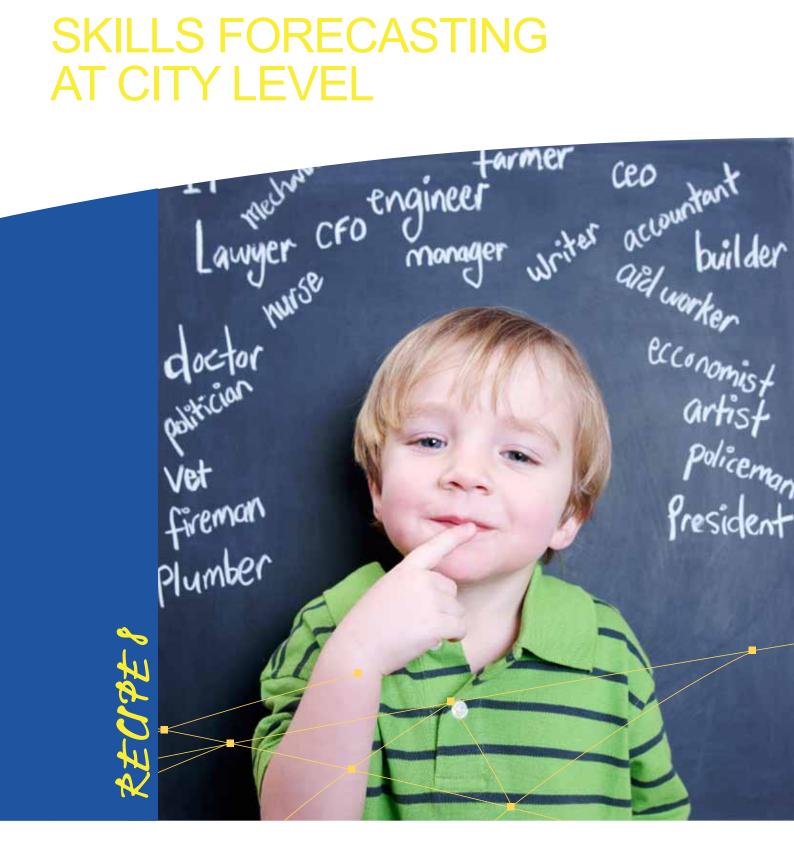# SKILLS FORECASTING
AT CITY LEVEL

RECIPE 8

Recipe eight

SKILLS FORECASTING AT CITY LEVEL

The occasion: In line with Europe 2020, the European Employment Strategy seeks to create more and better jobs throughout the EU, arguing that "it is essential to enhance human capital and employability by upgrading skills. But upgrading skills is not enough: ensuring a better match between the supply of skills and labour market demand is just as necessary".

As part of this, the EU Flagship Initiatives – An Agenda for New Skills and Jobs sets out the following priorities:

- Better functioning labour markets
- A more skilled labour force
- Better job quality and working conditions
- Stronger policies to promote job creation and the demand for labour

A number of initiatives are being delivered at EU level to try and achieve this, including:

- Forecasts by the European Centre for the Development of Vocational Training (CEDEFOP)
- Analysis of trends at sectoral level and the development of sectoral skills councils
- Development of a European Framework for key competences for lifelong learning – which defines the eight key competences that everyone should have to thrive in a knowledge society
- Ongoing research with the International Labour Organisation (ILO) and the Organisation for Economic Cooperation and Development (OECD)
- Work on ESCO - Classification of European Skills/Competences, qualifications and Occupations which will describe the most relevant skills, competences and qualifications of occupations
- Development of a European Qualifications Framework – which defines qualifications on the basis of learning outcomes so everyone can understand what they mean in practical terms
- EU funding – via the European Social Fund and the Lifelong Learning Programme
- The University-Business forum – encourages dialogue between business and education and training providers

Many cities across the EU are experiencing a paradox in the labour market with high rates of unemployment alongside talent gaps and unfilled vacancies due to skills mismatches. Cities therefore need to consider how to act and react in the rapidly changing and competitive global economy. New growth sectors are skills hungry and evidence shows that most highly skilled economies have higher productivity and GDP per capita. Many also believe that skills are the raw material of advanced economies, whilst emerging economies are catching up fast in terms of their rapidly improving skills base. Skills forecasts are an important part of this picture as they allow cities to quantify future skill demands and facilitate evidence-based dialogue and policy making.

But what are the secret ingredients that help you to forecast the skills that employers will need in the short, medium and long term? Even if you are able to do this, how would you then use the findings to help the workforce develop these skills? Are there any special utensils that can make things easier?

Key Ingredients of an effective skills forecast:

Do you and your partners have the following ingredients in your food cupboard? If so, you are well on the way to cooking up an effective approach to forecasting the skills needs of your current and future employers which, if followed up with effective action, will reduce unemployment and help your city to grow.

Here is a list of ingredients to help you prepare your mixture and ensure that your skills forecast is cooked to perfection and ready to contribute to your cities' smart, sustainable and inclusive growth.

Ingredients to add to your shopping list	✔	✘
Long term and integrated approach which incorporates quantitative and qualitative research methods e.g. skills forecasting model, sector studies, employer surveys, qualitative consultations and desk review of existing literature		
Up-to-date information and data on the <u>demand</u> side of the labour market: <u>Historic data</u> • Employment by sector • Occupation structure of sectors • Skill and subject structure of sectors and occupations • Replacement demand of sectors and occupations, i.e. 'churn' in jobs <u>Forecast data</u> • Employment by sector, occupation and skill level – including for existing firms and firms of tomorrow • Replacement demand		
Up-to-date information and data on the supply side of the labour market: <u>Historic data</u> • Working age population and skills structure • Education enrolments and qualifiers by different level and subject areas and destinations of students • Migration and commuting		
Understanding of where to find this data – census, labour market surveys, national and regional statistical offices, Eurostat, existing regional and national forecasting models		
Capacity to ask for the data effectively and to "speak the right language" with statistics experts		
A detailed and realistic implementation framework for how objectives will be achieved including joint activities, budgets, responsibilities, timescales, etc.	✔	
Consideration of benchmarking your city against others to help anticipate the future shape of your labour market	✔	
Understanding of the limitations of different approaches – e.g. models are data hungry, data may be unreliable / out of date; qualitative approaches can be biased / lack quantification		

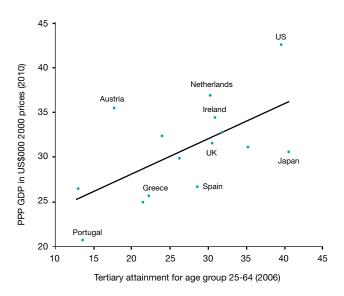|		
Development of different assumptions and scenarios to be used in your skills forecasting exercise		
Development of results which are linked to / can be easily compared to e.g. regional and national skills forecasts		
Robust analysis of demand and supply		
Clear methods for sharing and using the results of your skills forecasts to influence education and training provision in your city		
Acknowledgement that replacement demand (i.e. the demand for skills due to people leaving the labour market e.g. through retirement or sickness) creates flows which are much more influential than sectoral shifts		
Where appropriate, an ability to operate at functional labour market level which may not account for administrative geographical boundaries		

Utensils:

So now you are clear about the ingredients, what utensils do you need to blend them together and effectively develop an integrated approach to skills forecasting?

A SHARED UNDERSTANDING OF WHAT SKILLS ARE is a vital tool if you are going to get the consistency of this recipe right. Cities need to consider this with other key stakeholders and particularly employers and education and training providers. For many, skills comprise not only formal qualifications but soft skills, years of experience, non accredited workplace skills and "attributes that make employees effective and productive in their roles". The EU Framework for Key Competences includes competences in 'traditional' subjects, such as mother tongue literacy, numeracy, knowledge of foreign languages, science and IT skills alongside other skills, such as learning to learn, social and civic competence, initiative-taking, entrepreneurship, cultural awareness and self-expression.

Perhaps not surprisingly one of the most important utensils is **RECOGNITION OF WHY SKILLS** MATTER. Across the EU, economies are becoming more diverse and city economies nowadays are rarely dominated by a small number of industries for which skill needs are well established and understood. Skills needs differ significantly by sector. By anticipating future skills needs, cities can consider how to meet these needs and/or limit the extent of skill shortages and mismatches. This helps them to avoid missing out on investment or losing existing jobs to other locations due to labour and skill shortages. Skills and education / training systems can be better aligned to the needs of employers and unemployed (young) people can make more effective career choices.

Source: OECD, Oxford Economics

ENGAGING KEY STAKEHOLDERS THROUGHOUT THE PROCESS is also essential. Cities need to ask stakeholders what information would be useful before designing a tool. They should think broadly about stakeholders and bring them together in a long term collaborative framework. Employers, education and training institutions, employment agencies, students and unemployed alike should engage in discussions. Incorporating feedback from these stakeholders can improve forecasts and enhance credibility. A tool produces evidence which feeds into discussions and brings focus and purpose.

Developing **LOCAL ABILITY TO ACT AND REACT TO THE RESULTS** is also important. The information from skills forecast needs to be shared effectively with stakeholders. Key messages should be presented in an user-friendly way and consider, for example, if there will be skill shortages or surpluses in the future. In which sectors? What will the impact be? What should be done differently? It is also important to warn stakeholders of caveats of skills forecasting. They are not 100% accurate and come with all sorts of health warnings. They also need to be regularly updated – the economy can change quickly, especially at city level.

Good food guide listing:

Best practice in skills forecasting at country, regional or city level can be hard to define as it depends on the specific content, with different approaches suiting different situations. All approaches undertaken correctly can be best practice whereas the right approach done badly is not best practice. The key thing when considering good practice is the importance of getting the balance right between the different approaches. In addition, even the best practice in skills forecasting is only useful if it is shared with key stakeholders, considered in context and influences decision making, policy and practice.

As outlined above, part of the New Skills for New Jobs initiative is the development of skills forecasts by CEDEFOP. With the introduction of the Single European Market, the European labour market has become a reality. The identification of comprehensive, consistent and comparable information on the occupations, skills, competences and qualifications needed by employers is an essential tool. The first pan-European forecast of skills demand providing consistent and comprehensive medium-term projections of employment and skill needs across Europe until 2015 and 2020 was published by CEDEFOP in 2008. Further work has been done to produce regular forecasts integrating skills supply and demand. Understanding the demand for skills is just the first stage and needs to be followed up in this way with supply side forecasts. Only by doing both can mismatches be identified. These EU wide forecasts have become one of many pieces of information that contribute to a more detailed, consistent and conceivable picture of the economy

Takeaway menu: if you like the sound of this recipe and want to try it in your kitchen you can find lots of useful equipment to make your life easier at:

www.cedefop.europa.eu

http://ec.europa.eu/education/lifelong-learning-policy/doc42_en.htm

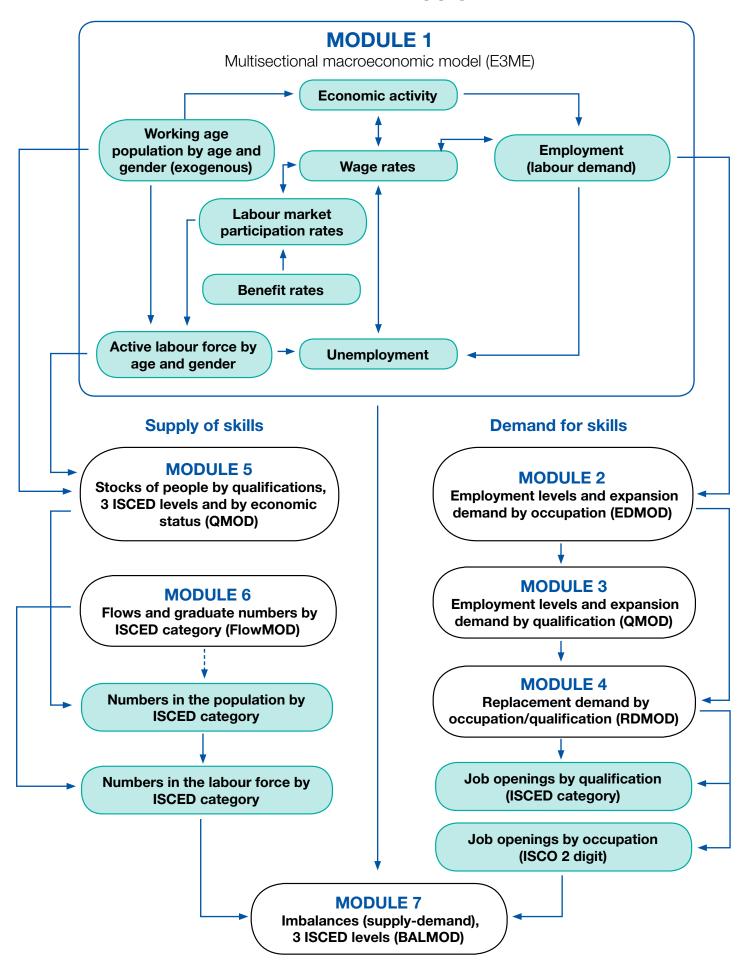http://ec.europa.eu/education/lifelong-learning-policy/doc44_en.htm

http://ec.europa.eu/education/higher-education/doc1261_en.htm

www.ilo.org/skills/lang--en/index.htm

www.oecd.org/cfe/leed/forum/partnerships/

www.oef.com/

Serving tip: *turn the page for an example of how Cherbourg, one of ESIMeC's French partners, is taking a proactive and integrated approach to developing skills forecasting and training.*

Conceptual framework of modelling the demand for and supply of skills

MODULE 1
Multisectional macroeconomic model (E3ME)

Economic activity

Working age population by age and gender (exogenous)

Wage rates

Employment (labour demand)

Labour market participation rates

Benefit rates

Active labour force by age and gender

Unemployment

Supply of skills

MODULE 5
Stocks of people by qualifications, 3 ISCED levels and by economic status (QMOD)

MODULE 6
Flows and graduate numbers by ISCED category (FlowMOD)

Numbers in the population by ISCED category

Numbers in the labour force by ISCED category

Demand for skills

MODULE 2
Employment levels and expansion demand by occupation (EDMOD)

MODULE 3
Employment levels and expansion demand by qualification (QMOD)

MODULE 4
Replacement demand by occupation/qualification (RDMOD)

Job openings by qualification (ISCED category)

Job openings by occupation (ISCO 2 digit)

MODULE 7
Imbalances (supply-demand), 3 ISCED levels (BALMOD)

Source: Oxford Economics

Serving tip

Cherbourg is a medium sized city of around 90,000 people located on the coast in south west Normandy in France. It has five different ports upon which its economy has traditionally depended. As traditional industry has declined, the city is focusing its efforts on diversifying the economy and the development of industrial knowhow, building on the strong foundations of maritime and nuclear industry which together employ around 14,000 workers. Activities include:

- Facilitating cluster development to help companies to network, share information and develop a combined approach to promotion and marketing;

- Promoting new sectors e.g. 3D graphics, creative industries, maritime products and others;

- Providing economic development services e.g. business space, facilitation of links with higher education and research, business grants, access to finance advice.

Cherbourg is also home to a range of initiatives which together aim to forecast skills needs in advance and help training and education providers and citizens to adapt existing skills and develop new skills in anticipation of employer demand. Through ESIMeC it hopes to embed the theme of workforce development into its economic development offer.

Ingredients

INITIATIVES WHICH MATCH SKILLS WITHIN THE WORKFORCE WITH THE NEEDS OF EMPLOYERS

Across the city a range of linked initiatives have been developed to help broker the demand and supply sides of the labour market, many organised by the local Technopole, which has 6 staff and is funded by the region, the city and the Conseill Général de la Manche and is run by a board incorporating representatives from the funders, professional associations and the university. Some of the individual initiatives are summarised here:

Job and training forum – This annual event, "Carrières 2000", helps unemployed people to find work and training. It attracts 7,000 visitors and takes place in the city's Maritime Museum (Cité de la Mer). Sixteen fields of activity are incorporated in 500 exhibition stands. 30 buses bring students from across the region to learn about 200 kinds of jobs over a 3 day period. Other forums are organised each year, mostly dedicated to jobseekers.

Industry Week – Each year one week is designated "industry week" and a range of conferences and events are organised to help local companies showcase employment opportunities in their sector to people seeking work. Company visits and training tasters are also organised. The overall aim is to encourage young people to understand the local industrial / employment base.

Speed dating – The Technopole runs regular speed dating sessions focusing on specific skills / sectors. During the course of one day, short 15-20 minute meetings are arranged between companies and jobseekers. This links companies wanting to improve their workforce and students looking for internships / apprenticeships and jobs.

Partnerships with companies and clusters – There are 14 clusters in the region in a range of sectors. The Technopole works with individual companies and clusters to help match their skills needs with skilled university students and graduates. This helps companies to access the higher skills workers they often need.

Technological Network – Resotec aims to link academic skills with industrial needs in specific areas of industry and offers training and support to companies to help them find skilled workers in different areas of technology with low levels of resource investment.

New Apprenticeship Programme at ESIX Normandie – ESIX has recently introduced a new apprenticeship programme which helps employers to find skilled workers, and students to find work in high quality jobs. The programme links with the university's industrial production and nuclear operations courses and offers a two-way learning system which provides students with both academic and practice knowledge as well as direct work in a local company.

STRUCTURED PLAN FOR ADAPTING AND USING TRAINING AVAILABILITY

Cherbourg's Maison de l'Emploi et de la Formation (Employment and Training Agency) (MEF) leads the city's economic development forecasts which contribute to the development of local employment both on the demand and supply side. In 2008 MEF realised that businesses were finding it difficult to attract skilled workers and understand their requirements in this area. Alongside this there was a lack of awareness of skills available in the region. At the same time a new nuclear power processing plant was under construction and 3000 workers would be required in this sector in the short to medium term period. A more structured approach to adapting and using training availability was required and was developed. In the new system, employers are regularly asked for information on the jobs they are finding it hard to fill. MEF then maps out what these jobs are and looks at whether training is available to help with the skills requirements. Where appropriate, new training is developed so that people are provided with skills training which meets the specific requirements of the role. MEF has created job data sheets / specifications for 20 different occupations. These describe the role / job, outline the skills required and identify what training is available locally for this occupation. This has been collated into a booklet which looks at the "industrial jobs of tomorrow".

Cook's tip: *"If you are aware of the needs of companies, training can be improved in order to match skills with the requirements of the jobs available. By taking that into account, skill forecasting is truly a key tool for the economic development of medium sized cities."*

Anne-Claire Perrot, Skill Forecasting Manager, Training and Employment Agency, Cherbourg.

Secret ingredients – herbs & spices

- Traditional employment sectors form the foundations of a modern day approach
- Proactive approach to employer engagement
- Multi-stakeholder approach with different agencies taking a lead on different issues and working together where appropriate
- Strong links between vocational and academic education and training providers
- Coordinated approach to economic diversification

Takeaway menu:

http://www.cuc-cherbourg.fr/Pages/accueil.htm
http://www.technopole-cherbourg.com
http://www.mef-cotentin.com
http://www.resotec.fr
http://www.unicaen.fr/esix