



# SKILLS ANTICIPATION: LOOKING TO THE FUTURE

Skills anticipation can be a powerful policy tool  
for decision-making

Things change. It would be helpful to know how the labour market will be transformed by technology, climate change and demography. Individuals would benefit greatly from knowing what type of education and training to follow; enterprises would know the skills they need; and policy-makers could adapt education and training systems to new skill needs.

Labour market and skills intelligence (LMSI), that provides information on current and future labour market trends and skill needs can help people, enterprises and policy-makers make informed decisions. Appreciation of LMSI's usefulness is growing. It is a European Union (EU) policy priority, as outlined in the European Commission's *New skills agenda for Europe* and a global one in the 2017 update of UNESCO's Shanghai Consensus <sup>(1)</sup>. But collecting, analysing and using LMSI in policy-making must be based on processes, supported by government authorities, embraced and enriched by stakeholder input and commitment.

For Cedefop, skills anticipation and matching is the process of producing and building on available LMSI to achieve a better balance between skill supply and demand, to promote economic development through targeted skills investments by individuals, countries, regions, sectors or enterprises. Skills anticipation is not manpower planning: it does not try to predict how many plumbers we will need in 2025. Skills anticipation examines how labour markets are developing and, consequently, how jobs, skills and learning needs are changing. It is not a crystal ball and makes no claim to being able to predict skills evolution with any certainty, but skills anticipation can

signal current and possible future skill mismatches and inform decisions on how to address them.

Cedefop's overviews of skills anticipation highlight that all Member States (box) are establishing new and/or expanding existing skills anticipation activities and strengthening their use in policy-making.

## Skills anticipation in policy-making

Effective skills anticipation and matching, based on high quality LMSI, can link education, training and employment. It can encourage partnerships and cooperation to deliver VET skills and qualifications relevant to the workplace and respected by employers.

Consequently, Member States use skills anticipation at national and regional levels to support many employment and education- and training-related

CEDEFOP OVERVIEWS OF SKILLS ANTICIPATION AND MATCHING  
APPROACHES IN EU MEMBER STATES, 2017

Cedefop's overviews examine skills anticipation approaches in all 28 EU Member States.

They show differences and similarities in skills anticipation methods and tools, governance structures, dissemination and its use in policy-making. The overviews explore current approaches to skills anticipation, giving insights and possible policy lessons on how to get the best out of a potentially powerful policy tool.

Download them from the Skills Panorama analytical highlights at:

**SKILLS PANORAMA**  
Inspiring choices on skills and jobs in Europe 

(1) <http://www.cedefop.europa.eu/en/news-and-press/news/cedefop-presents-cooperation-qualifications-frameworks-tvet-conference?NL=72>

TABLE 1. EXAMPLES OF POLICY AREAS SUPPORTED BY SKILLS ANTICIPATION, EU MEMBER STATES

Policy area	Member State examples
VET curricula and course design	Bulgaria, Denmark, Germany, Estonia, Greece, France, Italy, Cyprus, Austria, Poland, Slovakia, Finland
Funding and allocation of student places	Hungary, Portugal, Romania, Finland, Sweden
Labour market training policies	Belgium, Bulgaria, Germany, Ireland, Spain, Latvia
Career guidance	Germany, France, Croatia, Italy, Lithuania, Luxembourg, Netherlands, Austria, Finland, UK
Developing occupational profiles and standards	Belgium, Slovenia
Job-matching and services for job-seekers	Denmark

Source: Cedefop

policies (Table 1). Some use skills anticipation to support other policy areas: economic policy in Latvia and the transition to a greener and digital economy in Ireland. Government agencies and public employment services are not the only users of skills anticipation. For example, in Germany, France and Austria, social partners use skills anticipation to inform decision-making at sector or enterprise level.

### Skills anticipation methods

Skills anticipation methods vary across the EU; the main ones are skill assessments, forecasting and foresight. Data sources also vary; methods used can influence the data available and vice versa. Some methods are better at describing the current skill supply and demand situation; others at providing long-term projections. However, the various methods means that skills anticipation can shed light on short-, medium- and long-term skill issues and support policy-making at macro, meso and micro levels.

All Member States, except the Czech Republic, Cyprus and Hungary, use skill assessments or skill audits at national and/or, as in Sweden, regional level. They can provide a comprehensive analysis of current skill needs and possible implications of past trends for the future. Sometimes a sectoral focus is included, such as in Estonia's system of labour market monitoring and future skills forecasting (OSKA).

Many Member States also use quantitative skills forecasts. These are usually based on economic models that make assumptions about the many factors influencing the labour market to estimate future developments across sectors, occupations and skills. To be effective, quantitative forecasting needs good quality labour market data with lengthy time series. Building the models and interpreting results

also demands time and expertise. Member States, such as the UK, use quantitative skills forecasting at national and regional level. Skills forecasting models are well-established in Germany, Ireland, the Netherlands, Finland, Sweden and the UK. Others, such as Greece and Estonia, are working to improve or establish new forecasting models and infrastructure. Data are available from Cedefop's medium-term skills forecasts for Member States currently lacking national models, for example Malta.

Qualitative foresights of long-term skill trends to identify implications for future policy-making are less frequently used in Member States. Methods and data sources vary from expert reports to Delphi techniques; all require high-quality inputs from, and engagement of, experts and stakeholders.

Other skills anticipation approaches include employer and employee surveys and tracer studies of VET or higher education graduates. The Netherlands monitors the transition into work of school-leavers from most parts of its education system. Ad hoc statistical exercises are also undertaken, frequently focusing on a particular sector.

All methods have strong and weak points. Best practice combines quantitative and qualitative elements that suit national characteristics such as governance structures and policy goals. There is no single best approach; a mix of methods and tools can provide better results. However, multiple activities, methods and time frames can be difficult to coordinate. They can fragment and hinder the value and use of skills anticipation data. All methods rely on quality data; poor statistical infrastructure, a difficulty in some Member States, undermines the effectiveness of skills anticipation. Another constraint, notably of skills forecasting, is using imperfect proxies,

such as levels or types of qualifications and occupations, to measure skills. A job may be in demand but technology, for example, may have changed radically the skills needed.

## Effective skills anticipation

The extent to which skills anticipation findings can influence individuals' and policy-makers' decisions, depends on establishing effective skills governance.

Skills governance matters; many diverse policies can be affected by skills anticipation outcomes and many different stakeholders involved. Each Member State's traditions, practices and administrative structure shape its approach to skills governance. For example, the regional element is strong in Belgium and Denmark; others, such as Bulgaria, Ireland, Greece and Cyprus have more centralised approaches. Labour and/or education ministries often take or share the lead in skills anticipation activities; public employment services also frequently have a key role. The leading authority strongly shapes the focus, policy priorities and even the time frames (short-, medium- or long-term) of skills anticipation.

No single governance model can ensure the effectiveness of skills anticipation as a policy tool, but some principles can help coordinate actors and target groups and processes. These include:

- clear policy aims;
- use and ownership of results by all stakeholders;
- dissemination to ensure wide-ranging impact;
- sustainable financing.

Members States generally see improving alignment of skill supply and demand to reduce skill mismatches as an aim of their skills anticipation approaches. In the UK, for example, skills anticipation is part of a policy goal to create a market-like system for training and skills. Employers and learners use information to decide on the skills they need. These decisions are translated into demand, which the market meets through improved supply.

Comprehensive skill strategies that integrate skills anticipation can help exploit its potential. Strategies can be national, such as Ireland's *National skills strategy 2025*, or regional, such as the *Strategie 2025* for Brussels in Belgium. But integrating the various components of skill formation, such as education and training (including higher education), qualifications and accreditation, active labour market policies and

guidance, into an overall strategy is not easy; such broader strategies are lacking across the EU.

Stakeholder roles differ significantly across Member States, ranging from systematic and active participation in all stages of design, collection and use of skills anticipation outputs to a consultative role or just receiving the results.

Where social partnership is well-established, trade unions and employer associations usually have an integral role. Other key stakeholders are VET providers and sector organisations; experts usually have a consultative rather than decision-making role. Social partners are closely involved in Luxembourg, which has a strong tradition of *concertation sociale*. Hungary also involves social partners in discussions on skill needs, but employers tend to be the most influential stakeholder group. Member States such as Denmark, Germany, Spain, France, Luxembourg, the Netherlands, Poland, Finland, and Sweden are characterised by wide stakeholder involvement, including enterprises, employer organisations, trade unions and sectoral bodies, using various collaboration models. For example, in Ireland the expert group on future skill needs operates under a social partnership model. In contrast, in the UK, stakeholders are co-opted on an ad hoc basis to various skills anticipation initiatives.

Formal participation in skills anticipation does not guarantee a meaningful contribution: the degree of involvement and ownership determines the quality of stakeholder engagement. In Germany there are concerns that the many skills anticipation methods pose coordination problems. But cooperation between the many stakeholders remains strong; they accept that interests vary and, importantly, use the findings in policy-making. Ensuring stakeholder coordination and consensus is at the core of Luxembourg's approach. In Portugal, stakeholders help develop strategic objectives for skills anticipation. In the Czech Republic, stakeholder involvement is ad hoc and indirect; 29 sector councils have been set up to encourage participation in decision-making on labour market issues, including skills anticipation.

Effective skills anticipation depends on dissemination of outputs. Use of skills anticipation data and intelligence by others, and not just the commissioning agency, is important. Most Member States disseminate skills anticipation results to a broad audience through mass media outlets including

reports, journals, websites, TV, newspapers, seminars and other events. Ireland, Lithuania and Luxembourg, for example, have web-based skills portals. The UK's *LMI for all* online data portal makes data freely available through a programming interface for use in websites and applications.

## Reaching out and financing

Outputs must be interpreted and presented in digestible and attractive ways to each target group. For example, job search information needs to be local, or have realistic prospects of mobility. Diverse groups such as young learners, older workers and migrants may also need the skills and support to use it. Having user needs in mind, the Skills Panorama aims to make LMSI easily accessible to those who need it throughout the EU.

Effective dissemination of outputs requires formal processes. For example, Poland's main forecasting tool, the Study of human capital (BKL), includes a clear dissemination strategy and a specific budget. Dissemination involves annual reports on the BKL website and cycles of national conferences and regional seminars targeting multiple stakeholders.

Success in skills anticipation also depends on financing; again, approaches vary. In most Member States, government ministries of education or labour are the main funders of skills anticipation measures. Employer associations and trade unions also commission and fund measures such as employer and employee surveys, for example in Greece. In Lithuania, higher education institutions are required to conduct employer surveys to gauge satisfaction with recent graduates. The European Social Fund has supported skills anticipation activities in Member States with emerging and established systems, including Estonia, France, Latvia, Lithuania, Malta, Austria, Romania and Slovenia.

Reliance on financial support of limited duration may set an 'expiry date' for skills anticipation activities. This can lead to fragmented, ad hoc initiatives with limited, short-term effects that are unlikely to build stakeholder trust in the usefulness and sustainability of skills anticipation as a policy tool. All funding approaches have weak and strong points: finance from a single source could be more vulnerable to cuts; finance from several sources may pose coordination problems. The key point is that finance be sustainable.

## Looking to the future

Cedefop's overviews of skills anticipation approaches in the EU, reveal national developments and good practices that can inspire stakeholders from other countries. They may encourage new initiatives and methods of collaboration, both by governments and other stakeholders, including social partners.

While Member States are investing in their skills anticipation and matching capacities, finding solutions to current and future policy challenges requires deeper and more focused analysis. The complexity of skills anticipation and its governance makes it necessary to delve into country examples to find answers and meaningful and actionable steps.

Cedefop's project *Governance of skills anticipation and matching systems: country reviews* <sup>(2)</sup>, aims to help participant Member States overcome challenges to improve their skills anticipation and matching systems. National stakeholders are in the driving seat, identifying priority areas for improvement and providing valuable insights. In 2016, Cedefop worked with Malta and Iceland; for 2017-19 Bulgaria, Greece, Estonia and Slovakia have invited Cedefop to work with them.

Working with national authorities and stakeholders, including social partners, Cedefop provides technical expertise, methods and tools to promote stakeholder cooperation and consensus, to help build a path for developing skills anticipation and matching in their country.

<sup>(2)</sup> <http://www.cedefop.europa.eu/en/events-and-projects/projects/assisting-eu-countries-skills-matching>



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