of the Welcomecenter are referred to by the Employment Agency in the process of registering as job-seekers. At the centre, they can receive advice on preparing a CV, presenting their specific skills set to the potential employers and be referred to language schools for enhancing their language skills. Besides specific labour market-related advice, the representatives of Welcomecenter Hessen see their role in building up confidence in those seeking advice and showing them that they can make an important contribution to the region. Additionally, information on the region is offered.

Especially in Frankfurt where over 170 nations are represented, such a centre is considered crucial for addressing the internationalisation goal of the Skilled Labour Strategy of Hesse. The good practice example demonstrates the role of intermediary organisations in implementing a strategy and embedding it in the regional context.

Impact and Replicability

The Hessian Welcomecenter approaches the issue of bundling dispersed labour market-related information and making it available to a group who in particular encounter obstacles in entering the labour market or making a successful career – immigrants. This good practice example shows how labour market strategies require not just a strong political will and a sound evidence base, but also connections between actors in the regional context which support the implementation of such strategies.

The Hessian Welcomecenter can be replicated in other institutional contexts. It requires an analysis of how to create ties between different actors to ensure regional embeddedness of the initiative. In Germany, similar centres can be found in Berlin, Hamburg or Stuttgart.

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VET-EDS Good Practice

Hessian Labor Market and Migration Monitor – “HeMonA”

Daniel Kahnert

Introduction

Migrants in Germany often face difficulties integrating into everyday life of the German society. A big part of the problem is that many foreigners have qualifications, which are not formally accepted in the German system, others do not have the qualifications needed to successfully integrate into the local or regional labor markets. Thus, support in form of political programs and initiatives is often needed to assist these people, which are also recognized as potential resource of skilled workers, valuable for local and regional economies. In order to launch programs that support migrants successfully and help their integration into the labor market information about their specific situations and problems is needed as a basis to build decisions upon.

Yet, a big problem is the lack of such knowledge about the situation of migrants in Germany based on solid empirical data.

The labor-market monitoring project “HeMonA” is a focused approach to provide valuable, detailed information about the situation of migrants in the State of Hesse. The aim is to generate transparency and have empirical data basis, which serves as evidence and informs policy and decision-making processes targeted at integrating migrant into regional labor markets.

Summary

HeMonA is a web-based labor market monitoring system providing detailed information about migrants in Hessian administrative districts. Aim is to give an empirical data basis for decision processes and labor market means targeted at migrants and their integration in regional labor markets.

Information is provided about population, (un)employment, youth, companies, current integration means and a communal labor market integration-index. All data is presented on a dedicated web-portal to enable easy access and wide usage.

There are two data updates per year with a major update in spring, which includes all data provided.

Context and setting

Hesse is a federal state in the Federal Republic of Germany. It is situated in the Southern part of Germany, has an area 21,115 km² and a population of 6.07 million. The number of employees subject to social security amounted to 2.27 million in 2011 and the unemployment rate in the same year was as low as 5.6%.

Hesse is divided into three administrative regions (Regierungspräsidien – Kassel, Gießen and Darmstadt), which in their turn comprise of 21 administrative districts AD (Landkreise) and five independent urban districts (Kreisfreie Städte). Most of the economic activity takes place in the Southern part of the federal state – an urban conglomeration called the Rhine-Main Area – whilst the Northern part faces challenges arising from shrinking and ageing population and loss of jobs. Nonetheless, the logistics- and especially the automotive industry sectors are particularly strong drivers for the economy in northern Hesse.

Migrants in Hessian labor market

With a total population of little over 6 million people, about 678.000 people live in Hesse, without German citizenship⁵⁰. This equals about 11.2%. About 13% of all employees in Hesse are foreigners. While the general unemployment rate in Hesse is at about 4.7%⁵¹, the unemployment rate among foreigners is almost twice as high at 8.7%⁵². This indicates a significant problem when it comes to integrating foreigners into the labor market as well as Germans. Therefore, an analysis is needed that provides insight into the situation of foreigners and gives indications for integrative labor market-policy initiatives to improve this situation.

Description

HeMonA operates on a regional level. The project is based on an EU project from 2006, which developed a target group monitoring concept to support the integration of migrants. The administrative district of Offenbach in Hesse was one of the participating European regions in this project. HeMonA itself later started as a Pilot in the Offenbach AD and applied the developed concept to a prototype developed by IWAK to monitor the integration of migrants. At the end of 2009, the prototype was transferred into a permanent project. Since late 2010 an extended version also covered the Hersfeld-Rotenburg AD, Wetterau AD and the free city of Darmstadt. Currently, only the Wetterau and the Offenbach ADs participate.

Subject of the HeMonA monitoring approach is the integration of migrants in the participating Hessian administrative districts. Integration here means the participation of migrants in labor-market relevant activities and corresponding institutions in Hesse.

⁵⁰ Migrants in the context of HeMonA are people without German citizenship. Germans with a migration background can not systematically be monitored due to incomplete data sources in official statistics

⁵¹ Counting all employees, not only employees subject to social security

⁵² Source: Bundesagentur für Arbeit 2015: Analyse des Arbeitsmarktes für Ausländer, März 2015.

Monitored categories are population, (un)employment, school education of young migrants, companies run by migrants and participation in and effectiveness of labor-market means targeted towards migrants.

Migrants in the context of HeMonA means people without German nationality. Thus, the reach of HeMonA is about one third of the population in Hesse (34.7%), it covers exactly as many foreigners in Hesse (34.7%), 31.1% of employees subject to social security and 38.8% of the unemployed foreigners in Hesse. Other administrative districts have shown interest to join the project, but have not yet joined.

The information gathered in HeMonA is provided for every interested person and is freely available on the respective websites⁵³. Main purpose is to increase transparency and supply regional and local actors with solid empirical data. Such empirical data can be put into use as sound evidence to inform decision-making processes and thus, regional integration policies. The main target group is a regional committee in each participating administrative district. This is the main operational unit, which makes decisions for future initiatives and programs in migrant policy affairs. By taking into account the empirical monitoring data from HeMonA, it is made sure that strategies and initiatives actually tackle problems and issues in a region that need to be addressed. This way, HeMonA can support the integration of foreigners into regional labor markets and contributes to a possible social and economic development of a region. HeMonA provides needed information via monitoring but decisions are still made by regional stakeholders and policy actors.

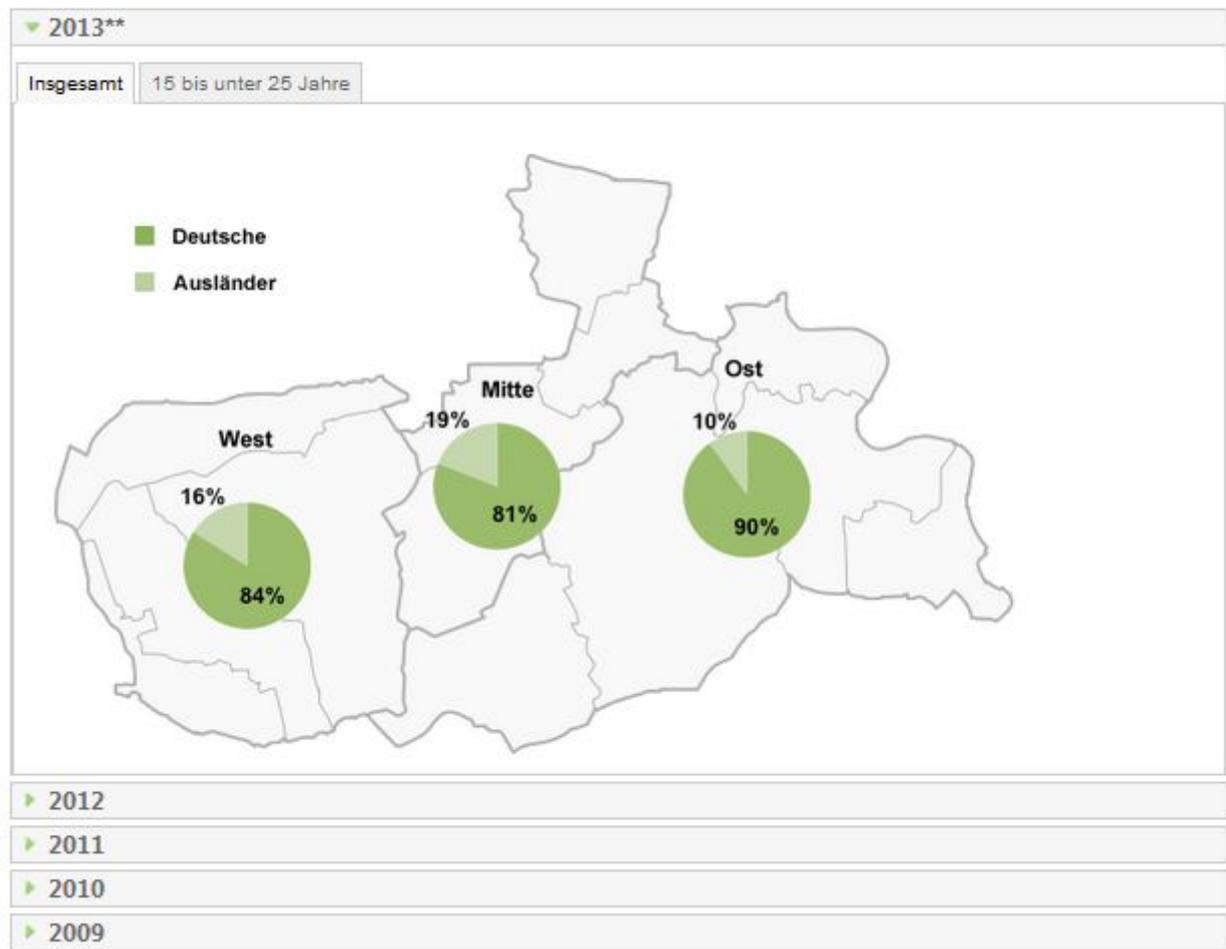
To participate in the project, the administrative districts have to order the information from IWAK. This has proven to be one of the constraints of the project, because the administrative districts are usually strongly underfinanced and every budget decision and the political use it provides is very closely looked upon. While HeMonA provides valuable information for evidence-based decision making in policies for the target group of migrants, not many districts want to or are able to spend the little budget they have on intelligence in the field of migrant integration.

For those ADs that do participate however, IWAK orders raw statistical data from the Statistical Office Hesse and Regional Hesse Directorate of the Federal Labor Agency. The data comes in a pre-processed package especially designed according to the needs of the project. This data is then further processed and transformed by IWAK into easy accessible information, published on the respective websites of the districts. The primary goal of HeMonA is to have the information understandable for everybody possibly interested. Thus, it is important that information, figures and data is presented in a way that even non-experts in the field without deeper knowledge and understanding in statistics can gain something from it.

⁵³ <http://www.kreisoffenbach.hemona.de> and <http://www.wetteraukreis.hemona.de/>

Information on the HeMonA Portal Site for the Offenbach AD

Anteil der Bevölkerung ohne deutsche Staatsbürgerschaft im Kreis Offenbach dargestellt nach Bezirksregionen

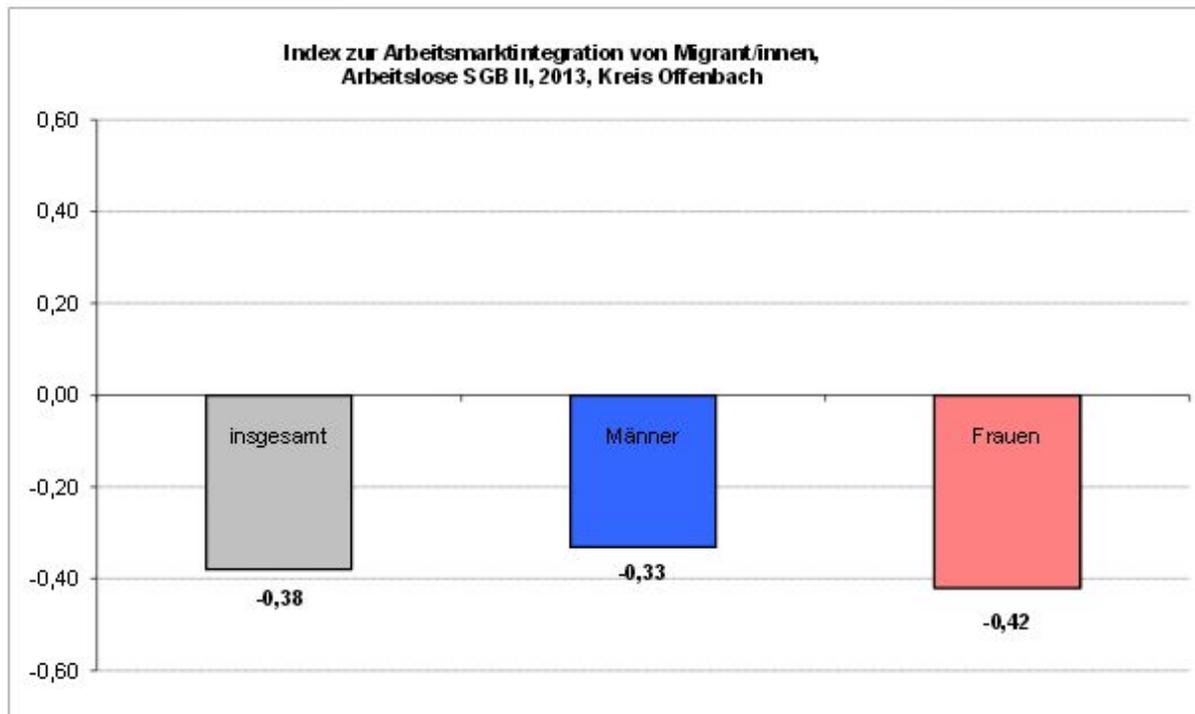


Source: <http://www.kreisoffenbach.hemona.de/index.php/daten/bevoelkerung>

One of the great strengths of the data presented on the project's website is the fact that it illustrates developments over time. Having data from 2009 onwards greatly helps the understanding interpretation of developments in each specific theme of the monitoring. Based on such understanding, problematic areas of action and respective means can be evaluated by stakeholders in the administrative districts.

The second strength of the project lies in the different integration indexes. Those indexes represent a simplified illustration of the state of integration in each monitored theme. Each index shows the representation of migrants among monitored groups within the population of the district. This makes the presented data easy to understand.

Unemployment Index for 2013 in the Offenbach AD



Quelle: Bundesagentur für Arbeit, Hessisches Statistisches Landesamt, Berechnungen IWA/K

Interpretationshilfe:	
Migrant/innen sind bei einem Wert von	
< -0,4	stark überrepräsentiert
< -0,2 > -0,4	deutlich überrepräsentiert
< 0 > -0,2	leicht überrepräsentiert
0	gleich repräsentiert
> 0 < 0,2	leicht unterrepräsentiert
> 0,2 < 0,4	deutlich unterrepräsentiert
> 0,4	stark unterrepräsentiert

Source: http://www.kreisoffenbach.hemona.de/images/stories/hemona/Arbeitslosigkeit/Index/2013_OF_Index-Alo-SGBII_G.pdf

One of the limitations of HeMonA still is its reach. Currently only a few of the Hessian administrative districts participate in the monitoring and thus, the coverage is still incomplete. Another issue is that the project right now distinguishes only between German and non-German population. Another interesting target group for the project would be Germans with a migration background. This group often has specific integration issues that could be addressed by strategic integration policy. Such policy could be much more effective, if corresponding figures for the target group were available. Unfortunately, official statistics do not offer corresponding data for this target group yet, apart from school registration data, which is also used in HeMonA.

Other limitations are the themes that the project covers. Right now, there are six major themes. While these are seen as very important, there are plans to expand the monitoring to other specific topics and the state of integration of migrants in these themes. Interesting and relevant for regional economic development are also topics, like university attendance of migrants, child care, refugees and single parent households. All these topics hold relevant questions for integration policy in the first place and regional development in the long run. Being able to provide data on these themes would help to specify means more efficiently and improve the efforts of regional development via improved integration of migrants in Hesse.

Impact and Replicability

Implementing the monitoring-system as a web-based information-platform enables users to access all data for each specific theme – population, (un)employment, youth, companies and current integration means – anytime and anywhere. In addition, specifically designed indexes provide information about the current state of integration of migrants in each these fields. Longitudinal analyses are also possible due to the continuous collection of data over the years. The system is modular and therefore open for further extensions and modification in the future.

The replicability of such a project is quite high. Processing existing data and presenting it in a highly accessible way, while highly valuable, does not seem overly demanding in terms of resources and expertise for a labor market observatory – especially as the approach is already developed and well tested.

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VET-EDS Good Practice

Labor market integration as part of the General Concept for Securing Skilled Workers in Hesse. A regional approach.

Author

Daniel Kahnert

Introduction

Labor market integration plays a key role in the Hessian labor market policy approach. By labor market integration the Hessian Ministry of Social Affairs and Integration means the effort to enable groups of people access to the Hessian labor market, which are in a disadvantageous situation. Such disadvantageous situations can be vary a lot as well as the reasons for being in such a situation. Therefore, the approach to integrate these people into the labor market is very broad and includes a wide variety of different means. One key aspect of the approach is not only including a wide range of means and projects, but also coordinating them in order to have a support system where all of the involved actors and their tasks complement each other, while mostly avoiding double structures, redundancies and as a result low transparency.

Labor market integration and regional economic development are closely linked for at least two reason:

The first is that integrating more people into the labor market and means providing more workforce for the companies, which benefit from that.

The second is that every person integrated into the labor market and having a job is one less person receiving social security provisions.

Summary

In the State of Hesse in Germany, the General Concept for Securing Skilled Workers has been developed and put into action in 2012. A major part of this concept are the labor market integration strategies developed by each the 26 administrative districts.

These strategies bring together many different labor market and VET related stakeholders in each region, such as the local Jobcenters, Youth Office, Social Office and regional economic aid in a coordinated approach to cooperate for the goal of improving labor market access especially for target groups with otherwise limited access.

The Hessian Ministry of Social Affairs and Integration (HMSI) is in charge of coordinating the statewide distribution of financial means for the different regional strategies presented by each AD. Currently the total sum made available is about 30mio. € with one third coming from the European Social Fund (ESF).

The distribution is largely dependent on target agreements made between the Ministry and each AD, negotiating the labor market and VET related needs and projected means and projects to tackle those needs.

Context and setting

The State of Hesse

Hesse is a federal state in the Federal Republic of Germany. It is situated in the Southern part of Germany, has an area 21,115 km² and a population of 6.07 million. The number of employees subject to social security amounted to 2.27 million in 2011 and the unemployment rate in the same year was as low as 5.6%.⁵⁴

Hesse is divided into three administrative regions (Regierungspräsidien – Kassel, Gießen and Darmstadt), which in their turn comprise of 21 administrative districts (Landkreise) and five independent urban districts (Kreisfreie Städte). Most of the economic activity takes place in the Southern part of the federal state – an urban conglomeration called the Rhine-Main Area – whilst the Northern part faces challenges arising from shrinking and ageing population and loss of jobs.

The general concept for securing skilled workers in Hesse

The Hessian Ministry of Social Affairs and Integration (HMSI) is a central actor in regional labor market policies in Hesse. Its department III is responsible for work-related issues, especially labor market policy, labor market integration and professional training of employees.

The Ministry launches many labor-market-related initiatives and a statewide labor market strategy is coordinated by the HMSI in cooperation with the Hessian Ministry of Economy, Transport, Urban and Regional Development (HMWEVL). This coordinated strategy is labeled “Gesamtkonzept Fachkräftesicherung Hessen” (general concept for securing skilled workers in Hesse). It is based on a resolution by the Hessian cabinet made in 2012. In this resolution, the respective ministries in Hesse were commissioned to develop such a general concept including all programs and initiatives by the Hessian state government as well as recommendations made by the commission for skilled workers Hesse (“Fachkräftekommission”).

Based on the prognosis⁵⁵ that until 2018 there will be a lack of about 100.000 skilled workers, the goal of the concept primarily is to launch means, which aim at closing this gap.

In the coordinated strategy, three major strategic fields of action were identified:

⁵⁴ HA Hessen Agentur GmbH: Hessen 2012: Facts and Figures, http://www.invest-in-hessen.de/mm/DaZa_2012_englisch_webansicht_300dpi.pdf, last downloaded on 26 July 2013.

⁵⁵ Prognosis made in the IWAK project regio pro. Details: <http://www.regio-pro.eu/>

1. Professional education and professional training (initial and secondary)

Two big topics are part of this strategic field. The first is the initial professional education. Primary goals linked to this theme are to ensure that as many as possible young people in Hesse receive a high quality professional education and that the transition from the education phase to a job goes as smooth as possible. This includes the transition from school to an apprentice position as well as the transition to a first work position. These early goals are especially important to decrease the risks of future problems for young people trying to hold foot in the labor market.

The second topic is concerning professional training for employees. Primary goals here are on the one hand to have unskilled workers gain a professional education, which enhances their employability and their long-term career perspectives. On the other hand, an important goal is to have already skilled workers improve and update their skills and qualifications for current and future needs in their jobs and the industry. These goals are especially important for the economic competitiveness of Hesse now and in the future as well as for the employees to maintain their status as skilled professionals with a high employability.

2. Potential-oriented labor market policy

Potential-oriented labor market policy is based on the belief that the potential of all groups and subgroups of different people in Hesse must be included into the labor market to gain their full potential. This especially includes all groups of people in situations that in many cases make it difficult for them to participate in proper work and employment. This can be the case due to many different reasons. Some of the identified groups, which receive support in form of initiatives or programs to enhance their labor market chances, are migrants, women, families, people with special needs and elderly people. Another important topic is gender specific job choices and labor market stereotypes, which make it especially difficult for females to pursue equal careers and gain equal payment to males.

3. Internationalization as important location factor – shaping immigration and integration

Immigrating workers are viewed upon as a big chance to meet the needs for skilled workforce in many industries in Hesse. Therefore, a dedicated strategy to especially attract skilled and highly skilled foreigners is needed. One of the biggest topics in this strategic field is the development and establishment of a welcome-culture to make Hesse an attractive place to move and work at. One of the core-elements here is the Welcome-Center, which has the goal to support and help foreigners who come to Hesse to work there. This includes information provision as well as courses and services.

In addition, bi- or multilingual content is to be extended on all institutional levels of the education system to minimize entry-barriers for foreign students. Several cooperation with European partner regions shall be expanded and a better support for workers from these regions, who are interested to come to Hesse shall be established.

Besides the above-described big topics, each of the major fields is divided into several formal sub-themes.

For professional education and professional training (initial and secondary) the subthemes are:

- a. Information provision
- b. Optimizing the transition from school/education system in general to work
- c. Expanding in the field of job- and study-orientation
- d. Increasing permeability of the education system
- e. Improving the dual education and quality assurance
- f. Ensuring education and study degrees (reducing number of premature drop outs)
- g. Secondary professional education for employees
- h. Public VET funding and support
- i. Certification and improving transparency in offers and results

For potential-oriented labor market policy the subthemes are:

- a. Maintaining employability with age appropriate work and early health care means
- b. Increasing women's employment participation and overall volume of work hours
- c. Raising awareness among women's job choices
- d. Inclusion of people with special needs
- e. Better integration of young professionals
- f. Maintaining employability and prevention via creating places of work suitable for people with special needs
- g. Sustainable strategy increasing chances of a re-entry into the labor market for people with special needs

For Internationalization as important location factor – shaping immigration and integration the subthemes are:

- a. Activating migration potentials
- b. Enhancing a welcome-culture
- c. Creating a welcome-culture by optimizing the immigration process
- d. Winning foreign students and ensuring their stay after they graduated
- e. Optimizing the procedure of recognizing foreign degrees
- f. Activating potentials of people with a migration background

Each of the subthemes is addressed with at minimum one, in most cases many different initiatives. While many of these initiatives are carried out by other organizations such as other ministries or in cooperation with them, the strategic coordinating actor is the HMSI in cooperation with the HMWEVL.

Description

The department III of the HMSI focuses on labor market integration, which in turn is a major part of the General Concept for Securing Skilled Workers in Hesse. It coordinates the state's labor market initiatives and projects, mainly those funded by the means of the ESF. The general strategic concept behind the coordination of these several initiatives and ESF projects is making labor market policy a regional issue and involving the 26 AD's into the strategy making process. This means that while the ministry is the main coordinating actor, regional actors in the 26 AD's are responsible for developing a regional labor market and VET strategy that includes needs and prospected means to tackle most relevant issues in the specific region.

Since 2011, these strategies are the basis for the budget distribution among the 26 AD's. There is a predefined distribution formula, based on which the AD's get a prospective budget. The final budgets are negotiated with the ministry in target agreement negotiations. These target agreements include a strategy that brings together identified needs, prospected means and needed funding for the means. The regional strategy of each AD has to coordinate actions of the different labor market related actors in the region.

In contrast to nationwide labor market strategies, which are based on the legal basis of SGB II (social security code II) and cover very broad means, the Hessian strategy is to have means, which are very regionally focused, especially targeting groups with problematic labor market access and involve as many regional actors as possible in a structured approach. Its target group, which often needs very individual support, is in many cases not covered by SGB II means. Thus, one of the most important aspects of the strategy evaluation during the target agreement negotiations is to which extend the presented strategy increases labor market access of people with otherwise limited access. About 2/3 of all the budget (about 20mio. €) is distributed in this process to the AD's. The reasoning behind this rather complex and demanding process is that with such limited funds they have to be very well used and must not be wasted. That is why they are very closely tied to the regional strategies.

Involving many different labor market related actors in a region in the developed strategies is closely linked to the target groups, too. People with limited access to the labor market often have very individual problem constellations, which in most cases require the involvement of different competences from different supporting organizations to solve. The efficiency of the strategies is much higher when not only directly labor market related

organizations such as the Jobcenters, but also the social or your offices are involved and complement each others work. This is why it is important to have a strong coordination and a complementing structure of means for the target groups.

Such a strong coordination and the effort behind developing it, turn the AD's into labor market actors themselves. It gives them responsibility on the one hand and empowers them on the other.

The developed strategies are revisited on a regular basis. Yet, there is no specified regular cycle, but right now, the second round of regional strategies is running. During this second round, the overall quality of the strategies was largely improved, mostly due to the fact that some experience could be gained during the first round and the realization that this approach really works and is worth to invest into. In addition, many of the officials of the project OloV⁵⁶, who have great experience in the field and are very well embedded into networks of many different stakeholders where now involved in coordination and strategy development processes in the regions. One of the new focuses of the second and core features of the upcoming third round is a closer combination of supporting problematic groups on the one side and developing skilled workers on the other. New projects and initiatives should include concept on how to achieve both.

One of the very successful pilot projects is the project Joblinge⁵⁷, which is a targeted approach to (re-)integrate young people into the VET-system and bring them into the position to get a certified professional qualification. „Impulse der Arbeitsmarktpolitik Idea“ (Impulses for labor market policies) is another branch of the current funding round especially developed for innovative projects in this theme.

Joblinge is also representative for one of the other core elements of the Hessian strategy, which is supporting young people. About 2/3 of the whole funds are used to support young people under 27 years of age and their integration into the labor market. The main reason for that focus partly lies in the German VET-system: A formal professional training with an official qualification certificate is the absolute precondition to a successful labor market integration. Unemployment in the future becomes about 60% more likely without such a formal qualification certificate. Thus, it is most important to ensure that all young people get into a position to obtain professional education. In addition, unemployment often leads to further social problems.

For regional companies this focus is also beneficial. Many of the young people supported by the programs of the labor market integration strategy have skills and talents that are very valuable for the companies. However, because of the problematic situation those young people are in, companies do not have access to these often-diverse skills and talents. Via targeted integration, approaches and programs such as Joblinge, companies get access to

⁵⁶ <http://www.olov-hessen.de/> - A statewide strategy to with the goal to improve transparency and support for the difficult transition phase from school education to professional training and a regular job afterwards.

⁵⁷ <http://www.joblinge.de/>

skills and talents of young people with non-standard biographies and most certainly different and fresh view on the work they are going to do.

What has proven very difficult is matching identifies needs for skilled workers and job decisions of young people. Very often young adults are not interested in careers in certain industries even though a high demand for personnel in this industry opens up excellent chances and career-opportunities. Getting young people interested in jobs in industries and sectors with high demands is therefore another topic of high importance for the future.

One of the general difficulties the Hessian strategy faces is measuring the success of the regional strategies or even single means. Most times, it is impossible to directly link certain labor market successes to single initiatives or projects. Program-related success-measurement thus is a topic of recent discussion in the ministry and ESF officials. In the past evaluation of strategies and programs was mostly done in communication with the regions, getting their more or less structured feedback about what works and what could be improved. In the future, methods and designs for measuring success of strategies or single projects are to be developed.

Impact and Replicability

The impact of the specific regional focus of the Hessian labor market integration strategy is very high. Involving regional actors and fuelling their cooperation in structured strategy processes has proven very valuable. By getting different actors from different institutional contexts such as the local Jobcenters, Youth Office, Social Office and regional economic aid to work together and coordinate their approaches, much higher efficiency can be achieved than through just adding each of their respective actions together. This is where the strength of the Hessian strategy to improve labor market integration of groups with limited labor market access lies.

However, the strategy requires a high amount of coordination work and close communication with each of the 26 administrative districts. Having target agreement negotiations with each one of them, is time and resource consuming but according to ministry officials very rewarding in terms of successful labor market policy. Right now Hesse is the only federal state in Germany with such a regional approach.

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VET-EDS Good Practice

AID FOR LOCAL EMPLOYMENT PROMOTION ACTIONS

Authors: Eugenia Atin; Raquel Serrano

Introduction

- This call of aid for local job promotion actions has been chosen as a good practice given the inter-institutional cooperation throughout the region for economic and social development, taking advantage of the potential of the local economy in detecting new possibilities of products based on the cooperation of different local agents and encouraging the setting up of measures that take advantage of this endogenous regional and local potential to generate and maintain employment.
- For this purpose Lanbide has a budget of €20m aimed at Service Associations, Groups, Town clusters or Townships in the Basque Country that have Regional or Municipal Employment Plans that individually present Strategic Projects of Local Development with an expected impact on job creation at local level.

Context and setting

The following practice is being developed by Lanbide-Basque Employment Service. Among the functions attributed to Lanbide-Basque Employment Service, more specifically and directly related to the local dimension of employment policies, is the design of programmes supporting local employment generating initiatives, in cooperation with local entities, promoting the development of local employment agreements.

In exercising these functions, a first call of aid to local entities was put out in 2012 to activate Regional Employment Plans within the Autonomous Basque Region in which a Regional Employment Scheme was defined as *"a project built, shared and elaborated with the highest degree of consensus possible by institutions and entities in the local field, social agents, enterprises and other entities,*

Summary

The aid for local employment promotion actions has been developed by Lanbide Basque Employment Service.

The local scenario is ideal for detecting new productive possibilities, so it is essential that employment policies bear in mind the local dimension to adapt policies to the needs of the territory, so that they promote actions that contribute to tapping this potential, encouraging and supporting job creation schemes and business activity initiatives.

This good practice is based on the collaboration between regional employment service and municipalities for developing projects with an expected impact on job creation at local level.

whatever their legal status, who cooperate in the economic and social development of a region or one or several of the towns which make it up, from which specific actions and special programmes will be derived that pursue the promotion and local development of employment, overcoming imbalances generated by changes in the labour market".

After this first call of aid for local employment promotion actions, a new call was put out for the 2015-2016 period, the aim being to grant aid to local entities in the Autonomous Basque Region, with the purpose of setting up projects aimed at creating employment, that impact socio-economic development and modernisation in the territory object of the action. The final aim that is sought with the present call is to improve the employability of unemployed persons registered in the Lanbide-Basque Employment Service. The new call offer funding to three kinds of actions:

- Type 1: Employment Promotion: employment promotion actions, contracts made in the non-regular market that are aimed at increasing the employability of people with special difficulties in obtaining work.
- Type 2: Job recruitment aid: economic help to facilitate recruiting unemployed persons and those registered as seeking employment in Lanbide, in the regular job market by local companies.
- Type 3: Other actions of local development with an impact on job creation.

This call of aid for local job promotion actions has been chosen as a good practice given the inter-institutional cooperation throughout the region for economic and social development, taking advantage of the potential of the local economy in detecting new possibilities of products based on the cooperation of different local agents and encouraging the setting up of measures that take advantage of this endogenous regional and local potential to generate and maintain employment.

Description

The local scenario is ideal for detecting new productive possibilities, so it is essential that employment policies, in their design and management model, bear in mind the local dimension to adapt policies to the needs of the territory, so that they promote actions that contribute to tapping this potential, encouraging and supporting job creation schemes and business activity initiatives.

The need to reinforce inter-institutional cooperation in matters of employment is one of the strategic principles outlined in the 2014-2016 Employment Plan passed by the Basque Government. In this programme, reference is made to the fact that employment is a commitment by all and a challenge for the Country and that the principle of complementarity and cooperation between different Basque institutions should underpin the strategy and operative programmes in favour of employment.

In the Inter-institutional Agreement of Economic Revival and Employment, the Basque Government and the Provincial Councils, together with EUDEL, undertake to speed up public investment and initiate special employment stimulus plans. It is hoped to effect the aforementioned principle of complementarity and cooperation, with measures that promote access to finance by SMEs and the Self-employed, incentives for the development of economic activity in job intensive sectors, such as

the rehabilitation of houses, the development of new tools to promote and support entrepreneurship, and the reinforcement of active employment policies, with particular emphasis on youth employment and other groups with special difficulties in accessing the job market; some of these measures having town halls and service associations as strategic collaborators through local, regional and rural agencies of economic and employment promotion.

In the same sense, one of the principles outlined in the Basque Government Employment Plan 2014-2016 is the utilisation of local economy potential in detecting new productive possibilities based on the cooperation of different local agents in our towns and regions, encouraging the setting up of measures that tap this endogenous regional and local potential to generate and maintain employment.

For this purpose Lanbide has a budget of €20m aimed at Service Associations, Groups, Town clusters or Townships in the Basque Country that have Regional or Municipal Employment Plans that individually present Strategic Projects of Local Development.

From Lanbide it is hoped to reinforce the local dimension of employment policy in the Autonomous Basque Region, defining a flexible model of intervention adapted to the local social and economic reality, underpinning the profound knowledge of the productive environment and of the intervening agents. To that end, Lanbide-Basque Employment Service is attributed the objective of actively promoting the design and execution of specific job promotion schemes which are a priority locally, being aware of the wide geographic dispersion of unemployment in the Basque Country.

Similarly, the aim is to encourage territorial cohesion, reinforcing the local dimension of the employment policy through agreements that make it possible to share objectives, defining commitments and criteria of action with local agents. In this sense, it is worth remembering that there are areas in the Basque Country that have been more intensely hit by unemployment.

In March 2015 the General Director of Lanbide-Basque Employment Service convened aid for local entities in the Autonomous Basque Region, with the purpose of setting up projects aimed at creating jobs, that impact on the socio-economic development and modernisation of the territory object of the action.

Under this call, eligible for aid will be those initiatives that consist of undertaking any of the following actions:

Type 1.- Promotion of employment

Actions promoting employment will be understood to be contracts undertaken in the non regular market aimed at increasing the employability of people with special difficulties in obtaining work through temporary work experience that strengthens their qualification and/or their personal skills and motivation. These contracts will be promoted locally and will be effected both directly by local entities, including entities dependent on them or through recruitment companies, special employment centres, and non-profit entities dedicated to the socio-labour integration of people with special difficulties, with whom the execution of projects are agreed or awarded.

Contracts grouped within this typology must fulfil the following requirements:

a) Be related to the activities of public utility or social interest in the local sphere.

- b) Do not imply the substitution of personnel at the service of structural tasks in the entities
- c) The minimum duration of the contracts will be three months, and may be formalised by any mode of contract except training or apprenticeship contracts.
- d) The contracts may be full- or part-time with a minimum of 50% of the working day.
- e) The persons contracted must be unemployed and registered as seeking employment with Lanbide-Basque Employment Service.
- f) At least 30% of the total contracts made by a region or town must be with persons who have guaranteed minimum income (GMI).

The percentage remaining must belong to one of the following groups:

- Aged 35 or younger.
 - Persons older than 45 registered as seeking employment for at least 6 months.
 - People older than 55 years.
 - Long-term unemployed persons. Long-term unemployed persons are understood to be those registered as seeking employment in Lanbide-Basque Employment Service and who have been registered for at least 12 months in the 18 months prior to being contracted.
 - Persons at risk of social exclusion.
- g) At least 40% of the total persons contracted must be women.

Type 2.- Aid to recruitment

The purpose of this aid is to provide economic help to facilitate recruitment of persons who are unemployed and registered as seeking employment with Lanbide, in the regular market by local companies, through actions that the local entities themselves set up and execute, including entities depending on the same.

Said contracts must have the following characteristics:

- a) Minimum duration of the contracts will be three months, and may be formalised by any form of contract except training or apprenticeship contracts.
- b) The contracts may be full- or part-time with a minimum of 50% of the working day.

To be eligible for subsidies, the contracts must represent net employment creation over the total average staff existing in the company in the 3 months immediately prior to the persons whose contracts are subsidised joining the workforce. This circumstance will be certified by the Local entity.

In granting this aid, the rules and regulations established by local entities will guarantee the principles of publicity, competition and objectivity and must comply with the requirements and conditions stipulated in the previous paragraphs. The local entities must propose in their project the contracting of at least 40% women, reserving for these contracts the amount of the subsidy corresponding to them, provision for which must be included in the rules and regulations.

Type 3: Other actions of local development with an impact on job creation.

This line of action is aimed at those regions and towns especially affected by unemployment. The projects may consist of other local development actions not previously contemplated and whose main object is the creation of jobs and involve innovative projects framed within the new employment niches as listed below:

In this section subsidies will be given to:

1.- Projects earmarked for Regional and Local levels.

- Urban planning and regeneration.
- Urban and cultural heritage.
- Ecosystems and environmental projects.
- Social transformation.

2.- Projects related to Biosciences.

- Social-sanitary attention.

3.- Projects related to Energy.

- Renewable energies.
- Management of waste and water.

4.- Projects incorporating sustainable technology.

- Energy rehabilitation.
- Environmental rehabilitation.

The houses and premises corresponding to the municipal housing stock are excluded from the funding under this call.

The projects contemplated must have, in any case, a strategic study of the territorial scope in which the grant-aided project is framed and of an action aimed at local development projects that can be set up.

The acceptance or rejection of these projects will be valued on their innovation, sustainability and autonomy, the enhancement of labour and social integration opportunities for the unemployed, the socio-economic revitalisation of the environ, the viability of the project and the expected impact on job creation.

Impact and Replicability

The economic resources dedicated to financing the grants regulated in the present call come to 20,000,000 Euro. This amount of aid gives us an idea of the potential impact on employment in the towns benefiting, although given that the call is very recent it is still very early to notice the results and impact.

On the other hand, if we take as a reference the previous call with an estimated pact similar or higher than the present good practice, the local actions financed in towns in the Basque Country came to 318 and with a direct impact on 1,330 contracts, which in strategic sectors such as green employment represented 8% of the total contracts.

The transferability of this good practice depends more on economic factors given that the budget is quite significant.

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VET-EDS Good Practice

OLIVER TWIST SCHOOL

Laura Mariani & Mattia Martini

Introduction

This Case Study summarises Oliver Twist School's approach in facing school dropout in the area of Como, Italy, through the development of training paths on handicraft (silk and carpentry) and tourism.

It has been selected as a best practice since it is an example of multiple bottom-up approach in service design through the development of VET courses combining the attention for:

- the social sustainability, providing autonomy through work for young people risking the social exclusion,
- the economic development, by developing innovative courses aimed at supporting the renaissance of a traditional industrial district.

The organizational context of Oliver Twist School makes this case study particularly remarkable. In particular, the development of this project within the initiatives of a Non Profit Organisation (Gruppo Cometa) with a strong mission on the support for children and their families, highlights the positive effect of the organizational culture in motivating personnel, engaging stakeholders, and developing social capital.

Context and setting

The training services offered in the Oliver Twist's School are in line with the characteristics of the socio-economic context where the school operates. This is the area of the province of Como located in a strategic geographical

Summary

This Good Practice summarises Oliver Twist School's approach in facing school dropout in the area of Como, Italy, through the development of training paths on handicraft and tourism.

it is an example of multiple bottom-up approach in service design through the development of VET courses combining the attention for social inclusion and economic development.

position, between Milan and the Lombard industrial area on the one hand and Switzerland on the other hand.

Oliver Twist's School fits in a socio-economic context with a relevant district and craftsmanship model where «innovation, internationalization and tourism are considered the main drivers for local development»⁵⁸. On the other hand, the local labour market suffers from the same problems of the regional context, and then a significant suffering in terms of employment and a strong difficulty in employability of young people. The competitiveness of the industries there depends on the availability of skilled professionals who are able to revisit the old traditional techniques with a view of innovation and development. The improvement of the quality of the education system in that area goes through the development of innovative processes within the school educational paths.

Within this context the Oliver Twist's School can be considered a good example. Its history is linked to the growth of a small family community namely Cometa that it has started since 1987 with the custody of children in difficult situations and the support of their families. The creation of the School took place thanks to the partnership between Cometa Formazione scs⁵⁹, the Foundation Oliver Twist and the Lombardy Region together with the contribution of many other local private and public institutions. Inaugurated in 2009, the school offers courses in vocational education and training (VET) and experimental courses for youth and adults in the areas of tourism and craftsmanship. The goal common to all courses offered is to thrill students to knowledge, especially of those who have left school for different reasons. To achieve its aim, the school works in partnership with companies and local craft, which are actively involved in the definition and implementation of the entire VET programs that help the young students of today to become workers of tomorrow.

Description

The school and its training courses

The school Oliver Twist was founded with the belief that everyone can be educated when the context is able to give the young student a sensation of warm acceptance. The building of Oliver Twist School are located within the Regional Park of Spina Verde, a wonderful natural environment near Como. With the aim to host 250 students every year, the school occupies 3.100 m², divided into three floors: 10 classroom, 3 laboratories, offices, canteen, a multifunctional room and different sport facilities. According to Italian law Oliver Twist School is an organization accredited by Lombardy Region for Vocational Training.

Its training services and target groups can be listed as follows.

Vocational training courses for young people of compulsory school age and customized technical training to prepare them to enter the labour market. These courses correspond to Initial Vocational Education and Training (IVET). Toward 3 courses IVET and other experimental projects, Oliver Twist School offers a personalized and work-based learning approach with the aim to prevent and face

⁵⁸ As defined in the Plan for the competitiveness and development of the province of Como .

⁵⁹ Social cooperative within Cometa's Group that have been dealing with vocational training activities and employment services since 2003.

scholar dropout for young people at risk of social exclusion. The Oliver Twister School approach in Vocational training courses for young people can be summarized as follows:

- a training program in which the context of workroom is properly replicated. In this Workrooms the production and selling processes are managed by teachers and students;
- the external contact with local handcrafts (joined together in the Contrada degli Artigiani cooperative) that teach students the artistic handcraft skills;
- direct contact with the local enterprises through apprenticeships or on the job training periods with a work-school turnover program.

In addition to IVET courses, the Oliver Twist's School offers professional training courses for young people or adults who, even if qualified and with a school leaver certificate, have difficulty in finding a job or those who, although they have a job, desire to continue their personal or professional development. This second category of courses is included in the Continuous Vocational Education and Training area (CVET) according to the Cedefop and European Commission definition. Next to an individualized and work-based learning, the Oliver Twist's School embraces the principle of lifelong learning that is important in a changing world where skills and competences become soon obsolete. Analyzing in detail IVET courses of the Oliver Twist's School it is possible to distinguish between two different service offers: "*Vocational School*" and "*Tailored School*".

The first includes IVET courses for young people of compulsory school age⁶⁰ from 14th to 17th year old with a lower secondary school leaving diploma (EQF Level 1). The attention for the customization of these IVET courses is one of the main features thanks to a variety of training and development options with different employment opportunities in exit. Students can choose among three courses/paths/IVET that is Bottega del Tessuto (Textile shop), Bottega del Gusto (Taste Shop), Bottega del legno (Carpentry Shop).

The second is the path of the "Tailored School" which involves experimental projects highly personalized and with an high vocational approach that are the "Job High School", and the "Short-Master on Hospitality".

- The "**Job High School**" refers to young student 16-19 years old dropped out traditional high school. The target of these courses is often composed by unconcerned and unmotivated students, or students that, because of learning disorders, are not able to conclude the traditional school paths. The aims of the "Job High School" can be summarized into: reinforcing personal and relational capabilities; recovering and supporting to the learning and training process; facilitating the re-integration in traditional school's paths; giving a vocational guidance.
- The "**Short-Master on Hospitality**" was the result of the offer of dropout students looking for jobs opportunity, and the demand from hospitality organization of competences of maîtres, porters, and manservants. The "Short-Master on Hospitality" takes one year of vocational training for young people (17-20 years old), aimed at the direct introduction in the labour

⁶⁰ DDIF – Children's rights and duties to be educated and developed

market. This involves a 450 hours-training program based on the development of technical and professional skills imparted through training on the job, an apprenticeship contract of 6 months with local hospitality organization, and a general culture training program through lectures at Oliver Twister School. During the last month, the students obtain a short term contract with the enterprises that provided the apprenticeship in previous 6 months.

Stakeholder involvement and internal organization

The creation of the School Oliver Twist and the performance of its daily activities is made possible by the support and interaction of a multitude of different subjects stakeholders. Among the most important, which have economically supported the project actively working with Cometa Foundation, it is possible to mention the Lombardy Region and the Oliver Twist Foundation. The first one supported the initiative by investing in the school as a Centre of Regional excellence in education and training and still contributes to the financing of its activities. The Oliver Twist Foundation, private entity engaged in preventing and fighting against youth disadvantage, directly contributed to the coverage of about 40% of the budget and helped Cometa through organizational consulting and support to the involvement of other foundations and entrepreneurs for fundraising. Today the Oliver Twist School can continue its activities with the support of individuals and entities as well as the local community and especially the business and artisan world. Several local companies (about 250) are committed to the school to take minimum one student for an internship: this means that there is a significant and solid partnership, resistant to the economic crisis that forces companies at reducing staff in the face of a decline in sales and margins.

The director of the School Oliver Twist is Alessandro Mele, assisted by a Deputy educational coordinator. Followed by three managers, one for each of the business areas *Vocational College*, *Tailored School* and *Cometa Academy*. Then there are the managers for the other areas of *Special Needs*, *Vocational Guidance*, *Communication*, *Territorial Relations*, *Web* and *New Media*. For the management of all activities the school employs qualified personnel.

In 2009 Cometa Training had 129 employees: among these, 33 are employees, the others are divided between project workers, 27 casual workers, 34 professional employees, 32 interns and working partners for a total of 3 people. Employees, as shown in the following, vary their activity from the managing one to the one of project manager / coordinator, teacher, etc.

Strengths and constraints

There are some key elements that positively differentiate the School Oliver Twist in the landscape of education and vocational training:

- **an idea that comes from the analysis of concrete needs.** The present need of training and education of children and the future one of their employment and continuing professional development according to the principle of lifelong learning;
- **strong territorial vocation and close partnership with the corporate world.** This allows on the one hand, to take into consideration the characteristics of the Como area and its peculiarities and needs depending on the prospects of employment and, on the other hand, to

develop concrete paths, that always benefit from the expertise and practical know-how of people with professional experience of value.”⁶¹. It is expected, therefore, the active involvement of the territory and of enterprises providing an innovative model of school-enterprise;

- **an educational model that aims for excellence** that is to develop the whole person and complexity and that is accomplished through:
 - an innovative method of learning because it is customized and based on the experience summarising as "to learn from doing";
 - the experience alone hardly leads to knowledge and the young man must be guided by an adult, a trainer. Not teachers that transmit abstract skills, but tutors, entrepreneurs and craftsmen who know how to "do with" the boys, convey the passion for knowledge and craft through relationships of mutual growth;
 - a space made with care that contributes to the educational project (sending the value of hospitality, the taste for beauty and respect for nature).
- **a virtuous model of governance based on social partnership between private, for-profit and public.** An initiative that starts from a private part of society, but that should be developed with the collaboration and cooperation of different sectors of the society.

Besides the strengths of the model, the School Oliver Twist has some constraints:

- **The financial dependence.** The training courses and projects are funded through free donations, and funding from private and public contributions. The sale of products and services of the School Shop is a form of self-financing, but it is not sufficient to ensure financial autonomy. The financial dependence is a limitation that affects the choices of management activity. The availability of third-party loans depends on the conduct of normal activities and the development of new projects. For example the suspension of Excellence program of the Lombardy Region (that founded the first years of "Liceo of work") put at risk the completion of the route taken by young members and the possibility to offer this opportunity to other people. Uncertainty and inadequate funding bring the difficulty of building long-term projects. The School is required to do a continuous effort in research and adapt supply to the requirements in public tenders, in fundraising and in building a network of relationships of trust with private lenders: businesses, foundations and associations.
- **Shortage of Excellent Human Capital.** In the Oliver Twist School they are convinced that the success of education depends on the educational role of adults placed alongside the young people. The choice of the teaching staff is essential. Each teacher is asked to "get involved, to have a total availability to accompany the boy into his path, to have such knowledge of their subject to be able to disassemble and reassemble the discipline to follow the logic of the boy," [Venturino, 2010]. It is required the availability to "educate himself to educate", i.e. to make a personal work and to undergo to a continuous training. School clashes with the problem of

⁶¹ Savorana (2010), Il liceo del lavoro: Il caso della Scuola Oliver Twist, page 96

selection of the personnel who have these characteristics and this availability. The university training of teachers is often insufficient for a difficult environment like the one in which this school, and from this comes the idea of the training course for teachers "Education, Training and Work" to acquire an educational method and specific instruments in the vocational training of young and combating early school leaving.

- **The economic crisis.** The economic difficulties - financial felt by all sectors of society can lead to a reduction of financial support (donations, public and private funding) and compromise the partnership with the business/artisan community because of the staff reducing, the closure or the transfer to foreign production activities. The lack of involvement of the business world and local artisan would prevent the realization of the model of school - enterprise, made of experiences of internships and of entrepreneurs as professors.

Impact and Replicability

Oliver Twist School is considered a centre of excellence for education and training at national, but also European level. A confirm of it is the selection of the school – among all the Italian ones – as partner in the Cooperation Project between Italy and Germany to promote youth employment⁶². The reason for this success depends on two factors:

- on the one hand there is the quality of training, because students learn skills that make them employable;
- on the other hand there is a great cooperation with several companies working together with the school through the joint planning and internships.

At the micro level, the benefits of Oliver Twist School are both social (reintegration into society and to boost individual motivation) and economic (opportunity of employment, earnings and career growth).

At the macro level the school contribute to the inclusion of disadvantaged groups, improvements in productivity and performance of businesses that can benefit from skilled workers. At the macro level, the contribution is also the reduction of the phenomenon of dropout (that can turn into a chronic burden on the whole community with its cargo of human, social and economic costs) and the improvement of the problem of mismatching in the labour market, creating opportunities for development and growth of the local economy.

Despite the positive impact of Oliver Twist School, the replicability of its model collides with the difficulty in reproducing some specifics of the case:

- first of all the long history of the social phenomenon of Cometa and the positive reputation gained over time that gave credibility to the project since its debut;
- secondly the broad economic support received by the Region and the Oliver Twist Foundation as well as by a network of supporters that allowed subjects to cover the extent of the planting costs and operating expenses;

⁶² The Project started in 2012 provides for the implementation of actions and measures ranging from the exchange of experiences to the start-up of transnational mobility and employment projects. (Ministry of Labour and Social Policy).

- more generally, it arises an issue - cultural and educational - to qualify the training, traditionally far from practical activities and production environments, through innovative solutions that, nevertheless, enhance the specificity inherited from the past. It is possible to reach such a result through innovative institutional forms, generated locally, providing the introduction of new forms of governance with the involvement of economic actors, social, institutional so as to strengthen the interplay between businesses, school, families [Magatti, 2013].

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VET-EDS Case study

Working in Germany; a cross-border partnership of the Netherlands and Germany

KWIZ Research & Consultancy

Introduction

Netwerk Noord or Netzwerk Nord is a partnership between the Dutch municipality Oldambt (Netherlands) and Landkreis Leer (Germany). Main goal is to improve the cross border cooperation on trade and industry, employability and labour market. The partnership has organized a lot of different projects. In this case study the subject is “working in Germany”. The main objectives of: “working in Germany” are:

- To qualify job seekers for jobs in Germany;
- To provide jobs for the unemployed in the north east of the Netherlands.

Dutch border municipalities, such as Oldambt, are confronted with a high unemployment rate. Many of the unemployed have poor job prospects. On the contrary, in German border areas there is a high demand for personnel in various professions and skill-levels, due to a lack of labour force.

This offers very good opportunities for Dutch job seekers to find a long-term job in Germany. So far, many Dutch unemployed persons from the border area have been given permanent employment in the German labour market. When necessary, vocational education and training is offered to provide qualified and skilled labour.

Summary

Netwerk Noord or Netzwerk Nord (German) is a partnership between the Dutch municipality Oldambt (Netherlands) and Landkreis Leer (Germany). Main goal is to improve the cross border cooperation on trade and industry and labour market. The main objective of the case Study “working in Germany” is to qualify jobseekers for jobs in Germany. So they can get a job over there.

The high demand for work in Germany and the high rate of unemployment in the Netherlands offer opportunities for a cross-border labour market to create substantial added economic value to the cross-border region.

When a job-seeker participates in the program, vocational education and training will be offered to obtain the required qualifications. An employment agency employs the participants on a temporary basis. After a period it will turn into a permanent job.

Context and setting

Key messages:

- Eastern Groningen and its border regions have the highest unemployment rates in the Netherlands. Over the next years, these regions also face serious socio-economic challenges arising from a shrinking and ageing population;
- The unemployment rate in German border regions (northwest) is much lower than in the Dutch border region of Eastern Groningen. There is a high demand for personnel in various professions and skill-levels, due to a lack of work force;
- Boundaries between the Netherlands and Germany are fading, easing cross-border cooperation and a shared labour market.

Economic developments eastern Groningen

The economic recession of the last couple of years led to a very large employment market in the province of Groningen. The number of jobseekers heavily increased whereas the number of jobs decreased. In the sectors of care and welfare, retail, technology and administrative corporate services there are still vacancies, although the amount of jobseekers in these sectors has rapidly increased over the last few years. This is especially true for jobseekers in the lower industrial jobs, which is the biggest group of jobseekers in Groningen.

Over the past decade, parts of East Groningen, including border areas, have been suffering from a shrinking and ageing population. Over the next years, these regions face serious socio-economic challenges as a result of the demographic shifts. Many young (educated) people are leaving the region. Elderly people stay behind, which causes an ageing population and ultimately a decrease of the total population. Facilities will start to disappear because of a lack of customers and the occupancy of houses and business premises will drop, causing a significant decrease of work in(rural)border areas.

The afore mentioned effects of the economic recession and current demographic shifts have resulted in a high rate of unemployment in the border regions of eastern Groningen. Particularly youth unemployment is an issue with imminent long-term consequences.

Recently there has been a number of economic developments and investments in the region causing some economic recovery. However, these developments alone will not get the entire border region out of its employment issues. The region will keep being confronted with a large group of hardly placeable job seekers who lack a basic start qualification for the labour market. Also, the expected economic recovery won't lead directly, to a big increase of available jobs in the border region. Moreover, with a slightly growing labour force in Groningen, this economic recovery won't lead to a decline of job seekers over the coming years. However, the labour market will become more dynamic, which will also lead to an increase in vacancies, especially in the corporate services (including employment agencies) and the export-related industries.

Economic developments German border region

Over the last couple of years, the German economy has been doing better than the Dutch economy. The German border regions also suffer from the consequences of ageing and young people leaving the region, resulting in a relatively small active labour force. Due to this lack of labour force there is a high demand for personnel in various professions and skill-levels in German border regions. As a result, a lot of companies have shortages of staff, especially companies in sectors as care and welfare, technology, construction and manufacturing. This is where job seekers from the border regions can seize opportunities to be eligible for a job in Germany. The high demand for work in Germany and the high rate of unemployment in the Netherlands offer good opportunities for a cross-border labour market.

Eems Dollart Region

The Eems Dollart Region (EDR) has been established in 1977 after some years of preparation. After years of a strict separation between borders, the main goal was to create a “Europe of the regions” by building up and enhancing future contacts and networks between people, companies and organizations⁶³. The organization represents the common interests of both regions in various fields such as spatial planning, infrastructure, economic developments and regional identity. The EDR has approximately 100 members like municipalities, large cities in the Dutch-German border region, important business parties and the Dutch and German Chamber of Commerce. The EDR is being financed by its members, as well as the provinces of Groningen, Drenthe, Friesland and the German state of Niedersachsen. The close cross-border cooperation in the EDR has its origins in numerous and diverse social and cultural contacts. The two regions are closely intertwined geographically; Leer is connected to Groningen by a regular rail link with several trains daily. Language difficulties are often overcome in this region by the similarity between the dialects on either side of the border.

Cross-border boundaries are fading

It is becoming easier and easier for unemployed and job-seekers to find work across the border. Throughout the years, more and more contacts and networks within the EDR have been established between the people, businesses and organizations on both sides in the Dutch-German border-area. Recently in the context of Net(z)werk No(o)rd, there have been several projects, such as “working in Germany” in order to stimulate a cross-border labour market and partnership between German and Dutch authorities, vocational education institutes, employment agencies and industrial companies in the EDR. Also, the European Union is making efforts to stimulate cross-border cooperation and an international labour market. Cooperation across borders are a key tool in order to face socio-economic and environmental challenges and is an important consideration in future policy making.

Description

The Net(z)werk No(o)rd is intended to stimulate further internationalization of the German-Dutch labour market. “Working in Germany” was initiated within the context of Net(z)werk No(o)rd. It aims to provide solutions for both the labour market issues in German and Dutch border regions. Net(z)werk No(o)rd has connections with authorities, business, vocational education and training

⁶³ <http://www.edr.eu/en>

institutes and job centres from both regions, providing multidisciplinary and cross-border cooperation. Also, the European Union is an important partner providing crucial (financial) support. The commitment and resources of these involved parties are the driving force behind “working in Germany”. The high demand for work in Germany and the high rate of unemployment in the Netherlands offer good opportunities but also requires a thought-out approach. After Dutch unemployed have been recruited they will be offered vocational education and training, in order to be deployed within the German labour market.

Most importantly, “working in Germany” subsequently leads to:

- A declining rate of unemployment in Dutch border areas (Oldambt), and;
- A reduction of the current shortage of workforce in German border areas (Leer)

Methodology

The high demands in German border areas for personnel creates many opportunities for the unemployed and job-seekers in the province of Groningen. A few concrete examples of companies in the border area which have a high demand for personnel are:

- Volkswagen factory Emden
- Meyer werft Papenburg
- Enercon

The approach of Net(z)werk No(o)rd is to qualify unemployed persons, especially in the region of Groningen, and to subsequently help them find long-term, stable work within demanding companies (Germany). Within the context of “working in Germany”, Net(z)werk No(o)rd hosts various events and job markets to reach out to job seekers in the Netherlands, on which (German) employers offer their available jobs. When a job-seeker participates in the program they receive education and training from a German vocational education provider to obtain the required qualifications. The interesting component of the project is the fact that German and Dutch people are trained and qualified together, which means that they learn and practice the language of the other country.

For Dutch job seekers, several agencies are taking care of removing possible barriers to work in Germany. These agencies take care of affairs concerning social security, legislation and insurance policies in Germany. These agencies also take care of required qualifications prior to working in Germany, in a specific sector. Sometimes additional vocational education and training is needed, as Dutch qualifications often are not directly acknowledged in Germany.

Scale and funding

Cross-border cooperation is not always a successful practice; often practical obstacles such as language barriers or national legislation are too difficult to overcome despite the opportunities. For that reason, the European Union stimulates cross-border cooperation. Therefore, the European Union initiated a number of funding programs that are intended to decrease the amount of barriers and to make it appealing for cross-region parties to cooperate with each other. One of these measures is the European Territorial Cooperation (ETC), better known as Interreg. Its goal is to

intensify institutional cooperation across borders between regions located on European Union's internal and external borders, and regions within transnational areas⁶⁴. Net(z)werk No(o)rd has submitted an application for a grant out of the Interreg program.

Currently, Net(z)werk No(o)rd makes use of grants out of the European Social Fund (ESF) program to finance “working in Germany”, which is the European Union's main financial instrument for supporting employment in the member states of the European Union as well as promoting economic and social cohesion⁶⁵. These grants amount a total of seven million euro for the next five years.

Role of VET and policy

In The Netherlands, there are no fixed frameworks within which the VET policies are being made. The legal framework within which providers operate, are the Vocational Education Act (Dutch: Wet Educatie en Beroepsonderwijs) and the Act on Higher and University education (Dutch: Wet op het Hoger en Universitair onderwijs). All these acts state the professional requirements for the programs that are being offered. Funding for education is based on the number of students that manage to leave the program with a diploma. Whether this diploma has any relevancy to the labour market is unimportant. The main providers are general education institutions. In addition, there are institutions that offer specific sector-oriented education programs.

Vocational training in Germany differs a lot from the Netherlands. In contrast to VET in the Netherlands, labour market developments play an important role in policy making. VET policy is not only guided by developments and demands on the labour market, but also by the need for individuals to acquire skills, knowledge and competences that will enable them to successfully prove themselves on the labour market. Training programmes are designed on the principle that they should be as broad as possible and as specific as necessary.

For solving the issue of the high amount of jobseekers without a good qualification in Eastern Groningen, it is important that vocational education programs in specific sectors will be practiced and improved for this group of people. As mentioned, the vocational education system in Germany is much different compared to the Netherlands. Dutch qualifications often are not directly acknowledged in Germany. It is important that vocational training and education in the context of Net(z)werk No(o)rd qualifies for both the Dutch and German labour market. When a Dutch job seeker wants to work in Germany, they will receive education and training from a German vocational education provider in order to obtain a cross-border qualification. A temporary employment company will employ the participants on a trial basis. If this proves to be successful, they will be employed on a long-term basis. After completing the qualifying course, participants receive a certificate. Employment contracts are prepared and handed out before the end of the course.

Example: Enercon

In Germany the wind power industry is developing quickly, as a result of the energy transition taking place. A number of wind power businesses are located in The Eems Dollart Region. The company Enercon is one of the most important businesses in this field and is active in several locations in the

⁶⁴ <http://www.interreg4c.eu/interreg-europe/>

⁶⁵ <http://ec.europa.eu/social/main.jsp?catId=325>

Northwestern part of Germany. Enercon produces wind power systems and components for windmill constructions. With regard to the production of rotor blades, there is a shortage of employees for laminating operations. Since Enercon is located in the German-Dutch border area within the region, the company saw opportunities to employ long-term unemployed people in the province of Groningen, with help of Net(z)werk No(o)rd. They were offered specific vocational training for the laminating operations so that they could be placed into the company.

Critical factors of success

There are a number of fundamental conditions to achieve a cross-border cooperation which is beneficial for the economic developments of both regions. Within the context of the VET-EDS program it is important to identify these factors as they could be used to stimulate cross-border cooperation between other border regions.

On both sides of the border the people, businesses and organizations are willing to work together

In order for a successful cross-border cooperation, a multidisciplinary cooperation between the people, businesses and organizations from both sides of the border is mandatory.

Small scale

Start with a few projects on a small scale. All participants like policy makers, employers, educational organizations, job seekers etc. have to get used to work cross border. Its important to have the right information about:

- Educational systems;
- Laws;
- VET;
- Language;
- Culture;

Qualifying vocational education and training

To begin solving the issue of the high amount jobseekers without a basic starting qualification in Eastern Groningen, it is important that vocational education programs in specific sectors will be practiced and improved for this group of people. Dutch qualifications often are not directly acknowledged in Germany. It is important that vocational training and education in the context of Net(z)werk No(o)rd qualifies for both the Dutch and German labour market.

Sharing knowledge of skills

The sharing of knowledge and skills, and the mobility of students and staff across borders is important to the development of vocational and technical education and should be encouraged. However, this international exchange and cooperation should be sensitive to local needs.

Sharing information about laws and national systems

Information about the educational system and, laws is important for preparing educational training programmes.

Constraints

Language and culture

When young people are not stimulated to learn different languages this will be a barrier for successful training and education people for jobs in Germany. Therefore young people must be stimulated to learn and use the German language.

Although the regions are close together there are cultural differences between the Netherlands and Germany. For example, in the Netherlands people are more informal and don't like authority and that's quite the opposite in Germany.

Acknowledgment of qualifications both sides of the border

Both countries have different educational systems and won't acknowledge . Sometimes because of a lack of information but sometimes because of the system and the law. When you want a job in the craft industry in Germany you The German Meisterbrief is a barrier to get a job craft industry.

Laws

It is very difficult to change a law or an educational system. This can be an important constraint for VET in a cross-border cooperation.

Mobility and transport

Transport can be a constraint. It's important that people can get to the place for educational training or where they work. In some areas the public transport works very poorly. A solution is to arrange group transport. In the case study the employment agencies arranged for the employees small busses to transport them to work.

Commitment stakeholders

All participants must have the same amount of commitment. It is the most important condition for cooperation. Also all stakeholders must be identified, therefore you need information about the system.

Impact and Replicability

Cross-border vocational education and training improves job prospects in the Eems Dollart region. In the past 2 years at least 100 job seekers have found a regular job in Germany. Language difficulties can be overcome. German industrial companies reduce their potential reservations against foreign workers on the basis of positive experiences. The international cooperation of German and Dutch authorities, vocational education institutes, employment agencies and industrial companies prove that problems can be overcome. Companies in both regions, for example in the wind energy sector, realize that internationalization is a promising development for recruiting employees. Regional activities targeting the labour market have an inherent added economic value at the European level. The region is thus becoming an attractive new business location. Location decisions are always partly motivated by staffing needs, which explains the increasing importance of regional qualification

projects. In sum, the cooperation projects have made an innovative contribution and created substantial added value in the area of cross-border knowledge exchange.

Replicability

The growing Europeanization of markets requires a stronger internationalization of vocational education and training. Vocational education and training is important, as unemployed and job seekers often lack necessary skills or qualification to find cross-border work. Moreover, more training might be needed for participants to get familiar with the other region's language and working culture. This is the only way of substantially maintaining the economic power of companies and the employability of employees in border-regions. This case study of cross-border vocational education and training improves job prospects in the Eems Dollart region. Net(z)werk No(o)rd's cross-border approach to VET is a critical factor in the project's success. Although, every region has its own laws, language, culture, education system etc, meaning the discussed approach cannot directly be duplicated to other regions. This case study can be an example for other regions on how to stimulate cross-border commitment and cooperation and how to effectively use vocational education and training to reach this goal.

Within the context of the VET-EDS program it is important to take into account the critical factors for success when applying a similar approach to cross-border cooperation and internationalization of vocational education and training. These critical factors were:

- On both sides of the border the people, businesses and organizations are willing to work together;
- Starting on a small scale;
- Qualifying vocational education and training;
- Sharing knowledge of skills;
- Sharing information about laws and national systems

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VET-EDS Good Practice

Josef Lannemyr

SWEDISH FOR PROFESSIONALS

Introduction

How does Swedish for professional fit with the aim of VET-EDS?

The program combines measures toward two of the most obvious threats against regional development; integration on the labor market of newly arrived immigrants and at the same time helps to reduce shortages of VET-educated persons in the region of Skåne. These two topics are crucial for the further economic growth, and considered as key issues in Skåne's Regional Economic Development strategy.

Why is Swedish for professional successful and a good practice?

- The program strengthen the role and effectiveness of Vocational Education and Training for newly arrived immigrants as it shortens the time before entering an education.
- The program assist the transition to the world of work as long introduction programs, without contact with working labor market and native Swedish society may create lock –in effects and further entrench migrant segregation.
- The program reshape labour market policy and institutions in its innovative way (in a Swedish context) to facilitate access to employment and tackle social exclusion.

Summary

Swedish for professionals – consists of different courses focusing on professional Swedish language, related to specific areas of work. The goal is to shorten the path through the educational system for newly arrived immigrants, and the time it takes before they can start working in their profession. One of the main thoughts behind the Swedish for professionals program is that if you start of to learn a vocabulary within a profession it will help to increase the overall language skills

Swedish for professional starts off with concentrated studies of professional Swedish in a small group in three months. Then the students enrol in labour market training and combine the VET with individually adapted language studies.

Working as planned Swedish for professionals full fill two important objectives:

It helps to reduce shortages of people with technology and manufacturing VET.

It helps integration. Several reports¹ and evaluations suggest that contact with working life in an early stage of an instruction program will shorten the way to employment for immigrants.

Context and setting

Skåne is the southernmost county of Sweden. It is a part of the Öresund region which also includes several regions on the Danish side of the Öresund strait. These are linked to the Swedish parts of the Öresund Region by the Öresund Bridge. There are roughly 1.3 million inhabitants in Skåne, more than 13 percent of the total Swedish population. The population is increasing, mainly in the vibrant hubs of Malmö and Lund, due to high fertility, net inflow of population from the rest of the country, and increasing immigration.

The share of the labor force with tertiary education in Skåne is large both in comparison to Sweden as a whole and to the OECD average. The corresponding share of individuals with education at compulsory school level is low compared to OECD countries whereas it is somewhat high in a Swedish context. Like in modern economies in general, the service sector is increasing in Skåne and largely at the expense of the manufacturing sector. The Swedish economy is export oriented, however, and Skåne's manufacturing firms still employ about 12 percent of total employment. The last decades or so, Skåne has distinguished itself as one of the most innovative regions in OECD. It has increasingly moved into high-skilled sectors and is classed by the OECD as a "knowledge and technology hub".

Swedish for professionals - a fast track to VET for immigrants

Swedish for professionals – consists of different courses focusing on professional Swedish language, related to specific areas of work. The goal is to shorten the path through the educational system, and the time it takes before immigrants can start working in their profession or start their own businesses in Sweden.

Hence, Swedish for professionals have a two folded purpose:

- To give the participants training in vocational Swedish in their intended profession before a planned labor market training programme.
- To give participants an individually language-teaching -plan in their professional field while participants are enrolled in labor market training program

The overarching goal with Swedish for professional is that the participants should have gained professional language skills in a manner that they could attend a regular labor market training program or be eligible for a work experience placement or a traineeship.

Background

The elementary *Swedish language program for adult immigrants* (Sfi) has been running for more than 40 years. However, the program is often a subject of discussion and issue in the debate about integration in Sweden. One critic draws attention to conflicting views on the role and status of the program⁶⁶. One opinion consider the program should meet changing labour-market demands and

⁶⁶ *Nobody's darling? Swedish for adult immigrants: A critical perspective*, INGER LINDBERG and KARIN SANDWALL – Goteborg University, Sweden, Prospect Vol. 22, No. 3 2007

others see the program as fulfilling longer-term goals of personal and professional development and future citizenship.

These different views on the primary role of Sfi are mirrored in conflicting opinions of who should take responsibility for the program. The Act on establishment activities for certain new arrivals (2010:197) came into force on 1 December 2010. With this, the main responsibility for helping people granted a residence permit to settle moved from the Swedish Migration Board to the Swedish Public Employment Service (Arbetsförmedlingen). This responsibility means that the Swedish Public Employment Service has to assign, if necessary, new arrivals that have a right to an establishment plan to a place of settlement in a municipality. The county administrative boards must negotiate with the municipalities over the reception of new arrivals⁶⁷.

The reason for The Act on establishment was that the time from arrival in Sweden to entering working life where considered too long. The OECD considers the average length of the introduction period in Sweden of around two years as too long, considering the adverse effect of absence from the labour market during this period of time. Even though some knowledge of the Swedish language is beyond doubt necessary for labour market integration, the OECD has underlined that a rapid insertion into the labour market, without any prolonged periods of instruction and training, is at least as crucial for the integration process⁶⁸. Therefore, the focus should be set on short and high quality language instruction, whilst avoiding the pursuance of a knowledge level that goes beyond what is demanded by employers.

This kind criticism have also been emphasised by OECD in there Territorial Review of Skåne⁶⁹ where it is noted that "...the demographic dynamism (in Skåne) has not translated into corresponding gains in the term of productivity and skills. This calls for a particular focus on building a more efficient and cohesive labour market"⁷⁰

Therefore, the need for reforms that fastens the road to work for immigrants is a highly prioritized area by the national, regional and local authorities, and viewed as an important issue in the regional development.

Reason for Swedish for professionals

The goal of Swedish integration policy is equal rights, obligations and opportunities for all, regardless of ethnic or cultural background. The integration policy is also part of the Government's efforts to increase the supply and demand of labour, improved matching on the labour market and more enterprises and improved growth.

Measures to increase labour force participation are to be reached primarily through general initiatives aimed at the whole populace, regardless of country of birth and ethnic background. However, the general initiatives are to be supplemented by targeted initiatives to support and facilitate the establishment of new arrivals during their first years in the country. Such targeted measures are provided within the scope of the establishment scheme, the overarching purpose of

⁶⁷ **Reception** of asylum seekers, <http://www.government.se/sb/d/11901/a/125266>

⁶⁸ *The Integration of Immigrants in Sweden: a Model for the European Union?* Anja Wiesbrock., Volume 49, Issue 4, International Migration, 2011.

⁶⁹ OECD Territorial Reviews, Skåne, Sweden, OECD 2012.

⁷⁰ *Ibid.* P 175.

which is to facilitate and speed up the establishment of new arrivals on the labour market and in society. Prior studies have shown that Sweden has not been particularly successful in utilising and developing the competence of new arrivals. This is apparent in the considerable differences in the levels of employment between those born in the country and those born abroad, and from the risk of unemployment being almost three times higher for the latter group. In general, it also takes a long time before new arrivals receive employment, while a large portion of those born abroad are overqualified for their work.

Through its work with regional labour market forecasts The PES can provide local information to facilitate matching migrant competence with local needs. However, the necessary first steps in enabling migrants' access to the labour market go thru education. Habitually, employers need some kind of validation of prior experiences or certification of skills. The Vocational scheme provided by the PES is called labour market training programmes and provides VET-education for the local labour market's needs from well-known educational providers.

Labor market training programmes

People that are unemployed, or risk becoming unemployed, can in certain cases participate in a labour market training programme. The aim of the programme is to improve the clients' opportunities for finding work and to make it easier for employers to find labour with the right expertise.

A labour market training programme is a vocational course that Arbetsförmedlingen (PES) orders from, for example, a training company or a municipal commissioned service. Which labour market training programmes that are relevant depends on the state of the labour market. Labour market training programmes are highly demand-oriented and should answer to the needs of the local labour market. During recent years, most of these programmes have been within manufacturing, health and social care and transport.

It is the employment officer that assesses their client's situation in the labour market, and takes into consideration the vocational area, prior experience and the current state of the labour market. On the basis of this, the officer then decides whether a labour market training programme would be a good way to improve the client's opportunities for finding work.

A labour market training programme usually has duration of up to six months. The programs could also be longer if this is needed in order for to fulfil the goals of the training.

Swedish for professionals in practice

Swedish for professionals have, according to its two folded purposes, two steps: A and B. Swedish for professionals A consist of concentrated studies of professional Swedish in a small group. This recommended length of this stage of the program is three months. The goal with this part of the program is that the participant should be able to enter an ordinary labour market training programme.

One of the main thoughts behind the Swedish for professionals program is that if you start of to learn a vocabulary within a profession it will help to increase the overall language skills. To be able to

measure the progress in the participants' languages skills the program starts with language test. The test uses the *Common European Framework of Reference for Languages* or CEFR - scale. After the test the educational provider prepares an individual study plan that appreciates the learner's ability to gain enough Swedish to be able to enrol in a labour market training programme. The Swedish skills needed should also be assessing depending on which craft or education the learners have in mind.

After three months of intensive language studies the participants do a new test to make sure that the objectives are reached and that the participants are ready for a VET in Swedish. Depending on the result of this second language test it is decided how much language –training him or she should have during the next stage of the program: “step B”.

Depending on the language –test results the learners in Swedish for professionals gets 4, 6 or 8 hours of language training a week during the labour market training program. This corresponds to 10, 15 or 20 percent of the activity. This language training should be individually or in a group if there are learners within the same occupation. Step B is then an ordinary vocational training within the PES' labour market training scheme with extra language education within the training.

One of the key ingredients in the labour market training program is the learning at workplaces (APL). As a part of the VET-education could take place at a company the language training becomes more authentic and the learner gets an up to date in the industries' technical language.

The length of step B is usually three months but could be longer if this is needed in order for to fulfil the goals of the training. After the end of the training the educational provider should provide the learners' whit a certificate which describes the gained language skills and the development during the program.

Scale of Swedish for professionals.

Swedish for professionals started already 2006. Since then the migration to Sweden have increased sharply and the program have increased in scale. During 2014 1 326 people participated in the program in Skåne, which were about 400 people more than under 2013. The program was conducted in the five major municipalities of Skåne: Malmö, Lund, Helsingborg/Landskrona and Kristianstad.

Target groups for the program

The target groups for the program are unemployed people with none or basic knowledge in Swedish who knows which occupation that suits them. The person should have education or prior working experiences within the profession from the country of origin and have the goal to resume this line of work in Sweden. However, there is possibility to start the program without prior working experience if the employment officer considers Swedish for professionals is a suitable program.

How Swedish for professional is organized

A labour market training programme is a vocational course that Arbetsförmedlingen (PES) orders from, for example, a training company or a municipal commissioned service. There are several providers of this program and the public tendering before the programme starts is regulated and specified in detailed to guarantee the same standard throughout the country. In every region there are pinpointed PES staff working as purchasers that sees that the criterion of the programs are

followed. The client's employment officers are given regular updates about the clients' progress and, of course, the results from the language tests.

What worked and why

Links between the integration programs as the Swedish for immigrants (Sfi) and the labor market should be strengthened. Contact with the labor market need not be only the goal of integration policy but also a tool. There is a risk that integration programmes that involve insufficient contact with labor market and native Swedish society may create lock –in effects and further entrench migrant segregation. Labor market contact at an early stage upon arrival can help to solve other integration problems such as poor language skills, and lack of access to informal networks. Therefore it is a key advantage that an introduction programmes and language education program for new arrived immigrants is undertaken in close collaboration with VET-education and local business.

Constraints and challenges

The programs Swedish for professionals have existed since 2006 and have been subject for a few follow ups and there have been critical opinions regarding the focus and extent of available activities, as well as their quality⁷¹. In many cases the subcontractors (i.e. the educational providers) are stated to be experiencing difficulties in guaranteeing the quality of the services provided. Arbetsförmedlingen spends a significant amount of time on checking on and pressuring the educational providers to guarantee that quality but even so this is not always the case. One problem is that some subcontractors are insufficiently skilled for working with the target group in question. The solutions from Arbetsförmedlingen have been to initiate a new procurement where the prerequisites of the educational providers have been sharpened and the activities even more specified.

Due to many procurements being appealed, it is on occasion difficult for Arbetsförmedlingen to get a new round of Swedish for professional in place, but the plan is to start with new educational providers during 2015.

Impact and Replicability

The Swedish for professionals is based on a very simple idea: To get the immigrants with only basic knowledge of the language in a VET as soon as possible and then continue to combine the vocational training with part-time language studies. As simple as can be this is a rather new idea in a Swedish context where introduction programs for immigrants have been seen as a mean to fulfilling longer-term goals of personal and professional development and future citizenship. The VET- education are highly demand –oriented and answers to the needs of the local labour market and therefore are the project very well aligned with the regional development strategies. Working as planned Swedish for professionals full fill two very important objectives:

- 1) It helps to reduce indicate shortages of people with of technology and manufacturing. The shortage is expected to be greatest for upper secondary engineers and those educated in industrial manufacturing subjects. A functional VET-education is a central to reduce the predicted shortages

⁷¹ *Utilizing and developing the competencies of newly arrived immigrants- the right measure at the right time*, Swedish national audit office, 2014.

- 2) It helps integration. Several reports⁷² and evaluations suggest that contact with working life in an early stage of an instruction program will shorten the way to employment for immigrants.

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⁷² For example: OECD Territorial Reviews, Skåne, Sweden, OECD 2012.



PROJECT VET-EDS

OUTCOME 2

LOCAL AND REGIONAL COMPENDIUM OF GOOD PRACTICE

ANNEX 5

Theme 5: ANALYSIS & MONITORING

National Training Fund

Zdeňka Matoušková, Marta Salavová

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VET-EDS Case study

The Observatory of the Competitiveness and the Labour Market in the Moravia-Silesian Region

Marta Salavová

Introduction

The presented good practice was implemented in the Moravia-Silesian Region in the Czech Republic as one of projects in the frame of the Regional Employment Pact. The Labour Market Observatory was established in 2012. It represents an institution facilitating cooperation among the regional partners. At the same time it brings an example of labor market information tool usable and transferable in different regions based on available data about occupations and occupational groups. The main LMI tool called “Occupational cards” has been already transferred to other European region (the Malopolska region in Poland).

Context and setting

The Observatory of the Competitiveness and the Labour Market in the Moravia-Silesian Region (hereinafter referred to as the “MS Observatory”) is located in the third most populated region of the Czech Republic. The Moravia-Silesian Region has been established as a self-governing region in 2001 with Ostrava, as its administration centre. It is one of larger Czech regions bordering both with Poland and Slovakia, with intensive cooperation with its Polish and Slovak neighbors.

The Moravia-Silesian Region (MSR) is one of the country's most industrialised regions, still very focused on heavy industry with increasing importance of automotive, and IT sector. On the other hand the region has also lower level

Summary

The Observatory of competitiveness and Labour Market has been established as a key instrument in the Regional Employment Pact. Its purpose is to identify key challenges of the region related to education and labour market, a support in design of priority interventions and their implementation and monitoring and evaluation of their impact. The Pact is an agreement of key players within the region to address these challenges; for this purpose it has both the authority and responsibility. Its strategic goal till 2020 is to achieve above-average employment rate and rank the Moravia-Silesian Region among the top 5 regions in the Czech Republic – not an easy task. The main value added of the concept of the MS Observatory is the wide range of users from public and private sectors profiting from its outputs and cooperative nature.

of entrepreneurial activity within the country. It is highly urbanized and one quarter of its population lives in Ostrava. The largest concentration of heavy industry within the region causes significant environmental issues.

Situation in the labour market highly depends on three major employers (all in metal processing industry, which prospects are not very bright in the country). If they close their business, the regional employment will be reduced by almost 10 per cent.

The employment rate of population is below the Czech average (63 per cent vs. 67 per cent in 2012) constantly, though the employment structure is more or less comparable. The most portion of labour force works in the manufacturing (27 per cent vs. national average 26 per cent), further in the wholesale and retail trade; repair of motor vehicles and motorcycles sector (13 per cent vs. 12 per cent) and in the construction (8 per cent vs. 7 per cent).

The region suffers from long-term population decline. It is predominantly caused by the outward migration of the highly educated and the young. However innovation and R&D activity remains under country average, despite growing importance of regional universities, both in terms of number of students and R&D performance. Because of close distance of three Landscape Protected Areas and large number of places of interest the tourism also represents significant opportunity for shifting of region's economy focus.

The MS Observatory predicts that 20.5 thousand jobs in manufacturing will disappear till 2020, the largest decreasing will be in Metal processing industry (NACE 24; -28 per cent), Textile industry (NACE 13+14+15; -25 per cent), Manufacturing of other non-metallic mineral products ((NACE 23; -20per cent) and Manufacturing of fabricated metal products, except machinery and equipment (NACE 25; -20per cent).

The wage level in region is lower than the Czech average by 6 per cent. Average monthly gross wages reached in MSR 22 111 CZK (around 835 €) in 2011. Lower wages are influenced by the fact that key employers in the region are positioned in the lower parts in the industry value chain and focus on activities with lower value added.

The MSR suffer from the high rate of unemployment, this rate is the second/third highest in the CR and circulates around 9 per cent in the period 2010 – 2012, compared to the national average about 7 per cent. There are large differences according to education levels: in 2012 the rate was only 3.8per cent for individuals with tertiary education (ISCED5-6), but 34.1per cent for individuals with lower secondary education or less (ISCED 0-2). For population with ISCED 3-4 level education, the unemployment rate was 7.8 per cent. The rate of unemployment differs also according to sex and age, women, the young (aged 15-19) and the older (aged 50+) have higher unemployment rate and face great difficulties in finding jobs. The people aged 55+ (especially women) then often prefer earlier retirement to be unemployed.

The share of tertiary educated persons quickly rises, but it is still under the country average. The Moravia-Silesian Region has very high level of unemployment and suffers also from high level of skills mismatch. Therefore the employment level is under country average. Labour market threats are also enhanced by concentration of employment in a limited number of key employers, especially in metalworking industry. Share of long-term unemployed persons is very high – around 50 %.

The employment in industry should decline in years to come; the region is facing structural changes. This represents major challenge both for the labour market and education policy in region.

There are also signs of a mismatch in the development of technical professional skills. The types of programmes offered by tertiary professional schools in the region do not seem to match the skill needs of the regional industry whereas the Bachelor degrees offered by HEIs do not meet the needs for more professional and experience-based skills. Whereas secondary level VET has a long tradition in the Czech Republic, tertiary professional schools were introduced in 1992 to develop a non-university vocational higher education sector (HVET). The HVET sector lacks tradition and does not have a good reputation amongst employers. This, and the fact that students have to pay tuition fees, makes HVET unattractive to both students and employers. Moreover, technically focused HVET programmes are expected to be provided by universities through Bachelor programmes. However, these types of programmes have not yet been developed, largely due to the accreditation system, which focuses more on research programmes.

Description

Scale

The MS Observatory provides free information and analyses on key issues related to regional development in the Moravia-Silesian Region. It provides information, analyses and forecasts of the current and future demands and supply on the labour market. The aim of the Observatory is to collect, publish and analyse data in selected thematic areas and also to offer them to users of public and private sectors.

Type of VET and policy

The main body holding executive powers in the field of education (IVET and CVET) at the national level is the Ministry of education, youth and sports (MEYS). Its key responsibilities include especially the development of national education strategy and priorities; development of curricular policy and ensuring the quality of education on the basis of the objectives and content of education; coordination of public administration and funding of education. The MEYS holds the main responsibility of administration and establishing the rules for higher education but the higher education institutions are granted broad academic autonomy.

The responsibility for retraining under the public employment services is held by the Ministry of Labour and Social Affairs. The systems of statutory training are administered by the line ministries (e.g. the Ministry of Health responsible for training of health staff, Ministry of Interior Affairs responsible for public administration staff training, etc.). A private provision of training services is not regulated. However, if an institution awards nationwide valid CVET certificates, it needs accreditation from the relevant ministerial body. Institutions providing language education or (re)training on behalf of the Labour Office need to apply for accreditation at the MEYS.

At regional level, the regional assembly and regional council are responsible for establishing public VET schools⁷³ at upper secondary and tertiary professional levels. The regional assembly decides on the number, structure, provision, quality and funding of the schools. The regional council is elected by the assembly and holds executive powers. It forms expert advisory commissions in various fields, including education.

All schools (including VET schools) enjoy a high level of autonomy. School directors hold significant powers. They are responsible for preparation and implementation of school curricula based on approved national curricula, for the quality of pedagogical work and human resources policy, for educational management and efficient use of financial resources. A school council as an advisory body is established at schools.

The population ageing will have consequences for education and training systems. The role of adult education and training will increase considerably and schools (especially basic and secondary) will face the problem of less young students. This process has already started. Secondary VET schools are supported by national and regional authorities and by the European structural funds to develop their capabilities for adult education.

The educational policy in the MSR is based upon the Long-term Programme and the Annual Report on the state of art and development of the educational system. The system has to react especially on the demographic changes, demand for skills and occupations in the labour market, the interest of young people in different educational programmes and the capacity of VET schools. The analyses of these four areas influences the tasks in optimizing network of schools, modernisation of educational programmes, promoting the collaboration between schools and employers, enhancing the accessibility and quality of career guidance, using the school capacity for adult education etc.

Target groups, organisations involved and stakeholders (demand and supply side)

The Observatory outputs cover several thematic areas and provide information on occupational, sectoral, educational and regional level. The main value added of the concept of the MS Observatory is the wide range of users from public and private sectors profiting from its outputs and cooperative nature. According to the Observatory focus there are various user groups – career guidance counsellors, schools, PES, employers and regional authorities itself.

The Observatory offers analyses, publications and statistical data related to Moravian-Silesian Region all in one place: (1) Economics and business, (2) Innovation and (3) Human Resources, Territory (4) and it compares them with other regions in the Czech Republic.

Each part contains data sets and detailed indicators (statistic data)

- indicators for all regions and the entire Czech Republic
- on selected indicators also data for districts of MSR
- in the part „ Human Resources “ current analyses, studies and surveys
- profiles of key professions in MSR (50 in total)

The users can use at the same time the publications and analyses developed for each area and also outputs from different thematic surveys.

⁷³ Majority of VET schools are public schools established by regions. The rest includes private schools, church schools and schools run directly by ministries (state schools).

Human resources part brings in addition to major time series also database containing profiles of major occupational groups in regional labour market. This tool – Labour Market Information (LMI) – Regional Occupation Card – is based on ISCO classification. Occupational clusters are designed by mixed approach, combining 2, 3 or even 4-digit ISCO groups. Profiles of 50 most important occupational groups on the regional labour market were created in the LMI. Once again they consist of sets of indicators describing employability (trends, sectoral structure, unemployment rate, job seekers, vacancies), earnings, qualification (skills needed, graduates forecast, graduates unemployment) and age structure.

Indicators are based also on the LFS, Public Employment Services statistics (job seekers, vacancies), Ministry of Education statistics on students and graduates by field and level of study, forecasts of graduates, forecast of sectoral employment (national level only) and Information System on Average Earnings).

Example of the Occupational Card:

REGIONAL LABOUR MARKET OBSERVATORY OF MORAVIA-SILESIA		PAKT ZAMĚSTNANOSTI MORAVOSILEŠSKY	
Name of the occupational group		Founders and welders	
Number of people employed (2011)		9600 person	
Employment trend (since 2005)		NO CHANGE ↔	
Employment by industry in region			
Industry	What part of this group jobs is created by this industry (2011)?	What is the industry employment trend within the region (2008-2011)?	What is the industry forecast (for whole country) till 2020
Metallurgy and metalworking industry	48%	SMALL DECLINE ↘	SMALL DECLINE ↘
Automotive and mechanical engineering	38%	SMALL DECLINE ↘	NO CHANGE ↔
-	-	-	-
Other industries	14%		
Labour market opportunities for the occupational group			
Indicator	This group	Region average	
Job seekers (2011 average and trend during this period)	517 ↘	-	
Job vacancies (2011 average and trend during this period)	243 ↑	-	
Job seekers per one vacancy (2011 average)	2,1	12,8	
Unemployment rate (2011)	5,1%	11,9%	
Median wage (2011)	27 500 Kč	19 500 Kč	
Qualification			
Level of education for workers within this group		Best suitable field of study	
Share of employees with tertiary degree	-	Engineering and metal processing	
Share of employees with secondary degree	98%	Secondary (ISCED 3c)	
Number of graduates of best suitable field of study in the region		738 persons	
Forecast of graduates for this field of study (2011-2016)		SIGNIFICANT DECLINE ↓	
Age structure			
Share of persons in the group aged 50+ in the region	Share of persons in the group aged 50+ in the country	Ageing index (region vs. national average)	
18%	24%	0,73	
Summary of key findings			

The main added value of the tool – Regional Occupation Profile – is that it starts with detailed identification of user needs in the region of the impact, combines both qualitative and quantitative approaches to data and information gathering and analysis, it provides simple and understandable outputs and it is used by stakeholders to concrete and practical measures.

9 main topics of the Labour Market indicators:

- ▶ **Group description** (ISCO code, name and synonyms used in vacancies advertising),
- ▶ **Employment development analysis** (total employment, trends in employment since 2005),
- ▶ **Labour market opportunities analysis** (number of vacancies and job seekers, unemployment rate, share of hard-to-fill vacancies and share of job seekers per 1 vacancy),
- ▶ **Sector employment analysis** (key employment sectors for the particular group and analysis and forecast of employment for these sectors),
- ▶ **Qualification analysis** (suitable field of education, share of persons with other-than-recommended qualification, level of education),
- ▶ **Earnings analysis** (used also as a proxy for occupation attractiveness on the labour market both for graduates and for adults, providing information on wage median, wage growth and comparison with similar occupations),
- ▶ **Graduates** (number of graduates of the most suitable field(s) of study, forecast of graduates for next 3 years, unemployment rate of graduates and its development),
- ▶ **Age structure** (% of young and old workers),
- ▶ **Summary** of key findings. Brief qualitative information, ca in range of one paragraph, focused on main trends, influences and factors to be considered by the specific occupation.

The main value added of this approach is the complexity of information about each occupation and the possibility to see pros and cons. For example the comparison of ageing workforce and number of graduates give us the information about possibility of replacement of workers.

As it is described further, an extremely important part of users is represented by regional authorities and key stakeholders that formulate the MSR vision and development priorities. There are also users from other regions and from national level (ministries etc.) - methodologies and examples of tools developed within the MSR are important inspiration for them.

Occupational cards serve both to career guidance (at school as well as in the PES) and in an aggregated level (list of top growing, most needed etc. occupations) again to regional policy makers. Employers also take advantage of these profiles - they help them to recruit new workers and graduates and provide them detailed information about overall market development, which they cannot obtain otherwise.

The Observatory operates as a key instrument in the MSR Employment Pact and is also an important partner for leading stakeholders that shape region's policies. It provides information, analyses and predictions of current and future supply and demand on the labour market, supported by intelligence

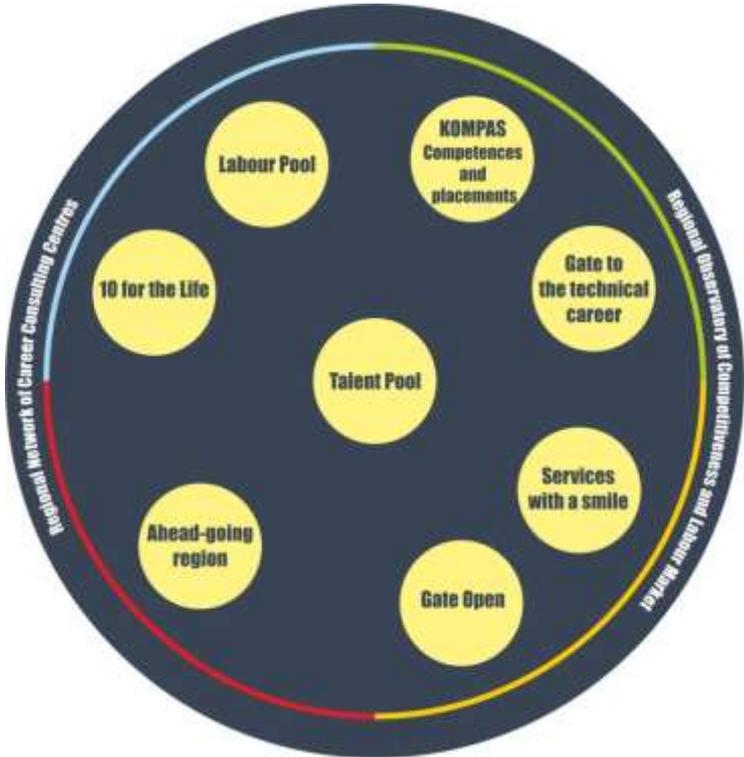
from the field of economics and business, innovation and development that will be the basis for smart public interventions in further projects.

The Observatory is not a standalone project and has strong application focus – it does not do research in the area of education and labour market, but always provides analysis together with policy recommendations.

Its purpose is therefore to identify key challenges of the region related to education and labour market, support in design of priority interventions and their implementation and monitoring and evaluation of their impact.

The Observatory now plays an important role in shaping of regional policy and in regional development. Since its creation it participated in a number of key regional documents in the area of competitiveness, labour market and education system.

Regional Observatory setting and linkage to Development priorities:



Recently, the MS Observatory has been involved in drafting of an ITI - Integrated Territorial Intervention - which covers the city of Ostrava and neighbouring districts. Within the ITI, it provided analyses and activities proposals for the key pillars of Work and Entrepreneurship.

The Observatory has also participated in design and implementation of Regional Innovation Strategy (RIS). But its importance has already surpassed the MSR. Not only was the Observatory involved in the National Innovation Strategy and development of methodologies for all other regions how to approach the setting of priorities in the area of labour market and competitiveness within particular region.

Also, the Moravian-Silesian Observatory now works together with the National Observatory for Employment and Training in drafting of methodology how to implement system of observatories in all Czech regions. This proposal is supported by the Ministry of Labour and Social Affairs (which should provide financing for such activity) and may significantly change the way the LMI is gathered, analysed and used in the whole country.

The Observatory is aimed not only to the development of the regional labour market in the Moravian-Silesian Region but also contributes significantly to the system development tools such as development of the cooperative TEPs network in the Czech Republic, the Regional Innovation Strategy (RIS) and the Regional Development Strategy (RDS).

Thus the Observatory in fact influences all key regional policies and has impact on wide range of areas - with VET and labour market being just two of them.

Overview of policies, strategies and actions influenced by the Observatory:

Policy/Strategy/Action	Impact
Regional Development Strategy (RIS)	Regional (priorities for the MSR)
Regional Innovation Strategy (RIS)	Regional (priorities for the MSR) and national (methodology and guidance for other regions, support of national innovation strategy)
Territorial Employment Pacts	Regional (priorities for the MSR) and national (methodology and guidance for other regions)
System of Observatories in the CZ	National (methodology and guidance for other regions, together with the National Observatory)
Integrated Territorial Intervention for the larger Ostrava	Regional (identification of priorities of the Ostrava agglomeration)

How it is organized

The MS Observatory is based on the consortium of RDA, Inc. (The Regional Development Agency, Inc.) and RPIC-ViP, Ltd.

The Regional Development Agency (RDA; in Czech "Agentura pro regionální rozvoj, a. s.") is a joint-stock company 100per cent owned by the Moravian-Silesian Region. It was established to support various aspects of regional development, and it is involved in a wide range of activities on behalf of the Moravian-Silesian Region. All of the RDA's activities are targeted to benefit the Region, its people, companies and institutions.

Within the MS Observatory the RDA is responsible for the preparation of databases and documents in the thematic areas of the Territory, Economics and Business and Innovation.

RPIC-ViP Ltd. is an educational, innovative and counselling company operating in the labour market since 1999. It offers services of 30 qualified consultants and project managers and takes a share not only in the dynamic development of the Moravian-Silesian Region but it is involved in programs on the level of the Czech Republic as well as European Union. This company is specialized in counselling and project management in the field of Human Resources management and development and in projects with the focus on key competencies development, counselling and education for small and mid-sized companies, specialized counselling services for public sector, companies and investors, etc.

Within the MS Observatory the *RPIC-ViP, Ltd.* is responsible for technical solutions of the website MS Observatory and preparation of data bases and documents in the thematic area of Human Resources.

The Moravian-Silesian Region funded the establishment of the Observatory in 2012. Within the first phase the main objective was a creation of united portal, incl. SW application and filling up with data. The current stage of its development (2013+) is aimed at creation of information base for “smart inventions” for promotion of economic development and employment (processing, sharing and interpretation of information, data and analyses for development of human resources, labour market and competitiveness in MS Region).

The MS Observatory is an internal project of the Moravian-Silesian Employment Pact and the system development of the Territorial employment pacts (TEPs). Its operation belongs to the Integrated Employment Development Program.

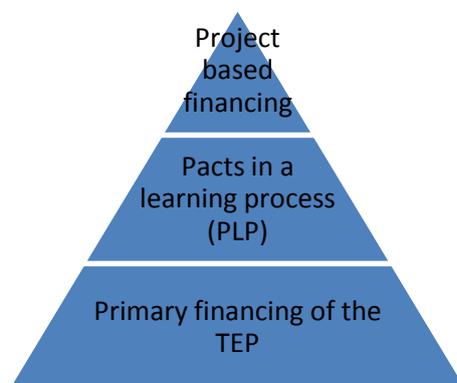
The start-up of the TEPs is planned to be funded from the Human Resources and Employment Operational Programme during 2015-2023, the sustainability will be ensured by partners and signatories from own sources in regions. The public funding from national and EU sources will continue to provide services of regional labour market observatories. Regional labour market observatories will be part of a national information system, made up of national and regional observatories.

The financing of the TEPs is planned to be carried out in three levels:

- Primary financing of the TEP: covers the main activities and functioning of the Pact itself. Primary financing comprises meeting and communication of partners, information service, and other related services for the key institutions in region, working/operation of regional Observatory of the LM, production of analyses, predictions, coordination of program of employment development and system intervention for its fulfilment. The program of employment development is an consensus of partners on problem solving – e.g. PR of technical education in the given region, measure to evaluate the success of interventions, career guidance innovations, interventions to prevent unemployment, settlement of the system of traineeships in enterprises.
- Pacts in a learning process: financing of the methodological, educational and advisory support for the system development of the TEPs in the Czech Republic, cooperative work and services for the MoLSA at the central level, and participation of the TEPs in international nets. The pacts in a learning process is a network sharing its know-how and cooperation inside this network is important part of the whole system functioning. It includes sharing of good practice examples, interconnection of information systems, methodological support, development, testing and dissemination of innovative solutions. Therefore methodical, educational and counselling support

of the TEPs has to be further funded. The information flow has to be ensured also among regions and between regions and the central institutions.

- Project based financing: involvement of the Pact and its partner into system projects, especially in projects with higher importance of cooperation of the key regional stakeholders,



The decision of the Ministry of Labour and Social Affairs (MoLSA) to support the system development of the TEPs is the first step which led to the creation of methodological framework. The methodological framework draws on the recommendations of the OECD and experience of the existing pacts/observatories in four regions of the Czech Republic.

Principal investigators on the level of system development of the TEPs are the Ministry of Labour and Social Affairs (MoLSA), and representatives of the Moravia-Silesian Employment Pact and The Usti Region Employment Pact. The system development was formed on the initiative of the Moravian-Silesian Observatory.

The first Territorial Employment Pact was established in 2011 in the MSR (The Moravia-Silesian Employment Pact - MSEP). This initiative was inspired by the Austrian model which has been step by step given to those interested in all regions of the Czech Republic. The Austrian Centre for Social Innovation (Zentrum für soziale Innovation) provides them information/consulting service on request.

The main objective of the Territorial employment pacts is to support the active employment policy in the region with engagement of the key regional entities, such as representatives of employers, representatives of regional policy and the regional/local Labour Office. The supportive activities should be mainly focused on unemployment prevention and strengthening of competitiveness in/of the region. Four Territorial employment pacts were established to date:

- The Moravia-Silesian Employment Pact (the first Pact and the main initiator)
- The Usti Region Employment Pact
- The South Bohemian Employment Pact
- The Liberec Employment Pact

What worked and why

One of the most important strengths of the whole project is grounded in the fact that the activities of the MS Observatory are closely tied with regional policy and strategies for which it provides critical information and data. It is recognized and respected by majority of stakeholders in the Moravia-Silesian Region, including employers.

However, the Observatory is widely acknowledged not only in Moravia-Silesian region and the system of regional observatories is strongly supported by the Ministry of Labour and Social Affairs. This should contribute to easier access to funding in next few years (except of the share of EU funding). The similar platform of observatories is being extended to other regions.

The labour market information tool – Occupational card is based on available regional data. Its structure is easy to understand and complex in the same time. The similar approach was first successfully implemented on the national level. On both – the regional and national level- the structure (choice of indicators and occupations covered) was discussed with target groups of users. The regional occupational card is targeted on different target group of users than the national version (Sector Councils). The regional cards provide information in particular for the career guidance counsellors and other regional stakeholder, and it is available on the website of the Moravia-Silesian LM Observatory.

Constraints

The dependence on project financing and EU funding was identified as weak point that constraints further development of the activities of the Observatory. Consequently, coordination of the activities of the Observatory and its goals are dependent on availability of project calls with suitable focus. This issue is connected with a concern whether there will be enough sources to cover Observatory 's activities after 2020. Furthermore, there is the potential to enhance the labour market intelligence tools in terms of coverage, level of detail and customization for every user group.

Impact and replicability

The Observatory itself brings not only state-of-the-art labour market information tools - its strength lies more in the area of policy and decision making and in integration of good labour market intelligence in design and implementation of development strategies.

The presented labour market information tool – Occupational cards is easy to transfer on the regional level, as evidenced by its transfer to the regional labour market observatory in the Malopolska region (Poland) in 2015.

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VET-EDS Case study

Regional Innovation Strategy – Ústecký Region

Author

Zdeňka Matoušková

Introduction

Regional Innovation Strategy aims at effective direction of financial resources – European, national, regional and private – on the activities that strengthening the regional innovation capacity of the region. Innovation does not consist only on high-tech discovery processes. Research is very important but the preparedness of business to accept and use the results of the research as well as the availability of human resources with corresponding skills is, besides the other factors, important too. Regional Innovation Strategy is a precondition for receiving support from European Regional Development Fund for the period 2014-2020.

Regional innovation strategy includes the deep analysis of current situation and formulates the long-term strategic vision of the region. Based on the analysis and the vision the main areas for promoting are identified. The promotion from the public sources will be concentrated on the human resources, research institutions and regional business. During the preparation of the strategy and its realization the private - public partnership is boosting.

This case study describes how the Regional Innovation Strategy was developed, what methods was used and who was involved in this process. The Strategy represents a ground for alignment of VET policy and economic development policy of the region



Summary

Type summary in here

Strategic documents give to all stakeholders the important information on the future development for the individual areas. The Regional Innovation Strategy consists of two basic sections. The first one is an analytical section defines the position of the region, the second one is an proposal section.

Proposal section identifies two main areas where the public resources should be allocated and the strategic objectives which should be reached in these areas. Several specific measures for each of the areas are proposed and their implementation will be monitored by specific indicator.

The important feature of the Regional Innovation Strategy is a fact that in the phase of preparation and realization all important regional stakeholders are involved. Together, stakeholders are best placed to set ambitious but realistic objectives as well as to follow up and monitor the expected achievements.

Context and setting

Economy and geography of the Ústecký Region

Ústecký Region is one out of 14 Regions (NUTS 3) in the Czech Republic. In comparison with the other Regions Ustecky Region belongs to the larger Regions, its area (5,335 km²) is the seven largest one and covers nearly 7 per cent of the total CR's area. Agricultural land represent nearly 52 percent of the total area and the rest is nonagricultural land namely forest land (36 per cent).



Region is located in the north western part of the Czech Republic and shares the border with Germany (Saxony). This boarder character provides a lot of opportunities for collaboration with Saxony. The collaboration enhances by EuroRegion Elbe/Labe and aims at Regional planning, nature and environment, business development and tourism/ development of infrastructure, civil protection and rescue, traffic, culture, education, sport, health and social services.

Demography situation in the Region is not favorable, the number of population decline continuously. In the period 2008-2013 the total population in Region shrank by nearly 11 thousands persons and nowadays 825 thousand people live there. This situation is caused by negative migration balance, especially young and well educated people leave the Region, as well as by negative natural demography development. Aging process troubled the whole Czech Republic is visible also in Ustecky Region still the share of people 65+ is lower than the Czech average. The Region is highly urbanized, 81 % out of the total population lives in the cities (according to the Czech law the city is a municipality with more than 3 thousands inhabitants).

An important trend that has affected the economy of the Ústecký Region since 1990 is the restructuring of traditional sectors. This mainly concerns heavy industry concentrated in the basin areas of the Region, specifically mining and quarrying, energy, the chemical industry, glass, ceramics and porcelain production, metallurgy and the metalworking industry. Regardless of this process the structure of the economy shows the persistent industrial nature with a high proportion of traditional sectors.

According to employment in the individual sectors, in addition to the traditional significance of the mining and energy industries there are other clearly important sectors, such as the automotive industry (production of parts and accessories), mechanical engineering and electrical engineering. Other important sectors in terms of employment include the chemical industry, glass and ceramics production, and the manufacture of building materials and metallurgy including the manufacture of fabricated metal products. There is an obvious abrupt decline in the traditional textile industry.

As a result of structural changes in the economy of the Ústecký Region, there was a sharp increase in unemployment. Among the Regions of the Czech Republic, there is the highest average unemployment rate in the long term. Unemployment in the Ústecký Region it is approximately 4 - 6 percentage points higher than the average. In the year 2014 the unemployment rate was 11 %, there was 17 applicants per one vacancy. From the territorial

point of view, the unemployment rate in the Ústecký Region is differentiated. This is due to the good transport links (and therefore available job offers) to Prague and Central Bohemia from some parts of the Region and due to a different economic base. A negative trend is the high proportion of the long-term unemployed (unemployable); it reaches the highest values among the Regions of the Czech Republic. More than 40 % of the unemployed are without a job for over a year.

Vocational education and training

The educational structure of the population is not a strong point of the Ústecký Region. There is one of the highest shares of persons with incomplete or only elementary education and those without any education, and one of the lowest shares of university graduates. Although the employment of university graduates in the Czech Republic has been growing, the dynamics of this trend is lower in the Ústí nad Labem Region than in most other Regions.

In this Region there are 96 secondary schools, 9 higher professional schools and 1 university. The number of students has been continuously decreasing in recent years because of negative demographic trends.

As part of the restructuring of the network of secondary and higher professional schools in the Ústecký Region, in recent years there have been mergers of these schools, and a network of backbone schools has been created. The aim is to optimally serve the catchment areas, reduction in operating costs and improving the effectiveness of the investment costs.

The problem with the vocational education system in the Ústecký Region is the mismatch between its field specialisation and the labour market, or the demands of major companies on human resources. Schools are not always able to obtain students in fields for which there is a demand in the labour market. The declining population size of individual years leads to an increase in the capacity of more attractive schools (especially grammar schools and business schools). This is also one of the reasons for the lower interest in apprenticeship fields. The lower interest in studying vocational fields has led to the existential problems of some secondary vocational schools.

The Regional university (UJEP) performs as the scientific, pedagogic and cultural & educational centre of the Ústecký Region. The university educates more than 10 thousands students not only from the Ustecký Region. The university has historically positioned itself in the field of humanities that is a bit in a contradiction with the industrial orientation of the Region. Nowadays there are 8 faculties (Faculty of: Social and Economic Studies; Art and Design; Philosophy, Education, Health Studies, Environment; Production Technology and Management; Science). There are also detached facilities of other public universities in the Ústí nad Labem Region. There are branches of the Faculty of Transportation Sciences and the Faculty of Nuclear Sciences and Physical Engineering of the Czech Technical University in Děčín, a branch of the Faculty of Mechanical Engineering of the CTU in Chomutov, and branches of the Faculty of Chemical Technology of the Institute of Chemical Technology and the Faculty of Mining and Geology of the Technical University of Ostrava in Most. There is a relatively large number of private universities and their detached facilities in the Region. However, their role in terms of R&D is marginal.

Description

Scale

Regional Innovation Strategy plays a crucial role in further economic and social development of the Ustecký Region. This strategy is based on the deep analysis of the current situation and formulates the vision of the region, main areas that should change and how these changes will be achieved by individual measures. The basic tool for the strategy implementation will be the action plan. The realization of these changes will be promoting by European Funds in the period 2014-2020.

The strategy consists of two sections – Analytical section and Proposal section.

Analytical section aims at

- Position of the region – economic development, labour market and wages, economic structure, performance and competitiveness of the main sectors located in the Region (mining and energy, chemical industry, mechanical engineering, glass, porcelain and building materials), external economic links, innovation activity of enterprises, human resources;
- Research and development, innovative business – description of the facilities carrying out research and development, specialization, results, application (transfer results into practice);
- Public administration and its role in the region's innovation system – interventions in the innovation system, overview of the existing plans and programmes;
- Main actors in the innovation system - results of the stakeholders analysis – universities and research organizations, innovation companies, other actors;
- SWOT analysis.

Proposal section consists of

- A. Vision that is based on the answers to three main questions:
- *What we are? A region with a specific economic base affected by the ongoing transformation of mining and heavy industry and historically focused on a lower value added; A region with limited capacities for research and development and with their difficult application in the commercial sector; A region with lower-qualified human resources and a discrepancy between the education system and the labour market needs.*
 - *What we want to be? A region with a growing economy that creates attractive employment opportunities; A region with an emphasis on preserving traditional sectors while increasing their added value; A region open to collaboration in research, development and innovation.*
 - *How to achieve it? Through the concentration of forces into selected areas of development; Through the mobilisation of all actors and their mutual cooperation; Through the utilisation of the internal potential of the region as well as external sources of funds.*

Vision of Ústecký Region

The Ústecký Region is economically growing and creates employment opportunities for educated people. Traditional sectors are modernising, increasing their added value and seeking new directions of development. There is an increasing number of companies that actively use knowledge and new technologies. This is made possible through the cooperation with a strengthened regional research and with research and development centres in the Czech Republic and Saxony.

The important part of the proposal section is a formation the indicators of successful vision implementation, i.e. economic performance compared to the other regions, the proportion of university-educated employees in the regional economy, the share of goods with a higher added value in the regional export, positive selective migration into the region.

- B. Key change areas that are identical with three priorities identified by management group of the Innovation Strategy. The innovation strategy focuses only on two first priorities: Human resources to increase the innovation and technology performance of the regional economy and Strengthening the innovation features of the regional economy.

Type of VET and policy

The availability of technically trained, qualified and skilled labour force for companies and research organisations in the region is one of the most significant identified barriers to the innovation system. The problem of shortage of technically trained, qualified and skilled labour force is reflected not only in innovation-oriented companies, but also in many companies in the manufacturing industry, and concerns not only highly skilled university graduates, but also technically educated secondary school graduates and skilled blue-collar workers. The lack of qualified applicants also affects the research and development facilities in the region.

In the area of human resources, three main groups of issues that affect the conditions for the development of innovative business and excellent research were identified.

1. *At the university level:* The demand of the corporate sector (especially industry) in the region does not meet the offer of education in science and technology. The field specialisation of the University does not correspond to the focus of the local industry. The professional and personal profiles of many graduates do not meet the requirements of the private sector. There is a continued negative balance of migration of talented young people who leave to study outside the Ústecký Region, and many of them do not return after graduation. In addition, university graduates are not too interested in starting their own business.

The aim is to establish cooperation of university students with specific businesses in the Ústecký Region, both before and after graduation. This will help to ensure a high-quality labour force for enterprises especially in areas that are crucial for the region. It is also necessary to support the gradual change of specialisation of the University and place a greater emphasis on technical and natural sciences and the interconnection with practice and research collaboration with other universities not only in the Czech Republic. The long-term goal is also to encourage the graduates of the University to set up their own businesses

using the know-how of the university. The basis of all measures is a long-term systematic work with students at the University and in other technical and science-oriented fields in the Czech Republic, and with companies that create the demand for educated labour force.

The aim is to ensure a skilled labour force for innovation companies in the Ústecký Region and at the same time to expand the job offer in the region in order to increase the proportion of graduates of the University finding adequate employment in the regional economy and to reduce the number of university students who do not return to the region after graduation (reduce the outflow of talent).

2. At the secondary school level: Secondary technical school graduates are insufficiently prepared for practical work for companies, both in terms of expertise and in terms of motivation. Poor quality (personal and professional) of graduates of technical fields is caused, among other things, by little interest in these fields and little motivation to pursue technical careers in manufacturing companies. The problem is also little consistency between the needs and requirements of companies on the one hand and educational programmes and the content of secondary technical school curricula on the other.

Students at general secondary schools (grammar schools) do not envision their future careers in the technology sector and do not choose technical or science-oriented universities.

To improve the current situation, it is possible to take advantage of the ongoing processes at the level of secondary education, where the region is the main authority (building a system of backbone secondary schools, strengthening of technical disciplines, improving the facilities for teaching technical skills). The potential of these changes will be supported by the popularisation of technology and science as a whole, and especially attractive jobs in major regional companies. Overall, there will be an increase in collaboration between vocational secondary schools and the private sector.

The aim is to improve the quality of education at vocational schools, increase the relevance of education in relation to the needs of the corporate sector, and increase the number of secondary school students who will continue their studies in technical and science-oriented universities.

3. At the elementary school level, there is an insufficient emphasis on science education and technical skills and a low popularity of these disciplines. The aim is to support these fields and motivate elementary school pupils with better learning capacities to choose technical fields at the next level of education.

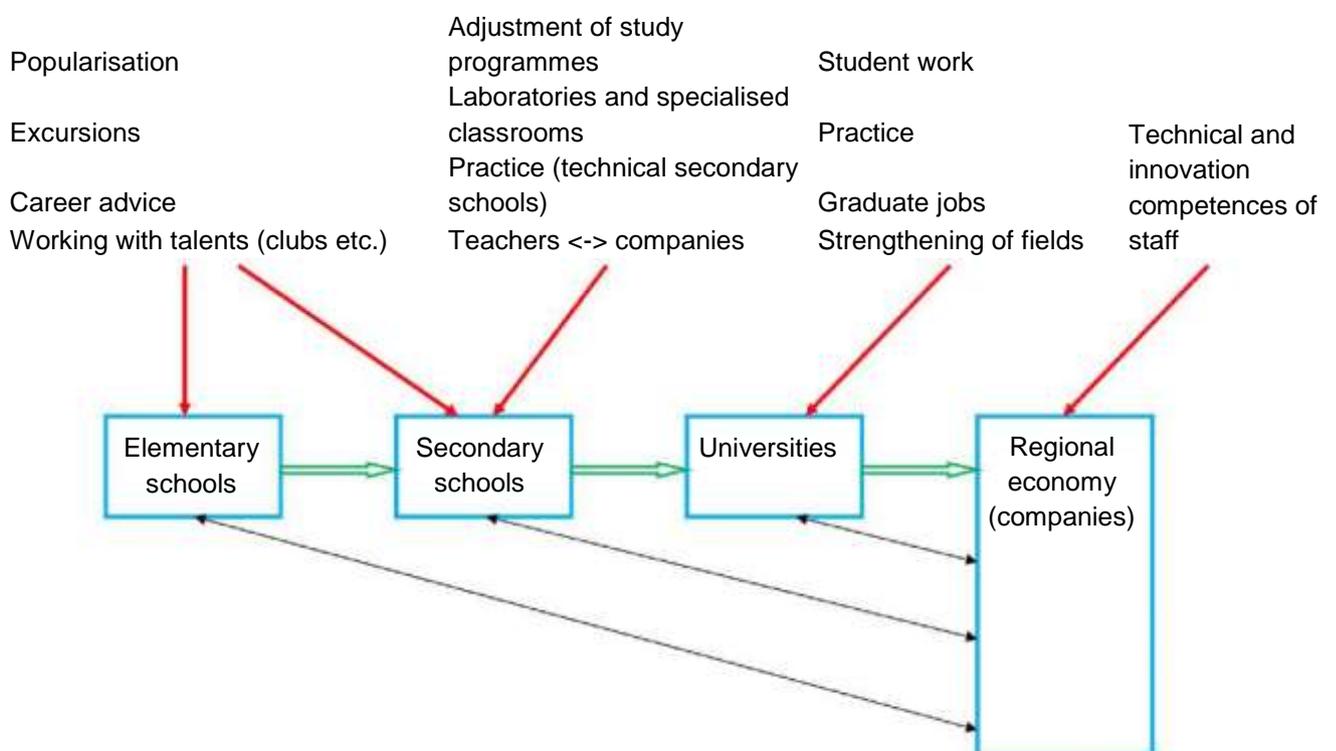
The objective is to find the potential candidates for future careers in technical (science-oriented) fields, work systematically with talents and motivate them to opt for further technical education.

The overall objective of the change area is to ensure that companies that seek innovation cooperate with the education system in the long term and acquire high-quality human resources, both at the level of top experts (own research and development) and in the category of technical workers and skilled blue-collar workers.

Four strategic objectives were stipulated. The progress in their implementation of individual measures will be monitored by several indicators.

Strategic objective	Indicator
Increase the number of young graduates employed in the region	The number of university-educated employees aged up to 30 in the region.
Improve the quality of teaching science and technology in secondary schools	Unemployment rate of graduates of local technical secondary schools
Increase the popularity of science and technology to attract talent	The percentage of elementary school pupils entering secondary schools of technical and scientific focus The percentage of secondary school students entering technical faculties of universities
Improve the professional qualification of employees	The number of suggestions for improvement/innovation made by permanent employees of companies
Entire key area	Number of graduates (at all levels) residing in Ústecký region who will work in the region five years after graduation Saturation of the companies demand in Ústecký region for science and technology-educated labour force (measured by a survey among companies)

The strategic objectives should be achieved by specific measures. Measures proposed may be represented as follows:



Target groups

Target groups relates to two identified priority areas. Measures from the priority Human resources to increase the innovation and technology performance of the regional economy aims at the following target groups:

- students of universities of technical and science focus;
- students at technology and science oriented secondary schools;
- teachers;
- pupils at elementary schools;
- students at grammar schools;
- employees of companies in selected fields;
- companies, mainly innovation companies.

Priority Strengthening the innovation features of the regional economy

The collaboration between research organisations and the corporate sector and other businesses to find opportunities for innovation and in the introduction of innovations and the development of technologies and new products is very low. Even in cases where companies build their competitiveness on innovation, most innovations arise within the companies, without the involvement of universities or public or private research institutions. Conversely, if the local academic sector cooperates with companies, these are often companies outside the region, and it is a collaboration with lower training requirements (measurements, etc.).

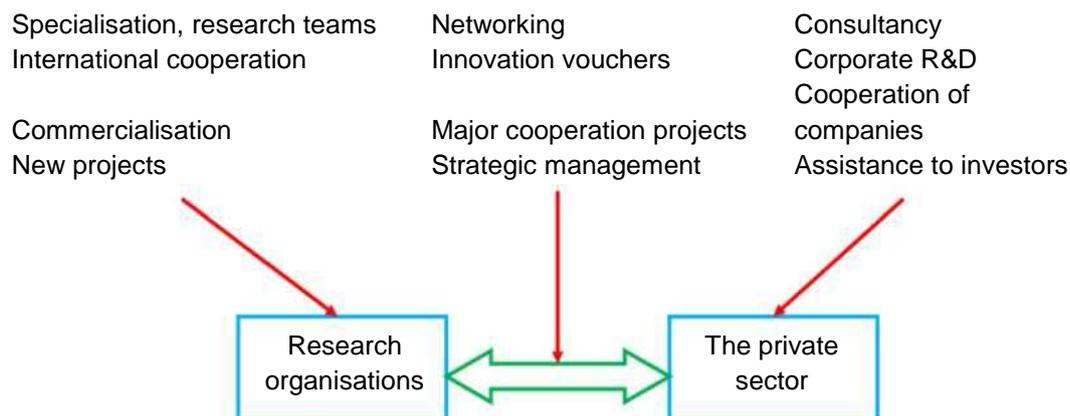
The overall objective of the change area is that the greater part of companies in the Ústecký Region use innovation to increase the added value of their activities and as the main source of their competitive advantage in the market. This applies both to large companies in the traditional sectors and to small and medium-sized enterprises. At the same time, the development of R&D facilities in the region will seek to make maximum use of their potential for applied research.

Three strategic objectives were stipulated. The progress in their implementation of individual measures will be monitored by several indicators.

Strategic objective	Indicator
Increase the rate of technology transfer between research organisations and companies	Number of collaborations (companies with R&D) facilities in and outside the region, research teams in the region with Czech centers of excellence, joint, RDI projects with partners in Saxony. Revenue growth of research organization in applied research, commercialization of knowledge and technology transfer.
Increase the number of new innovation companies and the number of innovation activities in the existing companies Strategic	Number of enterprises with innovation activities Number of R&D employees in the private sector
Increase the quality and scope of regional	Number of application results of research

research with application potential	organization in Ústecký region
Entire key area	Corporate R&D expenditure Increase in the turnover of supported companies Growth in the productivity of the regional economy

The strategic objectives should be achieved by specific measures. Measures proposed may be represented as follows:



Target groups for these objectives are:

- companies in selected priority sectors and innovation companies,
- R&D organisations in the Ústí nad Labem Region, Czech Republic and Saxony,
- new investors in the Region,
- University,
- research organisations.

How is it organized

The development of the strategy was governed by special management group consist of 15 members, the representatives of key stakeholders in the Ústecký Region, i.e. Regional authority, Regional chamber of commerce, Regional office of Czechinvest (Czech Investment and Business Development Agency), the most important employers in the region, university and research institutions located in the Region. Management group has defined three priority areas:

- Human resources to increase the innovation and technology performance of the regional economy
- Technology transfer and cooperation between research organization and business sector
- Innovation in public sphere

For each of these priority areas the working groups were established from the Regional experts. The working groups proposed individual measures – its description, implementation

body, collaborative bodies, and financial resources. Company Berman Group an international economic development consulting firm providing advisory services in competitiveness, innovation and Regional development was selected as complier of the Regional innovation strategy.

Regional innovation strategy was deeply discussed in the Regional authority (Regional council) and approved by it (Regional assembly) at the beginning of the year 2014. In addition to this, the Innovation Strategy was actively discussed also with other platforms operating in the region. These include in particular:

- The Standing Regional Conference of the Ústí nad Labem Region.
- Working groups of the Employment Pact of the Ústí nad Labem Region.
- Specialised departments of the Regional Chamber of Commerce of the Ústí nad Labem Region.

The source of the data for the analysis was publicly available information of the Czech Statistical Office, Ministry of Labour and Social Affairs, Ministry of Education, Youth and Sports.

Another input was a personal survey among major organisations of the research and development system and the public administration, which provided information on the research specialisation of the Region and the interventions of the public sphere.

Extensive information about the position of the Region in terms of relevant indicators were provided by analytical documents at the level of the Ústí nad Labem Region:

- The Development Programme of the Ústecký Region - Regional Profile): population, economy, social infrastructure, transport and transport infrastructure, technical infrastructure and the environment;
- Analysis of the innovation potential for technology transfer: innovation performance of the Czech Republic, the innovation potential of the Ústecký Region, innovation infrastructure in the Region, support for research, development and innovation in the Czech Republic from public sources;
- Market survey of the research and development needs of businesses in the Ústecký Region: a survey in the form of structured interviews among more than 100 potential innovation companies in the Ústecký Region

The following methods were used to interpret the analytical findings:

- SWOT analysis;
- problem analysis;
- stakeholder analysis;
- analysis of the position of selected companies in the value chain was examined in the survey of R&D needs of businesses.

Implementation structure

Implementation structure is four phase. At advisory level there is Science, Research and Innovation Council of the Ústecký Region composes of the representatives of the regional government (councillors) and other institutions. This advisory body gives their expert view of the individual measures to the Board of the Regional Council for Competitiveness, the

members include representatives of the business sector, research organisations, the public sector and other support organisations. Also three specialised innovation platforms are involved in the preparation of the strategy realization; the members are the representatives of companies and research organisations in the individual sectors that were identified as the strategic sector for future development of Ústecký region. These platforms are: Chemistry innovation platform, Coal mining and utilisation, related fields, landscape restoration innovation platform and Glass and ceramics innovation platform. Regional Development Department of the Regional Authority is the executive unit. Its role is especially managerial and organisational, execution of monitoring and evaluation of implemented measures, preparation of action plans.

What worked and why

It is too early to assess what worked, because only the phase of Strategy preparation and its approval has finished. Positive experience connects with the organisation of Strategy development. The external firm hiring as a main complier had a positive impact on the quality of the strategy. The firm has an objective view on the economic and education process in the region, has an excellent analytical team and experience with leading the working group. Involving the decisive regional stake holders to the strategy preparation is the other important feature. It is an condition for their identification with the aims of the strategy.

Constrains

Working group functioning was a challenge, because it was difficult to find out the term for their meetings. All of the members were very busy persons.

More constrains can appear during the implementation phase. In the area of human resources the following barriers can be:

Protest of inhabitants, especially the parents of young people against the optimisation of the regional education system. This optimisation depends on the massive political support because it needs to take unpopular steps – merging/closing of schools.

The lack of internal financial resources will not make the implementation of the individual measures possible.

The capacity utilisation of teachers at elementary and secondary schools and their related (un)willingness to implement new activities aimed at improving the quality of teaching and enhancing the pupils/students interest in science and technology

In the area of innovation features of the regional economy the main barrier will be unsatisfactory development of communication between universities and companies in the region. This will constrain their regular cooperation and implementation of the R&D results and innovation process in the companies. The lack of regional and private sources can aggravate the shift of the regional economy to the innovative economy, to the enhancing the innovative features of the regional economy.

Impact and Replicability

The main aim of the Strategy is to promote economic development and competitiveness based on the knowledge and innovation use and direct human resources to the strategic business. It is impossible to evaluate the impact because the implementation plan is nowadays ended. Still the strategy is very important information source for career advisors, schools, university and research institution, to ensure graduates will receive such knowledge needed by labour market, the unemployed people will be retrained for strategic business and R&D results will find the practical usage.

The Strategy is easily replicated in the other region.

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VET-EDS Good Practice

The role of other Regional Agents in the analysis of the Labour Market

Authors: Eugenia Atin; Raquel Serrano

Introduction

- This good practice highlights the importance of regional development in generating knowledge in the people responding to the specific needs of the economic, sectorial or key cluster activities there are in that region.
- This practice reinforces the interrelation between the business and educational worlds (at all levels, but especially in vocational and university training).
- It reflects the nature of the Erasmus + programmes in relation to the need of cooperation between different actors and establishes a cooperative process which should involve all agents on an effective coordination network for territorial regional development.
- It is an innovative approach for reinforcing the strategic importance of talent in a region and it shows the attraction, retention and integration challenges faced by the strategic clusters in Bizkaia-Basque Country.
- The existing close relationship between Basque vocational training centres and SMEs contributes to fostering the competitiveness of SMEs.
- The practice directly impacts on the competitiveness of the main economic sectors in the Basque Country by guaranteeing talent in strategic knowledge areas.

Summary

This practice is focused on the role of other Regional Agents in the analysis of the Labour Market: New Methodology, Research-Action, to detect the Professional Profiles demanded by Biscayan Clusters in a short/medium period.

It is essential to generate knowledge in the people in the region in such a way that their learning is knowledge responding to the specific needs of the economic, sectorial or key cluster activities there are in that region

The goal of this good practice is to make a detailed analysis of the professional profiles which the main clusters will be demanding over the following 3-5 years and which the Basque Country educational system will not be able to offer during this period.

It aims to make more efficient decision making process for economy development, labour market, training policies.

Context and setting

Bizkaia Talent is a liaison organisation between Industry and Academy to research and improve the Labour Market in the region of Bizkaia (The Basque Country, Spain). To do that, Bizkaia Talent maintains close ties with both labour market observatories in the Basque Country, Lanbide (Basque Government) & SEPE (Spanish Government) since 2006, obtaining a mutual benefit.

In 2010, it is observed that most of the SMEs and big companies of Bizkaia (Basque Country) face the situation of qualified labour shortage in a short/medium period, especially in scientific and technological areas. Considering this problem, Bizkaia Talent and Orkestra- Basque Institute of Competitiveness carry out a research Project. The aim of it is to elaborate a more detailed diagnosis of the professional profiles demanded by 5 of the main Basque clusters, and what the Basque University education system can offer in that time. Apart from that, to identify the talent recruiting sources and the strategies to be followed in order to establish networking with relevant agents; and to analyse the attractiveness of the Region as a whole, as well as its clusters and companies, in order to recruit the demanded professional profiles.

In terms of methodology, this Project has been elaborated from the Research-Action perspective. This implies that the research team, together with the Human Resources director of the participant organisations, has been adapted to the different stages of the study with the aim of responding real problems, as well as contributing to the progress of the academic knowledge, in spite of the firstly defined general diagnosis, as hypothesis.

This practice is focused on the role of other Regional Agents in the analysis of the Labour Market: New Methodology, Research-Action, to detect the Professional Profiles demanded by Bizkaiaan Clusters in a short/medium period.

Description

Talent, which is the strategic factor being analysed in this practice, becomes especially relevant in the Basque Country and, in particular, in the province of Bizkaia. Traditional productive factors– the availability of natural resources, cheap labour or capital – do not offer lasting competitive advantages, since advances in deregulation, transport and information technologies mean that all these resources are available to everyone. Consequently, knowledge, and the innovation capacity derived from it (Porter 1998, Maskell & Malmberg 1999), which are not as mobile as the previous ones, become key competitive factors.

In summary, it is knowledge that constitutes the key resource for competitiveness in the present development stage where both the Basque Country as a whole and the territory of Bizkaia are at present, and this knowledge is possessed mainly by people living in the geographic boundaries of this community. That is why the development of knowledge, carried out by forming people in the broadest sense - training in contents, competences and skills- enables the generation of strategic resources in the region, which is key to competitiveness and to welfare.

It is essential to generate knowledge in the people in the region in such a way that their learning is knowledge responding to the specific needs of the economic, sectorial or key cluster activities there are in that region. Reinforcement in the inter-relation between the business and educational worlds (at all levels, but especially in vocational and university training) can be of great help this adjustment.

The cluster associations emerging in the region as a result of a cluster-based regional competitiveness policy at the beginning of the 1990s can play an important role in this adjustment.

This project aims to find the bases necessary at present to reinforce this inter-relation by making a diagnosis of the specific professional profiles needed by the Basque Country clusters which Bizkaia is committed to. Given the strategic importance of talent, this practice analyses the attraction, retention and integration challenges facing the strategic clusters in Bizkaia-Basque Country.

A first approach to analysing professional profiles shows that the companies in the Basque Country, and those in Bizkaia in particular, are facing the problem of a qualified labour shortage in the short and long terms in some knowledge areas, especially in health and science-technology as well as problems regarding the attraction and retention of talent. In view of this problem Bizkaia Talent and Orkestra- the Basque Institute for Competitiveness- proposed carrying out a research project with the following objectives:

- To make a detailed analysis of the professional profiles which the main clusters will be demanding over the following 3-5 years and which the Basque Country's educational system will not be able to offer during this period.
- To analyse how appealing Bizkaia-Basque Country, and their clusters and members and other entities are for attracting the professional profiles required and which the Basque Country's educational system will not have available in the medium term.
- To identify the sources of talent attraction and the strategies to follow in order to establish networks with the relevant agents.
- To draw up a document from the previous analysis to identify which measures to take in order to alleviate the problem in question.

As regards methodology, this study has been approached from the Action Research perspective. This implies that although the research team has carried out a general diagnosis, and defined a priori what the hypothesis underlying the research is, in the different stages of the study this has been adjusted together with the human resources managers from the participating entities with a view to the project responding to real problems, while at the same time contributing to advances in academic knowledge.

Thus, people with different profiles have taken part in the study. On the one hand, there were participants from different organisations – cluster associations, companies and other entities - whose work responsibilities, among others, are related to attracting talent. On the other, representatives of both Bizkaia Talent and Orkestra, the Basque Institute for Competitiveness also took part in the process.

The research project was carried out in three stages.

In the first of these, a meeting was held of the directors of the five clusters being analysed –the Automotive industry, Aeronautics, Computer Science, Electronics and Telecommunications and

Energy- which represent an important part of the added value in Bizkaia- Basque Country. The aim of this meeting was, on the one hand, to carry out a diagnosis of the professional profiles that the main clusters in the Basque Country will be demanding in the next 3-5 years and which the Basque Country educational system will not be able to provide. On the other, the intention was to analyse the appeal of Bizkaia- Basque Country, its sectors/clusters and companies as a source of attracting talent. Finally, it was an attempt to identify the sources of attracting talent and the strategies to follow to achieve it.

After the first meeting, the need was detected to approach companies and other entities, such as technological centres, whose experience could contribute added value to the project. In the second stage, entities from the different sectors, both public and private participated. The aim of this stage was to go into in greater depth the process of identifying, negotiating, contracting and integrating personnel in/from the different entities.

The second meeting took nearer to the entities in the different sectors, already separated by sector, which will be called the third stage.

Once the three stages were concluded, another meeting of the representatives of the cluster associations was held with a view to presenting and debating the main conclusions reached from the different research stages with regard to the knowledge and the competences required and talent attraction strategies.

Professional profiles required by the strategic clusters in Bizkaia- Basque Country

As mentioned above, the first objective of the project was to make a more detailed diagnosis of the professional profiles that the main clusters in Bizkaia-Basque Country are demanding at present and those that will be demanded in 3-5 years time and which the Basque Country educational system will not be able to provide during this period.

Both in the meeting with the cluster association representatives in the first stage, and in those held in the third stage with representatives from the different entities within each cluster, the following question was asked: Which highly qualified professional profiles prove most difficult to find to cover the offer existing in the Basque Country? On the one hand, a list of the most demanded profiles in each of the clusters was drawn up from the answers obtained. On the other, common problems concerning professional profiles facing the companies from the different clusters were identified.

Company attraction processes

As already specified in different sections above, meetings were held in the first stage with representatives from the Cluster Associations Bizkaia is committed to - that is Aeronautics, the Automotive industry, Bio-sciences, Computer Science, Electronics and Telecommunications and Energy – with a view to carrying out a professional profiles analysis which they themselves are demanding now, and will still be demanding in the medium term, and which the present Basque Country educational system cannot provide at present.

Once the first stage had concluded together with the first diagnosis, it was considered necessary to go into the precision of these professional profiles in greater depth. Consequently, a second stage was designed relating to company talent attraction processes, which was materialised through a round of meetings with company representatives. Meetings were held with one company from each sector, with the exception of Biosciences, and one representative from a public company.

What appears below is a brief analysis of the results obtained from this stage. Such an analysis does not aim to be an exhaustive summary of the answers obtained from the companies with regard to their talent attraction process, but rather to emphasise the key points detected by the team that help to make up the talent attraction strategies section and the resulting actions. The analysis is drawn up based on the talent attraction process, that is, identification, negotiation, contracting and integration.

Identification Process

In this section, three main talent identification sources are described.

- Networks: the company is inter-connected to different types of local or international entities, (in research or business) and can be related to each other on a commercial basis as clients or suppliers, for example, through training – universities, training centres or trade fairs among others, or due to scientific-technological connections through joint research and development projects, for instance.
- Attracting endogenous talent: the company resorts to internal resources in order to attract talent. This can be done through internal promotion, personal contacts, advertising on Internet portals, in house training and so on.
- Attracting talent through external services: the company resorts to third parties to attract talent. This is usually done through consultancy firms or collaborators and headhunters.

With regards to talent attraction and the three main sources as stated by the companies, the following conclusions were obtained:

- The main identification process used by the companies is endogenous independent of its size or international profile.
- All the companies resort to attracting talent through external services, although to a lesser extent than endogenous attraction.

As far as disadvantages are concerned, in some cases the difficulties of transferring company policy to outside agents was pointed out.

- The source least developed by the companies as a whole is the use of networks, although this norm was not applicable to the research entity participating in the session. The companies resort to networks at a very operative and less strategic level to attract talent. That is, companies take advantage of trade fairs to recruit, transmit or use Erasmus student networks to attract or contract. Nonetheless, there are few companies which establish or have access to stable networks which are the fruit of developed research projects, or strategic collaboration with universities at national or international level, or international collaboration projects among students and lecturers.

Negotiation Process

It can be deduced from the answers provided by the companies that the main negotiation factor is related to salary in money or in kind. Financial aspects such as payments, financial help to pay rents, or paid trips to places of origin, or aspects in kind like pension plans or medical insurance (cash or in kind). Salaries in kind are not usual for the companies.

Contracting/Integrating Process

The companies direct their greatest efforts towards drawing up plans to welcome and establish the person who has been attracted as a mentor, and not in all cases. Similarly, companies devote little effort in integrating the family into society, and yet it is recognised by all companies that social integration is key to the success of the attraction programme.

Impact and Replicability

Knowledge constitutes the key resource for competitiveness in Bizkaia and this knowledge mainly resides within the people living in the geographic boundaries of the region. This is why the development of knowledge, carried out by training people in the broadest sense - training in contents, competences and skills- enables the generation of strategic resources in the region, which is key to competitiveness and to welfare.

The purpose of this study is to make available the results of the Basque Region and of the province of Bizkaia about the need of talent for the next years in relation to the main economic sectors of the region and to make recommendations in this line to the key agents for policies and actions: regional authorities and academic agents (university and vocational training).

It provides not only information, but also useful knowledge for the Department of Economic Development of the Provincial Council of Bizkaia and it is a strategic guide for decision making and planning of training for employment taking into account the identified needs.

It is also remarkable the potential of the study to foster and facilitate the implementation of the necessary conditions for attracting, connecting and retaining highly qualified people in the Basque Historic Territory of Bizkaia. At the same time the practice contributes to promoting and improving the most important factor in the development of any region: human capital.

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VET-EDS Good Practice

Urban Observatory

Authors: Eugenia Atin; Raquel Serrano

Introduction

- The main objective of the Urban Observatory is to perform an ongoing analysis and assessment of the situation of municipalities and agencies, to provide a comprehensive overview for establishing action plans and strategies to promote socio-economic activity and allow agencies to show development of their social reality, and adjust the various actions to their needs (for example, training courses).
- The Urban Observatory acts as a screening instrument for local needs that are key and strategic for regional and business development of municipalities and their environments through their analysis, study, collection and dissemination of all information existing about socio-economic issues.
- The geographical scope of the project covers all the Basque Country and the urban observatory is linked to the policies of local urban development and its scale is local.
- It provides not only information, but also some useful knowledge to the Development Agencies and other key public and private agents on regional development. In this line, it is a strategic guide for decision making and planning regarding training for employment taking into account local needs identified.

Summary

Territorial planning and coordination of all the key actors involved in local development, require smart territorial information systems which enable to face a constantly changing context.

The Urban Observatory developed by Garapen-Basque Association of Development Agencies - is based on a Georeferenced Statistical Information System.

The Urban Observatory aims to make available the regional and local information about demographic, economic, labor market, social, environmental, tourism, equipment, transport, health, culture, education, security and public protection, resources and other issues to its target groups: public, municipal technicians, entrepreneurs, researchers, companies and investors.

The information allows analysis in order to facilitate understanding of what happens in the territories and make more efficient decision making process for economy development, labour market, and training policies.

Context and setting

After a high growth period which had started in 1985, the world economy slowed down once again as of 1990, a fact which did not go unnoticed in the Basque Country, where it became apparent due to a decrease in industrial productive activity, a standstill in the construction sector and a decrease in employment levels.

In this economic context, Garapen was founded in 1992 as the Basque Association of Development Agencies when the local development agencies saw that although each of them was autonomous and developed their activity in geographically differentiated areas, there was a need to cooperate and coordinate some of their actions. The latest trends of thought confer a growing importance to the local scope both in the management and optimisation of the economic resources. The prominence of the local institutions in the generation of wealth, jobs and distribution of social welfare is defended at the international forums. It was established under the spirit of inter-institutional co-operation between the Basque Government and the Regional Councils as a socio-economic reactivation and regeneration measure which would make it possible to recover the confidence and the wellbeing lost by the Basque business world in the previous decade. This network could also facilitate the integration of the agencies in other national and international networks. Thus Garapen is more a meeting point for agencies than an additional structure, which assumes specific services delegated by agencies.

There are 17 Development Agencies in the Basque Country, 15 of which are associated. These cover 76 per cent of the population in Alava, 73 per cent of Gipuzkoa and 51 per cent of Bizkaia. Their closeness to the life in the town allows these Agencies to adapt policies to the reality of their environment. The Development Agencies have developed in this ideological context and, together with them, the need to find an institution able to become a common place for all of them, a place where to exchange information, to offer support and to take advantage of the best of each Agency for the benefit of all of them.

Nowadays Garapen is a professional association that intends to bring together development agencies constituted by local institutions in the Basque Country, with the following aims:

- To conceptualise endogenous economic development on the local level; work on its strategic development and operational application.
- To promote the exchange of information and knowledge, developing collaboration and cooperation projects.
- To offer services for agencies to develop synergies in programmes of common interest.
- To build common criteria and positioning regarding issues within their spheres of action, before other public or private entities.

Under these objectives, Garapen is a professional association that intends to bring together development agencies constituted by local institutions in the Basque Country with the goal of sharing experiences, reflecting, and establishing discussions about local development in the following areas: Governance, innovation, sustainability, human and territorial progress.

Territorial planning and coordination of all the key actors involved in local development, require smart territorial information systems which enable to face a constantly changing context. The increasing need to collect, analyze and provide knowledge from a wide variety of information sources in a comprehensible way, is one of the biggest challenges for local development agencies which focus on employment and business competitiveness in their municipalities as well as for others agents in local economic development planning. In this sense, new technologies and the rapid assimilation of them are becoming a determining factor when it comes to efficiently manage the information that is available.

The difficulty in accessing local information which it is often dispersed, unstructured and difficult to find, makes the decision making process to be developed under bad conditions, reducing opportunities for the territories regarding employment and economic development.

At this point, the Urban Observatory outlined here has been developed by Garapen and has been selected as a good practice on collecting, classifying and facilitating functional and spatial information for the territorial diagnosis, for the systematic monitoring of policies on employment and economic development previously implemented and for detecting potential synergies between municipalities and industries.

Description

The main objective of the Urban Observatory is to perform an ongoing analysis and assessment of the situation of municipalities and agencies, to provide a comprehensive overview for establishing action plans and strategies to promote socio-economic activity and allow agencies to show development of their social reality, and adjust the various actions to their needs (for example, training courses).

An Urban Observatory is a tool for generating, storing and disseminating information, and providing tools that allow exploitation and interpretation of data

The Urban Observatory acts as a screening instrument for local needs that are key and strategic for regional and business development of municipalities and their environments through their analysis, study, collection and dissemination of all information existing about socio-economic issues.

The geographical scope of the project covers all the Basque Country and the urban observatory is linked to the policies of local urban development and its scale is local. It arises because in most cases, information from official statistical sources does not offer a sufficient level of territorial disaggregation for local and regional planning. Importantly, the scope of the agencies usually comprises several municipalities, and no official statistical information on this specific geographical context. In the same way, there is no mapping of the territory. In many other cases, the agents who work in the territory have their own statistical sources; however, the lack of homogeneity in the treatment of it hinders the exchange and coordination.

Therefore, and due to the increasing need to coordinate efforts and seek complementarities and synergies between sectors and municipalities, Garapen set out to develop an Urban Observatory at regional level. An urban observatory is a tool that relies on new technologies, their ability to generate information, store it, disseminate it and provide tools that allow to exploit and to interpret the data collected.



It allows access to all the statistical information generated in the municipalities, agencies, provinces and Basque Country

In this context, the Urban Observatory of Garapen emerges as an open instrument for managing local information, which is available to all citizens. The Urban Observatory, in addition to the monitoring of the performance of municipalities, seeks to measure the degree of economic, social, territorial and institutional convergence between the territories in the Basque Country. Moreover, it also focuses on more efficiently summing the efforts for building effective and efficient policies to promote territorial and human development.

Since its launch in 2008, the Urban Observatory has established itself in recent years as a key tool for decision-making and policy development for the entire region of the Basque Country. In this sense, the Urban Observatory of Garapen constitutes the first initiative within the Basque Country for measuring and monitoring statistical information generated for municipalities, agencies, provinces and the Basque Country as a whole, through a totally dynamic system where the user has full autonomy to see what he/she wants, how he/she wants, plus the ability to analyse information using tables, graphs and maps on a personalised way, for its future use and integration in specific reports and documents.

Consultation and exploitation of indicators is done through a hierarchical tree that allows the location of all indicators and the knowledge of the spatial and temporal scope of each indicator. The navigation tree consists of two tabs:

- Indicators: Shows the structure of the indicators and allows filtering and search indicators, as well as access to the methodology of each indicator. You can also create population pyramids. From this tab it is selected the indicators that you want to be show in a table mode.
- Chart / Map / Chart: Shows the selected indicators and reveals both spatial and temporal availability. From this tab, in addition to the access to the methodology for each indicator and graphing of evolution, it is possible to elaborate the thematic maps by indicator, type of territory and time and the results tables are created.

The tree also provides a set of features to customise both the search for indicators such as the selection of territories and desired periods of time.

Main goal

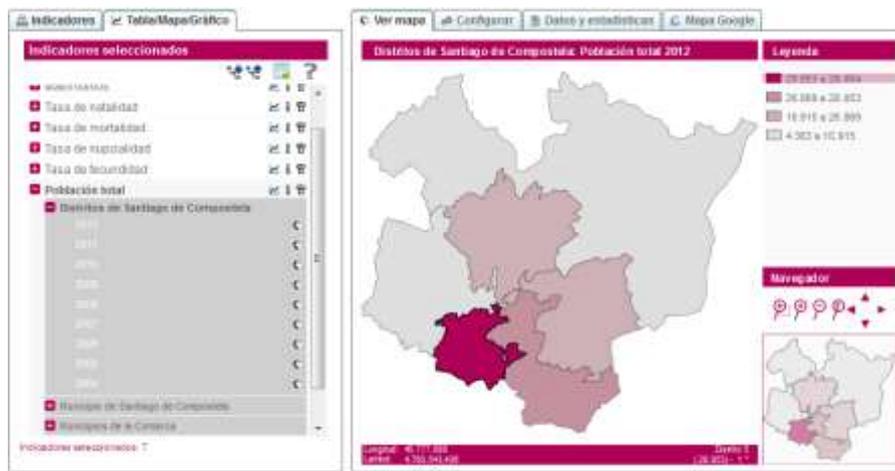
The main goal of the Urban Observatory, based on a Georeferenced Statistical Information System, is to make available for the Basque Country local information about demographic, economic, labour market, social, environmental, tourism, equipment, transport, health, culture, education, security and public protection, resources and other issues to its target groups: public, municipal technicians, entrepreneurs, researchers, companies and investors. This information is also showed updated and through interactive tools that allow analysis in order to facilitate understanding of what happens in the territories and make the decision making process more efficient and rapid. Users and beneficiaries of the Urban Observatory are

- Technical staff of the local administration from different areas, sharing updates and utilities available for reporting.
- Citizens and local authorities, who are provided with information which help them to have a better knowledge of the city/town, to make decisions and articulate their speeches and proposals with greater rigor.
- Entrepreneurs who obtain updated information and tools for the analysis of local productive structure or potential demand at local level, to improve the efficiency of their businesses.
- The Basque Government by having a Statistical Information System continuously updated which facilitates a regular reporting of interest to track government action.
- Researchers and teachers, obtaining information with which to make their jobs or prepare vocational training courses adapted to the region and local needs.

It relieves the municipal staff from search and data collection tasks

This tool allows all these agents to access and generate socioeconomic information that reaches all areas of local life. These updated data allows shortening the reaction time and gaining efficiency in the decision-making process, and observing the evolution of socio-economic variables. With the inclusion of web tools able to process information and generates charts, graphs, maps or even population pyramids, the urban observatory becomes a key instrument for the understanding and analysing of the local socio-economic reality.

It generates custom tables, interactive charts, maps and population pyramids.



The Urban observatory also ensures data reliability, avoiding duplication and storing all data locally in a single container. This solution now relieves technicians of tiresome tasks of searching, collecting and structuring data allowing them to concentrate on the interpretation of data and reporting.

Finally, this tool is greatly contributing to the creation and consolidation of a statistical culture. The Urban Observatory encourages consultation and analysis of data generated as a key task of the most advanced societies which are those that record and analyse their social and productive reality more efficiently.

Characteristics

The Urban Observatory of Garapen, in addition to diverse information supplied from various fields, allows the generation of a multitude of material that collects, synthesises and displays the information requested. The system uses a modern, intuitive interface with a navigation model based on a single screen; this means that the user will not get lost diving through endless opened screens; this system shows everything on one screen allowing to have an overview at any time, making it very convenient and simple exploration; knowing always where we are without forcing a navigation ascending or descending cascade.

We can ensure that the characteristics of use and functionality make this Statistical Information System unique in Spain, as none exist so advanced. Therefore Garapen has a pioneering tool within the Spanish authorities which allows to:

- Centralise the statistical information in a homogenized, structured and georeferenced way for further spatial analysis.
- Navigation for searching and locating information. To cover this functionality the system uses a component that locates indicators through a powerful hierarchical tree which allows individual analysis of each indicator over time and space through graphs and maps.



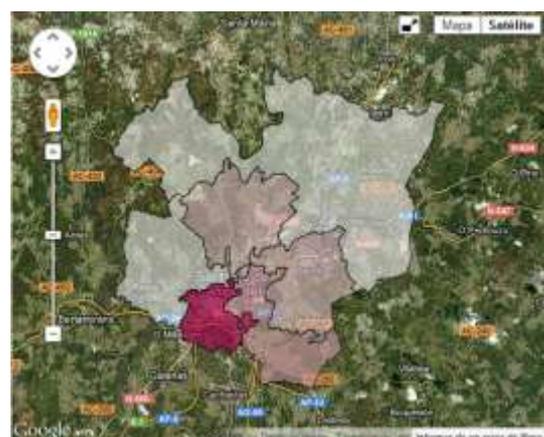
- Targeted search of indicators from the hierarchical tree that shows the different levels of management through a novel gradient color.
- Free search of indicators. This functionality is very important and very unusual in Information Systems, and allows the user to know the indicators available at a determined scale on a territory or those which are monthly or indicators which contain data for a certain year for example; highlighting instantly on the navigation tree itself.

One of the most remarkable resources is the development of custom tables with treatment and multidimensional visualization. The system is flexible enough to allow selecting indicators from different sectors, for different geographical areas and different territories, and for different time periods. This form of selection allows to immediately create complex and powerful tables, with the possibility to see the results grouped by types of territories, or as a territorial hierarchy, or segment by setting the dimension tables space, or segment by setting each indicator tables and thus compare indicators over time.

It allows users to save the graphics for further use without searching the data or owning the software.

One of the most significant advantages of the Urban Observatory is its high potential for the creation of interactive time evolution graphics. The navigation tree allows to analyse each indicator through its time evolution as well as to compare multiple territories. It is important to highlight that the Urban Observatory works with the latest technology for the interactive graphics to be interpreted by the usual web browsers. It allows users to save the graphics for further use; therefore the user is not concerned about searching the data, owning the software or having a specific knowledge because the software does everything for the user saving a lot of time. The graphics can be customized and you can even add statistics (average, deviation, maximum, minimum ...).

The development of interactive population pyramids is a very special functionality. It is unusual, and allows creating comparative pyramids, so you can analyse the population structure of a territory in two time periods, or compare two territories in the same period. As well as the graphics generator, population pyramids can be interpreted natively by the usual web browsers and the pyramids can save files for later use.



Finally, the system allows the user to develop interactive thematic maps. The tool allows generating thematic maps without any knowledge but it is powerful enough to customise the map if desired; you can customise the legend, colours, ranges, calculation algorithm and it is possible to even manually define the legend.

This application is able to generate maps with partial administrative divisions, either because they are predetermined or because they are defined by the user. A distinguishing feature is the ability to save the map image files in vector files or even in *kml* format for integration into Google Earth or in a GIS. The tool allows you to overlay the thematic map on Google Maps, making it possible to add infrastructure as one element for analysis. Moreover the thematic map on Google can be converted to a heat map or can be integrated with street view.

Since users use maps a lot and they need to customise them in order to integrate them into other documents, the tool facilitates this process by providing the ability to save the thematic map with its legend in one single image, or to separate map and legend in different images for later development of compositions.

The limitations of this tool have to do with the lack of information at the level of neighborhoods in the municipalities and the updating of the data by different statistical sources used at the monitoring system, since not always all information is properly updated by these organisms.

Impact and Replicability

The purpose of the Urban Observatory is to make available for the Basque Country local information about demographic, economic, labour market, social, environmental, tourism, equipment, transport, health, culture, education, security and public protection, resources and other issues to its target groups: public, municipal technicians, entrepreneurs, researchers, companies and investors. This information allows analysis in order to facilitate understanding of what happens in the territories and make the decision making process more efficient and rapid.

It provides not only information, but also some useful knowledge to the Development Agencies and other key public and private agents on regional development. In this line, it is a strategic guide for decision making and planning adapted training for employment taking into account local needs identified. These professional training courses can then be addressed to workers and companies but also to job seekers of the localities in order to improve their employability.

It is also remarkable the potential of the diagnostic work for planning common policies and training initiatives addressed to strategic economic sectors in the region as well as for the development of smart specialization strategies on local planning.

This smart information tool is also becoming a reference for all those agents involved in local development; training organizations, social and public institutions, business and labour organisations, agents related to human resources and citizens in general. The Urban Observatory is a tool with an enormous potential, which allows a common diagnosis and indicates possible measures addressed to growth and improving competitiveness for all socioeconomic agents in a territory. The Urban Observatory promotes the exchange of information and knowledge for building common

criteria and positioning and for developing collaboration and cooperation projects for endogenous economic development on the local level; work on its strategic development and operational application.

The work of the Development Agencies encompasses many aspects of the socio-economic development on one or several locations with a specific focus on improving employability of people and encouraging the creation of competitiveness businesses. It is precisely this integrated approach and its focus, which requires a huge amount of information in a very different nature and from different sources. That information must be recorded and classified as efficiently and accessibly as possible for generating a common understanding and knowledge about the need of human capital among all the key actors in a particular territory.

Transferability of this practice is easy but depends on the local and regional data availability and also on the existence of a network of local development key agents.

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VET-EDS Good Practice

The CNOS-FAP Association

Silvia Dusi

Introduction

The CNOS-FAP Federation was chosen because of its interesting twofold nature, of Federation which brings together all the Salesian Schools providing Training and Vocational Guidance, and of Observatory analyzing its functioning and the whole VET system functioning in Italy, collaborating with the main research bodies in Italy.

CNOS-FAP is without doubt a VET player that gives a great contribution to the Economic and Political Development, especially to:

- The Italian public policy makers;
- The vocational schools;
- The subjects who have to decide about their future.

In the next pages we will describe it in detail.

Summary

The two aims of CNOS-FAP, i.e. the Vocational Training provision and the monitoring of the VET system, are strictly related: in particular the national distribution of Salesian Vocational Schools allows also to understand the differences of Italian territories in the analysis.

In our opinion the key aspect of this Good Practice is the capacity to generate Networking, and consequently knowledge exchange, not only about the positive experiences and the best practices – that can be disseminated in a really short time – but also about the description of the hosting territory: this kind of information is useful especially in the dialogue with the Public Institutions that struggle to find precise evaluation and support decision tools.

Context and setting

The "CNOS-FAP" (National Center for Salesian Works - Professional Training) is a non-profit Federation. The members of the Federation are the local and regional Salesian Institutions and Associations promoting initiatives and actions of Vocational Guidance and Training, especially through the multifunctional Vocational Training Centres, also called Vocational Schools. The CNOS-FAP is currently present in 16 Italian regions (the light blue ones in the Figure beside) and has about 60 operating locations coordinated by the National Headquarters. The National Federation CNOS-FAP works at international, national, regional and local levels, where it develops programs and specific training plans.



The largest CNOS-FAP contribution to the economical and political context is strictly link to its role of Observatory of the VET system. This is strengthen also by the collaboration with CENSIS, one of the main Study Centre of Italy, that works through commissions from Ministries, Regional, Provincial and Municipal Governments, Chambers of commerce, business associations and professional, banks, private companies, network operators, international organizations, and within European Union programs. In particular every year the CENSIS writes the "Annual Report on the social situation of the country" (since 1967) that is publicly considered as the most qualified and complete tool for the interpretation of the Italian situation: the description of the VET system in the Annual Report is based on CNOS-FAP data and elaboration. Furthermore CNOS-FAP and CENSIS have recently formed an Observatory on the evaluation of technical-vocational poles created in Italy.

Description

The National Federation "CNOS-FAP" - National Center for Salesian Works / Training Professional - is a Federation formed in 1977 that coordinates the Salesians of Italy pledged to promote a service of public interest in the field of Vocational Guidance, Training and professional update with the style of the founder Saint Father Bosco.

It operates mainly promoting:

- Activities of initial vocational training, especially in the following professional sectors:
 - Intersectoral Commission for general culture
 - intersectoral Commission for Mathematics and Science
 - Mechanical sector
 - Electro - electronic sector
 - Graphic sector
 - Tertiary Sector
 - Tourist - hotel sector

They form the project and training network that widely rooted the Federation in the territory at regional and local level, and they constitutes an environment for methodological, educational and technological innovation.

- Initiatives for lifelong learning, in dialogue with the labour market;
- Transnational projects, especially with EU partners.

It coordinates:

- Regional delegations and regional Vocational Training Centres, distributed throughout the country;
- Vocational Guidance centres for young people and for the users, also in collaboration with the COSPES (Educational, Professional and Social Guidance Centers);

It realizes:

- Publications for the dissemination of professional culture, in particular, the quarterly journal "Review CNOS - Problems, experiences, perspectives for education and training" and the series "Studies, Projects, Experiences for the new vocational training";
- Conferences, studies, research and experiments;
- The development of the professionalism of the operators and the federated institutions by improving the quality of educational, psycho-pedagogical, didactic and technical roles, through the provision of multi-annual programs and annual plans of activities. In particular it aims at:
 - promoting the culture and the exchange of experiences between transnational youth to mature in their awareness of European citizenship and the growth in the perspective of development in solidarity for one and all;

- developing the specific skills of all operators of the institutions confederate, by improving the quality roles educational, psycho-pedagogical, didactic and technical;
- ensuring that members of the Federation force legal representation at all levels, in consultative bodies and decision-making, which have competence in matters of orientation, training and professional development.

De facto the work done by the CNOS-FAP is useful for different players:

- For the Italian public policy makers, to which provides evaluation tools to support the decisions about policies (i.e. how worked a policy applied in experimental way and which results generated)
- For the vocational schools, which usually get the information about the Labour Market from their territorial contacts and have just their own data about placement: with the CNOS-FAP Observatory they can compare the general trends with theirs and they can do a benchmark with the general placement rate of the Region.
- For the subjects who have to decide about their future (the families of the young people or the young people themselves).

The possible constraints regards the quantity of data to manage, depending on the territorial extension of the association, and consequently, the extent of possible data to collect and to manage. This implies the costs to design methodology to collect data, to manage them, to analyse them and to coordinate the structure.

This costs are affordable because of the dimension of CNOS-FAP, who works at national and international level, but usually the training schools are single units, with maybe a branch or two. That's why in the section about the scalability we suggested to establish a network to form and sustain activities and observatories like the CNOS-FAP.

Of course each Vocational School has cultivated relationships with the production ambient of its territory, using different ways, the internships in particular, to link the provision of training with business needs, and to propose to the students a training focused more and more on the skills. In recent years, however, the Federation has grown more ongoing relationships with various companies, creating forms of collaboration especially in the mechanical, electrical, graphic. These forms of cooperation are still developing and they address to a higher level rather than the individual school, with the effect of **networking all the Vocational Schools** that operates in the same sector. Following these agreements, the schools can benefit from the training and technical contribution of companies, through the construction (sometimes even free) of specialized laboratories, the facilitation of the modernization of machinery, the use of the corporate network to organize internships, apprenticeships and forms of alternating training between school and work. These collaborative arrangements (some already active, some other being finalized) are bringing the CNOS-FAP to qualify even more in various fields such as photovoltaics, industrial

mechanics, energy conservation, technology of the car, industrial automation technology, graphics, window and door sector.

One of the most interesting thing about the CNOS-FAP Federation lies in its **twofold nature of service provider** (through vocational and training courses) **and study centre on the VET topic.**

We found the same factors at the beginning of CNOS-FAP history: in 1983, the CENSIS Report (see above) on the social situation of the country pointed out that the school system and the Vocational Training were in a situation of transition between two cultures of training development. In the '50s and '70s had prevailed "a kind of simple linear model and development [...], based on assumptions of quantity, uniqueness, centralization" (CENSIS, 1983). During the mentioned period, there has been an explosion in the demand for schooling, and the school changed going from an elite to a mass phenomenon: the State was therefore forced to adapt the education system to the social demand, giving priority to younger age groups, without, however, succeeding in meeting the emerging needs in full and timely way.

Within this framework of a society going through profound changes, in December 1977 was created the National Federation CNOS-FAP (National Centre for Salesian Works - Training and Professional Development).

The formula was proven to be immediately positive. In five years (1977-78 / 1981-82) the students grew by nearly 5%, from 8,937 to 9,365, the trainers grew by 8%, from 714 to 777, and the Centres passed from 36 to 40. But the leap forward is mainly qualitative: the Vocational Schools are inserted dynamically in the social context, providing the local community their cultural heritage, educational and pastoral, empowering their responsibility and involving them in the educational process and using the instrument of social-private association to elaborate educational and training policies at local and national level.

The CNOS-FAP activities revolve around four key strategies: building a formative community as subject and environment for an effective training; the educational qualification and professionalizing of Vocational School type; the striving for a professionalism based on a valid and meaningful work culture and a life project; the offer of career guidance service.

Finally, it is important to emphasize the aspect which led to CNOS-FAP major point of interest: the commitment "**to make the vocational training a real system.**"

In our opinion another innovative aspect of the CNOS-FAP is to be identified in the development of a new organizational model of the Vocational School, conceived thanks to the needs identified through the four surveys, three of which were funded by the Ministry of Labour, that the CNOS-FAP Laboratory "Studies and Research" has carried out during the '90s.

Based on the results of these investigations it was possible to develop an organizational model of the Vocational Training activities that qualifies itself to be both educational, community-related, coordinated, open, flexible and qualified. In essence this is the model of

the multifunctional Vocational School that while on the one hand tries with the plurality of its offerings to adapt to the complexity of the modern society, on the other does not give up, rather aims to strengthen its formative role in the service of a very wide range of recipients. The results of this investigations have formed the **framework within which stood an article (n. 7) of CCNL** (the National Collective Bargaining Agreement on Work) on the Vocational training (1994-1997).

This is exactly what we mentioned in the first part about the contribution that CNOS-FAP gives to the territory, starting from a political decision support contribution and reaching an economic development due to a better normative system, an enhanced politics on Vocational Training and a training system matching the needs of the market.

The multifunctional model

The mentioned model is articulated in the following points to be developed for a more complete realization of it:

1. The achievement of the "certification" of the "quality system", with all the requirements that this goal entails.
2. The introduction of new figures: in addition to those that already exist in most of the centres it has to be planned:
 - the head of the security services and the quality manager;
 - the manager of computer networks and the coordinator of the integration activities (in a vision where the Vocational School is addressed to the benefit of the weak subjects, more and more present in a society so rapidly technologically transforming), consistent also with the need to strengthen the guidance and training actions on behalf of these subjects
3. ever more decisive opening of the school to the territory so as to assume a position of full cooperation, consultation, integration with the various reference bodies.
4. Continue the organization of training courses for the trainers, in two main directions:
 - courses for all, aimed at the constant updating of the know-how of the various figures of trainers;
 - courses "ad hoc" for the preparation of specialized figures, with particular reference to those to be introduced ex-novo.
5. Perform a constant monitoring on the "quality" of the training provided, on the basis of an updated model of multifunctional Vocational School, minimum quality standards, always respecting the rightful autonomy of each centre.
6. Create a computerized network that can connect all the centres, in order to realize a real-time information on emerging issues and to share innovations and experiments in progress.
7. Expand and/or make accessible to the largest possible number of centres the participation in projects/programs at multi-regional and transnational level.

The CREA platform

The CREA (Centre for Educational and Learning Resources) was born on one hand after the vision of plenty of materials for the instructional design developed in the last decade by the CNOS-FAP members, and on the other hand to register and keep a dynamic collection of training tools that contains elements of continuity (sustainability and auto-power).

On CNOS-FAP opinion it is always necessary to analyse, reflect, plan on the central theme of its mission: to do training and at the same time educate. Because of it CNOS-FAP does not stop producing studies, research, lecture notes. These tools are a necessary basis to draw upon and which can be situated "upstream" of the system of vocational training. CREA means to go "downstream" i.e. to trigger actions both of procedural type (such as listening to operators, collecting comments) both of operative type (in terms of use and production of content). In this perspective what was made is not a static list of what has been produced, but an evaluation and a study on the experiences that occurred.

The entire collection of materials of the Centres for all regions of the network CNOS-FAP is not over yet, on the website is available a sample of 5 regions particularly productive.

About the Organization

The Corporate bodies are listed below:

- the General Assembly is the supreme body of the Federation;
- the National Executive Council is the executive body of the resolutions and guidelines to be established by the National Assembly;
- the Executive and the National Headquarters that through its offices and individuals responsible ensures annual plans of activities, research and testing at all levels;
- the Regional Delegations;
- Sectors Professional;
- the Board of Auditors.
- Inside the Conference of Salesian Supervisors Italy and the Middle East there is a Superior Supervisor which guarantees the coordination and coherence with national initiatives of the Salesian Congregation in the field of FP and the school, ensuring the loyalty of the Federation to the education system, the methods and the style of St. John Bosco.
- In the institutional framework of the Federation there is a significant role for the Regional Delegations where chairs the Regional Director, called to act as representative of the Federation in front of the Regional and Local Administration. At local level are active associations and / or Local Federations that the CNOS-FAP promotes through the delegations. Their tasks mainly relate to personnel and human resources management and to the equipment of the respective Vocational Schools. The CNOS-FAP is present with 16 Regional Delegations that contribute, in their respective territories, to ensure the promotion to the national federation of the

training, coordination of training activities, the associative link and social representation. These delegations operate through 67 offices, known as Vocational Training Centres, which correspond to the regions concerned.

At International level the CNOS-FAP participates in the network of the Salesian institutions engaged in guidance and vocational training for young people and has the "Don Bosco International" as coordination structure.

Impact and Replicability

The two aims of CNOS-FAP, i.e. the Vocational Training provision and the monitoring of the VET system, are strictly related, being elements of a virtuous cycle: in particular the national distribution of Salesian Vocational Schools allows also to understand the differences of Italian territories in the analysis. In a fragmented and complex Labour Market such is the Italian one, this is a great contribution to reduce the skills mismatch.

In our opinion the key aspect of this Good Practice is the capacity to generate Networking, and consequently knowledge exchange, not only about the positive experiences and the best practices – that can be disseminated in a really short time – but also about the description of the hosting territory: this kind of information is useful especially in the dialogue with the Public Institutions that struggle to find precise evaluation and support decision tools.

The CREA project, for instance, is something that the Observatories could realize, focusing on the networking between the Vocational Schools of the territory.

Of course the strength of CNOS-FAP is the numerousness of structures pertaining to itself, that already collaborate between them and form a great and always available sample for studies and researches. At Regional or, in a further step, National Level the hypothesis could be to found an Association where bringing together the Vocational Schools to start a strict collaboration program of knowledge exchange, to start parallel field testing (e.g. new form of internships) and to compare and analyse the results, and to build a possibility of relations with firms at an higher level or the opportunity for students to make exchanges between different Vocational Schools.

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VET-EDS Case Study

WOLLYBI

Silvia Dusi

Introduction

WollyBi is a digital monitor which uses web job vacancies to provide information to the policy makers and the other Labour Market players on the needs expressed directly by the firms about the most required occupation and skills. It was chosen as good practice because one of the goals of the project was just the providing of this kind of information in a short term, and the technology used allows to have almost real time analysis.

Summary

WollyBi is an Observatory focused on the Italian Labour Market, established with more than 750,000 job vacancies analysed by the web - constantly updated - and offers a complete view of the Italian Labour trends.

There is a chance that the analysis of labour demand through the web job vacancies will become part of the regular activities of the Regional Labour Market Observatories in the future, as it is considered a valuable informative source for unemployed people, companies and the training systems.

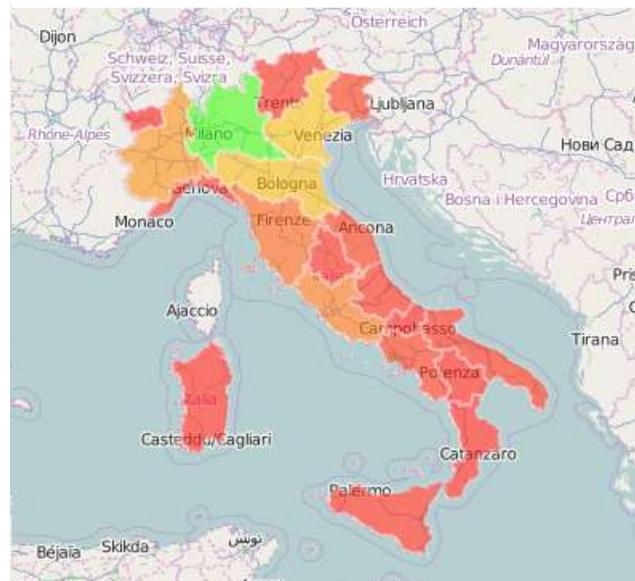
The investigation on the most required occupation and skills on the market (that could be seen associated to each occupation or in general) it's the real point of innovation for the contribution to the economic development.

Context and setting

WollyBi is a digital monitor which uses web job vacancies, properly treated and put in quality, covering all the Italian territory to identify the education, qualifications and specific skills that employers want to fill their job postings; it also identifies the most in demand qualifications and the associated work experience and skills required to fill certain positions, measure demand by specialised and functional skills and identify the market needs to address the skills gap.

The territorial level to which it addresses is manifold: it can be used at national level, but it gives the possibility to explore information to the municipality level.

Distribution of the Job Vacancies on the Italian territory



As the Figure aside suggests (red = low quantity of job vacancies posted on the web, yellow = medium quantity of job vacancies posted on the web, green = high quantity of job vacancies posted on the web), by now the WollyBi is a tool of particular interest for the North part of Italy: this is given to two reasons. The first fact to consider is that there is really a dramatic difference in terms of employment, job offers and economic situation between the North and the South part of Italy, and consequently the amount of job offers is lower, as the colours suggest. The second important factor is that the WollyBi analyse just the job vacancies posted on the Web, and the Italian situation is less internet-centre for what concerns the labour market compared to other countries. In addition to this fact there is a lack of job offers posting for some specific sectors, like Agriculture and the Public sector.

The VET institutions, both public and private, are giving a positive response to the use of this tool to support decisions about politics programming and courses providing. The related Economic Development regards different aspects:

- The main contribution is the decision support to the programming and evaluation of the Labour Market and VET policies: the results of the ARLI project⁷⁴ pointed out that the use of LMI (Labour Market Intelligence) for the Labour Market stakeholders was a critical issues for the Italian territory, and that the most used information were of qualitative type, coming from the consultation. This because there was identified a lack of integration of disaggregated data at regional and local levels (connection with LMI regional and local); a lack of provision of information on the interpretation of the

⁷⁴ ARLI (Achieving Regional and Local Impact) Project, Founded with the support from the European Union's PROGRESS Programme

dynamics of labour demand; a lack of attention to the level of data update published and there was no focus on skills rather than professions. The WollyBi gives the opportunity to have a quantitative knowledge describing the Labour Market needs, expressed not through fragmented and localized sources but through just one channel.

- Another interesting issue is the possibility to monitor different aspects of the Economic and Social System:
 - the increase of job opportunities posted on the Web, that points out both how the recruiting is shifting toward a more “social” dimension, both gives insight on the job opportunities trends (also compared to the data coming from Administrative and Statistical Sources) and the economic upturn;
 - the changing directions, and the speed change, of specific sectors, through the observation of the most required skills, and how the territory affects the sectors’ distinctive characteristics due to social phenomena: e.g. it was interesting to notice that for the Plumber occupation in a centred Region of Italy between the most required skill there were the availability to travel and the knowledge of the Russian Language, due to a stable network of Russian material suppliers.
 - The emerging of new occupations not linkable to standard classifying systems.
- Of course, being the VET actors between the main recipients of the tool, the provision of training course tailored on the real needs expressed in detail directly by the firms and, in this way, the contribution to decrease the skills mismatch.

Description

WollyBi is a Digital Observatory on the Labour Market, realized by TabulaeX, spin-off of University of Milan Bicocca in collaboration with CRISP, Interuniversity Research Centre on Public Services. Thanks to a highly innovative approach based on the analysis of Big Data, it elaborates and presents information on the needs expressed by the firms through the job vacancies posted on the Web.

WollyBi is an Observatory focused on the Italian Labour Market, established with more than 750,000 job vacancies analysed by the web - constantly updated - and offers a complete view of the Italian Labour trends.

The three main dimensions that is possible to choose as starting point to navigate the information are: the Geographical area, the Occupation and the Skills. It is therefore possible to analyse occupations and skills required by the companies on the web per type of contract proposed, economic sectors, educational qualifications and Job characteristics (full time, part time). In the following pages some navigation paths will be shown.

WollyBi provides its know-how to companies and organizations, both public and private. In particular, targets at actors operating in education and training field, Public Administrations, Labour Consultants and Human Resources professionals.

The mission of the Observatory is to provide a decisional support about labour policies, territorial planning, monitoring and evaluation of interventions, policies regarding the educational and training system. The idea is that the labour demand expressed on the Web could allow to build a correspondence between occupations and skills, i.e. knowledge or competences required by firms, and eventually define a dictionary of skills.

It also allows to propose and organize adequate counselling services for human resources management, to formulate strategies of business organization, to arrange educational supply tailored to different professional needs, to propose innovative services and to create targeted training courses on the base of market demands.

The information provided by the monitor is twofold:

1. *Analysis of the dynamics of labour market through the data of the web job vacancies.* The information on the web vacancies are analysed by territories (regional and local), economic sector, type of contract and educational level and are used to provide an innovative monitoring of labour demand within the National territory which is possible to explore until the local level.
2. *Monitoring of the skills needs associated with the vacancies published by the companies through the web.* The project provides information about the professional needs, in terms of knowledge, skills and abilities, derived from the web vacancies. The skills derived from natural language are classified in three main groups: basic skills (they are standard and often transversal abilities which are acquired through formal education channel), professional skills (they are specific skills which are mainly acquired through the working experience and professional training) and personal skills (they are mainly related to transversal skills and personal attributes).

The data sources are identified through a selection of the most important websites for job offers. In particular it was chosen to investigate three main groups of sources:

- Specialized websites of job vacancies;
- Websites of the largest employment agencies;
- Websites of the major national newspapers.

The web crawling was carried out by software (crawlers) that automatically scans a network and reads its content. From the beginning more than 750,000 web based vacancies were extracted and processed. The most (54%) comes from the web sites of the private employment agencies, the 36% from the specialized job sites and 10% from the newspaper web sites. The variables considered for each web based vacancy are type of contract, sector of employment, occupation, region/area, and skills; they were viewed as a valuable source of information on the characteristics of the job offer. Due to the typical problems that occur in dealing with web data, some specific techniques were used. Normalization activities were conducted in order to reduce the heterogeneity of data sources, including as much

classification of employment contracts, skills, professions, etc. Specific statistical techniques were applied to reduce the problem that the same offer can be posted on multiple sites or repeated several times on the same site. Then taxonomies have been created to classify the information - about educational level, occupational groups, contracts, sectors, and skills - which comes from the natural languages.

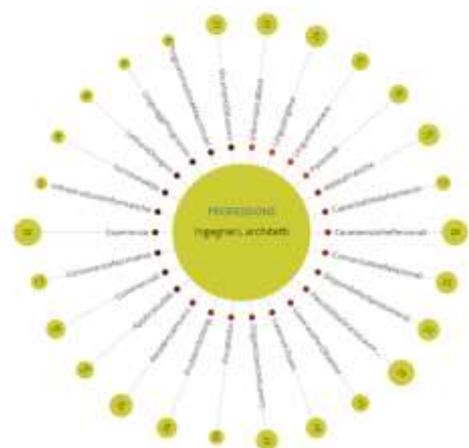
The WollyBi product was born after a research study called “Skills Demand through the Web Job Vacancies” which has been realized for the first time in 2013 and was founded by Obiettivo Lavoro, which is one of the largest Italian private employment agencies. The project was realized in collaboration with three Regional Labour Market Observatories – Lombardy, Piedmont and Emilia Romagna and aimed at analysing the occupations and skill demand through a representative sample of web job vacancies.

The idea to use web data to analyse the labour demand and skills needs was born as consequence of two different considerations:

1. The first is that the web is increasingly being used by companies and job seekers to spread the demand and supply taking advantage of the high heterogeneity and the enormous potential of its communication channels.
2. The second is that the traditional methods used to monitor labour, profession and skills, and then the skills surveys, have some problems. Surveys are costly, considering direct (implementation) and indirect (opportunity) costs; their implementation is not easy, thus they cannot have a high frequency; and they have a top-down approach, i.e. soft skills and occupation-specific skills are generally pre-defined. Accordingly, analysis of web based vacancies are less costly after their set up, they substantially reduce the time-to-market and information provided are related to really open job vacancies, and they allow a bottom up approach, as the skills come directly from the employers insertions outlining many specificities to industries and territorial levels.

About the skills, the positive response of the WollyBi users is motivated by the possibility to understand:

- what the market needs in real time and how the trends are evolving: this is important especially to programme the provision of training course that last minimum 3 years (Vocational Schools), to have the possibility to monitor if the occupations requirements are changing;
- which are the specific skills included under the most used umbrella terms like “computer skills” to help disadvantaged subject, but not only, to be re-trained and enter the market: the crisis has affected, in addition to the young people, the middle-aged subjects, who once fired struggle to be reintegrated into the market;
- which are also the detailed skills linked to each occupation (e.g. not just a generally “software

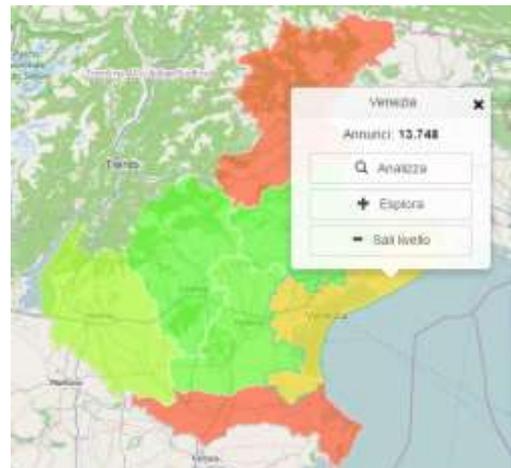


- applications” for Architects but which are the most required by the firms);
- the degree of distance between occupations on the basis of required skills, to give a better service of vocational guidance. The Figure gives an example of the visualization of the required skills linked to the occupation of “Architect”.

To explain how the WollyBi can be used in a real situation, these three navigation paths were reported, one for each dimension as starting point for the investigation:

- **I would like to activate some training course: what are the most required skills in my province or in my region?**

Entering the WollyBi through the Geographical Dimension it is possible to click on the territory of interest and choose the "Explore" option until you reach the desired granularity (Region, Province, Municipality). Then choosing the "Analyze" option it is possible to choose "Skill" between the variables on the left and observe the skill divided by usual category (soft, basic, professional).



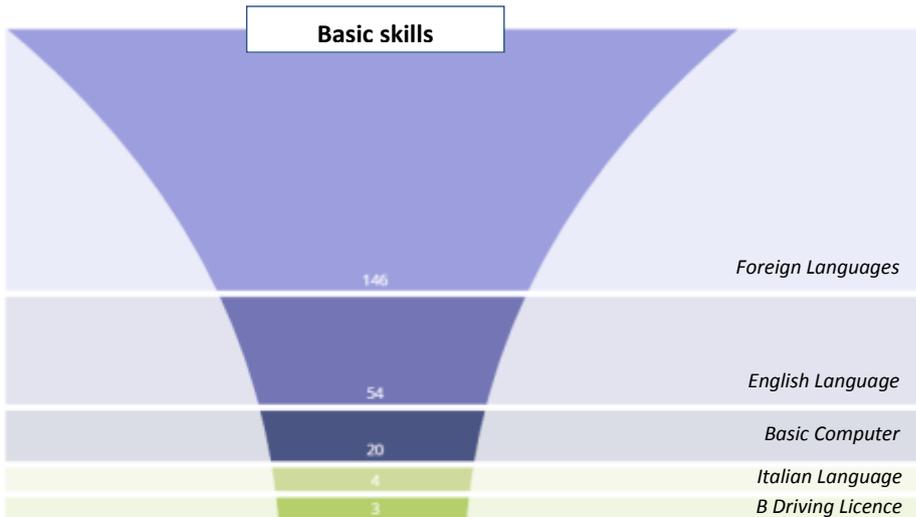
Example: VENICE (Province)

- Number of job vacancies: 13,748
- Basic skills: English Language and Basic Computer Skills (i.e. Office)
- Professional skills: Experience, Software Applications (e.g. Autocad, Solidwork, Sap), Programming languages, Licences, Register Enrolment, Certifications.

- **What are most requested skills linked to the profession I am training people for?**

Entering the WollyBi through the Occupation Dimension it is possible to click on the group of occupations of interest, and choosing the "Expand" option you reach the desired ISCO level to analyse it per the usual variables, like the “Skill” one.

Example: Tourism activities employees



• N
umber of job vacancies: 1,456

The requested skills are visualized like the Figure aside shows, divided in the usual categories (Basic, personal and professional).

The white numbers in the middle of the funnel chart, are the number of web job vacancies containing the mentioned skill.

Using the filter it is also possible to localize the occupation and the required skill related to it in a specific territory, replying to the further question “What are the most required skill for a specific profession in my region? This profession requires different skills compared to other territories?”.

The WOLLYBI Methodology

Even if the methodology part could seem something for experts it is important to explain at general level how the tool works in order to replicate it and, moreover, to understand the classifying systems behind.

The web is becoming an increasingly important channel for posting vacancies and in general for matching labour demand and supply. The portal is a Digital Observatory for the Labour Market: thanks to a highly innovative approach based on the analysis of Big Data, it aims to develop tools to represent and analyse markets and services related phenomena.

Thinking about the replication of the portal for other foreign contexts, maybe focused on specific sectors, it would be necessary to define research engines that post job vacancies and eventually other sources , e.g. forums or social network (depending on the different customs in this field), also defining number and significance.

The use of programs that automatically search through various websites in order to find, gather and download vast amount of data brings some issues. These are mainly related to the legal and ethical uses of the crawling instruments. At present there are no general legal barriers to use web-crawling tools to obtain online content. In fact information on the web, if not explicitly restricted to selected users, is by definition public. On the other side web-crawlers access websites owned by other companies possibly without their permission; for companies that do business in the field job vacancies represent their most valuable data. As a consequence website owners may use so called "Robots exclusion standard" which is a standard request to robots (i.e. web crawlers) to ignore certain files or directories when crawling a site. This protocol is only advisory, however it signals a certain intent of the owner.

It is necessary to point out that legal environment on these issues is changing very rapidly, as well as the Internet itself. The development of technology is often ahead of that of legislation. Various countries may also have different regulations regarding use of some technologies and those regulations may change over time as well. As of today, there are only few legal disputes on the subject of web crawling for analytical purposes in the US, even less in the EU. In our case we asked some players of the Market and studied the legal clauses: it is forbidden the use of data for competition purpose, but our use aims at statistical analysis and this is allowed.

Structured Information Extraction and Text Classification Methodology

The process of extracting knowledge from the text of websites or other electronic sources requires either classifying the whole text into predefined categories or identifying relevant 'pieces of information' within the text, or both. Both text classification and

Information extraction are part of the process used to turn textual data (i.e. unstructured information) into structured (table like) information as described below.

An example of transforming unstructured text into structured data.

Actual Text (i.e. Job Vacancies from the Web)

'Company X is looking for an engineer speaking German fluently' →
 'Looking for a Lawyer dealing with Customers in Madrid' →
 '2 job positions for plumbers' →

Esco code	Qualification	Skill x: Language
2.1.4	Engineer	German
2.6.1	Lawyer	Spanish
7.1.2.6	Plumber	-

The next sub-section will present the information extraction and text classification methodologies and techniques that will be used in the project. The techniques were used to relate vacancy descriptions to ESCO Occupations, Skills, Competences, and Qualification codes.

Information Extraction

Information extraction allows text units to be filtered and extracted from documents that are successively 'enriched' with metadata specifying morpho-syntactic features. A typical Natural Language Processing (NLP) sequence is composed by the following steps: (i) Text Tokenisation and Normalisation, (ii) Part Of Speech (POS) Tagging, (iii) Word Sense Disambiguation, (iv) Lemmatisation and (v) Relevant Terms Selection. More specifically, the main goal of these procedures is the extraction of relevant terms that can be used to recognise the most significant concepts in the text.

Text Tokenisation and Normalisation (Hatcher, 2002) performs a first grouping of the extracted terms by introducing a partitioning scheme that establishes an equivalence class on terms. In particular, Text Tokenisation removes any punctuation splitting the document by spaces (to get the so called tokens), makes everything lowercase and eliminates stop words. Stop words usually provide little or no knowledge (e.g. articles, pronouns) and therefore are not considered for the subsequent steps. Normalisation attempts to reduce the 'entropy' of the input data by applying techniques in order to eliminate numbers or non-letter characters, unifying special characters, disambiguating sentence boundaries and identifying abbreviations or acronyms.

- *Example:* with tokenisation a string is transformed into a set of words, so 'Company X is looking for Engineers.' is transformed into <'Company', 'X', 'is', 'looking', 'for', 'Engineers'>; Abbreviations are expanded (e.g. *Doc.* is changed into *Doctor*).

The *POS Tagging* enriches the text with meta-information about the syntactical aspects associated to the extracted tokens, aiming at performing a second type of grouping of the words on the basis of their form and independently from the conjugations or declinations in which they appear (in this stage Named Entity Recognition procedures can possibly be exploited to group and label named entities (multi words) such as names of persons, dates, organization, places, etc.). In other words, some concepts represented by several tokens (i.e. words) are considered as a single token (e.g. *JFK Airport*) and the words that have little informative power are removed, e.g., articles, prepositions.

The *Word Sense Disambiguation Step* tries to find the 'correct' meaning of ambiguous words through a probabilistic analysis of the word context (Stevenson, 2003; Kilgarriff, 2000).

Lemmatisation is performed on the list of disambiguated terms in order to reduce all the inflected forms to the respective lemma or citation form, thus introducing a second partitioning scheme on the set of extracted terms and establishing a new equivalence classes on them (e.g. is, are, was, etc. are recognized as conjugations of the verb 'to be'). In lemmatisation plural words are replaced by their singular counterparts, and verb conjugations are reduced to their infinitive form. Stemming is similar to lemmatisation, but a word is reduced to its stem.

- Example: 'studied', 'study', and 'studies' are reduced to 'stud');

Moreover, the *Relevant Terms Selection* is carried out using a statistical analysis on the entire document corpora.

Finally, once relevant terms are detected, an *Information Categorisation* procedure is used to cluster lemmas into synsets (i.e., set of synonyms) in order to group the related concepts. In this way, it is possible to refer a concept independently from the particular term used for denoting it. Clustering can be performed using external linguistic resources e.g., ontologies, electronic dictionaries or thesauri (Amato). Synonyms are reconciled to a single representation.

- Example: 'job', 'work' are considered as if they were the same word.

Text classification

A classification process is framed into the Bag of Words approach, where each sentence is analysed as a bag of words, not considering the information provided by the word position or by the sentence structure.

The problem of text classification has been widely studied in the database, data mining, and information retrieval communities (Aggarwal and Zhai, 2012). Text categorisation (i.e. text classification, or topic spotting), is the activity of labelling natural language texts with

thematic categories from a predefined set (Sebastiani, 2002). In the research community two major approaches have been developed:

- Knowledge engineering, or explicit rules, where a set of rules and codes are manually defined.
- Machine learning techniques, based on a general inductive process that automatically builds a classifier by learning from a set of pre-classified documents.

While the knowledge engineering approach guarantees full visibility and transparency as to how the classification process is constructed, it does so at the price of considerable human effort. On the other side, the machine learning approach provides very effective results, considerable savings in terms of expert labour power, and straightforward portability to different domains, since no intervention from either knowledge engineers or domain experts is needed for the construction of the classifier or for its porting to a different set of categories (Sebastiani, 2002). Both approaches are briefly described:

- *Explicit rules*: A first possible approach to classify (and to extract information) from job vacancies is characterised by the use of explicit rules. The rules look for the presence of specific words or combination thereof in the text. The rule design process starts from the identification of appropriate official classification or taxonomies, or from the development of taxonomies obtained empirically through observation of the texts; then the taxonomic entries are organized in hierarchies. The rules are then designed using the taxonomic hierarchy and entries as reference, in order to obtain a comprehensive set of rules. The main advantage is that analysts are deeply involved in the rule formulation, assessment, and tuning. The disadvantages of the method lie mainly on the huge effort required from experts in developing and hand-writing all the rules. Furthermore, the set of rules is very language specific, and this limits the possibility of reusing a rule set for other countries.

Furthermore, the taxonomies and the set of rules require extensive updating and maintenance activities since the natural language evolves continuously.

- *Machine Learning*: Machine learning can be broken into the following categories: supervised learning, unsupervised learning and lightly supervised learning.
 - In *Supervised Learning*, a dataset consisting of (a) several text to classify and (b) the corresponding classification labels are provided. Both (a) and (b) are called a training set. The task is to construct an estimator from the training set which is able to predict the label of an unforeseen object.

Some examples where machine learning has been successfully used are: given a multicolour image of an object obtained from a telescope, determine whether that object is a star, a quasar, or a galaxy; given a photograph of a person, identify the person in the photo; given a list of

movies a person has watched and their personal rating of the movie, recommend a list of movies they would like e.g., the Netflix Prize (Netflix Prize Official website, 2014) (Netflix Prize Wikipedia, 2014). Supervised classification algorithms are: Generalized Linear Models (Perceptron, Bayesian Ridge Regression), Support Vector Machines, Stochastic Gradient Descent, Naive Bayes and Decision Trees.

- *Unsupervised Learning* addresses a different sort of problem. Here the data has no labels, the aim is to try to find hidden structure in unlabelled data, or in a broader sense unsupervised learning can be viewed as a means of discovering labels from the data itself. Unsupervised learning comprises tasks such as dimensionality reduction, clustering, and density estimation. Several methods used in supervised learning have been borrowed from the data mining field.
- Supervised learning approaches require the availability of training datasets, i.e. objects already classified. The most effective approach is to manually label the objects. Unfortunately this process can require a considerable amount of human resources. Some methods have been developed to support people in performing classification tasks in order to create training sets, e.g. starting from a seed of objects manually classified, then a classifier is trained and further objects are classified. The results are manually (quickly) evaluated, and then they are used for training another classifier. The performance of the second classifier is better than the first, as the former was trained on a larger set of objects. This latter approach is called *lightly supervised learning*.

The whole Methodology Section was useful both to understand the believability of the information coming from the WollyBi both to have the idea of the complexity of the system behind the graphic interface. This last point, i.e. the necessity to define and solve a lot of technical and methodological issues, is one of the main constraints: especially at the beginning it is necessary a big investment, in terms of time and work.

Impact and Replicability

There is a chance that the analysis of labour demand through the web job vacancies will probably become part of the regular activities of the Regional Labour Market Observatories in the future, as it is considered a valuable informative source for unemployed people, companies and the training systems.

Since the Web is becoming more and more important for companies in the recruitment process, and also in the matching one, every country has the necessary data source, i.e. the websites where companies post job vacancies: the Observatories could replicate it

The investigation on the most required occupation and skills on the market (that could be seen associated to each occupation or in general) it's the real point of innovation for the contribution to the economic development: the whole set of characteristics (the bottom-up approach, the possibility to detail each skill, the time to market, etc.) give a wide range of opportunities in terms of:

- Redefinition of the VET offer, both for the individual courses providing and for the public governments, at any level, in charge for the VET policies definition: these subjects can use the occupation trends to decide how distribute the offer (e.g. which occupation training providing or the number of courses for occupation) and the skills details to decide how organize them (e.g. which subjects to teach). It is important to notice that analysing occupations and skills at territorial level the actors can see the differences between the Italian Regions or Macro-Areas.
- Contribution to the integration of the Skills Vocabulary where the Skills are linked to the Occupation: it could be, for instance, the one from ESCO European project, that is still evolving.
- Contribution to the integration/Redefinition of the Occupation Taxonomy: the Occupation analysis points out that there are new occupations emerging in the Market which is not possible to classify with Classic Taxonomy (e.g. ISCO).
- Job seekers' or employers' self-consciousness about the Labour opportunities and the lifelong learning: the monitor would be very useful for persons looking for a job, who would better understand which are the skills required by the specific profession, for companies, which would render more effective the recruiting process on the web, and for training agencies, that could apply the results of the project in order to design or redesign their learning services. This is important especially to set new work awareness. The Italian Labour Market is changed, also pushed by the economic crisis: the job opportunities are becoming more and more transparent - the evolution of the web and social networks are a clear example of transparency of information on job opportunities - and this allows to increase the workers' choices; the lack of clarity in the professional development puts into action the people towards the search for alternatives; the access to specialized courses (e.g. master or intensive courses) represents a potential to improve their professional skills and to re-train themselves. If before the professional certainty could be placed into the stability of the organization, now the critical factor consists of the capabilities of the individual, in his human and social capital, which allows him to adapt to change and to build a path of continuing professional education.

Another important characteristic of this Good Practice lies also in the technical realization of the tool: the emphasis on the graphic representation of results and the visualization of information makes WollyBi not just user-friendly but it really makes it easier to catch the meaning coming from the data. This is frequently a high barrier in the use of tools, for the public administration rather than for the other users: the way of information is presented can really change the degree of use and consequently of usefulness.

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VET-EDS Good Practice

Labour Market and Education Observatory of Małopolska

Marta Salavova

Introduction

The Labour Market and Education Observatory of Małopolska (LMEO) is a long term research project of the Regional Labour Office in Kraków. It was founded hand in hand with three more Regional Development Observatories. The main incentive for its establishing was the lack of an information base for regional and local socio-economic and development policy. Its mission is to provide high quality and reliable information on the labour market, thus the LMEO:

- supports decision-making processes through monitoring of changes and trends in the regional labour market;
- develops solutions, research methods and techniques for research on the labour, education and training market;
- improves existing networks and solutions in the area of cooperation with local and regional partners, as well as exchanging and disseminating information to wider range of audience.

The LMEO is oriented particularly on cooperation with local employers and VET institutions, on gathering and provision of information about demand and supply side on the labour market. Its labour market information tools are disseminated and used by regional and local representatives, local labour market offices, career guidance counsellors, VET institutions and schools. The main concept of Occupational Barometer was taken from the Finnish good practice and successfully implemented in Małopolska region.

Summary

The Labour Market and Education Observatory of Małopolska is a research project of the Regional Labour Office in Krakow. The Observatory conducts lot of own research and analytical work with cooperation of local bodies and institutions (Labour Office, the Regional Assembly, VET schools and universities, career guidance counsellors, Małopolska Regional Development Observatories, employers etc.). The main activities focus on gathering high quality and reliable information and deepening knowledge of the regional labour market and education. The Observatory provides user with tailored analyses through wide scale of information and web based tools. The most interesting activities and outputs focused on linkage between regional labour market and VET comprise: Occupational Barometer, The Survey of school leavers of vocational education and training, Internet Observer of Social Statistics; Employer Needs Survey (Need of Employees in Małopolska), and newly developed Occupational Cards.

Context and setting

The Małopolska region (Lesser Poland) is one of the 16 administrative provinces of Poland, and comprises 8.7 % of the country's population (i.e. 4th place in Poland). It is a dynamically developing region with a considerable economic potential, and an interesting target of foreign investments. The region is characterized by quite high economical and sector diversity. Therefore unemployment in Małopolska varies from area to area. The main centres of industries and economical development are located in Krakow (the capital of region), its surrounding, Tarnow, Auschwitz, and Nowy Sacz.

In recent years the employment structure was characterized by a large share of people working in agriculture. This share is steadily decreasing at a higher rate than in other Polish regions. At the same time, the employment rate in the services sector was growing really fast. The employment situation amongst Małopolska employers is difficult but relatively stable. In 2012/2013, more than half of them noted no changes in the employment level.⁷⁵ However, compared with 2011/2012, the percentage of companies increased (from 21 % to 25 %) in which the number of staff dropped. The labour market situation is reflected in the plans of students to leave the country. According to a study, carried out by the LMEO in 2014, almost 27 % of VET school leavers were interested in work or education abroad with different time perspectives for the planned emigration (permanent emigration was considered by 4 %).

The labour market in Małopolska is influenced by trends in migration, foreign investments and structural changes in local and regional demand for work force. The LMEO was established as a regional analytical body in response to the lack of information and research on the labour, education and training market.

Description

The Małopolska Labour Market and Education Observatory (LMEO) is one of Małopolska Regional Development Observatories. The Observatory was firstly piloted as a project in 2006. The results of the pilot project formed a basis for the Observatory launched in the Regional Labour Office in 2008. Moreover, on the basis of the pilot experience three other Observatories in Małopolska were established: Małopolska Development Policy Observatory, Małopolska Economic Observatory, and Małopolska Social Policy Observatory.

The LMEO is a part of Regional Labour Office, which is responsible for carrying-out the employment policy, monitoring situation on regional labour market and implementing programs aimed at matching of skills provision with demand on the labour market. During the pilot project - the Occupational Barometer and other research methodologies have been developed. Since 2008 the LMEO has been so called "system project". The activities of the LMEO include regular studies, ad hoc studies responding to identified information needs and synthetic cross-sectional analyses of current issues. It produces outputs for regional policy makers and at the same time it develops new tools and approaches to improve quality and range of its analytical work. Analyses are based on data from public statistics (Statistical Office), administrative data from local labour offices, results of research

⁷⁵ Source: <http://obserwatorium.malopolska.pl/en/research/regular-studies/survey-of-malopolska-employers-to-assess-demand-for-employees.html>

carried out by other institutions and LMO own surveys and research. Based on these sources, the LMEO produces various labour market information (LMI) in form of reports, brochures and leaflets, individual data and web based tools. It is expected that their development will continue in years to come. The most important of them are:

- Occupational Barometer (yearly),
- Vocational school leavers survey (yearly),
- Survey of Małopolska employers to assess demand for employees (yearly),
- Business services sector analysis,
- Małopolska labour market (yearly report),
- newly developed Occupational Cards.

Occupational barometer

Occupational barometer has its origins in Scandinavia. It is a Swedish idea that was later adapted, among others, by public employment services in Finland. The barometer is a qualitative study. The Finnish occupational barometer was developed in a network at local and regional level but has been extended to the whole country in Finland. The same progress has this good practice also in Poland. The Regional Labour Office in Kraków was appointed by the Ministry of Labour and Social Policy to extend and provide implementation of this tool to the other regions of Poland.

It is a short-term (one-year) forecast developed by experts from local labour offices, including career counsellors, placement officers, people responsible for collaboration with business and organisation of training, and also EURES assistants and job club leaders. The goal behind the study is to point to the occupations in which the employers' demand will be increased, and in which it will decrease in the following year. The result is lists of occupations classified into three groups:

- Deficit occupations, i.e. those where the number of job offers will strongly exceed the number of people seeking employment, which means that jobseekers should have no difficulty in finding employment in the area.
- Balanced occupations, i.e. those in which the number of job offers will be similar to the number of people seeking employment.
- Surplus occupations, i.e. those in which the number of jobseekers will strongly exceed the number of job offers in the coming year, which may mean that finding employment in these occupations may be more difficult.

Occupational Barometer 2014 Małopolska

The "Occupation of the Year 2014" is a survey conducted by the Labour Market and Education Observatory of Małopolska. A journal of the Publisher Service "Prace" is published. The survey was conducted in the second half of 2014. The results are presented in the report. The report is available in Polish and English. The report is published by the Regional Labour Office in Kraków. The report is published by the Regional Labour Office in Kraków. The report is published by the Regional Labour Office in Kraków.

The barometer's methodology is designed for its results to supplement public statistics. The experts who produce the forecast classify jobs primarily following their own experience and observations as well as the available statistical data. Such an approach makes it possible to take into account factors not reflected in statistical figures, such as the qualifications of employees and their actual work readiness, seasonality of employment, quality of vacancies, informal economy, and any other factors which have an effect on employment in local labour markets. The results primarily serve the purpose of planning training for the unemployed at local labour offices and are used by career counsellors and placement officers in their contacts with the unemployed and job seekers. The barometer is also an instrument employed in a variety of its activities by the Regional Labour Office in Kraków as the institution which creates the labour market policy at the regional level. The web-based tool for presenting of Barometer outputs shows also county level of information which is - considering lower geographical labour market mobility - very important from the end user point of view.

Occupational card

The Occupational card represents the quantitative approach of analyses focused on occupations. The interest of regional stakeholders is focused both on information about demand and supply side of the labour market. The previous example of labour market information tool - the Occupational Barometer is based more qualitative and focused on the demand side which means that it reflects the experience and real requests of local employers and other stakeholders(labour office staff, consisting of representative of placement officers, career counsellors, officers responsible for relations with entrepreneurs and officers responsible for training). For Krakow (region capital) the forecast is developed jointly by employees of the labour office and representatives of private employment agencies. This approach is very unique and valuable since the most of the best practice achieved in other countries on the regional level are based on the supply side data.

The aim of the newly designed labour market information tool is to achieve more complexity in the LMI provision and provide the supply side information on occupations based on the administrative and other data (e.g. online data on job vacancies). Many different open access and internal administrative data were used, as well as job vacancies monitoring. The main sources comprise:

- Labour Force Survey
- Survey of the earnings structure by occupation (CSO: Z12):
- Occupational Barometer
- prognozowaniezatrudnienia.pl (national and regional forecasting)
- Statistics on job vacancies, careerJet (job vacancies monitoring)
- Statistics on job vacancies of the Labour Offices
- CEDEFOPs' projection
- REGON: The national official register of entities of the national economy is a set of information on entities of the national economy,
- Survey of Higher Education Institutions
- SIO: System of Information on Education (System Informacji Oświatowej)
- Vocational school leavers survey (BLASZ)
- BDL: the Local Data Bank, collecting data from some of above mentioned sources.

Impact and Replicability

The LMOE is a good example of a project, institutionally incorporated in the regional Labour Office, which is significantly enhancing the local and regional cooperation between industries, public administration and VET. Its information tools can be replicable in other regions with different levels of difficulty. The most reachable labour market information (LMI) tool is the Occupation Barometer. This LMI tool itself was taken from the Finnish and Swedish good practice. Between 29th and 30th September 2014, a workshop was held in Turku, Finland on the "Occupational Barometer". The "Workshop on Occupational Barometer – experiences & opportunities for the future" was an event attended by representatives of public employment services from fourteen countries of Europe. Its aim was to exchange experience in forecasting analyses done in the different European countries and promote the "Occupational Barometer" as simple and useful forecasting tool.

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VET-EDS Good Practice

New Economy – Cost Benefit Analysis Model & Unit Costs Database

Ben Neild

Introduction

This good practice has been chosen as it:

- Addresses the need to do cost benefit analysis for VET and skills policy interventions
- Accommodates a growing need for such intelligence from policymakers at all levels – particularly in economic development
- Enables funding bodies to track value for money in a time of shrinking budgets

In 1997, the UK ‘New Labour’ party sought to distance itself from ‘old Labour’ of the past.

“New Labour is a party of ideas and ideals but not of outdated ideology. What counts is what works.”

(Tony Blair, Labour Party Manifesto for the 1997 General Election)

Following its election, it repeatedly stressed the importance of evidence-based policy making.

“This Government has given a clear commitment that we will be guided not by dogma but by an open-minded approach to understanding what works and why. This is central to our agenda for modernising government: using information and knowledge much more effectively and creatively at the heart of policy-making and policy delivery.”

(David Blunkett, Home Secretary, speech on 2 February 2002⁷⁶)

⁷⁶ Cited in Well, P. *New Labour Evidence Based Policy Making, 1997 – 2007, People*

Summary

In the context of public spending cuts and the trend towards the external contracting and delivery of public services, local authorities need to understand the costs and benefits of VET programmes and policies.

They also need to understand how these impacts are felt across agencies and departments.

The New Economy Cost Benefit Analysis Model provides a highly replicable approach, designed to enable local authorities to answer questions such as:

- Does our proposed intervention provide value for money?
- Will it reduce the levels of need and budgets?
- What is the payback period for the project?
- Which agencies, departments or budgets are likely to benefit?
- Are the impacts fiscal or a matter of public value?

An emphasis on piloting initiatives and evaluating economic development and social policy interventions followed, at national and local level.

The ten local authorities in Greater Manchester are at the forefront of this push towards integrated and evidence-based service delivery. Under their Local Enterprise Partnership, they have come together to create New Economy, an economic think-tank and advice unit on best policy practice.

The Cost Benefit Analysis Model and supporting Unit Costs Database described below has been created by New Economy, with the Support of HM Treasury, as a tool to assist in joined up local decision making. It is being promoted by the What Works Centre on Local Economic Growth (described below) as an example of good practice that could be picked up and used by bodies responsible for economic development across England. Its success is based on its popularity and usage and the fact that it fits closely with what is needed and required. Such developments are quite expensive to create and producing alternative models would not make sense.

Context and Setting

Following the election of the Coalition Government in 2010, England's Regional Development Agencies, which had been increasingly active in evaluating local investments, were abolished, replaced by a single national 'Regional Growth Fund' (RGF). In the absence of regional tier, decisions on RGF investment were made by a national ministerial team on the basis of applications, appraised by economists and an advisory panel. Criticism of this centralised approach was followed by a growing emphasis on the importance of 'localism' and the devolution of strategic responsibility and funding for economic development to England's local authorities. As bodies responsible not only for economic development, but for health, social care, the environment, children and families' services and other areas, these local authorities have been seeking to better understand the inter-connectedness of social policy outcomes and how decisions about spending decisions by one service department impact on the outcomes of others.

The major funding cuts and 'austerity' that accompanied the 2010 coalition government placed a logical requirement on those delivering within it, to provide value for what little money remained. This tool enables that function.

There is a significant body of research that shows that investments in VET benefits:

- Society through higher employment, a healthier population, greater civic participation and less crime;
- Individuals by raising their likelihood of being in employment, leading to improved wages, economic resilience and by contributing to their life-satisfaction;
- Employers who gain a more productive and innovative workforce and are better able to adapt to changing economic conditions; and
- The economy by increasing the productivity of the workforce and increasing employment rates.

These impacts are inter-related. Raising skill levels raises salaries and employment levels. This reduces poverty, which in turn reduces illness, disease and unhealthy behaviours. The complexity

and diversity of these relationships is such that any holistic evaluation of the overall impact of VET investment is extremely complex.

Government in the UK is conscious that quality of the evidence on the impact of investments in VET and other areas of social policy is much weaker than that available for medical and health-related interventions. The use of experimental methods (control groups / randomised trials etc) is rare. In response, in 2013 the UK Government established six 'What Works' centres focused on: Crime reduction, Educational Achievement, Local Economic Growth, Early Intervention, Wellbeing and Improved quality of life for older people. Based on an existing model in the field of health and social care (the National Institute of Clinical Excellence), these centres are responsible for:

- collating evidence (e.g. academic studies) on how effective policy, programmes and practices are in their specialist areas;
- producing high quality synthesis reports and systematic reviews of this evidence, where these do not exist;
- assessing how effective policies and practices are against an agreed set of outcomes; and
- sharing findings and encouraging practitioners, commissioners and policy-makers to use these findings to inform their decisions.

The What Works Centre on Local Economic Growth includes a focus on VET practice. Through 2015 it has been promoting the use of the New Economy Cost Benefit Analysis (CBA) Model as a basis enabling public officials to evaluate proposals for service delivery in a systematic way.

Description

The target groups for the Model are varied, but are best thought of as a combination of labour market and economic development analysts and those organisations (including companies and consultants) that would use such a Model to help both demonstrate what they have been doing provides value for money and that what they plan to do will provide value for money. Rationally this includes national and local government, Local Enterprise Partnerships and the many organisations that support them.

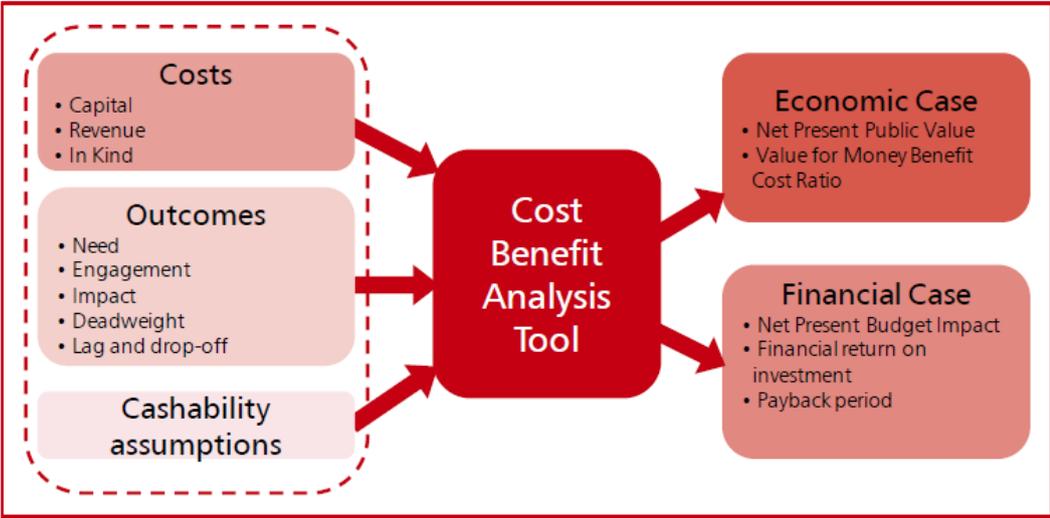
New Economy's Cost Benefit Analysis Model has three key elements.

- A **Guidance Document** setting out the rationale, purpose and methodology of the cost benefit analysis tool along with guidance and advice on how it should be used by local partners looking to develop, appraise and evaluate changes to the provision of public services, including VET provision
- A **Cost Benefit Analysis Model** in Excel which provides a structured and consistent approach for applying this methodology.
- A **Unit Cost Database** which includes more than 600 unit cost estimates (mostly national) that can be used to calculate the costs / benefits of delivering services and the potential savings that can be achieved through different types of interventions.

Guidance Document

The guidance is based on the UK Treasury’s ‘Green Book’ approach, the mandatory government guidance for those preparing proposals to spend public funds in the UK. It includes:

- A description of the objectives of the approach, i.e. the benefits that partnerships can realise from using the model and an explanation of when the model can be applied.
- An explanation of the background and best practice that New Economy has drawn on in building the model.
- An explanation of the inputs that will be needed to run the model, i.e. data on project costs and evidence of project outcomes, shown on the left hand side of the diagram (on the following page).
- Explanations of the outputs that will be produced by the model including benefit-cost ratios for individual proposals/projects and forecasts of savings over time.
- Guidance on how to calculate the cost figures to input to the model, explaining how they



can identify the marginal cost of projects and how they can work out costs for particular public agencies.

- Guidance on the tracking the project outcomes and how these can be translated into net outcomes via the use of comparator areas and on the approach to placing values on (monetising) these outcomes at the overall level.
- Explanations of assumptions used to track and monetise individual outcomes for specific central and local government departments and partner agencies.
- Advice to analysts on the treatment of outputs from the model, in terms of calculating metrics for projects, up-scaling findings and accounting for risk and uncertainty.

CBA Model

The Excel based CBA Model provides a structured and consistent approach for applying this methodology. The workbook has four ‘input’ tabs that are populated by users with:

- A descriptive summary of the proposed intervention;

- Information on the agencies involved, i.e. that incur costs or experience benefits as a result of the intervention;
- Information on benefits derived from the initiative. This requires data to be entered on the target population; the proportion of the target population engaged in the initiative; the retention rate (whether they complete the initiative); the assumed impact of the initiative (e.g. % of those without qualifications gaining Level 2 qualifications); the deadweight (i.e. proportion who would have participated if the intervention had not been developed).
- Information on the initiative's costs - data on the initiative's delivery costs; offset costs / savings (i.e. costs from delivery through the proposed as opposed to a previous initiative) can be entered, alongside confidence levels for the cost estimates;
- Information on when the benefits will accrue, i.e. the time lag until the point where benefits are fully felt and the rate at which the benefits decline over time.

On the basis of this information, the model generates both a fiscal case for the intervention, looking at the impact on public finances, and an economic case, looking at the wider impact on the economy. Costs and benefits are calculated on an annual basis, discounted over time in line with the input assumptions.

Unit Costs Database

The Unit Cost database brings together more than 600 cost estimates in a single place. Most estimates are national, derived from government reports and academic studies. The costs cover crime, education & skills, employment & economy, fire, health, housing and social services. They are provided to help project managers to forecast the costs and benefits associated with their programme or project, prior to the undertaking of more detailed Cost Benefit Analysis (CBA). They also underpin and drive the calculations within the CBA model.

In the field of Employment and Skills, data on the Fiscal Value (to the public finances, nationally or locally) and on the wider Economic Value (which for VET accrues to individuals in terms of increased wages and probability of being in employment) is provided, as set out in the table below.

Cost / saving detail	Unit	Fiscal value			Economic value		
		Estimated cost/saving	Year	Updated cost/saving	Estimated cost/saving	Year	Updated cost/saving
NVQ Level 2 Qualification - annual fiscal and economic benefits	Per person per year	£ 83	2010/11	£ 90	£ 443	2010/11	£ 483
City & Guilds Level 2 Qualification - annual fiscal and economic benefits	Per person per year	£ 641	2010/11	£ 698	£ 1,059	2010/11	£ 1,153
BTEC Level 2 Qualification - annual fiscal and economic benefits	Per person per year	£ 494	2010/11	£ 538	£ 878	2010/11	£ 956
Apprenticeship Level 2 Qualification - annual fiscal and economic benefits	Per person per year	£ 787	2010/11	£ 857	£ 1,208	2010/11	£ 1,316
NVQ Level 3 Qualification - annual fiscal and economic benefits	Per person per year	£ 513	2010/11	£ 559	£ 921	2010/11	£ 1,003

Information on data sources (e.g. studies on employment and wage *premia* generated by gaining qualifications) is also given, as well as functionality that allows users to specify departments to which the benefits accrue.

Constraints

It is important, however, to note, as New Economy does in its Guidance, that CBA is not an exact science and its outputs are only a guide to decision-making and not a substitute for thought. There will always be some need for assumptions or reliance on imprecise data and all assumptions and outputs will need to be subject to risk and sensitivity analysis. In addition, when evaluating initiatives, partners still need to consider more than just benefit-cost ratios and should continue to consider a range of perspectives, including qualitative feedback, strategic contribution, capacity to deliver and so on.

It is also the case that learning impacts on other things like health, participation in a community, criminality etc... and these are impossible to model and are discounted. Within exchequer benefits the model takes account of receipts to treasury (through tax received by government), but it does not include assessments of savings in benefits due to the increased probability of staying in work and reduced 'in-work' benefits.

What Worked and Why

In the UK it was rare to do impact measurement on skills/VET monitoring and analysis. Consequently this provides a consistent base for such work that was previously absent. Furthermore, when it had taken place in the past, it had happened in 'silos' where organisations only looked at impacts on their own budgets – whereas it is now easy to do this across different services and governmental bodies.

Whilst there is still a valuable and necessary role for qualitative analysis of labour market impacts this gives a genuine fiscal impact tool.

Importantly it combines both fiscal modelling (returns to exchequer) and economic modelling (returns to employer and individual) which stops the focus from being too narrow. The most important element for its inclusion here – is that it tackles the need consistency and real comparison.

Impact and Replicability

Collectively the CBA Guidance, Model and Unit Costs Database provide a toolkit that allows public officials, including those involved in VET, to consider a range of important questions, such as:

- Does our proposed intervention provide value for money?
- Will it reduce the levels of need and therefore budgets in the medium to long term?
- What is the payback period for the project?
- Where one agency invests in a programme, to what extent are other agencies likely to benefit?
- Are the impacts of a proposal primarily fiscal or a matter of public value?

However, when used alongside these other approaches, the New Economy CBA Model and Unit Cost database provide a valuable tool for considering the impact of potential VET interventions in a structured way.

The Cost Benefit Guidance, Model and Unit Costs Database are all publicly available at http://neweconomymanchester.com/stories/1966-cost_benefit_analysis.

The Guidance and CBA Model (while only available in English) can be readily applied across different EU contexts. The availability of research on the impacts of VET, e.g. on individuals' wages and on the likelihood of individuals being in employment, will vary across the EU from country to country. This data is central to calculations of both the economic value and fiscal impacts generated by the model. If this data exists for other EU countries, the approach, guidance and model are highly replicable.

Although the acquisition of skills and qualifications has important social impacts on health, crime and civic participation, it is notable that estimates of the fiscal and economic value of these impacts are not included in the current model, due to lack of reliable data. If it is available, this data could be entered into the model when transferred.

It is also worth noting that the model has been developed in the UK where there is a particular emphasis on calculating the value and impact of public services that are tendered and contracted to external service providers. Although the approach is entirely applicable to services delivered directly by government departments, the language of external contracting pervades the guidance. This may be of interest to other EU member states.

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