

**Summary of the Expert seminar on methodology and new ideas:
Forecasting skill supply and demand in Europe 2013**

3rd October 2013, Thessaloniki

Pascaline Descy welcomed all participants and introduced the aim of the seminar: to improve and validate the methodology used in the project on 'Forecasting skill supply and demand in Europe'. The model covers all EU Member States and in addition Norway, Iceland and Switzerland. The model is widely used at the EU level. The aim of the project is to provide forecast and background data using online databases as well as information and methodology on skill forecasting disseminated by publications and presentations.

In the first session, Rob Wilson (Warwick Institute for Employment Research) provided an overview of the underlying methodology used within the project. He described the set-up of the model, the modular approach, and the generation of macro-economic forecasts that feed into modules for skills supply and demand forecast to identify future skills needs. He then presented some of the results within the project. Discussant Baptiste Boitier of SEURECO, Paris, compared the outcomes to those that were developed within the NEUJOBS framework where they developed several future scenarios for the European Union. The framework also uses differing assumptions on the population development. Within the framework they come in part to similar conclusions: the increasing importance of higher skills, and a potential mismatch between the strong increase of high-skilled labour supply and the less rapid development of high-skill labour demand. In his evaluation of the methodology he lauded the well-established methodology and well documented approach. He critically remarked that within any macro (based) forecast, the assumptions on the GDP growth rates are crucial for the outcomes in terms of employment.

Terry Ward (Applica) discussed the approach to generate the industry data based on the new NACE classification and consistent occupation data based on the new ISCO-08 classification. He showed the difficulties encountered in generating consistent time-series across the NACE industry sectors for which overlapping information for almost all countries was available; but also on the development of the series for the occupational classification. Here, no overlapping information was available, such that stronger assumptions in the development of a ISCO-08 conforming series was necessary. The discussant, Leif Haldorson (formerly at Statistics Sweden) highlighted the reason for the changes from ISCO88 to ISCO08. The old classification had insufficient harmonisation across countries, such that cross country comparisons were difficult as differences between countries were often due to differences in the implementation of ISCO-88. The new ISCO-08 addresses some of these problems. In the new ISCO the nature of work is more important than the (usual) qualification needed. This will have an impact on analysis of skills needs. He talked about the difficulties in implementing ISCO-08. He concluded that it is difficult to construct a useful database across the dimensions necessary for the project. Some countries can provide data on both bases upon request. Many countries, however, struggle with this break in time series. Suggestions for solutions ranged from using national data-sources more, that might have longer overlapping time information, to using more detailed education information.

Rachel Beaven (Cambridge Econometrics) discussed the development of the macroeconomic forecast within the E3ME model of the Cedefop Skills project. She introduced the inputs and key drivers of the

model and how external data and information is included into the modelling process. There are in total three scenarios which can be used for sensitivity analysis. Within the scenario the key drivers of change are related to the sectors used within the model. The discussant, Anna Elisabeth Thum (CEPS), compared the approach to that of NEUJOBS. Within NEUJOBS, rather than using a specific baseline scenario, they provide six scenarios with overall more variation in the underlying assumptions. This allows for a more varied input in assumptions and hence also more variety in the scenario outcome. Using their micro-simulation model, also behavioural aspects can be taken into account. The general discussion focussed also on the development and influence of the participation rates within countries as well as on the inclusion of information on developments on statutory retirement ages and their expected changes.

Ben Kriechel (Economix Research & Consulting in Munich) presented the approach towards imbalances and imbalance indicators in the Cedefop project. He presented the basic underlying principles of the imbalances, and the developed indicators that capture the amount of change and imbalances that are predicted by the model. New developments on the inclusion of wage and field of study data were introduced. Konstantinos Pouliakas (Cedefop) acted as the discussant, and acknowledged how challenging reconciling projected supply and demand estimates are. He suggested considering a simplification of the concepts and indicators to allow for an easier accessibility of results. Further recommendations were in analysing the possibilities to include further information (vacancies, wage changes, tasks within occupations) using new data sources such as employer surveys, vacancy information and administrative information. There was also a general discussion on issues of measuring and quantifying imbalances. The inclusion of flow information (replacement demand; transitions) was discussed as well as the changes in qualification structure within cohorts of workers.

Massimiliano Tancioni and Elton Beqiraj (FGB) presented the FGB Labour Market model. It is based on a core Dynamic Stochastic General Equilibrium (DSGE) model, with satellite components that translate the outcomes into those of interest. They showed how their model can be calibrated to provide results that are very close to those of the E3ME model, while its set-up allows for easy and consistent policy evaluations (impulse response analysis). They then showed this application in the context of the Italian Youth employment projects. The discussant, Erez Yerushalmi of the Warwick Institute for Employment Research, pointed out the advantages of having models that allow for business cycles and consistent evaluation of various changes in the policy settings (labour market subsidies; social contribution/fiscal policy; separation rate). It is, however, critical to understand that these have to be based on macro (affected) policies, as the effect comes from the DSGE macro model that is translated further into the satellite modules, without a feedback from satellite to core. This GE approach is good in top down simulations within the “core” model, imposing on the “satellite” component. However, a bottom up (micro-level) approach from the “satellite” towards the “core” cannot be assessed using this framework. The general discussion focused on how particular policy evaluations might lend themselves better to evaluation within the model than other issues that could not be translated into shocks to the variables of the macro model.

Stephan Humpl (3S) presented his findings in 'Combining Qualitative and Quantitative Trend Information'. Based on expert interviews in six countries (Austria, Ireland, Germany, Finland, Slovakia and Denmark), he analyzed various approaches of combining qualitative and quantitative information for labour market information systems. He concentrated on the aspects of how the

results are produced (methodological approach) and the potential transfer of national approaches towards other countries. A further interesting aspect was in the importance of the presentation of results (presentation interfaces and/or the way of publication). Discussant was Sigrid Rand, secretary of the European Network on Regional Labour Market Monitoring and senior scientist at the Institute for Economics, Labour und Culture (IWAK) in Frankfurt am Main (Germany). She emphasized that data generation and provision is often in a separate sphere from informed usage of labour market intelligence. In such a construction, winning and committing actors as frequent users can be in a very challenging position. She stressed the importance of introducing the data to the users. She suggested that the best way is to build on regional or local networks of actors. These networks firstly incorporate relevant and often diverse interests within the region or at the local level. The lesson learnt from this is that the improvement of data usage needs a systematic and frequent involvement with decision-makers in regions and at the local level. For the regional level, data available has often a too high level of aggregation. Due to data restrictions in small spatial units, especially in the case of prognoses, one can use only data on an aggregated level. If one wants to interest local or regional users in this, he has to translate the information to the level of practice. A general discussion on users of skill forecasting information and the presentation of results ensued.