Regional/Local Operating Information Systems for Skills Forecasting

Results of the Annual Meeting of the European Network of Regional Labour Market Monitoring

3rd of October in Dublin at FAS

Background

The knowledge about future qualification needs is fundamental to further develop the educational and training system in a fashion that it could adequately cover prospective demands of enterprises and the labour force. To detect prospective formal and non-formal qualification and skills[1] requirements in the economy as a whole or in selected branches, elaborated statistical methods and tools are needed. Therefore, in recent years a large number of unique research projects were launched. Most considered were the approaches developed within the European-wide network 'skillsnet`, installed by CEDEFOP. In some European states national subdivisions, were also initiated, for example the Frequenz-Network in Germany. This research provides a broad spectrum of mature methods and tools on which one could build in order to identify prospective skills and qualification demands.

The tools and methods allow short-, mid- and long-term forecasting at a national level. However, their applicability is rather limited at regional or local levels as the necessary data sources to perform these methods correctly, cannot be adequately provided. This constraint is unfortunate because formal and non-formal qualification demands can be best captured on a regional/local level were they emerge and can be identified within the framework of other causal factors. It is also here that the supply for professional training and skill formation can be best customized and developed flexibly to meet future needs. This requires data on a regional/local level which cannot be generated with the existing methods. Therefore, new research, projects and other activities are necessary to develop useful tools for the regional level. Some such activities have already been launched in European regions. In these regions the need for such data/information has been acutely felt in communities, labour administrations or other parts of the regional governments as well as regionally focused associations or educational and training institutions. In cooperation with applied researchers, consultancy agencies etc., they have developed approaches for continuous monitoring future (formal and/or non-formal) qualification requirements, in specific regions. Through the use of exclusively single region sampling pools, regionally specific data pools could be developed and used. Additionally, within a single region data pool, qualitative expert assessments[2] can be used to complement the quantitative data.

[1] Non-formal qualifications are defined as general skills or 'so-called' soft skills which are acquired most often outside of degree programmes.
[2] Experts are extremely knowledgeable about the supply and the demand side of training and qualification in the region in focus.

European Network of Regional Labour Market Monitoring
c/o Prof. Dr. Alfons Schmid, Dr. Christa Larsen
Institute for Economics, Labour and Culture (IWAK)
University of Frankfurt, Germany
Mail: C.Larsen@em.uni-frankfurt.de; ++49 (0)69 798 22152

At the annual meeting of the European Network of Regional Labour Market Monitoring on the 3rd of October 2008 in Dublin, various of these newly developed regional projects were presented and a discourse was initiated to: firstly, identify commonalities and differences between the approaches and practices in several European states; and secondly, to derive from this, the definition of a common framework for a regionally based system to carry out the early identification and anticipation of skills needs. In the following, the results of step 1 will be summarized as well as the initial ideas for identifying the cornerstones of a regional forecasting system, which will be outlined in step 2.

Step 1: The Various Systems/Projects and Their Commonalities and Differences

There were 11 regional information systems/ projects from 8 different European countries presented.

Project	Country/Region	Presenter
RegioPro-Midterm Forecast of Qualifications and Professions in selected Counties of the Rhine-Main-Area	Germany, Rhine-Main-Area	Claudia Knobel
Detecting Qualification Needs in the Domain of Green Energy in the Region of Kempen	Belgium, Kempen	Eddy Donders
The Labour Market Observatory in Lombardy and Pistoia Region and the Approach for a Regional Medium-Term Skill Needs Forecasting	Italy, Lombardy and Pistoia	Mattia Martini, Ricardo Romano
The AMS Skills Barometer and its New Implementations for Regional Skills Demand Forecast	Austria, all Labour Market Districts	Maria Kargl
Systems for the Early Identification of Skills Needs in Ireland	Ireland	John Mc Grath
Identifying Skills and Qualification Needs for Territories	France, Departements	Bernhard Hillau, Yvette Grelet
Exploring Employers Skills Needs and VET Provision in Scotland and Northern Ireland	Scotland; N. Ireland	Ronald McQuaid
Local and Sub-Regional Medium-Term Skills Forecast in UK	United Kingdom, counties	Rob Wilson
Identifying Prospective Skill Needs in the Framework of Regional Labour Market Monitoring in Mecklenburg-Western-Pomerania	Germany, Bundesland (Mecklenburg-Western-Pomerania)	Jan Ulatowski
Monitoring of Skilled Workers in the Border Region of Austria with Slovakia	Austria, Slovakia, counties	Mark Bittner

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Most of the projects were developed within a single region and were tailored to the regional information needs. Concerning their implementation and their institutional embeddedness, they are rather diverse. There is also a broad variety of topics covered. This broad spectrum, however, shows clearly that there were already various approaches tested in practices to run such information systems successfully. Therefore, it is of most interest to find out if there are commonalities between the projects and if so, how they could be specified.

The identification of commonalities was based on the analytical modules which are used by the European Network when working on monitoring issues.

a) Initiator

There were two groups of initiators for such unique projects being identified. In most cases it was a cooperation of both groups which led to the implementation of a forecasting system.
The first group consists of strategic actors who are based regionally. These were, in most cases, representatives of regional governments or other political bodies who are responsible for the development of the labour market or of education and professional training. They were associated with three types of operative actors in the same region. The first type are associations of unions or employers; the second type are institutions such as statistical offices or labour offices which provided data; and finally, a third type were locally bound foundations. The major interest of all parties involved was to provide more knowledge and transparency on regional future skills demands.

b) Region

The spatial unit mostly used for the monitoring was a regional labour market. This was defined in two ways: either as functional regional boundaries framed by commuting linkages or by administrative boundaries like a larger city or a county. In some systems this small-scale units were connected to more aggregated units such as provinces or states (Bundesland).

c) Qualifications and Skills

The common feature in the projects for approaching qualification and skills demands was firstly to identify the economic sectors or branches which are of major relevance for the region. This could be the most important one(s) in a quantitative sense or the so-called key sectors which could be expected to generate a major growth in the near future. Secondly, the major qualifications and professions in the sectors identified as being relevant were under consideration in the information systems. Most of the time, formal (professional) as well as generic skills were covered. Often these skill demands were linked to certain qualification levels like the skilled or the unskilled/semi-skilled labour. In the majority of the projects, there were approaches used to identify current and future skill gaps. The time frame for forecasting was mainly short- or medium-term.

d) Data

Data used in the information systems stemmed from official sources (census, annual business inquiries or labour statistics) and primary data. The official statistics were used in most cases to describe the structural ground and primary data was further deployed to give more specific in-depth information. Therefore, quantitative primary data as well as qualitative primary information was used. It was generated via telephone surveys and face-to-face interviews with employers and local experts in labour market and qualification issues.

For the analysis of the data, a broad spectrum of methods came into sight. It stretched from descriptive to bi- and multi-variate analysis up through very complex formal models. As forecasting methods, time series and derived projections were deployed; other more elaborated

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methods generally did not come into consideration because of the small sample sizes at the regional level. A common pattern for combining quantitative and qualitative prognostic data was to use the qualitative data to evaluate, modify or confirm the projections.

e) Dissemination of the Information

To spread the information in the regions, media were chosen which address individuals or institutions directly and provide them on a regular basis with updated data and information. The media are reports and leaflets which can be downloaded from the internet, often combined with mailings geared towards specific user groups (for example branch related). In all projects, websites are in use - however to varying degrees. Some projects offered reports for downloading; others provide large numbers of tables and graphs which can be downloaded as single objects.

Additionally, in all projects it seems to be of great importance that there is a personal interactive exchange on the forecasting information which is generated between the data providers and the users. Workshops are held which provided a platform for the networks of regional actors. There they can share prognostic information, evaluate its meanings and importance for the region and discuss common or coordinated regional strategies derived from it.

f) Information Users

A majority of the initiating parties were also users of the information generated in the information systems. However, there are other actors who also use the data. For strategic planning, the information generated is used by (regional) policy makers as well as by employers associations and unions. Additionally, a considerable number of actors who participate directly in the regional labour market (operative actors) use this information for planning and deciding on their individual action – often in feedback loops with other operative actors in the region. Operative actors in most projects are companies, employees, institutions for education and qualifications and other training organisations, unions, placement officers and unemployed persons.

g) Practical Action

Some of the projects have already been operating for a long period of time. Here the practical actions following the data provided can be identified. These could be, for example, recommendations to regional and local politics. The data base is also used to improve measures related to school career counselling, professional development and up-skilling activities. As a general result, it is observed in all regions where projects are established that there is an increased networking among all actors involved in labour market and qualification issues based on the common data base. Also a growing willingness to harmonise regional actions in the sphere of labour markets and qualification can be measured in some cases.

The commonalities identified provide the ground for defining the cornerstones of a regional forecasting system which could be implemented across the whole of Europe.

Step 2: Initial Ideas for the Cornerstones of a Regional/Local Skills Forecasting and Anticipation System

The experience from the projects shows that there is an increasing demand for such forecasting information on a regional level. Therefore, the members of the European Network of Regional Labour Market Monitoring agreed that they will work further on the development of a Regional Skills Forecasting System which could be used as a basis for implementation in all European regions. The starting point for the development is the analysis of the commonalities of the

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various projects in operation (see above). Derived from these results, some cornerstones for a Regional Skills Forecasting System can be already defined.

Cornerstone 1: Identification of relevant Topics

Identifying the regionally relevant topics to be covered by the data, can be done by selecting out the branches of greatest importance for a region. These could be the quantitatively largest ones, or branches which are keys for future development etc. In a second step, it would make sense to look at the professions, fields of formal and non-formal qualifications and skills areas which are relevant in the selected branches. Compared to this, a rather short approach would be to identify directly the major professions or qualifications in a region or locality. Both methods could be useful to determine the core of qualifications and skills to consider in greater depth.

Cornerstone 2: Data Generation

The projects show that it is of highest value that a combination of quantitative and qualitative data is used. The quantitative data are useful to project future trends which derive from continuous development, whereas the qualitative data could provide a fertile ground to catch newly emerging phenomena which channel new developments.

The quantitative data can stem from official statistics and could be analyzed as time series for employment in certain professions and qualification fields. The time series could be further developed into projections. To get more in-depth information, especially to catch non-formal skills, it is extremely useful to get regional actors who are very knowledgeable about the regional labour markets, the regional economy or the regional setting for qualification as experts. In this fashion, short- and medium-term forecasting can be performed.

Cornerstone 3: Communication of the Information

Regional and local networks are of importance when transferring the information to the users. These networks support the interpretation and acceptance of the data and also further the discourse on regional qualification and skills demands. Also these networks are the basis for the development of coordinated action in a region. Therefore, the media which are used for the transfer should be adequate to address local and regional networks.

It seems that web-based information systems are the major media in use at this point. The relevant advantage is that they provide user-friendly data access which is not depending on available time or institutional resources. In same cases the face-to-face exchange could be also very helpful to interpret the prognostic data adequately.

Cornerstone 4: Evaluation and Adaptation (A Learning System)

The regional information system can be held in a long-term operation when there is a high acceptance and usage of the data/information provided in the region. A major prerequisite for this is that the data are suited to the information needs. Therefore, a continuous evaluation of the data usage is necessary to be able to adapt to changes in information needs. The evaluation could also be related to the fit of the media which are used for the transfer of the information to the users. Evaluation results are a valuable source for the adaptation and modification of data and the information system itself.

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Cornerstone 5: Organizational/Institutional Embeddedness of the Information System
The institutional or organizational embeddedness is crucial for a successful long-term operation of forecasting information systems. One successful strategy seems to be where there are several regional projects operating in one province. They organize their data based on the same (meta) structure which opens up the opportunity to combine regional information at an aggregated level. This brings up the question of who should implement, monitor, and financially support etc. the regional information systems?
As the forecasting information could be considered as being a public good, and it is of interest for a whole region or locality to support actors with such information, it seems to be obviously that administrative bodies such as labour offices and statistical offices could be considered to take over such an (intermediary) function.

Cornerstone 6: Converting Information into Regional/Local Intelligence
In addition to gathering and disseminating labour market and other information, it is essential to converting labour market information into regional labour market intelligence. This could be done by involving key stakeholders, so as to ensure that the local and regional needs are being met and to motivate and integrate key users into using the data in the most appropriate way. Building local capacity to analyse the data both in regional centres or observatories and through improving skills in using the information among local users is important.

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