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SKILLS NEEDS IDENTIFICATION AND SKILLS MATCHING IN SOUTH EASTERN EUROPE

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The ETF hopes the specific findings of this analysis will further inspire the strenuous efforts of those working in the above-mentioned institutions and organisations to make skills development processes in their countries match the needs of tomorrow's labour markets, economies and societies.

[1] This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo declaration of independence, hereinafter 'Kosovo'.

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1. INTRODUCTION

Modernising education and training systems so that they can fulfil their role in preparing current and future workforces for the demands of the economy requires the collection and dissemination of information about the correspondence, or matching, between the skills supplied and those demanded by the labour market. Skills mismatch is a continuing challenge in all types of country, whether they are advanced, transitional or developing economies, and hinders their future economic and social development.

Most of the ETF's partner countries are confronting profound economic restructuring, technological change and the pressures of economic competition. In these specific economic contexts, coupled with demographic and other social challenges, efforts to identify and provide the right mix of skills to meet rapidly changing labour demands are essential. Early warning systems, skills needs identification and skills anticipation processes, if properly used, can contribute to informing actors in the spheres of education and the labour market on the need to adapt their skills development policies.

This analysis provides an overview of the current practices and mechanisms on skills needs identification and matching in the six South Eastern European (SEE) countries: Albania, Bosnia and Herzegovina, Kosovo, the former Yugoslav Republic of Macedonia, Montenegro and Serbia. It complements similar stocktaking activities that have taken place in the six Eastern European countries (Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine)[2]. This is in line with the initiative the ETF has started in collaboration with the Organisation for Economic Cooperation and Development (OECD), the European Centre for the Development of Vocational Training (Cedefop) and the International Labour Office (ILO), to identify and support effective strategies among countries in collecting and using skills needs information.

Under this joint initiative, a common instrument, entitled *Questionnaire on assessing, anticipating and responding to changing skills needs* (the standard questionnaire, see Annex 1), was designed for all the countries and sent to the ministries of Labour and Education (including specialised/executive agencies), employers' associations, trade unions and other stakeholders in each country. The survey was conducted in the SEE countries from January to April 2015.

This paper is based on three types of source.

1. National-level information was gathered from key policy actors and stakeholders (representatives of the ministries of Labour and Education, key government agencies, trade unions and employers' associations and other stakeholders) using the standard questionnaire. In total 49 completed questionnaires were gathered (Table 1.1).

2. The background national reports were provided by experts for five out of the six countries (Albania, Bosnia and Herzegovina, Kosovo, Montenegro and Serbia), and additional background information on the economic, institutional and policy context in each country.

3. Background information on economic, labour market and education statistics was provided by the ETF's statistical team, drawing on national and international sources.

[2] The resulting cross-country report *Skills needs identification and anticipation policies and practices in the Eastern Partnership region* is available on the European Commission website. Last accessed 28 October 2016 at: http://capacity4dev.ec.europa.eu/hiqstep/document/skills-anticipation-and-matching-eastern-partnership-countries-study-report-en

TABLE 1.1 NUMBER OF COMPLETED QUESTIONNAIRES

	Ministry of Education	Ministry of Labour	Trade unions	Employers' associations	Other stake-holders	Total per country
Albania	2	2	2	1		7
Bosnia and Herzegovina	7	3		3	1	14
Former Yugoslav Republic of Macedonia	1	2		1		4
Kosovo	2	1	1	2	2	8
Montenegro	3	3	1	2		9
Serbia	2	1	2	1	1	7
Total	17	12	6	10	4	49

The paper also draws upon previous work and initiatives of the ETF and SEE countries relevant to this area, such as the regional project FRAME: Skills for the Future (2013–14)[3] and the Torino Process (2014)[4]. The ETF FRAME project supported pre-accession countries during 2013–14 in their work to build on the sector approach in human resource development and define an integrated, future-proof vision on skills development policies (using a foresight technique). The ETF Torino Process is a biennial evidence-gathering process of stocktaking and progress assessment in the field of vocational education and training (VET).

The report also draws upon the ETF's innovation and learning project 'Anticipating and Matching Demand and Supply of Skills' (started in 2011), the ETF position paper on skills anticipation and matching (2012), and the methodological guides by the ETF, Cedefop and the ILO to anticipating and matching skills and jobs adapted to the context of transition and developing countries[5].

The report provides an overview of capacities and practices aimed at identifying skills needs and reflecting them in education and training delivery, employment and in other policy areas that would support skills matching.

The current strategic goals in the SEE region are ambitious. The countries have committed themselves, in their economic reform programmes (2015 and 2016 cycles), to the reform of education and training policies and to making them more responsive to labour market needs. The South East Europe 2020 Strategy[6] pursues similar priorities on education and employment. All the national education and employment strategies strive towards a more efficient match between economic demand and skills (workforce) supply.

1.1 Definition of context: skills needs identification and matching

There is renewed interest among policy makers worldwide in identifying future skills needs. Policy makers want to take decisions on labour market policy and education provision that are evidence-based. In addition, many countries understand that information on future skills needs provides the

[3] See www.etf.europa.eu/web.nsf/pages/Frame_project

[4] For more information and country and regional reports, see www.etf.europa.eu/web.nsf/pages/Torino_process

[5] Six guides to anticipating and matching skills and jobs were developed jointly by the ETF, Cedefop and the ILO (using labour market information; developing skills foresights, scenarios and forecasts; working at sectoral level; the role of employment service providers; carrying out establishment skills surveys; and carrying out tracer studies).

[6] See www.rcc.int/pages/62/south-east-europe-2020-strategy

stakeholders in labour markets and education with the means to adjust to potential future imbalances. Finally, individuals – firms or individual workers – can take decisions based on this information that should lead to more efficient labour market outcomes. Overall, this should result in stronger education and training policies, an improved and better focused build-up of skills, and enhanced competitiveness and productivity in the national economies.

One of the problems skills needs identification aims to address is the avoidance of skills mismatch. Skills mismatch is by no means a new phenomenon. In 1976 Richard Freeman's book *The overeducated American* was the first to touch on the issue of individuals working in jobs below their level of education. Ever since, there has been a lively debate as to the causes and consequences of skills mismatch, and overeducation in particular, and the body of literature has been growing. Overeducation signals excessive investment in education, which are costly to society, while undereducation – where people work in a job above their educational level – signals underinvestment in human capital, which can result in productivity loss. Studies on over- and underqualification7, for instance the wage and welfare effects of skills mismatches (Hartog, 2000; Sloane, 2003; Leuven and Oosterbeek, 2011), show that overqualified workers suffer from wage penalties relative to workers whose education is better matched to their jobs, although they earn more than others at their respective job level if they are overqualified.

In general, there is currently a tendency towards people attaining higher-level education in all economies, including in the SEE countries. This trend can lead to overeducation if supply does not relate to actual demand. In general, it is expected that the increase in the number of people with higher qualifications grows broadly in line with the expected trend in skills demand, at least in advanced economies. It is the increase in the highly educated workforce that forms the necessary basis for the development of a knowledge-based and innovative economy.

However, in the context of countries undergoing transition processes or structural changes either in the education system, the economy, or both, it is by no means true that higher education will always be the panacea that enables the individual to escape poor labour market conditions. The skills supplied should match, at least broadly, the types of skill that are demanded in the current and future organisation of work in a country or region. Even among the Member States of the European Union (EU), although there is a tendency towards increasing demand for, and supply of, more highly educated workers, there is also a strong demand for workers with medium-level (including VET specific) qualifications[8]. A strong driver is the replacement demand which measures those workers who need to be replaced due to outflow, usually of older workers, from the workforce.

Qualitative skills mismatches can be short-term or long-term (Sattinger, 2012). Short-term qualitative mismatch is a temporary mismatch resulting from matching under conditions of imperfect information. Not all workers find adequate jobs for their qualifications, nor do all firms find the perfect candidate. The policy implications of these mismatches would be that the matching process should be organised more efficiently, by making information more transparent and accessible. Long-term qualitative mismatch is a more structural mismatch. It is the result of changes in the needs of labour markets in terms of the qualifications or skills demanded which are not, or are only poorly, reflected in the results of a worker's education, i.e., their qualifications. Here the policy implication would be the need to anticipate such long-term mismatches and to adapt education policies to react to shifts of this kind.

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[7] In this context, the term qualification refers to an official record of achievement such as a certificate or diploma, recognising the successful completion of education, training or an examination.

[8] For the EU-28 forecast, see Cedefop web page 'Forecasting skill demand and supply' at: www.cedefop.europa.eu/en/events-and-projects/projects/forecasting-skill-demand-and-supply; for a recent briefing note (Cedefop, 2015), see www.cedefop.europa.eu/en/publications-and-resources/publications/9098

Mismatches can also be the result of institutional settings, resulting in labour market rigidities (e.g. dismissal laws that lead to reluctance to offer tenured positions), rigidities due to discrimination (Arrow, 1973; Phelps, 1972). Within a country there can also be regional mismatch, when the local skills supply and demand do not match, and mobility or commuting is insufficient to correct these imbalances.

Back in 2008, the EU launched its Skills Agenda with a specific objective to 'promote better anticipation of future skills needs, develop better matching between skills and labour market needs and bridge the gap between the worlds of education and work'[9]. The initiative led to the adoption of many practical measures at the EU level, among them quantitative forecasts performed regularly by Cedefop, analysis of emerging trends at sector level, the development of sectoral skills councils and sectoral studies, and the European Classification of Skills, Competences, Qualifications and Occupations (ESCO). Put forward by the European Commission in 2016, the renewed Skills Agenda for Europe[10] calls the governments of the EU Members States, social partners and other stakeholders to work together and improve the effectiveness of skills intelligence. This implies, among others, improving data availability on labour market outcomes, more reliable information on current and future changes and effective partnerships for skills needs identification, curricula adaptation and better reflection of local and industry needs.

These policy objectives and measures build on the long experience of some European countries and others around the world and can be further used as an inspiration for countries both inside and outside Europe.

The EU reconfirmed in 2015 its high political interest in pursuing gains in the efficiency and effectiveness of education and vocational training systems, among other ways by anticipating and meeting the rapidly changing needs of labour markets with greater agility and accuracy (EU, 2015). The European cooperation process in the area of vocational education and training, known as the Copenhagen Process, was also renewed by means of the Riga Conclusions, adopted in June 2015. The new set of priorities (the so-called 'medium-term deliverables') focuses on increasing the employability of graduates through the provision of labour-market-relevant skills and qualifications, timely adaptation to dynamic skills needs, and an overall rise in the quality and efficiency of VET. The ETF has designed a specific support activity to the candidate countries for analysing, selecting and monitoring of specific priorities within the context of medium term deliverables.

In the context of the SEE countries, a reduction of skills mismatch or the filling of skills gaps might not come to mind as a first priority. High levels of unemployment seem to imply that there is no shortage of workers, nor of skills. However, skills anticipation is not a means to fulfil firms' labour demands; rather, it can provide information about the skills lacking in the group of workers that are currently unemployed. In economies with high demand, skills mismatch can take the form of unfulfilled vacancies, whereas in a low-demand environment it will lead to underemployment or unemployment, which over time will inhibit the growth of the economy towards its full potential. Foreign firms will be reluctant to invest in the absence of appropriate skills, and young people will not learn the relevant skills.

[9] http://ec.europa.eu/social/main.jsp?catId=568

[10] http://ec.europa.eu/social/main.jsp?catId=1223&langId=en

METHODOLOGICAL ASPECTS IN BRIEF

Throughout this paper, **skills needs identification** is understood as **assessment** and **anticipation** of skills needs. Assessment refers to a current or very short-term needs analysis, while anticipation points to the analysis and projection of longer-term skills needs. The term 'skill' can have a variety of meanings. In this context, skills are defined as 'the ability to apply knowledge and experience to complete tasks and solve work-related problems' (Cedefop, 2008). The term therefore refers to cognitive, practical and social dimensions and may also refer to innate talents. In this paper the term 'skills' is used in the most open way possible.

Skills anticipation is a wider approach than 'forecasting'. Forecasts produce information on quantitative aspects of future developments through statistical projections. Anticipation has a wider scope, as it involves the relevant actors' awareness and a will to respond proactively. Anticipatory approaches for the labour market integrate dynamics and set targets in order to tackle skills mismatches; the aim is to shape the future. 'Anticipation may best be described as a mind-set: a move away from a stock-and-flow model of labour with stable characteristics and towards a continuous state of alert and preparedness for future change' (Lassnigg, 2012).

Skills mismatches are viewed as an obstacle to the growth and competitiveness of enterprises and to the advancement of the workforce on the labour market. Mismatch is closely linked with structural unemployment, specifically youth unemployment. The term 'mismatch' denotes different types of skills gap and imbalance such as overeducation, undereducation, overqualification, underqualification, overskilling, skills shortages and surpluses, skills obsolescence and so forth. 'Hence, skills mismatch can be both qualitative and quantitative, thus referring both to situations where a person does not meet the job requirements and where there is a shortage or surplus of persons with a specific skill. Skills mismatch can be identified at the individual, enterprise, sector or economy level' (Anderson, 2010).

Matching denotes actions to be taken here and now. The term covers all approaches and tools aimed at reducing skills gaps, increasing the employability of the workforce, and reducing skills shortages (Feiler et al., 2012). As this is a wide field that covers all types of employment service and forms of training, the focus of this stocktaking exercise is on the identification of skills needs and the use of such labour market information in policies and programmes in various fields, such as education, training, employment or wage-setting.

1.2 Why skills needs identification and matching?

Many of the decisions for which information on current and future labour market conditions are relevant are long-term decisions. Education usually takes several years and provides a productive source of skills for a longer period of time. Skills needs identification, being short- to long-term, can help in the guidance of individuals and in education and training policy. It also supports identifying future imbalances that have to be addressed.

The process of skills needs identification also includes the development of institutions and frameworks that can enable relevant actors to work together and continuously refine or define new tools. It is a longer-term process that grows over time. It has to adjust to the national institutional setting, the education and training structure, and economic needs.

If done well, skills needs identification provides the means to identify future imbalances and to bring together key actors in addressing such imbalances and in informing the public about future skills demand and supply. In such an environment, individuals and companies can take informed decisions

efficiently, while education and training policy, grounded in empirical evidence, can be implemented so as to take future directions into account[11].

There is no single method of skills needs identification. Several instruments and methods have been developed to identify skills needs while allowing for a glimpse into the future. On the quantitative side this includes systems which forecast skills supply and demand, usually through a combination of quantitative forecasting methods: macroeconomic modelling of future development by economic sectors, extrapolation of the occupational structure within sectors, and a forecast of skills needs within occupations – usually by referring to qualifications (Kriechel et al., ETF/Cedefop/ILO, 2016). On the qualitative side this includes foresight techniques and methods that can help identifying the main drivers of change and scenarios for plausible evolution, by employing a range of Delphi-style methods, focus groups, scenario development analysis, etc.

Underlying the process of skills needs identification is always the development of measures of the current and past labour market. Next to a general development of the labour market, a range of other measures has been developed to gauge the existence of skills mismatches including:

- surveys of employers, to get their views about the extent to which they experience skills mismatches;
- surveys of individuals, asking about the extent to which they use their skills, the knowledge acquired in gaining a qualification in their current job, and whether they needed a specific qualification to gain entry to that job;
- job evaluation studies, which attempt to evaluate objectively, through observation studies, the skills content of jobs and to compare this to the skills held by the incumbents of those jobs;
- empirical studies, which seek to gauge the extent to which the observed level of qualification held by people working in an occupation in a given sector of the economy coincides with the overall average in that occupation.

These more specific questions or surveys are often used in combination with general labour market information, such as labour force surveys (LFS) and administrative data (e.g. the registries of public employment services), to evaluate (using appropriate methodology) the extent of current and future skills mismatch.

The most frequently used approaches worldwide to anticipating future skills needs are summarised in Table 1.2, including each method's strengths and weaknesses.

[11] A recent overview of skills anticipation in the EU can be found in Hawley-Woodall et al. (forthcoming). While the authors are not able to provide an exhaustive and complete review of methods, tools and approaches, they do provide some detailed descriptions of national approaches, with examples.

TABLE 1.2 PRINCIPAL APPROACHES TO ANTICIPATING SKILLS NEEDS

Usual approaches	Advantages	Disadvantages
Primary data collection ([a])		
Surveys of fact, directed at employers or other groups such as households, asking questions about employment levels, pay, unfilled vacancies, etc.	Direct 'user/customer' involvement Focuses on how people behave, not what they say or perceive	May be problems in getting responses Need large samples to get robust data, therefore may be expensive
Surveys of opinion directed at employers (or other groups) asking questions e.g. about skills deficiencies and skills gaps	Direct 'user/customer' involvement	May be subjective and inconsistent May focus too much on the marginal and ephemeral
Interviews and related techniques	May be able to address problems and concerns more subtly and in greater depth	May be unrepresentative
Workshops	Useful mechanism for exchanging views	Can provide a partial view
Other informal contacts	Useful mechanism for exchanging views	May be anecdotal and ungrounded in reality
Analysis ([b])		
General synthesis and critical assessment of available evidence		
Formal, national-level, quantitative model-based projections (using econometric techniques or computable general equilibrium or similar models)	Comprehensive Consistent Transparent and explicit Quantitative	Data-hungry Costly Not everything is quantifiable May give false impression of precision
Partial quantitative model-based projections (e.g. focusing on individual sectors or occupations)	Transparent and explicit Quantitative Targeted	Not everything is quantifiable May give false impression of precision Partial analysis may be biased
Other foresight methods		
Focus groups/round tables, Delphi-style methods	Holistic Direct 'use/customer' involvement	Can be non-systematic Can be inconsistent Can be subjective
Scenario development analysis (encompasses many different forms)	Holistic Direct 'use/customer' involvement Focuses on uncertainty	Can be non-systematic Can be inconsistent Can be subjective
Sectoral/occupational/regional studies and/or observatories (using both quantitative and qualitative evidence)	Holistic (for the sector) Strong on sectoral and other specifics	Partial Potentially biased May introduce inconsistency across sectors

(a) This can include surveys of employers as well as surveys of households.

(b) This can include analysis of general administrative data sets which focus on the economy and the labour market (such as the national accounts, population censuses, etc.), as well as many purpose-collected data sources such as the UK national employer skills surveys and the US O*NET database.

Alternative approaches	Advantage	Disadvantage
Surveys of employers or other groups, asking about skills deficiencies and skills gaps	Direct 'user/customer' involvement Focuses on behaviour	May be very subjective Inconsistent Myopic Can too easily focus on the margins (i.e. current vacancies) rather than on skill gaps within the current workforce
Formal, national-level, quantitative, model-based projections	Comprehensive Consistent Transparent Quantitative	Data-hungry Costly Not everything can be quantified May give a misleading impression of precision
Ad-hoc sectoral or occupational studies (using a variety of quantitative (model-based) and qualitative tools)	Strong on sectoral specifics	Partial Can be inconsistent across sectors
Focus groups/round tables and other Delphi-style methods	Holistic Direct 'user/customer' involvement	Non-systematic Can be inconsistent Can be very subjective

Source: ETF/Cedefop/ILO (2016): Bakule et al (Part A), Kriechel et al. (Part B), *Developing skills foresights, scenarios and* forecasts – *Guide to anticipating and matching skills and jobs Vol. 2*

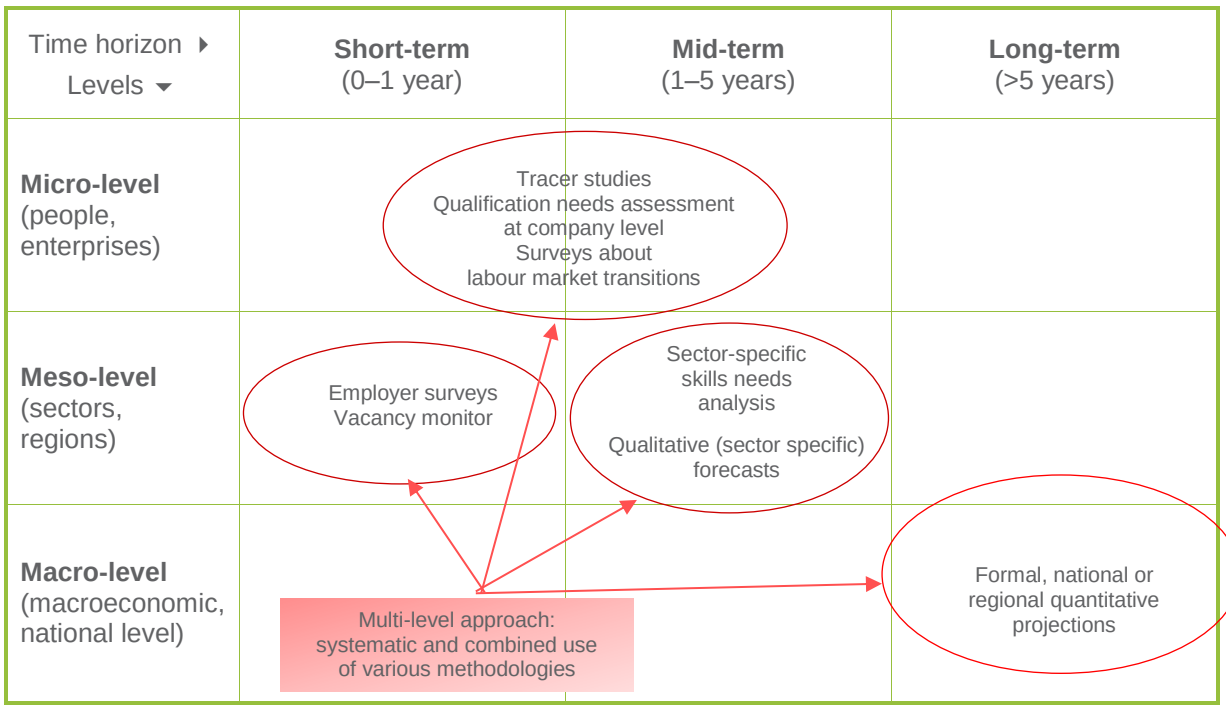
1.3 Examples of skills needs identification and matching in the international context

Many countries around the world have anticipatory measures for skills needs identification in place, and others are building and developing such systems. Their common goal is to improve the skills match between labour demand and supply in both quantity and quality. To this end, information is necessary about the knowledge and skills required for a job and the likely changes in job content in different occupations. A variety of activities, combining different methods and involving the efforts of many different institutions and projects, have been used in various countries to achieve this. They range from the analysis of trends in labour markets, through the analysis of gaps, to the fostering of cooperation and interaction between firms and education, usually at the VET provider level. However, the implementation of policies and practice, in terms of programmes/actions to bridge the gaps identified in the results, remains the main sticking point (Wilson and Zukersteinova, 2011).

Many countries carry out regular skills forecasts. Most long-term forecasts are done at national level, for example in the Netherlands, Cyprus, France, Germany and the UK, whereas short-term forecasts are undertaken more generally at regional or local level, often through public employment services, for instance in Austria, Latvia and Poland.

Sector studies are another major instrument for the identification of skills needs in future labour markets. Many countries (e.g. Cyprus, Czech Republic, Finland, France, Malta, Norway and Portugal) carry out ad-hoc sectoral or occupational studies. These are usually strong on sectoral or other specifics but might be partial and inconsistent across sectors, areas, and the like. Ideally, such studies are embedded in a multi-level scheme of skills needs anticipation. A multi-level scheme of skills identification attempts to combine several elements and methodologies in order to identify skills needs and skills mismatch on various levels and along several dimensions (see Figure 1.1).

FIGURE 1.1 MULTI-LEVEL APPROACH TO SKILLS ANTICIPATION



Source: Adapted from Feiler et al., 2012

The figure arranges some of the key instruments into three timescales of anticipation (short-term, medium-term and long-term) and three levels of analysis: analysis of people's understanding of individual (micro) labour market transitions; analysis of sectors and regions (meso); and analysis at the national (macro) level. As has been described above, each of these has its specific strengths and weaknesses. Combining several instruments makes it possible to overcome individual weaknesses and to reach a deeper and more profound understanding of the processes and reasons of skills mismatch.

In order to arrive at a common picture, the individual elements should – at least in the discussion of results and interpretations – be analysed taking information from other elements into account. For example, a national skills forecast can provide a broad and consistent picture of future skills needs, but, to understand the individual problems of graduates in finding employment, micro-level tracer studies could be used, while sector studies allow for the necessary detail indicating which specific skills are needed in an occupation that is crucial for the specific sector. Regional studies also help to translate overall national results into the specific economic structure of a region, which can deviate significantly from the national picture. In such a way specific policies and actions at regional, sector, and qualification levels can be taken using the combined information. This is, however, an ideal situation, one hard to achieve even in advanced, more resourceful countries.

It is widely recognised that transferring anticipation results into policy and implementing them in practice is a big challenge. To draw out the implications of skills needs analysis for education and training is complex. Yet this is at the core of attempts to redefine national education and training systems and occupational and qualification definitions and standards. Many countries have a long tradition of updating such standards, based on well-established institutional routines involving all relevant stakeholders. In that context the existing agencies and labour market actors at different levels (national, sector, local, and training providers) are all playing a major role to ensure that the standards are relevant to the labour market (Wilson and Zukersteinova, 2012). Developing and updating occupational and qualification standards are processes that go beyond a mere response to immediate labour market requirements. They should be firmly embedded in a strategy to improve the inner structure and transparency of qualifications systems within a broader VET modernisation agenda.

The establishment of institutional routines to analyse and work with skills anticipation results implies that similar information and tools are used regularly to describe, analyse and discuss the implications of the analysis. In addition, a network of stakeholders is used to discuss the results and the implications for policy actions. Such routines exist in several countries, sometimes in the form of formal organisations or networks (examples would be national or regional skills councils, but also the sector training funds in the Netherlands), and in other countries specific institutions which contribute the necessary labour market information, while other institutions routinely use (and expect to receive) this information in the preparation of possible policy responses. A key to success in any of these routines lies in the common understanding of shared goals and a long-term commitment to participation by the stakeholders.

Ensuring sufficient and regular updating of key data sources is one of the key challenges in countries developing labour information systems. Often, steps need to be taken to ensure that data are both reliable and representative. Although it is possible, at first, to get by with the use of several key sectors in evaluating skills demand, attempts should be made to extend these approaches to all sectors of the economy so that the data are representative of the entire economy. Informal employment and the existence of a large informal sector within the economy pose additional challenges.

Data sources should also be seen as the key limiting factor in the goals and demands that lead towards a skills analysis and anticipation approach. All actors involved would like to have a detailed and complete overview of current and future skills needs, disaggregated by individual occupation, and identifying relevant skills, maybe even within occupations. It should be understood that the source of the underlying data determines the extent to which the results of skills analysis and anticipation are feasible and representative. Overall, even in countries with very extensive data and experience there will not necessarily be an analysis that allows results reaching into all dimensions. The skills analysis and anticipation approach does, however, allow for a consistent view into several aspects of skills needs and skills mismatch.

2. ECONOMIC AND SOCIAL BACKGROUND IN SOUTH EASTERN EUROPE

The transition process in the SEE countries has been slow. Many factors have contributed to this relatively poor performance. The region's location, at a considerable distance from the main economic centres of Europe, may play a role, but institutional and cultural factors also partly explain the situation. The break-up of former Yugoslavia, with the destruction of productive capital and the migration of many highly skilled workers, has also contributed to the slow performance. In a review of the 25-year transition experience of central and Eastern Europe, the World Bank concludes that the performance of the SEE countries has been especially poor when compared to that of the 10 eastern European countries that joined the EU in 2004 and 2007. SEE countries face 'the risk of permanent marginalisation on the periphery of Europe' due to low investments, high unemployment and a high incidence of extreme poverty (EIU, 2015).

In an International Monetary Fund (IMF) staff paper, Dmitriy Kovtun and colleagues (2014) analyse the Balkans in comparison to the 10 new EU Member States as well. They suggest that more comprehensive structural reforms in all parts of the economy in the new Member States have led to significantly higher inflows of foreign direct investment (FDI), which provide a stable foundation for the transfer of technology, know-how and managerial skills. For the SEE countries, the transition process was delayed, commencing only after 2000, much later than that of the new Member States. While there has been significant progress in the transition reforms, many critical reforms – notably, privatisation, enterprise restructuring and a competitive business environment – are still deemed incomplete (Kovtun et al., 2014).The global financial crisis has delayed and stifled access to foreign investment and reduced the labour market outlook for all SEE countries.

All the SEE countries are following an EU accession agenda, either as candidate or potential candidate countries.

2.1 Demography

While Kosovo, Montenegro and the former Yugoslav Republic of Macedonia exhibited population growth in the past decade, Bosnia and Herzegovina, Albania and Serbia showed significant declines. All countries experience out-migration, which is an important driver of their demographic development.

According to World Bank data, the population of Kosovo has been increasing at a constant rate from 2005 (1.706 million) to 2014 with a slight decrease in 2015 (1.797 million). In the same period, population numbers were constantly rising from year to year in Montenegro (from 0.614 million to 0.622 million) and the former Yugoslav Republic of Macedonia (from 2.042 million to 2.078 million). This rise in population occurred despite negative net migration. According to ETF data, net migration was –5,025 persons in Kosovo in 2013 (estimate), representing a net migration rate of –0.3% (calculated as a share of the population in the same year). According to the latest available World Bank data, net migration was –2,500 in Montenegro in 2012 (net migration rate: –0.4%), and –4,999 in the former Yugoslav Republic of Macedonia in 2012 (net migration rate: –0.2%).

From 2005 to 2015, population numbers fell constantly from year to year in Serbia from 7.440 million to 7.098 million, in Albania from 3.011 million to 2.885 million, and in Bosnia and Herzegovina from 3.833 million to 3.817 million (according to World Bank data). Net migration in 2012 was negative in Serbia (–99,999; net migration rate: –1.4%), Albania (–50,002; net migration rate: –1.7%), and Bosnia and Herzegovina (–5,000; net migration rate: –0.1%). It should be noted that data on migration are available only for a few years and are often not up-to-date. Often, traditional estimates of migration do

not fully capture its real extent, because they may not include, for example, temporary migration flows, time lags or underreporting.

Average annual fertility rates (births per woman) from 2005 to 2013 were 2.3 in Kosovo, 1.8 in Albania, 1.7 in Montenegro, 1.5 in the former Yugoslav Republic of Macedonia, 1.4 in Serbia, and 1.2 in Bosnia and Herzegovina (World Bank data, author's calculations).

Besides high out-migration and comparatively low fertility rates, population decline in Serbia is also caused by the comparatively high death rate (14.1 deaths per 1,000 persons annually on average, 2005–13) in combination with the low birth rate (9.4 births per 1,000 in the same period, according to World Bank data). With 6.4 deaths per 1,000 persons and 13.1 births per 1,000 persons, population decline in Albania is caused predominantly by out-migration. Like Serbia, Bosnia and Herzegovina is characterised by a natural population decline (9.5 deaths/1,000 persons compared to 8.6 births/1,000 persons). However, in that country out-migration seems to be a far less important factor in population decline than in Serbia, at least in 2012.

Population growth in Kosovo is mostly due to the high birth rate (18.8 births/1,000 persons) and the lower death rate (7.0 deaths/1,000 persons). To a lesser extent, this is also true for Montenegro (birth rate: 12.2/1,000; death rate: 10.2/1,000) and the former Yugoslav Republic of Macedonia (birth rate: 11.0/1,000; death rate: 9.3/1,000).

The big waves of migration in proportion to the size of the countries were unique to the SEE countries and are the result of the political and social instability. This has led to a major brain drain in many of the SEE countries (Beine, Docquier and Rapoport, 2001).

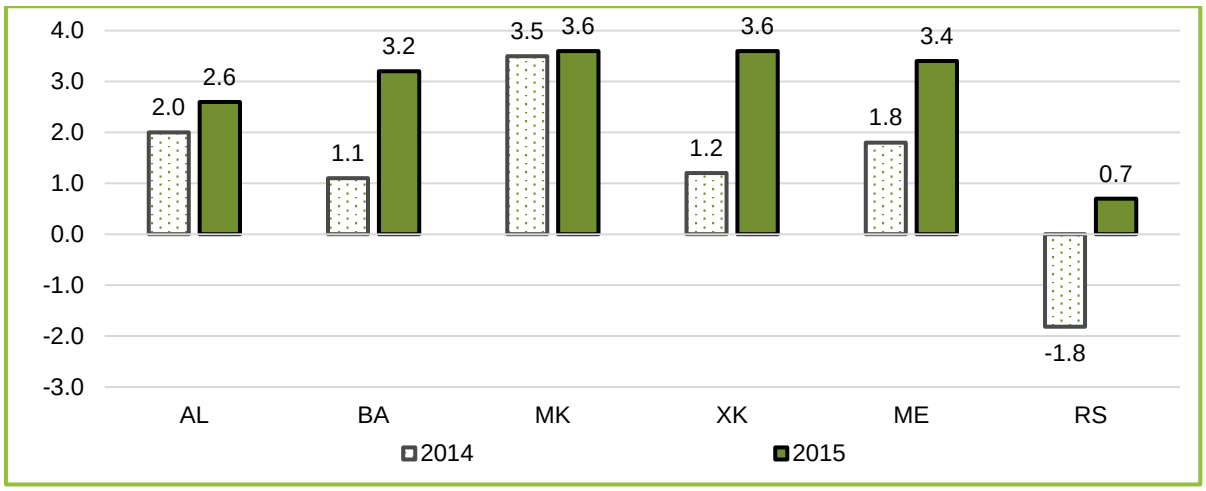
2.2 Overall economic development

The SEE countries have experienced mixed economic trends in recent years, especially in the context of the worldwide economic recession and its particular impact on the neighbouring European Union countries. Though 2013 marked a period of recovery from economic recession, the countries in this region have been generally unsuccessful in transforming economic recovery into job creation. With FDI and competitiveness levels remaining low, most countries still find themselves in a situation marked by poor productivity and low skills, while at the same time experiencing higher levels of informality and precariousness in the labour market. There are still major gaps in terms of activation and employment levels compared to EU averages, although efforts have been made to reflect demand better in VET planning and delivery (ETF, 2015c).

The experiences of individual countries can differ quite significantly. In Figures 2.1 and 2.2, we depict the recent economic growth (2014 and 2015), and the development of the level of the per capita GDP (2008, 2011–14). In the subsequent paragraphs, we shortly sketch the individual circumstances of each country.

Recent GDP growth in the SEE countries in 2014 was strongest in the former Yugoslav Republic of Macedonia with +3.5% (Figure 2.1), followed by Albania (+2.0%), and Montenegro (+1.8%), while Serbia had a negative GDP growth of –1.8%. In 2015, the GDP growth increased strongly in Bosnia and Herzegovina, Kosovo and Montenegro, by 3.2%, 3.6% and 3.4% respectively. Serbia has registered a positive GDP growth, although at modest rate (+0.7%), while the former Yugoslav Republic of Macedonia kept the positive trend of last years with a growth of +3.5%. These year-to-year figures should, however, be seen in the context of the countries' widely varying level of GDP (or rather as GDP per capita), and their differential experience of growth trajectories since the beginning of the millennium and especially during the global financial crisis.

FIGURE 2.1 GDP GROWTH, 2014 AND 2015 (RELATIVE TO PREVIOUS YEAR)



Source: World Bank, World Development Indicators database

The current economic growth is in part dependent on the current level of GDP that a country has already achieved. Figure 2.2 depicts the development of per capita GDP, using international purchasing power parity (PPP) adjusted current US dollars. In this adjusted measurement of per capita GDP and according to last available data, the highest level can be found in Montenegro, followed by Serbia and the former Yugoslav Republic of Macedonia, with Bosnia and Herzegovina and Albania at a more modest level. Kosovo has the lowest per capita GDP. Per capita GDP developed positively in Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, Albania and Kosovo, though starting from a comparatively low level.

Albania has made enormous strides in its transition process from a closed economy towards an open, market-based economy over the last two decades. This process has led to continuous growth that also allowed a reduction in poverty. After the global financial crisis, however, average growth, though remaining positive, declined significantly, a trend also mirrored in relatively high levels of unemployment, underemployment (e.g. subsistence employment in agriculture) and poverty. Moderate growth reflects the weak demand from export markets important to the Albanian economy, such as the EU, and poor economic conditions in certain sectors.

Bosnia and Herzegovina experienced strong growth before the global financial crisis, with GDP increasing by over two-thirds between 1998 and 2008 in real terms and poverty dropping from nearly 20% to around 14%. Despite this strong economic performance, the onslaught of the global financial crisis from late 2008 continues to have a negative impact on the country's economy. The economy rebounded in 2011, growing by 1% after a deep recession in 2009 caused GDP to contract by 2.9%, before returning to recession in 2012. In 2013, the economy grew by an estimated 0.8% thanks mostly to increased exports (World Bank, 2015). Significant progress in implementing structural reforms will be needed if the country is to achieve faster economic growth than what is currently foreseen. Bosnia and Herzegovina faces serious structural obstacles to growth. The main bottlenecks are the large government sector, an unfavourable business environment hampering private sector development, and a low production capacity and export base (European Commission, 2015b). Strengthening public finance, improving the business environment in the country, and advancing the institutional and labour market reform agenda are among the areas where Bosnia and Herzegovina could make notable progress in fostering job creation and growth in the medium term (World Bank, 2015).

FIGURE 2.2 DEVELOPMENT OF PER CAPITA GDP IN SEE COUNTRIES, IN CURRENT USD (PPP)

Source: World Bank, World Development Indicators database

Montenegro's economy has been able to attract a relatively high level of FDI. This has enabled it to show a positive growth potential. The economy was, however, strongly affected by the global financial crisis both in terms of reduced FDI and losses in exports. This led to a strong reduction in GDP, which also led to a decline in GDP per capita. In the last years the country has started to recover from the aftermath of the crisis.

Kosovo faces significant economic and social challenges. With a low per capita GDP and bad employment prospects, outward migration to other countries – often in waves – are leading to a brain drain among the population. Small and medium-sized enterprises (SMEs) account for approximately 40% of GDP, 60% of employment, and 99% of businesses. SMEs are the backbone of Kosovo's economy, but there is also an important informal economy operating in the country and impeding important social and fiscal contributions (Van Meel, 2010). The share of the informal economy amounts to 50% of the entire economy, posing challenges to government financing but also, through informal labour markets, to the organisation and measurement of the labour market.

The former Yugoslav Republic of Macedonia has made great strides in reforming its economy over the last decade, with measures geared to attracting FDI and promoting SMEs. The country has made significant achievements in its development, but more efforts are still needed across a range of areas to generate economic growth that puts people in employment in the country and improves living standards for all (World Bank, 2015). After declining by 0.5% in 2012, real GDP grew by 2.7% in 2013 on the back of construction and exports. Real GDP growth reached 3.8% in 2014. Yet the high growth levels of the pre-crisis years have not been regained.

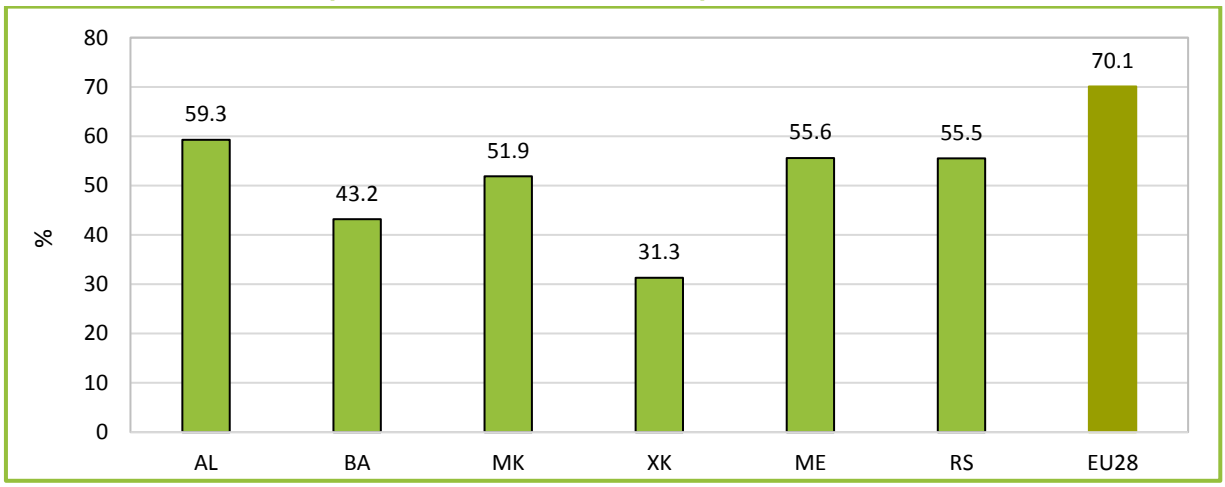
While **Serbia** experienced a strong economic recovery over the past 15 years, the global financial crisis had negative effects on the economy from which it has not yet recovered. The impact of the international financial crisis has had a severe impact on the country's economy (World Bank, 2015). GDP growth stagnated or even declined in several years, while current growth rates remain volatile amid financial and economic uncertainties. Privatising state-owned enterprises and slimming down the public sector will have an influence on economic development and employment. Serbia's per capita GDP reflects the influence of the financial crisis. While its development has been broadly positive, the country is still recovering from the downturn of the crisis year, 2009. Serbia still has to regain the GDP level it achieved before the crisis. Per capita GDP was approximately USD 13,020 in 2013 and

declined in 2014. Although the GDP growth rate was negative in that year, Serbia registered a slight increase of +0.7% in 2015.

2.3 Employment

Employment levels are still low in the SEE countries, compared to EU averages. Figure 2.3 provides an overview of the employment rate of the most recent available year for each country. Compared to the EU-28 average of 70.1% all countries lag significantly behind. In the best case, they are comparable to Greece that currently has an employment rate of around 53%, but still have a long way to go before the EU target of 75% would be achieved.

FIGURE 2.3 EMPLOYMENT RATES OF PEOPLE AGED 20–64: RATIO BETWEEN EMPLOYED AND GENERAL POPULATION (EUROPE 2020 TARGET: 75%)



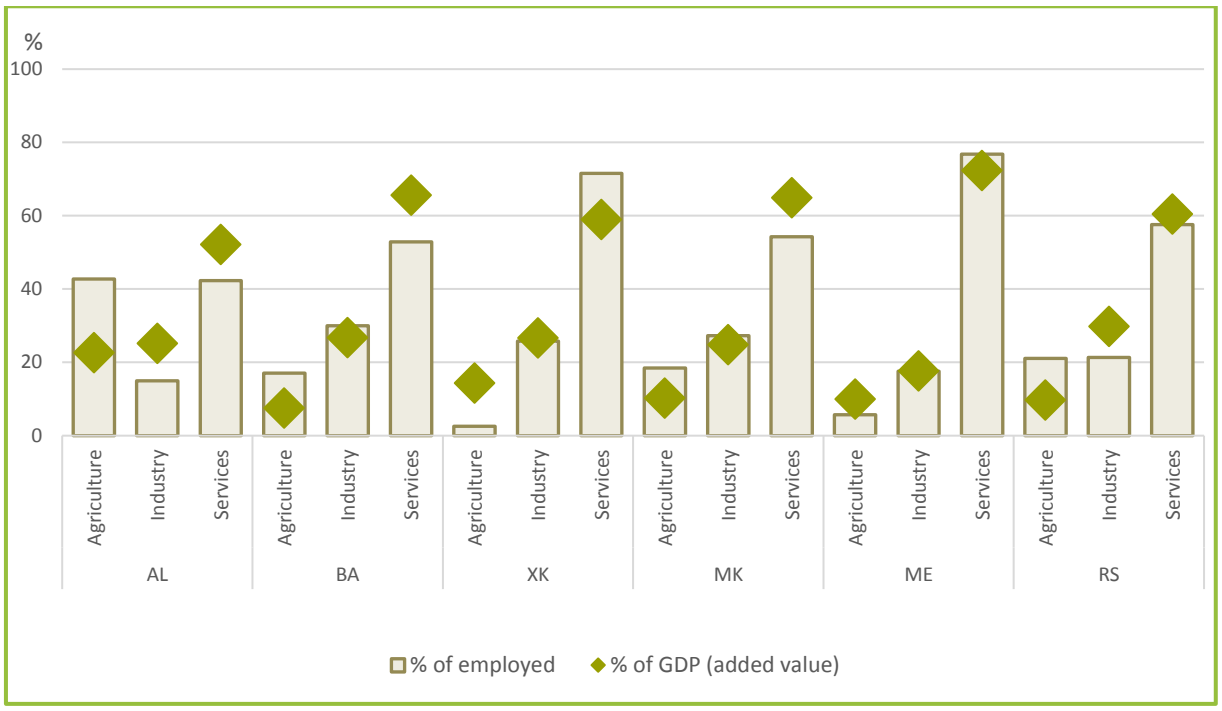
Source: Eurostat (2015 data, except ME 2014)

There are gaps in employment levels compared to EU averages, against a backdrop of an economic growth pattern which does not lead immediately to employment gains. Gender gaps affect to great extent labour market participation, with over 15 percentage points gap between male and female employment level (except Montenegro where the difference is about 10 percentage points). Low female employment stands particularly out in Kosovo with just around 12% employment rate among women.

Fostering labour demand and pursuing more inclusive labour market are among top priorities of the SEE countries. Available and potential skills supply play a huge role in achieving faster gains in competitiveness. Efforts to reflect demand more accurately in education planning and delivery, and to improve the transition from school to work, have been made. The main priority of recent reforms in the SEE countries has been to strengthen the responsiveness of VET to employment trends and the demands of the economy in a context of high unemployment, especially among young people, and high inactivity levels (ETF, 2015c).

While the SEE countries differ in their economies, in labour force composition but also in employment by sector, the common theme of all countries is the high level of unemployment, both overall and especially youth unemployment. In terms of employment rates, Kosovo is the least developed labour market. Overall, the economies of Kosovo and Montenegro show a strong proportion of employment in the service sector, with more than two-thirds of employment in services. Albania still has a strong share of employment in agriculture, whereas Bosnia and Herzegovina, Kosovo, the former Yugoslav Republic of Macedonia and Serbia have about one-third of employment in industry (Figure 2.4).

FIGURE 2.4 EMPLOYMENT BY SECTOR VS GDP BY SECTOR (%)



Source: Employment by sector – National Statistical Offices; GDP by sector – World Bank, World Development Indicators, 2014

The labour markets of Kosovo and especially Montenegro are characterised by a very dominant service sector. More than two-thirds of the workforce is employed in service sector, and this figure even increased in Montenegro in the economic restructuring during the years of the global financial crisis. Agriculture plays only a minor role, while employment in industry remains at about 20% but, importantly, is a declining share of employment. It is worth to note that in four SEE countries the agriculture sector is rather inefficient, with a low contribution to GDP (added value) as compared to people employed in the sector. Since most countries in the region consider agriculture a potential sector for development, investments in skills development should be prioritised, among other actions, to overcome current inefficiencies.

External and internal migration in Albania have led to a diminishing work base in agriculture and a relatively higher share of non-farm employment. Still, since 2008, the employment share between agricultural and non-agricultural employment has remained largely stable (see Figure 2.4). Agriculture remains one of the largest and most important sectors in Albania. It is a main source of employment and income, especially in the country's rural areas and represents around 20% of GDP, accounting for about half of total employment. Albania's agricultural sector continues to face a number of challenges, however, including small farm size and land fragmentation, poor infrastructure, market limitations, limited access to credit and grants, and inadequate rural institutions (World Bank, 2015).

Bosnia and Herzegovina's employment structure by sector shows a falling trend in agriculture and an increase in the service sector, while the employment share of industry has decreased slightly since the global financial crisis. Serbia's formerly industrialised economy has changed since the 1990s. The industrial base is now accounting only for a quarter of the employment. In the current situation, services play an important role in the Serbian economy. They account now for more than half of employment.

2.4 Education

The educational attainment of the countries can be evaluated by the proportion of young adults who have at most lower secondary education and who are not following further education or training (i.e.

early school leavers). The Europe 2020 goal in this respect is to keep this share below the a threshold of 10% for the population aged 18–24 years. As can be seen in Figure 2.5, Serbia and Montenegro are well below this threshold. The former Yugoslav Republic of Macedonia, with 11.4%, is still above the threshold, while Albania and Bosnia and Heregovina are well above (no data available for Kosovo). Both have about a third of the young population that does not have qualification beyond lower secondary education. A first important step towards a better qualified workforce is to establish institutions to provide adequate qualifications beyond secondary school.

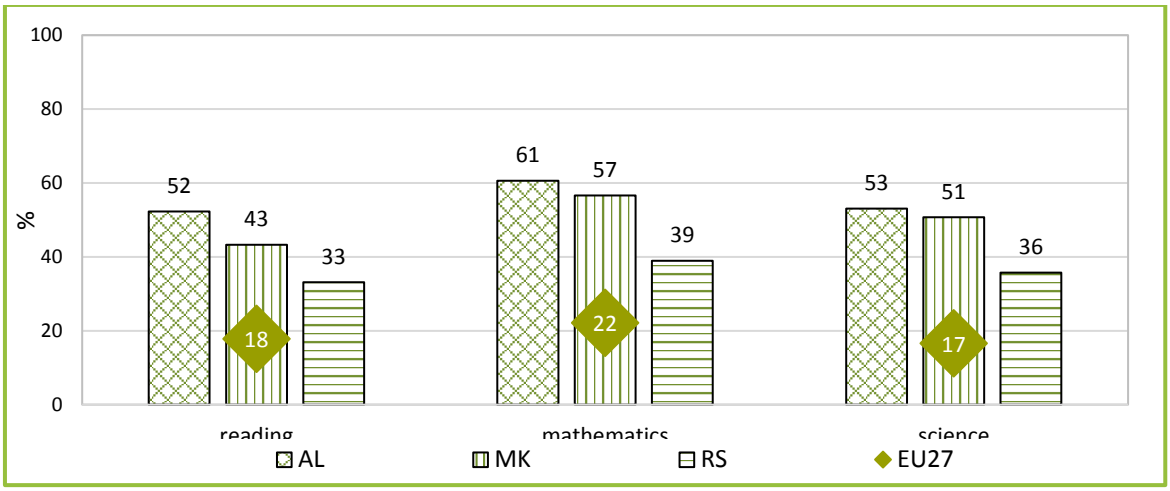
It should be noted, though, that within the EU, the average proportion of youth with at most lower secondary education lies at 11.0% in 2015, with countries such as Slovenia, Croatia and Poland at the better end, achieving 4–5%, whereas, in Spain, more than one-fifth of young people still have a low level of educational attainment.

FIGURE 2.5 PROPORTION OF THE POPULATION AGED 18–24 WITH AT MOST LOWER SECONDARY EDUCATION AND NOT IN FURTHER EDUCATION OR TRAINING (EUROPE 2020 HEADLINE TARGET: <10%)

Source: Eurostat, 2015 except BA, ME, RS 2014 (no available data for Kosovo)

Another important measure of education is educational outcomes. PISA tests among young students by the OECD provide a comparative assessment of the competence in reading, mathematics and science achieved by students by the age of 15. Based on the results of the 2012 PISA tests (in which only Albania, Montenegro and Serbia participated), Serbia scored best in all three subjects, followed by Montenegro and Albania. Figure 2.6 shows the percentage of students failing to reach the (basic) level 2 in reading, mathematics and science. None of the countries met the agreed Europe 2020 target of less than 15% failing at level 2. In Serbia, about one-third of the students failed to achieve this level, in Montenegro, more than half of the students failed to reach level 2 in mathematics and science, while in Albania half of the students failed in all three subjects.

FIGURE 2.6 PERCENTAGE OF 15-YEAR-OLDS FAILING TO REACH LEVEL 2 IN READING, MATHEMATICS AND SCIENCE AS MEASURED BY OECD/PISA (EUROPE 2020 TARGET: 15%)



Source: OECD/PISA results (2012 round). Data available for Albania, Montenegro and Serbia only.

While the bulk of employment often occurs at the intermediate qualification level, considerable attention is given to the proportion of higher education in the countries. More advanced economies with modern production methods and higher technology demand an increasing share of highly educated workers. Within the Europe 2020 headline targets, the EU aims to achieve on average a share of 40% of the workforce aged 30–34 years educated to ISCED level 5 or 6, which represents completed degrees at a university or a university-like institution.

While some countries in the EU have already easily reached this target (e.g. Lithuania, Luxembourg and Ireland, which all have more than half of their young workforce at this level), other countries, most often those with a strong VET tradition, have lower shares: Romania with 25%, Czech Republic, Slovakia and Germany with about 33%. This suggests that tertiary-educated workers are much more difficult to place, as countries can have well-functioning, highly productive labour markets with a high proportion of workers with intermediate-level education.

FIGURE 2.7 PERCENTAGE OF POPULATION AGED 30–34 HAVING SUCCESSFULLY COMPLETED UNIVERSITY OR UNIVERSITY-LIKE EDUCATION (ISCED 5 OR 6) (EUROPE 2020 HEADLINE TARGET: AT LEAST 40%)

Source: Eurostat (AL: National Statistical Office; XK: Ministry of Education, Science and Technology). 2014 except AL: 2013, MK, EU28: 2015

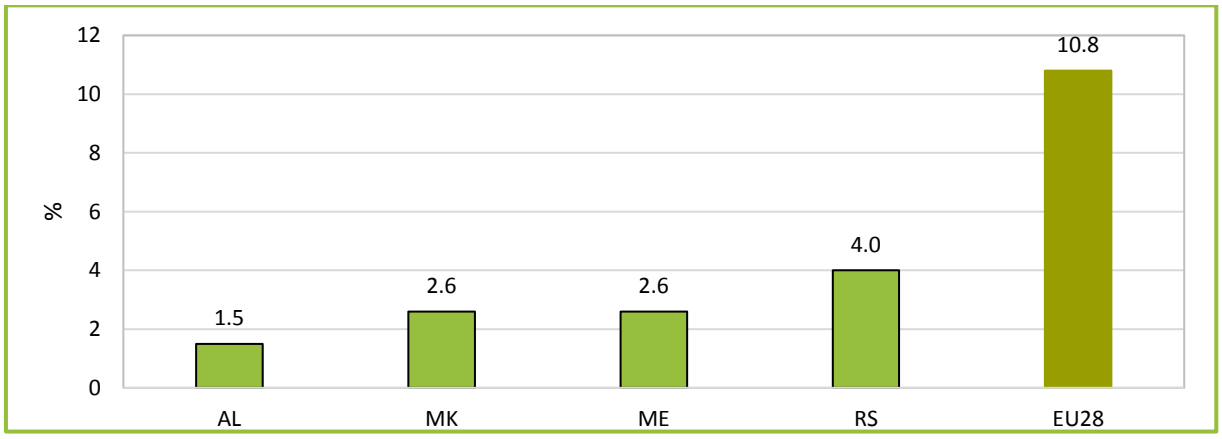
There is, however, a shift towards higher education: among the younger generation, more and more people are attaining upper secondary and tertiary education, reflecting the transition from a workforce educated under the 'old regime' towards one educated in conformity with the current economic context. The share of the population aged 30–34 with tertiary education in the SEE countries ranges

from 10% in Kosovo, through 15.7% in Albania and Bosnia and Herzegovina, to almost a third for the former Yugoslav Republic of Macedonia, Serbia and Montenegro (see Figure 2.7).

Whereas initial education provides the necessary basis and skills for entry to employment, it is becoming more and more important to enhance the skills of the existing workforce to allow for the introduction of new work methods, processes and technologies. In this way workers can adapt to changing skills needs over their lifetime through lifelong learning.

Continuous training, an important element of lifelong learning, is measured by the share of population that received formal or non-formal education or training. Figure 2.8 depicts this statistic for all countries. The percentages for all countries are quite low, ranging from 1.5% for Albania through 2.6% for the former Yugoslav Republic of Macedonia and Montenegro, to 4.0% for Serbia. Even the higher figures, 4% in Serbia, are still significantly below the target of 15% stipulated in the EU benchmark for 2020 and the 2015 average share of 10.8% in the EU-28.

FIGURE 2.8 PERCENTAGE OF POPULATION AGED 25–64 WHO STATED THAT THEY RECEIVED FORMAL OR NON-FORMAL EDUCATION OR TRAINING IN THE FOUR WEEKS PRECEDING THE SURVEY (EUROPE 2020 TARGET: 15%)



Source: Eurostat (AL: National Statistical Office), 2014 except. AL: 2013, MK, EU28: 2015. Missing data for Kosovo

2.5 Unemployment and inactivity

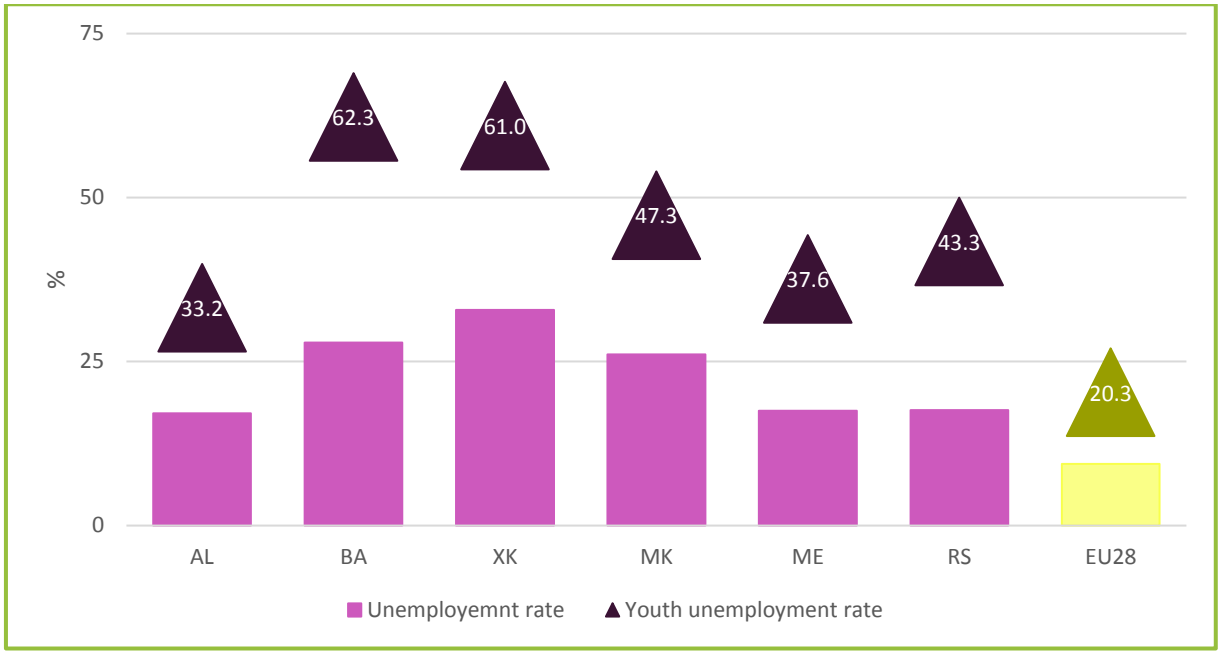
While educational attainment is increasing in all countries, in many of the SEE countries – just as in the EU-28 countries – the skills provided in education do not necessarily match those needed on the labour market, in a context of low labour demand.

One of the obvious indicators of labour market mismatch is the unemployment rate, and especially the unemployment rate of young workers (15–24). This indicator shows poor performance by all six SEE countries (Figure 2.9). Last data available show that Montenegro and Albania stood out with 'only' 33.2% and 37.6% youth unemployment, relative to Serbia (43.3%), the former Yugoslav Republic of Macedonia (47.3%), Kosovo (61.0%), and Bosnia and Herzegovina (62.3%). However, especially as regards youth unemployment in the transition phase between leaving education and entering the labour market (school-to-work transition), there are also poor performers within the EU-28 countries. Spain, Greece, Croatia and Italy reported that around half of their economically active youth were unemployed. At the other end of the spectrum are Germany and Austria, economies in which the young find employment quickly. This is also reflected in the overall unemployment rate, well below the EU-28 average, whereas Greece and Spain have high total unemployment rates.

It is no surprise that all six SEE countries face serious problems of mass migration, especially among young and skilled workers, for the economies do not seem able to generate enough employment for them, nor the education and training to provide adequate skills.

In Bosnia and Herzegovina and Kosovo, young women are affected by youth unemployment to a greater degree than men are.

FIGURE 2.9 UNEMPLOYMENT RATES OF TOTAL POPULATION AND YOUTH (SEE COUNTRIES AND EU-28 AVERAGE)



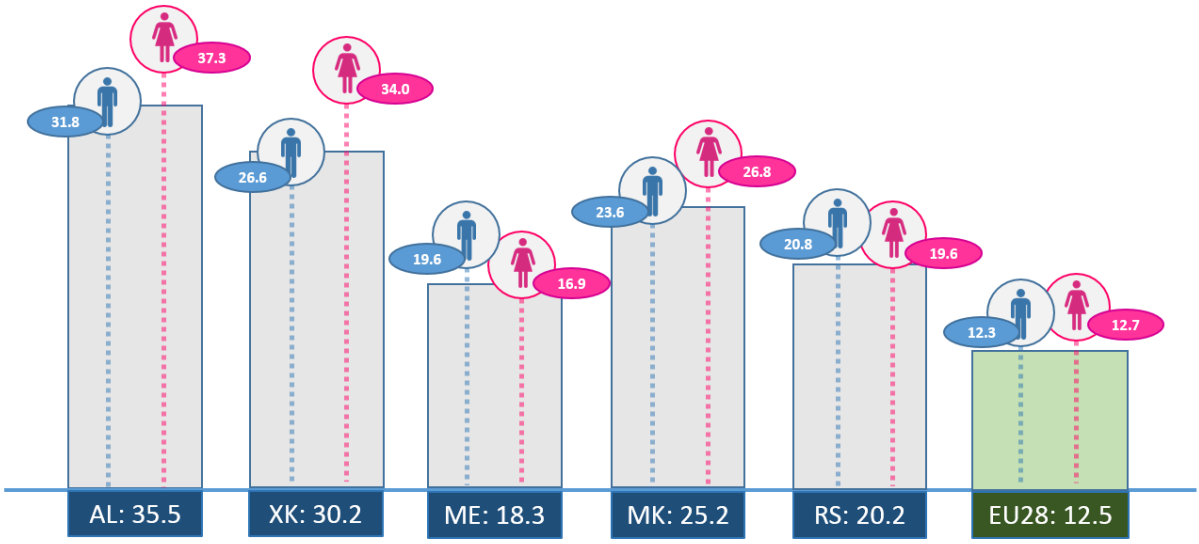
Source: Eurostat (ME, youth unemployment rate: National Statistical Office); AL: 15–29 age group for youth unemployment rate, 2015

While the incidence of unemployment is a prime pointer to mismatches on the labour market, the specific context of the SEE countries with high levels of inactivity should also be considered. Difficulties in young people's transition from school to work are often triggered by poor educational outcomes (e.g. early school leaving, insufficiently relevant skills) as well as by the economic and social context (low demand, deprived areas, exposure to social risks, insufficient support to family carers, and so on).

Very long spells of unemployment, disappointing first work experiences or family care responsibilities lead many youngsters, especially women, into inactivity and have a negative impact on the overall workforce potential of SEE economies.

The rates of young people not in employment, education or training (NEET) are high in the SEE countries, close to or above the worst-performing country in the EU, affecting one in three young people in Albania and Kosovo and about one in four in the remaining countries (no data available for Bosnia and Herzegovina).

FIGURE 2.10 RATES OF YOUNG PEOPLE NOT IN EMPLOYMENT, EDUCATION OR TRAINING (SEE COUNTRIES AND EU-28 AVERAGE)



Source: National Statistical Offices (MK, EU28: Eurostat), 2014; ME: 2013. AL: 15–29

This section has provided an overview of the main economic, labour market and education indicators relevant to the issue of skills matching in the SEE region. However, many other sources of evidence should be taken into account when assessing and planning actions to improve matching between supply and demand, for instance labour market regulations on transitions, employment support and services, and the incidence of poverty and exclusion.

3. SKILLS IDENTIFICATION, ANTICIPATION AND MATCHING IN THE SEE COUNTRIES

In this chapter, we describe the current policies and practices in skills identification (identifying current and future needs by means of skills assessment and anticipation) and skills matching in the six countries of South Eastern Europe. We outline the institutional arrangements that are relevant in this context, the key actors and their respective roles. The information is based on the responses to the questionnaire conducted in the beginning of 2015, national reports from country experts (for five countries), findings from the country and regional reports of the 2014 Torino Process and results of the FRAME initiative in the region.

3.1 Comparative evaluation of skills needs identification and matching

The SEE countries are striving to develop integrated approaches to the assessment and anticipation of skills needs. However, permanent, system-embedded and multi-sectoral mechanisms for current and future skills scanning are not yet embedded in the system. Most regular assessment and anticipation exercises rely on vacancy monitoring and employer surveys. Other tools, such as sectoral assessments of skills needs, tracer studies, qualitative and quantitative forecasts, depend heavily on external donor/project support. Therefore, they are less frequent or regular.

In Figures 3.1–3.5, we provide an overview of the responses to the standard questionnaire on assessing, anticipating and responding to changing skills needs (Annex 1). The responses are documented fully in the survey on skills needs assessment, anticipation and matching in the SEE countries carried out in 2015. The answers from all respondents that were eligible to answer the questionnaire have been added up. While the number of respondents will influence the range which the index can take, all outcomes should be seen as indicative only for the importance of a specific element, policy or involvement within the country. We use the approach to aggregate the answers by all relevant respondents. All the results should thus be seen as indicative and based on the response population.

TABLE 3.1 NUMBER OF RESPONDENTS BY COUNTRY AND QUESTIONNAIRE CATEGORY

	AL	BA	MK	XK	ME	RS	Total
Ministry of Education	2	7	1	2	3	2	**17**
Ministry of Labour	2	3	2	1	3	1	**12**
Trade Unions	2			1	1	2	**6**
Employers' organisations	1	3	1	2	2	1	**10**
Others		1		2		1	**4**
Total	**7**	**14**	**4**	**8**	**9**	**7**	**49**

Given the inherent bias of respondents towards projects in which they were directly or indirectly involved, the outcomes (practices, obstacles, collaborative arrangements, policy use of results, etc.) should be seen as proxies rather than precise indications on various aspects related to skills assessment, anticipation and matching. Nevertheless, the findings hold when compared to previous analyses such as Torino Process or FRAME Initiative reports, which point to the need to enhance capacity and collaboration on skills development issues further across sectors and among public and private actors and to make education and training more relevant to economic demand and social context.

The questionnaire inquired about methods and tools used for skills needs identification within two distinct time horizons, current and future.

- **Skills assessment** refers to the assessment of **current** skills needs.
- **Skills anticipation** refers to the forecasting of **future** skills needs.

The presentation and interpretation of results are clustered around these two concepts of skills assessment and skills anticipation (see Figures 3.1a and 3.1b).

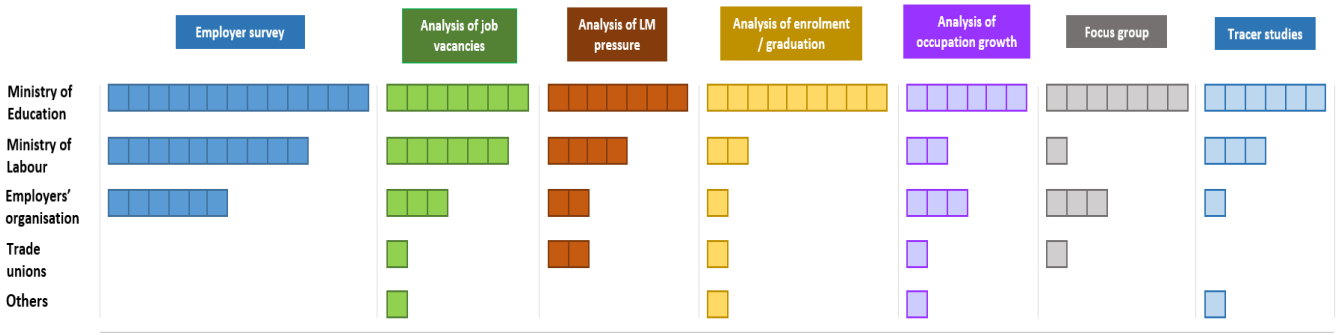
As mentioned above, the most common form of skills needs identification is the use of employer surveys asking about current and future skills needs. All countries seem to rely on this form of aggregating employers' responses about future skills needs. This is understandable because the results of such surveys are easy to develop and interpret, and provide outcomes that can be transformed into policy actions. However, there are at least two shortcomings to this approach.

1. Employers can provide only the demand-side view on any skills mismatch. In principle they are usually more concerned about skills deficits, either shortages in the number of suitable candidates or shortages at the skill levels required to fulfil positions in firms. Employers are much less concerned about surpluses in skills or numbers of candidates.

2. Some enterprises do have a good view of future demand in numbers and skills, but this is not common. Even in stable economic environments, such as the Netherlands, employers were not able to predict future demand correctly in terms of either skills or numbers. In the very dynamic environments of the SEE countries, and given the size and structure of most of their economies, which rely heavily on small enterprises and where informality affects the labour market greatly, it is likely that anticipation will be biased.

Other tools often mentioned for identifying current skills needs are analysis of job vacancies, labour market pressure indicators, analysis of enrolment and graduation trends, analysis of occupation growth, tracer studies, and focus groups.

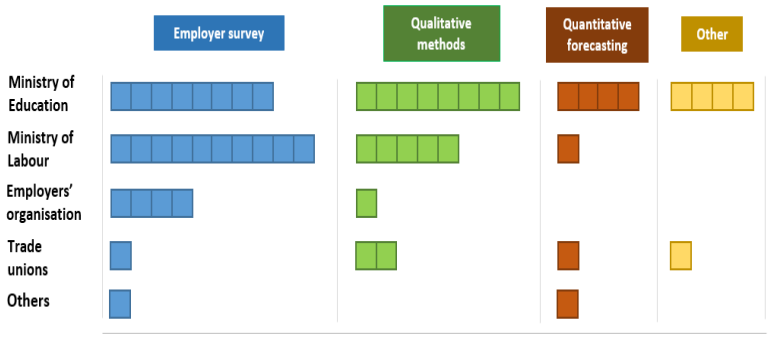
FIGURE 3.1A OVERVIEW OF THE MAIN TOOLS FOR SKILLS NEEDS ASSESSMENT



Note: Square units represent the number of tools identified by each type of respondents.

As regards future skills needs identification using anticipatory tools (e.g. asking employers and other actors about future demand in terms of both jobs and skills/competencies; qualitative and quantitative approaches, such as foresight and forecasting), employer surveys are again most mentioned.

FIGURE 3.1B OVERVIEW OF THE MAIN TOOLS FOR SKILLS NEEDS ANTICIPATION



Note: Square units represent the number of tools identified by each type of respondents.

Qualitative methods also score highly in skills needs identification. The recent implementation of the 'FRAME: Skills for the Future' initiative might have helped trigger this result. FRAME used an innovative foresight process to identify policy priorities in skills development in an integrated and future-proof perspective. It also employed a participatory approach, relying on extended cooperation between different sectors and actors in the process.

FRAME – A FORWARD-LOOKING POLICY APPROACH TO SKILLS DEVELOPMENT

The FRAME initiative Skills for the Future, implemented in 2013 and 2014 (IPA multi-beneficiary project) aimed at supporting Enlargement countries with defining comprehensive long-term visions on skills development for 2020. An innovative foresight methodology has been employed to allow countries discuss and decide on their skills development priorities up to 2020. The approach combined foresight with a review of capacities for policy delivery, and guidance for monitoring progress. The common rationale for the use of foresight was to support policy makers to use more future-oriented, participatory and evidence-based policy approaches to skills development policies. At the same time, it was intended to inform programming in the area of human resources development for the next cycle of EU pre-accession funds (IPA funds for the period 2014–20).

Beyond the particular priorities of each country, two themes emerged as common for the Enlargement region:

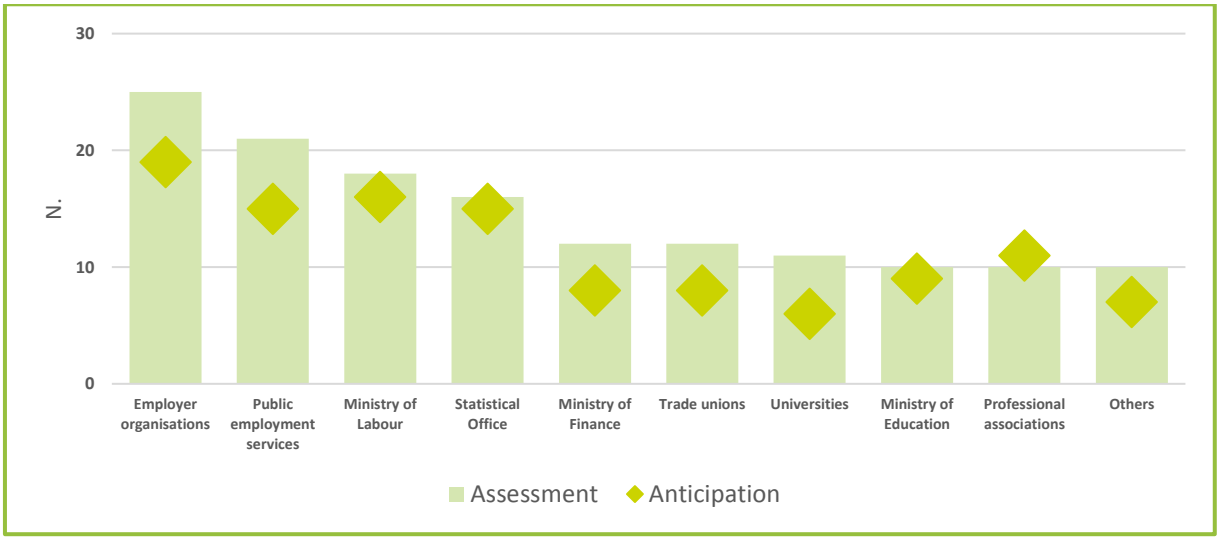
(i) the need to transform the current education and training system and make it more innovative, robust and quality-driven, through capacity-building: co-designed and better-targeted policies and measures, increased and sustained resources, strong institutional capacities, anticipatory policy mechanisms and enhanced levels of networking and interactions;

(ii) the need to increase coordination and transparency to reduce the skills mismatch, particularly in larger countries, taking into account the regional/local dimension, national sectoral priorities, and research as key drivers of labour demand.

Source: ETF (2014)

One of the key elements of skills needs identification is the development of a network of organisations that work with the information generated. They can provide feedback on outcomes, give interpretations of results and take part in the discussion of possible policy approaches. The involvement of a variety of stakeholders is therefore in general something that should be stimulated. In the survey, information is sought about the involvement of organisations, either bas leaders or partners in skills needs identification exercises. We use the aggregated responses of all respondents from all six countries to indicate which organisations are involved in skills anticipation and to what extent (Figure 3.2).

FIGURE 3.2 MAIN ACTORS INVOLVED IN SKILLS NEEDS ASSESSMENT OR ANTICIPATION



Note: Sum of the answers by respondent's category (only the cases in which respondents have identified themselves as 'leaders' of the exercise were counted)

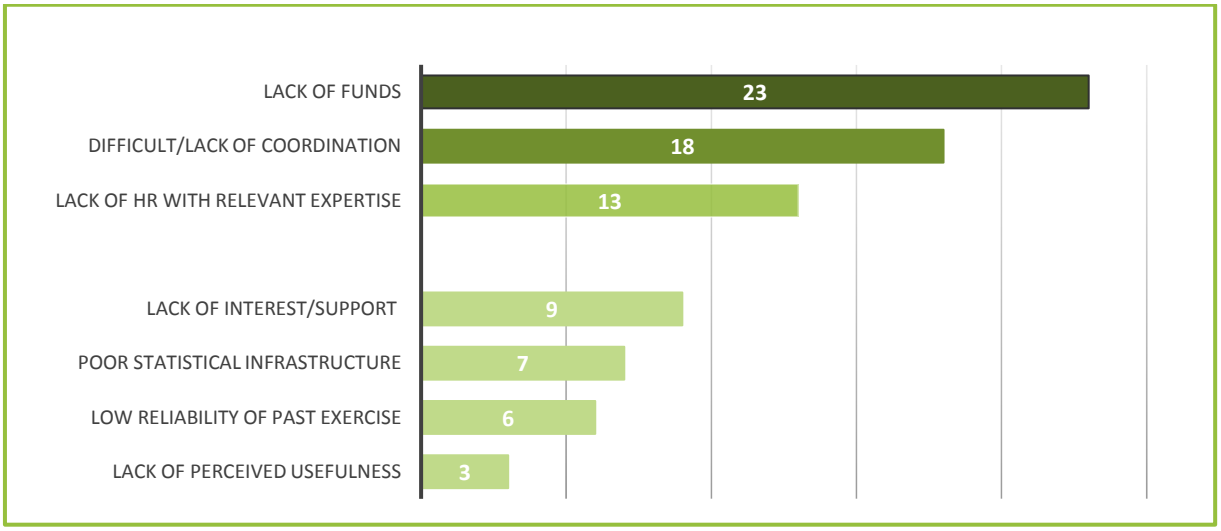
Not surprisingly, 'demand-oriented' institutions (employers' organisations, public employment services, ministries of labour) score highly. On the one hand, this reflects the situation on the ground, where employer surveys and vacancy monitoring were the most frequently identified tools. On the other hand, the high scores may denote a tendency to understand skills assessment and anticipation as mainly linked to demand-oriented institutions and sources of information. There is scope to build up skills identification approaches and institutional collaboration with a more balanced focus on demand and supply; for example, by reflecting more visibly the role and contribution of mandated institutions for education and training policies, such as training providers, which are typically 'supply-side' types of institution or organisation. The result may also point to a need to encourage supply-side actors to assume a much more active role in skills needs assessment and anticipation, coupled with the necessary investments in capacity building.

CONTRIBUTION OF PUBLIC EMPLOYMENT SERVICES TO THE IDENTIFICATION OF SKILLS NEEDS ON A REGULAR BASIS IN THE SEE COUNTRIES

The public employment services lead the most structural approach to skills needs identification in the South Eastern European countries. They conduct, on regular basis labour market monitoring and analyses, using vacancy registers. Often they run their own employer surveys and produce skill needs analyses to inform (re)training and other activation measures. In Albania, one of the main instrument for skills needs identification is the regular skills needs analysis. The National Employment Service coordinates the work, in cooperation with the National Statistical Institute and the Ministry of Social Welfare and Youth. Conducted every two years since 2008, the skills needs analysis builds on an employers' survey and the methodological instrument has been improved over the years to provide a more detailed picture of skills needs. The Employment and Labour Market Agencies in Bosnia and Herzegovina (both entity and State level) carry out labour demand and skills needs analyses, questioning companies about their needs for qualified workers. Information collected support mostly skills upgrading and job matching activities, while more details on skills and qualifications would be needed to help formulating education policy (as indicated by some respondents). The Public Employment Services in both Serbia and Montenegro have regularly used over the years employers' survey to study labour market dynamics and expected changes in demand for occupations and skills. The surveys are conducted among companies from different geographic regions and economic sectors and ensure the evidence basis for planning job and skills matching activities.

An important aspect of the questionnaire was to get first-hand information on the obstacles and difficulties various public and private actors face in the planning and implementation of skills needs identification exercises. Figure 3.3 shows the main reasons respondents gave for not pursuing skills assessment or anticipation exercises, or obstacles to the further refinement of existing tools. Almost 70% of respondents are planning new or refined exercises. We have clustered the responses around two main categories of respondent: those who are planning new or refined exercises and those who are not. The top-ranking obstacles fluctuate slightly, but those most frequently identified by both categories of respondent are lack of funds and lack of expertise (specialised human resources). A perceived difficulty in coordination between different actors, lack of interest and support from upper decision-making echelons, and poor statistical infrastructure are also mentioned as obstacles.

FIGURE 3.3 OBSTACLES TO PLANNING AND IMPLEMENTATION OF SKILLS NEEDS IDENTIFICATION EXERCISES



Note: The graphs represent the sum of the answers given by each respondent to the questions on future plans asked in the standard questionnaire, section 1.3 (see Annex 1).

The results of the survey show a fairly good level of collaborative work around the interpretation of skills assessment and anticipation across the mandated ministries in all countries. All the countries report the involvement of various organisations in the discussion of results. For most countries the involvement in policy formulation is similar to the involvement in discussions. As regards the collaboration of mandated ministries (education, employment) with other actors in the discussion of findings and definition of policy responses, employers' organisations, trade unions and education/VET providers seem to be the main counterparts (Figure 3.4). Interestingly, skills councils register a rather low score, suggesting a possible avenue for raising the profile and support to skills councils or committees as collaborative structures that could initiate, discuss and ensure policy use and wide dissemination of skills anticipation and assessment findings.

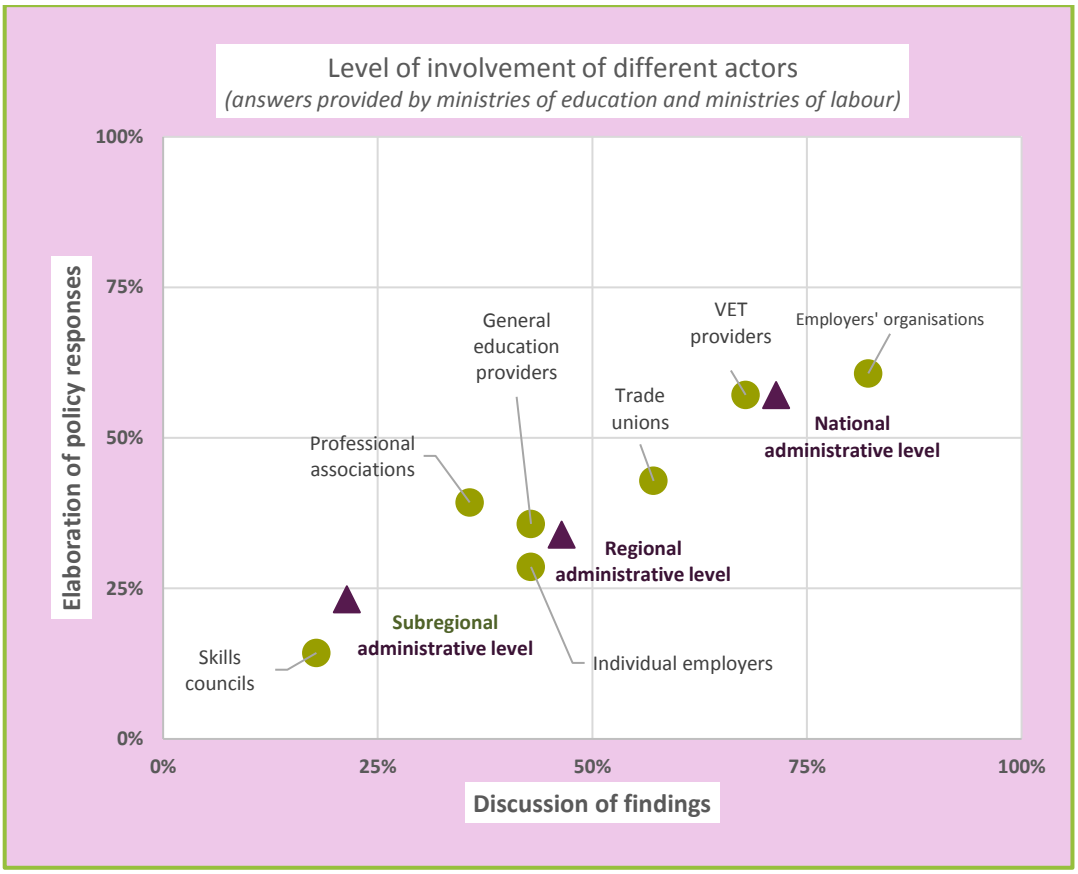
Figure 3.4 also shows the extent to which skills identification is a preoccupation at the national, regional and local administrative levels. Naturally, high scores occur at the national/central administrative level, but the regional administrative level seems also to be significantly involved in the discussion of findings. The regional and subregional/local administration levels have less perceived influence on the elaboration of policy responses based on the outcomes of skills assessment and anticipation exercises and other related initiatives.

This is consistent with previous analyses that have revealed a rather limited role of the local and regional levels in deciding on education and employment policies and programmes (e.g. adaptation to local needs). From a country perspective, for instance, Bosnia and Herzegovina includes the regional

and local administrative levels more, and this can be attributed to its political and administrative organisation.

The most frequent answers on the limits to higher involvement of the regional and subregional levels in skills anticipation and matching processes point to problematic issues such as coordination mechanisms, the ability to obtain meaningful involvement in these exercises, and a perceived lack of flexibility in the policy planning and implementation at local level.

FIGURE 3.4 COLLABORATION AMONG KEY ACTORS FOR DISCUSSION AND FORMULATION OF POLICY RESPONSES



Note: The diagram is based on the answers provided by ministries of education and labour to the standard questionnaire, section 2.2 (collaboration/coordination), question 6 (see Annex 1).

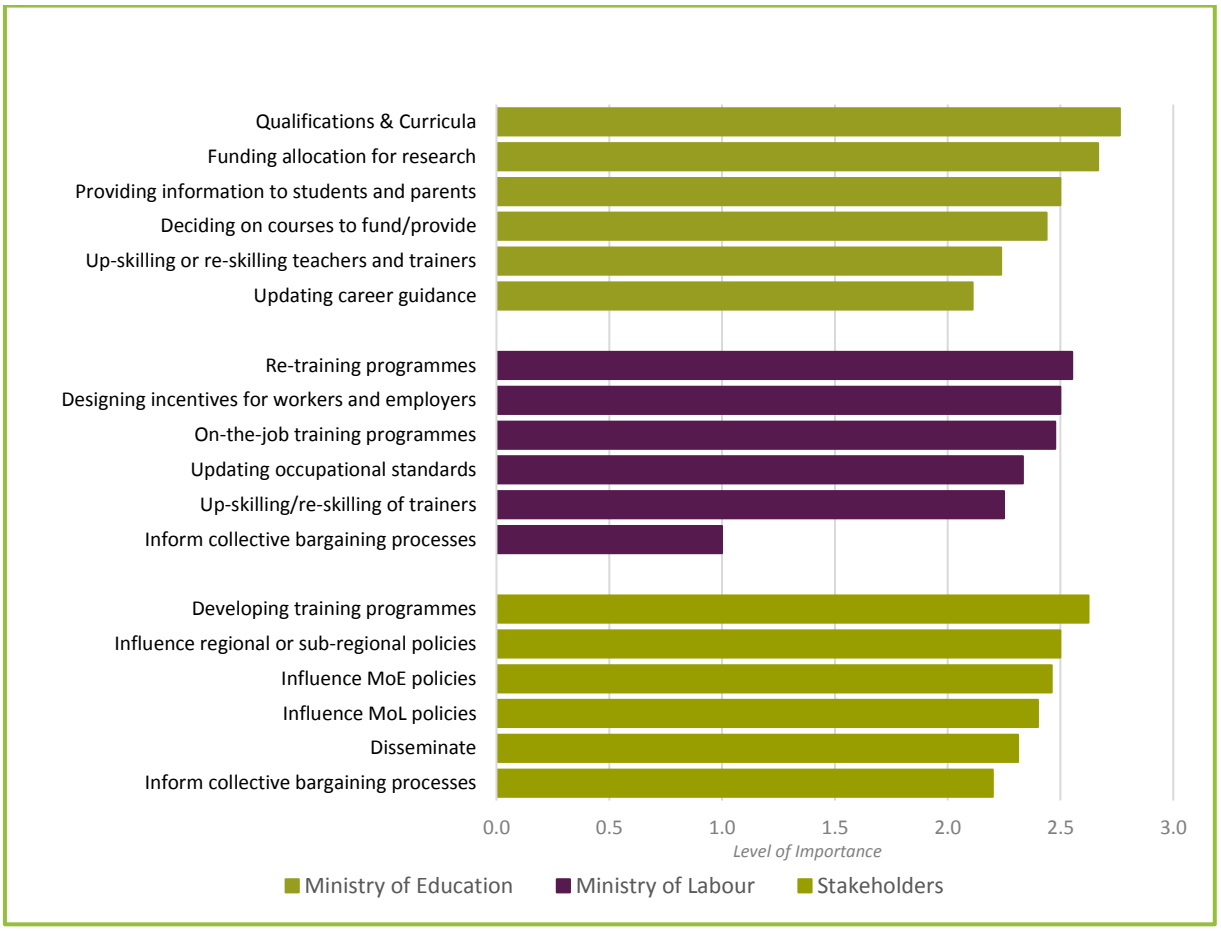
The second part of the questionnaire explored the practical use of information obtained by means of skills assessment and anticipation exercises with respect to:

- obstacles that countries face in translating information about skills needs into action, for example revising standards and curricula;
- levels of cooperation and signals of conflicting views/perspectives on future skills needs;
- influence of subnational administrative levels in changing and adapting educational offers and employment programmes and other related supports or services;
- main channels for disseminating information on current and future skills needs to a wider audience.

Figure 3.5 depicts the most frequent policy use of data and information emerging from skills needs assessment or anticipation exercises. The information is clustered around three main categories of respondent: ministries of education; ministries of labour/employment (including their specialised

agencies); and stakeholders (including trade unions, employers' organisations and other relevant actors. This grouping also reflects different policy roles and mandates.

FIGURE 3.5 MAIN POLICY USES OF SKILLS ASSESSMENT AND ANTICIPATION FINDINGS



Note: The graph shows averages of responses within each respondent institution, weighted according to the level of importance stated (1 = not very important; 2 = moderately important; 3 = very important). See Annex 1, section 2.1.

The educational institutions identify the design or updating of qualifications and curricula as the top 'destination' of skills information use in policy making. Other core elements of education planning, delivery, funding and performance are decided according to the findings of skills assessment exercises: these include providing information to students and parents, including updating career guidance; decision making on courses to be provided; and the focus of upskilling and reskilling programmes for teachers and trainers.

The ministries of labour, as the main institutions responsible for facilitating positive transitions in the labour market (employment promotion, better matching), identified the following as the main uses to which they put skills needs information: planning retraining and on-the-job training programmes; updating occupational standards; upskilling trainers; designing and adjusting the set of incentives to workers and employers (e.g. to stimulate employment or human resource development); and informing collective bargaining processes.

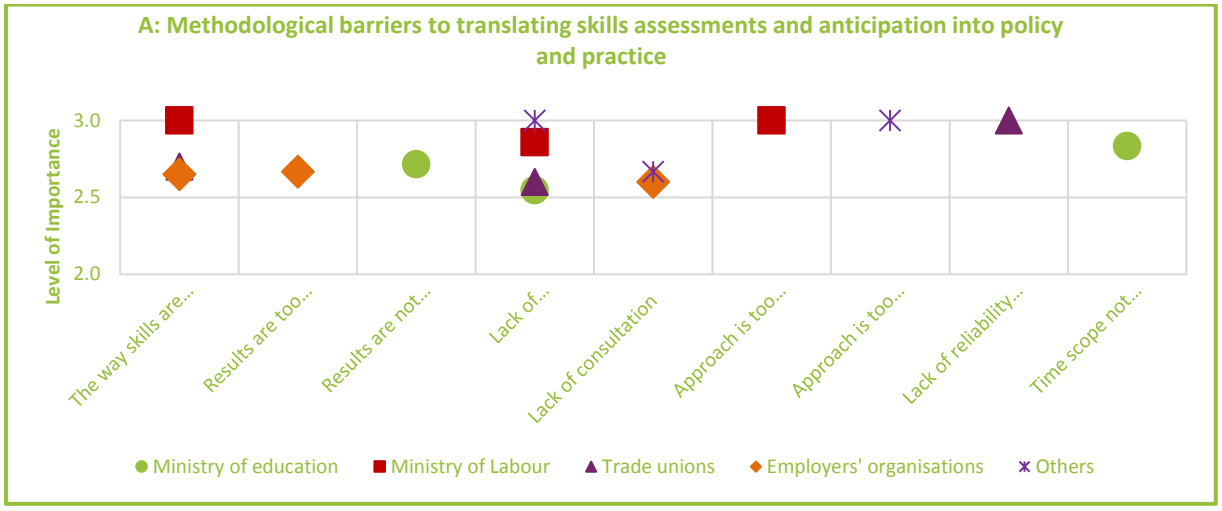
The stakeholders (trade unions, employers' associations and other organisations with interests in the area of education and employment) mention most frequently the development of training programmes and the use of the information in consultation processes and for the dissemination (among members/constituents in the case of social partners) of evidence gathered through skills assessment and anticipation exercises.

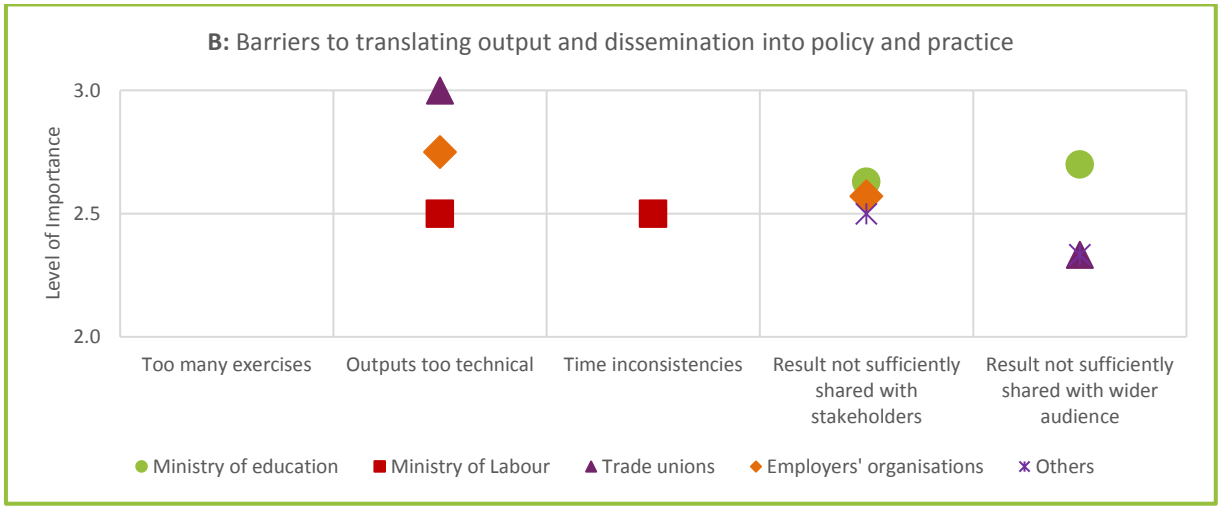
Information about important methodological barriers in the projects towards skills assessment and anticipation was also collected and is summarised in the three parts of Figure 3.6. A particular problem seems to be the way skills are measured or defined, which is often not at a sufficient level of disaggregation to reflect practical use. This problem is reported in all SEE countries and it remains an issue even in countries with very highly developed and complex skills anticipation systems.

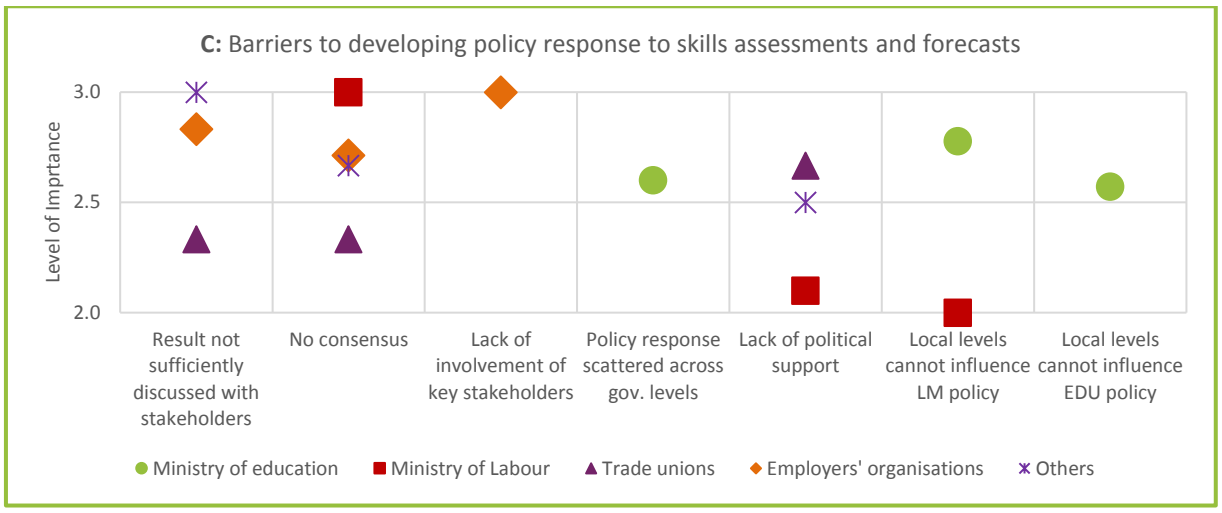
A similar problem is concentration on specific groups of education or occupation, sectors or regions, which might not allow the results to be used beyond the context of the study that developed the skills anticipation; similarly, that the results might not be sufficiently disaggregated. Partial approaches are very useful in developing expertise and for in-depth studies of particular skills mismatches, but they are not broad enough to enable the examination of broader and more structural problems; also, the level of disaggregation is always limited by the available data.

Many exercises and their outcomes are criticised for giving insufficient consideration to key labour market information. This can happen either because data is insufficient or methodologies are currently incapable of including external information of this kind in the exercises. A simple way of overcoming this problem is by broad consultation with stakeholders and experts who can provide an interpretation of the outcomes, including the cases in which missing labour market insights might generate misleading results. This involvement and consultation, however, is a fourth point of critique flagged up as a barrier.

FIGURE 3.6 MAIN BARRIERS TO TRANSLATION OF SKILLS ASSESSMENT AND ANTICIPATION FINDINGS INTO POLICY ACTION







Note: Averages of responses within each respondent, weighted according to the importance assigned (1 = not very important; 2 = moderately important; 3 = very important). The graphs display the top three categories for each respondent (for graph B, the top two categories).
Legend: PM – policy making; LM – labour market; EDU – education

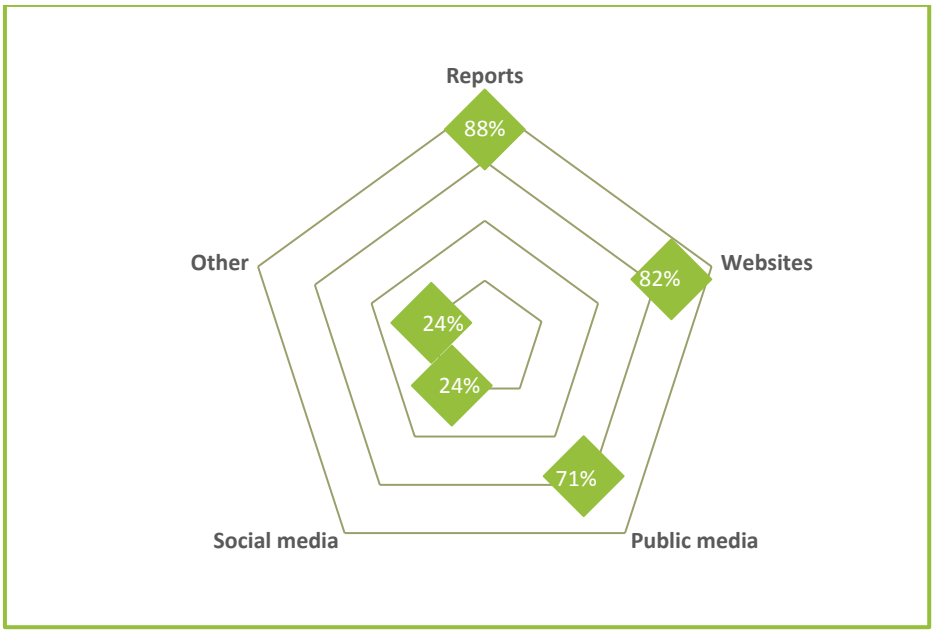
Besides the methodological difficulties inherent in translating technical outcomes into actual policy and programmes for human resource development and employment, equally important issues to consider are dialogue and common perspectives on skills development horizons. Effective matching efforts rely on informed decisions, but, even more importantly, on a shared path and goals to improve human resources and respond to future skills needs while reconciling the interests of different parties (companies, workers, public institutions, etc.).

The responses reporting on conflicting interests or objectives in agreeing on skills needs and responding to them revealed a relatively low degree of conflicting objectives. This could be the result of the respondents' interpreting the question as referring only to conflicts of interests. In general, it is useful for stakeholders to have both common and specific objectives. Specific interests (depending on each institution's mandate) can broaden the extent to which the information is used and the range of policies discussed, as long as it is understood by all that the common goal – overcoming skills mismatches and improving labour market institutions – also necessitates some form of collaborative agreement.

Figure 3.7 captures the countries' responses to questions about the channels used to disseminate the results of skills needs identification exercises (see Annex 1, section 2.5). While skills assessment and anticipation are useful in informing key decision makers, one of the key elements towards a national approach to skills anticipation is also to provide the information to as many actors on the market as possible. This includes persons and organisations not directly involved in the process of developing or evaluating the skills anticipation approach. Given this information on skills needs, all actors can adjust their behaviour to overcome future imbalances on the labour market.

However, the provision of information to a non-specialised group of users is more complex than the provision of detailed outcomes to a specialised group of users. The main channels are reports and websites – usually catering to a specialist audience – whereas the translation into public media for a more general audience trails somewhat behind. The usage of modern tools of 'social media' are least developed in this context. This hints to a further need to innovate when it comes to communication of results, making them available in a timely and user-friendly format.

FIGURE 3.7 CHANNELS USED FOR DISSEMINATION OF SKILLS ASSESSMENT AND ANTICIPATION RESULTS



More illustrations of the responses on a wider range of topics and questions are included in Annex 2 of this report.

3.2 Availability of data

All countries have a basic structure containing the available labour market data, such as the LFS and job vacancy data. While neither is forward-looking, they do provide the necessary background to support and adjust any anticipation exercise related to the current labour market situation. They should also form the basis for any labour market information system that should be the backbone of any skills assessment or anticipation done.

All the SEE countries have had at least some experience, albeit incidental, in almost all types of instrument involved in skills needs identification and labour market monitoring (Table 3.2). Most of them are developing specific structures for this information and are relying to some extent on more regularly collected data. LFS and employer-based surveys mostly provide the backbone of such activities.

Kosovo needs to work on the full alignment of methodology to provide survey-based labour market data (LFS). The former Yugoslav Republic of Macedonia has developed and rolled out a forecasting model of future skills demand and supply, based on an economic model. This model needs to be embedded in the institutions that use and discuss labour market outcomes and policies. A forecasting methodology has also been developed in Serbia.

TABLE 3.2 DATA SOURCES

Data source	Albania	Bosnia and Herzegovina	Kosovo	Former Yugoslav Republic of Macedonia	Montenegro	Serbia
Labour force survey	quarterly	annual	annual (WB)	quarterly	quarterly	quarterly
Vacancy monitor	survey	regular	annual	regular	regular	regular
Employer survey	regular	incidental	regular	regular	regular	regular
Sector skills needs	incidental	incidental	incidental	incidental	incidental	incidental
Tracer studies	incidental	incidental	incidental	incidental	incidental	incidental
Quantitative forecasts	–	–	–	skills forecast	–	(methodology developed)

Source: Based on country reports; national statistics offices

Note: This assessment of data sources dates from mid 2015. All the SEE countries are steadily pursuing improvements in the production of statistics and full compliance with Eurostat and international standards. Continuous progress, therefore, will change the picture depicted in this table.

To establish an anticipatory model of skills needs identification, it is crucial to generate a strategy for developing and improving labour market information which will ensure that it is collected on a regular and representative basis. Starting from an existing information base, more advanced statistics and methods could be added. At the start, this process could be incidental, as expertise and methodology are developed, but to provide structural inputs regular, frequent, methodical data collection should be established. Without well-founded knowledge the current situation, it seems quite useless to look into the future.

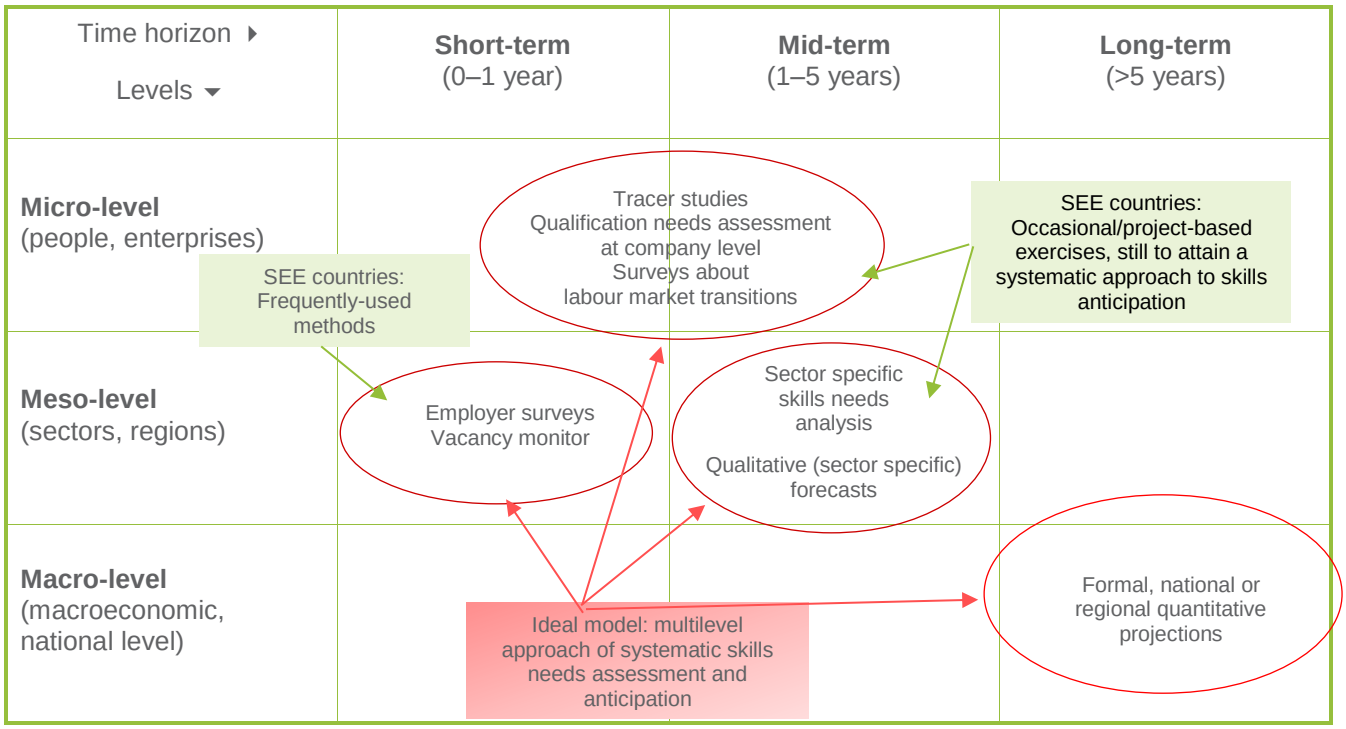
3.3 Matching supply and demand: current activities and possible approaches

An ideal analysis of skills supply encompasses several dimensions. It encompasses geographic scope and scaling across the regions, and it includes micro to the macro levels, and investigates current, short-, mid-, and long-term anticipation of skills supply and demand. It also mixes different data that allow various angles of analysis for different purposes. A summary of approaches is depicted in Figure 3.8. As argued previously, a combination of approaches enables a fuller use of the individual methods.

However, it is quite common that not all of the methods can be used in a single country, given the financial and staff capacity to perform the various activities required. The current state of approaches and methods used in each SEE country reflects the country's institutional setting and historic development but also the resources available for such exercises.

Most of the SEE countries have incidental projects in all the dimensions of the matrix depicted in Figure 3.8, which replicates the matrix on practices depicted in Figure 1.1 and provides information on the frequency of different methods used in the countries. The most common form of skills needs identification was the use of employer surveys asking about future skills needs. All the countries seem to rely on this form of aggregating employers' responses to future skills needs, often even on a regular basis.

FIGURE 3.8 DIMENSIONS OF SKILLS ANTICIPATION IN SEE COUNTRIES



Source: Adapted from Feiler et al., 2012

Depending on scope, the SEE countries would benefit from developing a wider range of instruments to measure and anticipate skills needs. While several countries reported additional sector and regional studies, some of them very successful, even in the field of translation into education and labour market policy, no country reported structural and repeated use of these instruments.

The financing and utilisation of skills anticipation work were donor-led, by various external sources of funding for such exercises, such as IPA (pre-accession funds), bilateral cooperation, and other international cooperation initiatives in all the countries. The success of these projects could be translated more regularly into a structural approach. An exception is skills anticipation, which is based on employer surveys, and seems to be already system-embedded.

3.4 Country overviews

The information here draws on the responses to the survey and its first preliminary analysis in the reports drafted by country experts during the first part of 2015, information collected through the previous cycle of Torino Process (2014) and other publicly available sources of information (e.g. websites of specialised institutions and organisations).

Albania

Practices in skills needs identification

In Albania, a broad mixture of initiatives is used to analyse skills needs. Frequent use is made of the analysis of existing labour market information, analysis of vacancy data, and employer surveys that include questions on skills shortages and imbalances. Qualitative methods such as interviews and focus groups are also frequently mentioned, mostly in the context of other, quantitative methods.

One of the main structural projects is the skills needs analysis based on the skills needs survey under the auspices of the National Employment Services (NES) and the national Institute of Statistics (INSTAT) in cooperation with the Ministry of Social Welfare and Youth. The employer survey has been conducted every two years since 2008 and is regarded as the main national exercise for skills

identification and anticipation. This instrument is being used and continuously improved and developed, in particular methodologically, to provide a more detailed picture of the country's skills needs. The results of the skills needs analysis are discussed with stakeholders and presented at public events. Critique is about the insufficient disaggregation of data and the effect on this on subsequent discussion of outcomes that might lead to policy decisions (Rama et al., 2014).

In addition to employer surveys addressing future skills needs, qualitative methods such as focus groups or expert interviews are used. Based on donor projects there has also been a tracer study of vocational education and a demand-side analysis of the National Agency for Vocational Education and Training and Qualification (NAVETQ). The social partners emphasise the work carried out on a sectoral basis: these are sectoral skills needs assessments, usually supported by donor organisations or donor-sponsored projects.

The majority of the efforts seem to be based on donor-sponsored projects; hence they can vary in context, design and outcomes depending on the project. It is vital to invest in a systematic approach, so as to stabilise and develop experience with the skills anticipation instrument at hand, at the level of the organisations carrying out the work and the target beneficiaries. Following the trends, monitoring and feedback to the next cycle is an important part of the process.

Whereas projects implemented by the social partners and other institutions are infrequent or depend on available funds and projects, the National Strategy for Employment and Skills 2014–2020 (NESS) and its action plan stipulate that skills identification and anticipation will be carried out on a regular basis. The skills needs analysis survey from the National Employment Services is more focused on the skills needs of micro and small enterprises, especially with regard to vocational education (Kuci, 2015).

Main institutions involved in skills needs identification

Given the important role of the skills needs analysis, the principal institutions involved – the National Employment Services, the statistical office and the Ministry of Social Welfare and Youth – play an important role in generating the key analysis. The current practice of skills anticipation and needs also involves other actors at the ministerial level, VET and qualifications organisations, employers' organisations and trade unions.

Donor organisations play an important role in initiating and supporting the various projects, which are often IPA-funded. 'The respondents confirm that the institutions and social partners participate either in an advisory capacity, through the provision of inputs, or with a financial contribution' (Kuci, 2015). Trade unions and employers' associations play a role in discussing and reviewing the skills needs information. They advise their constituents on the outcome and insights, and help in developing training geared to overcome skills mismatch. Subregional policy makers seem to have little influence on changes in skills assessment and forecasting exercises, based on respondents' replies to the questionnaire.

Use in policy making

Information from the skills assessment is used by the government in the development of training programmes and to inform collective bargaining processes, a process which in turn feeds back into the social partners' discussion on the changes needed to education or the labour market. Respondents state that the exercises are also feeding into the updating of qualifications frameworks, the design of new qualifications, the revision of curricula, decisions on courses to fund in VET and technical training, and the allocation of funding for research initiatives at the adult training and upper secondary VET levels. Trade unions and employers' associations use the information to develop their own training programmes and to advise workers and firms.

While the NES skills needs exercises, providing information mainly on the intermediate level of education, can be used to feed into vocational education, it seems they do not provide enough relevant information to guide higher education. Several respondents pointed that, admission quotas in higher education are based on infrastructural capacity considerations of the higher education institutions rather than market needs, resulting in a mismatch. A possible avenue for further development could be to develop, as a systematic practice (e.g. by systematic investments in tracer studies), an assessment of how education profiles and outcomes match labour market needs.

Capacity to assess current and future skills needs

The main data source for Albania seems to be the biannual employers' skills survey, which was originally geared to SMEs, with a specific focus on the demand for intermediate (VET trained) occupations. This has been extended to cover a broader range of organisations and to focus on occupations, overcoming some of the initial methodological and coverage problems. The methodology has improved and the focus has shifted from identifying needs in professional categories to those in specific occupations. Overall, the country seems to rely heavily on this important exercise in mapping the current and future demand for occupations. Other qualitative and quantitative data on skills anticipation or skills needs are collected through a variety of projects that are largely donor-based.

According to NAVETQ, the skills needs analyses carried out to date are fully used to inform supply needs. Discussion is ongoing about how to establish a systematic skills needs analysis for current and future skills in Albania that can feed into policy and administrative decisions. While the outcomes of the skills needs analysis and related projects are used in the development of skills strategies, such as the National Strategy for Employment and Skills, they need to feed structurally into decision-making processes at all levels, including regional and sectoral.

The respondents identified some methodological shortcomings, however: the way skills are measured and defined does not map sufficiently useful variables in the policy-making domain, and the results are too limited to specific occupations or qualifications. Improvements were made to various instruments, but it is likely that stakeholders should also make extra efforts to understand how skills needs analyses could still steer them to identify specific skills needs among their constituents. This could go along with an improvement on the exchange of information and views between stakeholders on the outcomes and policies or actions to be undertaken.

Overall, the effort to provide a skills needs analysis based on the enterprise survey has proven to be an important element in bringing together key stakeholders in discussing the outcomes. Given its importance it should serve as a focal point for projects and stakeholders to discuss the further development of skills anticipation at various levels (national and regional, sectoral) and for various groups (educational and employment institutions, employers, trade unions).

Dissemination to a wider public of the results of skills assessment and forecast exercises depends on the nature and aims of the exercise. For example, the National Employment Services considers the skills needs survey as a study that aims to inform policy makers in drafting new policies or adjust the existing ones.

Skills anticipation is hindered by the lack of funds available for the projects, together with difficulties in coordinating efforts on the subject with other agencies involved. In stakeholder organisations such as trade unions and employers' federations, lack of knowledge and expertise is also seen as a key factor holding back greater efforts on skills anticipation. The topic is not always sufficiently prioritised in various organisations – to guarantee better coordination among the various actors.

Building on the expertise gained so far and preoccupation for skills needs identification, Albania could consolidate a more systematic approach to skills needs identification and follow-up of education and training outcomes.

To make this approach systemic, there is a need to use complementary sources of information (e.g. systematic follow-up of VET and higher education graduates), to monitor trends and to maintain consistency in the anticipation methodologies from year to year. Qualitative information on skills needs could complement the information, so as to reach the level of detail required by the education system.

Bosnia and Herzegovina

Practices in skills needs identification

The institutional setting in Bosnia and Herzegovina is very complex. Various governmental institutions at different levels are participating in projects assessing future or current skills needs and formulating appropriate policy responses.

A variety of instruments and methods is used in Bosnia and Herzegovina at entity level. The most structural approach seems to be through the public employment services, conducting employer surveys and analysing labour market data. Skills needs analysis are done through employer surveys, but, according to several respondents, these lack detailed information that would help in formulating education policy. Job vacancy data and job advertisements are analysed, general labour market information is used to develop indicators, and the dynamics of school enrolment are monitored. This is done regularly by the public employment agencies on a monthly or annual basis.

Educational institutions collect and process information on enrolment and course content, which in recent years has focused on the professional relevance of studies, linking (higher) education and graduates' labour market outcomes.

The FRAME project, initiated by the ETF to elaborate and develop a coherent policy approach for human resource development in line with the Europe 2020 strategy, resulted in a draft working document 'Skills Vision 2020'.

Main institutions involved in skills needs identification

There are four employment agencies in Bosnia and Herzegovina: the Bosnia and Herzegovina Agency for Labour and Employment, the Federal Employment Agency, the Employment Agency of Republika Srpska and the Employment Institute of Brčko District. In accordance with their mandate, these agencies conduct skills needs analysis by means of employer surveys. They thus play a leading role in the assessment of current and future skills.

In addition to data collection by statistical agencies, other relevant data and information on education are also collected and exchanged at the level of schools and that of the ministries of education. The main functions of the Agency for Pre-primary, Primary and Secondary Education of Bosnia and Herzegovina are the development of standards, common core curricula and modular curricula, and assessment of learning outcomes, but also to teacher training in general and VET. The Agency also participates in the development of employers' surveys, especially with respect to usage of classification on fields of education and training for secondary vocational education in Bosnia and Herzegovina.

The Agency for the Development of Higher Education and Quality Assurance and the Centre for Information and Recognition of Qualifications in the Area of Higher Education of Bosnia and Herzegovina perform important functions for the educational system at state level which are directly related to the methodology of educational statistics such as curriculum-based certification of completed levels of higher education.

The ministries of Labour, Education, Economy at entity level, local authorities, statistical offices, employers' associations, chambers of commerce and universities are all involved, mainly as stakeholders, but in some cases also in developing their own instruments or projects.

Use in policy making

The results obtained through different exercises in skills assessment and anticipation are discussed by the authorities in charge of education and employment, other public institutions and relevant stakeholders. Employer survey results are presented, published and disseminated to the relevant stakeholders, especially when enrolment policy is being planned. According to several respondents, the outcomes of skills needs identification could be used more systematically in the policy-making process.

Some replies to the questionnaire reveal that collaboration and communication through the interinstitutional mechanisms could be further improved (Sarajlić, 2015).

According to some respondents, the lack of accurate and timely data on the situation of the labour market hinder the planning of better education policies in line with the needs of the labour market. These shortcomings contribute to the overall mismatch between labour market needs and the supply of adequate qualifications and skills. The social partners' involvement perform mainly an advisory role. An avenue for future developments could be consolidation of networks and active participation by the public actors and social partners, and also through the active engagement of civil society. The stakeholders' capacity, motivation to be involved in policy development, and awareness of the significance of policy issues remain an area for further consolidation. We note that the social partners are more closely involved at the local level (Sarajlić, 2015).

The governance structures in the area of skills matching in Bosnia and Herzegovina are influenced by the country's complex constitutional set-up and multiple layers of decision making.

Capacity to assess current and future skills needs

There are two main sources of statistical labour market data in Bosnia and Herzegovina: administrative data referring to registered employment, unemployment and enrolment in formal education, and the household-based annual LFS. There are no specific national surveys of participation in adult learning. The available data provide information mainly about adults in the formal education system; in non-formal education there are usually no tracking or data collection systems in place, which makes it hard to estimate participation in this area (Sarajlić, 2015).

The main tools, instruments, and methods used in assessments of current skills needs are employer surveys. Skills anticipation initiatives seem to be fragmented. Several projects exist, predominantly donor-based. Further work on improving the coordination of discussion and work with the results is to be recommended. The standard source of labour market information exists, and forms the basis of the monitoring system functioning at the level of the public employment offices. A priority could be to move beyond basic labour market monitoring. Employer surveys are used to provide additional insights into future skills needs. A more coordinated and comprehensive investigation of skills issues on both the supply and demand sides could support more relevant education and training processes. The fragmented use of other instruments such as tracer studies and expert interviews, often at the institutional or project level, reflect a need to further invest in capacity development and proper resourcing of skills assessment and anticipation exercises.

In order to make the outputs from skills identification and anticipation exercises more easily available to a wider audience, conferences and presentations at various levels should be considered. This could also stimulate a more coordinated approach and could help in the development of local networks of stakeholders.

The complex constitutional set-up in Bosnia and Herzegovina makes the skills needs identification process much more complicated. There are processes under way, but the initiatives for skills anticipation are to some extent fragmented and are predominantly project-based and donor-driven. As a possible solution to the specific context, skills anticipation processes could take place at the regional and local levels, bringing the relevant actors on board to share and process information according to their various needs.

Montenegro

Practices in skills needs identification

Many institutions and stakeholders are involved in the development and discussion of skills needs. The Ministry of Labour and Social Welfare seems to play a key role in overseeing various exercises in the assessment of current skills needs. An important instrument is an employer survey, conducted annually by the Employment Agency of Montenegro, in which several ministries and stakeholders are involved. The employer survey is carried out among employers from different geographic regions and economic sectors and analyses several thematic areas. A biannual skills needs analysis was also undertaken by the employers' association, the Montenegrin Employers Federation.

All relevant stakeholders (employers' organisations, individual employers, professional associations, general education providers, VET providers, skills councils) are involved in the discussion of findings and, to a lesser extent, developing a response. Participants in social dialogue are involved in decision-making processes through sectoral councils (Golubovic, 2015).

Main institutions involved in skills needs identification

The Ministry of Labour and Social Welfare, as a labour market umbrella institution, coordinates several exercises for the assessment of current skills needs and uses the results for defining policies. Through these exercises, it is possible to get information about the needs of the labour market and employers' needs for skills, knowledge and competencies with respect to actual jobs. The Employment Agency of Montenegro conducts skills needs analysis through different activities, including analysis of job vacancies and identification of employers' needs through an employer survey. Dissemination of survey's results encompasses several institutions and stakeholders, such as the ministries of Education and Economy, the Chamber of Commerce, the Montenegrin Employers Federation, the trade unions, and skills councils. These assessments of current skills needs use various definitions of skills and qualifications, by level of education, by type, and by field of study and specific skills. The Montenegrin Employers Federation carries out a skills needs analysis to assess current skills needs, and also a training needs analysis. These exercises are conducted biennially, aiming to become annual in the future.

Use in policy making

Skills assessments and forecasts are used in the formulation and implementation of skills policy (e.g. updating occupational standards, upskilling or reskilling trainers, revising the content of training programmes and designing new training programmes) and in deciding which and how many training programmes to offer. They also inform employers to train their workers by upskilling or reskilling the workforce in specific sectors or with specific skills. In addition, skills assessments and forecasts conducted influence education and labour policies.

The results obtained from skills forecasts and assessments by different exercises are discussed by the ministries of Education, Agriculture and Rural Development, Labour and Social Welfare, Sustainable Development and Tourism, Transport and Maritime Affairs, and Internal Affairs, together with other public institutions and relevant stakeholders.

The results of the employer survey are presented at public events. The policy responses to skills forecasts and assessments are developed collaboratively across ministries. The Ministry of Education is mainly involved in policy responses in the field of defining student enrolment policy. Cross-ministerial collaboration is achieved through sectoral committees and councils, working groups, work on joint documents and projects, ad-hoc meetings and informal communication.

Sectoral committees and councils bring together representatives of employers, trade unions, schools and universities. This enables the representatives of the educational institutions to understand labour market needs and allows for quality assurance in education and anticipation of qualifications (Golubovic, 2015d).

A good example of successful cross-ministerial collaboration is Montenegro's Vision for Skills 2020 process, which was coordinated by the Ministry of Labour and Social Welfare under the ETF-backed FRAME initiative 2013–14 (ETF, 2014). A cross-ministerial working group was established, with representatives of another relevant ministries, institutions and organisations. Headed by the Ministry of Labour and Social Welfare, meetings were held regularly and enabled various actors to contribute within a participatory approach to the definition of key issues, challenges and priorities with respect to skills development.

The findings of skills assessments and forecasts are discussed at all levels (national, regional and subregional), but responses are developed only at the national level. According to several respondents, the involvement of the regional and subregional levels is limited because the regional authorities have insufficient capacity.

Capacity to assess current and future skills needs

As stated before, an employer survey is conducted annually among employers from different geographic regions and economic sectors. The Employment Agency of Montenegro conducts an analysis of various thematic areas, including questions on seasonal employment, employment of foreigners, education and training, the assessment of different employment programmes, and the skills and knowledge of participants in such programmes. The most recent employer survey assesses the skills of recent graduates from higher education. Information about current vacancies is taken either from the survey or from other administrative sources. The Montenegrin Employers Federation conducts additional skills needs assessments every other year.

As regards the capacity for skills anticipation, we note that a network of collaboration and evaluation of skills anticipation results exists. However, the instruments regularly used seem to be based solely on employer surveys and, potentially, expert discussions. Ad-hoc studies utilising various instruments are also used, and they provide insights for strategy documents, but lack of resources impedes regular follow-up.

Cooperation and collaboration seem to work in those cases where stakeholders are motivated and can use existing networks. Although collaboration around the development of strategic documents or plans seems to function, there is less evidence of its use in the regular policy environment. Some respondents are of the opinion that the outcomes of the skills anticipation projects seem not to be available at the times when policy decisions have to be taken.

Several respondents indicated a lack of support from decision makers for the use of skills needs information in policy development, and a perceived lack of consensus about current or future skills needs. In addition, local levels of government lack the flexibility and tools to influence both labour market policy and education policy. These are the main barriers relating to the development of a policy response to skills assessments and forecasts.

Further development of a comprehensive labour market information system, with transparent information easily accessible to all stakeholders, is to be recommended. Montenegrin policy makers and stakeholders need to work towards a skills system that is more balanced than the current one in terms of matching labour market needs (e.g. through regular use of a complementary variety of methods to scan both supply and demand). The analysis of skills needs and mismatch needs to be followed up regularly. Skills assessments need to be in line with policy planning and the development of other strategic documents.

Kosovo

Practices in skills needs identification

Kosovo has had many donor-financed projects concerning aspects of development of the labour market information (LMI) system. As a result of the implementation of the new LMI system, the regular source for the identification of future skills needs is the employer survey, and, for current needs, the job vacancy data, both sets of data being collected directly from employers. The Ministry of Labour and Social Welfare collects these two types of information.

Other exercises are carried out, but not regularly, and they often involve sectoral or regional studies that do not encompass the whole labour market. Project-based studies, developed mainly with donor support, described the skills-matching situation in a specific sector at a specific moment. Some studies incorporate questionnaires on skills shortages as an impediment to doing business. These include the Riinvest survey on the business climate, conducted among companies in 2014, and the market analyses of Kosovo's information and communications technology (ICT) sector, supported by the Kosovo Association of Information and Communications Technology (STIKK). The latter study covered the sector's employment structure, the future demand for employment (one year ahead) and the potential for the sector's growth. The United Nations Development Programme's *Human Development Report* for 2012 focused on the private sector and stimulated discussions on skills and education as a barrier to business development and the educational level of employees (Gashi, 2015).

These studies showed the lack of relevance of skills provision to sector needs under the current VET system. However, more could be done to provide, in a comprehensive and consolidated manner, the required information on the skills needed to promote economic development and skills matching.

The European Commission supported in 2015–16 in Kosovo (and the other SEE countries) a study on school-to-work transition focusing on higher education graduates (forthcoming publication).

Main institutions involved in skills needs identification

The main institutions engaged in skills needs identification and analysis are the Ministry of Education, Science and Technology, the Ministry of Labour and Social Welfare, the employers' associations, the Kosovo Chamber of Commerce, the American Chamber of Commerce and the Business Alliance of Kosovo (AKB). The Agency for Statistics runs an annual labour force survey. The Ministry of Labour and Social Welfare provides administrative data on a regular basis, and there is a continuous effort to improve the capacity of Kosovo's labour authorities to deliver services based on better information management. The ministry has been working for some years to improve its labour market information system. It is aware that LMI could be useful as an early warning system, among other things to prevent skills mismatch. To date, not much progress has been reported and both the labour market and the VET system are affected, according to Kosovo's 2014 Torino Process report (ETF, 2015b).

Use in policy making

Projects are often used to investigate skills needs in specific sectors, regions or other circumstances, leading to policy responses as a result. These policy responses are based, however, on donor-

initiated projects, and further efforts are needed to institutionalise the methodology structurally in the policy-making process.

One functional mechanism that may provide information on the relevance of skills for jobs or occupations is related to the development of occupational standards. The legal framework and the National Qualifications Authority (NQA) in Kosovo support this approach with the elaboration of occupational standards as tools for the development of new qualifications in the system. By involving key experts from among the stakeholders, future skills needs were taken into account when defining occupational standards and qualifications.

Under the Foresight component of the FRAME Initiative, the priorities discussed and to be considered by Kosovo in the field of human resources development were at national and system level. The Government of Kosovo adopted the resulted Skills 2020 Vision and Roadmap and this could ensure a structured follow up of progress and efforts to build up skills availability and relevance in the country.

Capacity to assess current and future skills needs

This stocktaking shows that there are only two regular sources of information for skills needs assessments, both run and financed by the Ministry of Labour and Social Welfare: information about labour market needs, based on the employer survey, and job vacancy data, which are collected directly from employers. Other exercises are carried out on an ad-hoc basis. As noted above, the ministry regularly provides administrative data. Information about labour market trends in Kosovo has been provided regularly since 2012. However, based on the recent census and LFS data (2011 census and LFS 2012, 2013, 2014), comparability over the years is open to question because of differences in methodology and outcomes.

The ministry's employment offices collect data on job vacancies from employers locally and aggregate the data provided in annual reports. The data thus collected are analysed to reveal the existing needs of businesses, by occupations. This information is recorded in the ministry's information system, which is used for employment intermediation for active job seekers registered at the the public employment services.

Skills anticipation is still in its early stages in Kosovo. It is important to generate the necessary LMI and to tackle the problem of reliability of the existing data. This is in itself already quite challenging, but reliable and representative data is a necessary foundation for skills anticipation.

There have been several successful smaller-scale projects within sectors to address skills needs, in which relevant data has been collected and used to design policy actions on that specific level. Such projects could and should be used to build up the necessary national expertise in conducting regular skills anticipation analysis nationwide, using a mixture of instruments.

This build-up of national expertise is necessary to overcome the lack of local expertise and a designated organisation responsible for collecting, analysing, organising and disseminating information on future skills needs. These lacks are key barriers to the development of regular skills needs assessments.

The use of information is rather limited in Kosovo and more investment should be committed to improving this situation. Kosovo needs a more systematic approach to skills needs identification with the clear objective of facilitating the decision-making process in skills development, using sources of information which can complement each other, and monitoring trends in socioeconomic development.

The former Yugoslav Republic of Macedonia

Practices in skills needs identification

There are various measures of skills assessment and anticipation in the former Yugoslav Republic of Macedonia. Three structural methods are important: long-term forecasting of the labour market, using the HERMAC model, by the Ministry of Labour and Social Policy, launched in 2013; the skills needs analysis of the Employment Service Agency (ESA), performed since 2009 on an annual basis; and the job vacancy survey by the State Statistical Office.

The annual employer survey, carried out by the ESA, uses the annual skills demand survey among a representative sample of private sector companies with more than seven employees. Anticipation relies in this case on the aggregation of employers' opinions and is used in the planning of training budgets and training programmes.

The Ministry of Labour and Social Policy and the ESA have also initiated a series of focus group discussions with employers to gather information on jobs and skills demand.

Main institutions involved in skills needs identification

The main institutions active in the realm of skills anticipation are the Ministry of Education and Science, the Ministry of Labour and Social Policy, the ESA, the State Statistical Office and the Business Confederation of Macedonia. The public employment services, private employment agencies, individual employers and professional associations are also mentioned in the context of projects and expert discussion.

Two recent initiatives are currently implemented within the project 'Skills Development and Innovation Support', having in the lead the Ministry of Education and Science and the World Bank, and with ETF's methodological support. With the aim to improve the relevance of education provision in the country, a full scale tracer study has been launched. The feasibility of establishing a Skills Observatory is also currently explored. This would allow in future regular exchange of data related to skills demand and supply situation and interconnection of various institutions and organisations working in the area of skills development and matching.

Use in policy making

Some elements of the inputs necessary for a forward-looking LMI system exist, but there seems to be a further need for coordination and cooperation between the actors in this field, according to respondents. Overall, priority should be given to the issue of skills anticipation in order to generate and coordinate a joint effort in analysing skills needs and formulating appropriate policy options based on the insights from these analytical projects. The questionnaire replies show that the existing projects seem to be used solely in the context of the project-holder's own institution.

Every year, the Ministry of Education and Science collaborates with local governments across the country to develop policies to govern enrolment in secondary education. The ministry cites as a good practice the financial support offered by municipalities to VET students training for occupations in short supply, thus helping to increase the attractiveness of VET by subsidising VET for occupations in short supply regionally. Nevertheless, attempts by local units to assess and address local skills needs have been criticised at the national level as being not always in line with national skills needs.

Capacity to assess current and future skills needs

Since 1996, the former Yugoslav Republic of Macedonia has carried out a quarterly LFS, representative of the whole population. The annual employer survey, carried out by the ESA, uses the

annual skills demand survey among a representative sample of private sector companies with more than seven employees.

The HERMAC model provided a forecast in 2013. It has been developed from an original model, HERMIN, in a twinning project (Support to the National Employment Policy, 2012–13) as a model of long-term labour market forecasting, enabling skills mismatch in the labour market to be analysed (ETF, 2015a). It explores demographic development and labour supply, long-term labour demand structured in 14 sectors, and skills mismatch according to ISCO and ISCED classifications (ibid.). HERMAC enables analysis of medium- to long-term forecasts based on a simple multi-sector macroeconomic model. It has been adapted from a model used in other countries and tailored to the specific context and situation of the former Yugoslav Republic of Macedonia. The country is at an advanced stage in the generation and use of a dataset comparable to international (Eurostat) standards that has allowed for the development and testing of such a complex forecasting model.

As respondents have pointed out, there seems to be a need for greater coordination and cooperation between the actors involved to embed skills assessment and anticipation activities fully in the system and ensure consistent collaboration across policy sectors and stakeholders.

It is likely that this lack of capacity refers not only to insufficient collaboration but also to the lack of resources in the various institutions that would make it possible to approach skills anticipation in a systematic way.

For the future, the Ministry of Education and Science plans to establish a skills observatory (as mentioned above) which will help in in generating insights in the skills mismatch and provide collaborative means to translate these into policy actions.

Serbia

Practices in skills needs identification

Serbia has implemented various skills-related analyses but still has to achieve a permanent, systematic and multi-sectoral mechanism for forecasting and monitoring labour market demands in terms of the knowledge and skills required by the workforce (Čekić Marković, 2015).

A series of projects, mainly IPA-funded, were designed and implemented with a view to identifying trends in demand (jobs, qualifications structure and occupations) and to starting to apply a labour market information and forecasting system. In 2009, the Economic and Social Research Institute in cooperation with the Ministry of Economy and Regional Development (the Employment Department, now within the Ministry of Labour) and the National Employment Service (NES) implemented the IPA-funded project ‘Forecasting Labour Market Trends’. The survey included a list of occupations in high demand, identifying anticipated jobs, required skills and distribution of demand, classified by size of corporation, type of ownership and economic sector.

In 2010–11, the Ministry of Economy and Regional Development and the National Employment Service implemented the project ‘NES Forecasts and Data Management’ (EUNES) – IPA08.
A methodology was developed, along with a survey questionnaire and data entry and processing software. The first comprehensive research was conducted by National Employment Service with the main aim of forecasting employers’ needs and obtaining results at the national, regional and district levels. The results of this project became the basis for a subsequent project aimed at improving the employment policy’s ability to embed forecasting, monitoring and evaluation in the design and implementation of active labour market policies. The project combined employer survey analyses and forecasts of labour market needs, applied structured interviews with representatives of small, medium and large companies in eight macro sectors, and online questionnaires with independent entrepreneurs and microenterprises. The practical aim of the survey was to collect information related

to the structural characteristics of labour demand and supply – occupations, qualifications, knowledge and skills of the workforce – and to develop forecasts of the labour market situation, identify qualifications mismatches and create an information base capable of improving the responsiveness of NES services to the needs of the economy. The National Employment Service launched the next employer survey in 2014, covering the topics of employment plans and their needs in terms of the skills and competences of potential employees. The purpose of the survey was to identify the occupations in demand in all regions and by all sectors of the economy.

Main institutions involved in skills needs identification

The implementation of anticipation and forecast-related processes is dependent on the donor that fund the exercise. Thus, leadership in these exercises and processes is most often taken by the main responsible actors: the Ministry of Labour, Employment, Veterans and Social Affairs, the Employment Department, the National Employment Service and the Ministry of Education, Science and Technological Development. The Ministry of Labour, the Ministry of Education and the National Employment Service take an active part in all exercises significant for skills needs assessment, defining and implementing strategic directions and priorities in skills development.

As detailed above, the National Employment Service has carried out annual exercises independently, in the form of employer surveys of knowledge, skills and employment, so it may be considered a leading institution in this area. It advises the ministries in charge of economy, labour and employment and provides them with necessary inputs. Nevertheless, NES's work applies mainly to the short-term identification of skills as planning instruments for continuous (vocational) training provision and to planning active labour market measures in the country. Any follow-up of this work should monitor the trends as regards skills needs, and the information obtained should be part of the wider scope of the anticipation process.

The main tools used in assessment and anticipation of skills are employer surveys asking about skills shortages on the labour market, analyses of job vacancy data and analyses of general labour market pressure indicators.

Of the stakeholders involved in assessing skills needs and elaborating responses to the strategy and policy, the most engaged are trade unions, employers' organisations, the Council for Vocational and Adult Education, VET providers and sector skills councils. The Serbian Chamber of Commerce, employers' organisations and trade unions alike participate actively in working groups.

The VET Centre is in charge of qualification standards development; this process is in Serbia still ongoing. The VET Centre is also responsible for defining education outcomes in line with labour market needs, and at the same time it has an advisory role in providing necessary inputs and recommendations or proposals to the relevant ministry. In the assessment of current skills needs, it cooperates with both employers' organisations and individual employers.

Stakeholder collaboration and coordination is organised through dedicated groups that meet regularly or on an ad-hoc basis to address issues concerning adult training of the unemployed, career guidance, the development of occupational standards, as well as through joint projects and defining strategic documents such as action plans. Trade unions and employers' organisations also participate as advisors in discussions and policy responses through the work of the Council for Vocational and Adult Education.

The use of skills assessment and anticipation exercises by trade unions can vary greatly. While some trade unions carry out their own assessments of skills needs, others do not have established mechanisms for this kind of assessment. Those conducting the assessments rely on the information received from members representing individual employers. Additionally, employers' representatives do various surveys related to the assessment of skills needs.

In 2012, the Institute for the Improvement of Education, in cooperation with the Serbian Chamber of Commerce and the Council for Vocational and Adult Education, and with the support of the EU projects 'Quality Assurance – Examination System in Primary and Secondary Education' (IPA 2008) and 'Modernisation of the Vocational Education and Training System' (IPA 2007), established four Sector Skills Councils (SSC) on a pilot basis in ICT, agriculture, food processing, and tourism and catering). These councils were established as mechanisms to ensure that skills provided under education and training met current and future labour market needs. The idea behind the SSCs was that, once established, they would take a leading role in identifying gaps and making the educational offer more responsive to the labour market. However, the SSCs' sustainability remains an issue for the future (ETF, 2015d).

Use in policy making

The Ministry of Labour, Employment, Veterans and Social Policy and the National Employment Service use a wide range of data in the process of informing decision makers – from updating occupational standards, on-the-job training programmes and retraining programmes to financial incentives for workers and employers. The results are used to help with, for instance, the transition to a greener economy. The ministry also believes that the way information from skills assessment and forecast exercises is translated into policy can be improved through further actions aimed at developing the forecast system on the labour market, defining the National Qualifications Framework, adult education and establishing SSCs.

As regards translating the information obtained about skills needs into policies, the Ministry of Education, Science and Technological Development should promote and coordinate the use of anticipatory information in the revision of qualifications and the development of new qualifications, together with curriculum revision and adult education training courses. The respondents' perception is that local and regional educational authorities have only a limited impact on adapting educational programmes.

Other stakeholders (trade unions, research and academic institutions, and employers' organisations) are conducting different independent analyses of business knowledge and skills. Trade unions are more involved in gathering information related to educational levels or fields, while employers' representatives cover information gathering by sector and occupation on both the regional and national levels. The most recent comprehensive study, which provides valuable information on skills, is being carried out by the Serbian Chamber of Commerce, and it indicates that employers face a lack of skills among staff and a shortage of skilled workers in certain modern professions.

Overall, all the institutions involved understand that skills anticipation and forecasting is a complex issue, and that information related to skills from the national, regional and local levels should be integrated.

Capacity to assess current and future skills needs

Besides the labour market information based on the LFS, an employer survey, based on donor support and utilising a methodology and survey questionnaire aimed at comprehensive coverage of employers, was implemented regularly in the National Employment Service.

While the scope and depth of the projects of recent years imply that the capacity to use various instruments of skills anticipation exists, the strong reliance on donor-funded projects, and the risk of discontinuation of the methods and institutions of skills anticipation at the end of the financing period, suggest that it is difficult to commit to the creation of a structural system of skills anticipation and its integration into the policy setting. The main reasons cited for this are insufficient funding and staffing.

Some methodological improvements are to be considered, according to some respondents, for example, to include more information on the dynamics of the labour market, and to extend the methods to encompass all types of occupation and qualification. A combination of several methods that also allow analysis of future skills needs would be useful, and might be considered. A first step has already been taken in combining information from the employer survey with existing LMI (e.g. vacancy data, LFS). This could be enhanced by analysing the supply side, for example by tracer studies, analyses of the structure of unemployment, especially youth unemployment, and economic inactivity.

The dissemination and sharing of key results should also be institutionalised better. Priorities would include discussing and working on results together with key stakeholders, and 'translation' of results for the general public. In addition, several respondents suggest that the policy response to key outcomes of skills anticipation could be improved if there were more support at the higher levels of decision making. Local decision makers often lack the flexibility but also the capacity to work with the existing tools of skills anticipation (Čekić Marković, 2015).

The common conclusion of all the institutions interviewed is that it is not possible to build an education system that meets the economy's needs unless strong connections are made between employers, institutions in charge of education, scientific institutions in the respective areas, and the labour market. These connections have to be institutionalised at all levels, national, regional and local.

While the importance of developing the assessment and forecasting system to address real skills needs on the labour market has been recognised, a structural approach to developing, coordinating and institutionalising skills anticipation remains a priority for the future (Čekić Marković, 2015).

4. CONCLUSIONS AND RECOMMENDATIONS

The South Eastern European countries share a common problem of slow economic development, albeit at different levels. Labour markets and skills provision are not functioning well enough to match the skills supplied with those demanded by firms. This hinders economic development, lowering the growth of the economies, but also diminishes individuals' chances of finding adequate employment and of developing and making use of their full potential as regards skills.

Education outcomes do not seem to match the skills employers demand. There seems to be still too great a distance between the labour market and the education provided. Closer cooperation and better information flows, along with the necessary changes in the education system and curriculum, would help to bring the skills demand and the education provided closer together. The current mismatch between education outcomes and skills demanded, together with other structural problems of the labour market, leads not only to high youth unemployment but also to high overall unemployment and inactivity. This also leads to detrimental outcomes and reactions such as out-migration and undeclared work. Brain drain and the loss of tax income are the ultimate results.

In brief, the analysis of the SEE countries' responses to the questionnaire on assessing, anticipation and responding to changing skills needs, revealed the following key findings.

- Insufficient resources and embedded capacities to run complex skills identification exercises regularly may lead to risks of discontinuation and differentials in methodologies, which hamper the consistency of the results of such exercises over time.
- A rather unstructured approach to consolidating the capacity and institutions of skills assessment and anticipation does not allow expertise in the use of the necessary instruments to be built up. More importantly, often, it hampers the building up of experience in using and interpreting the results of skills anticipation exercises.
- The main underlying reasons for all these shortcomings are lack of funding and resources on the ground, insufficiently developed statistical and information management infrastructure, and a perceived difficulty of coordination among different mandated actors and stakeholders, as well as insufficient prioritisation of skills anticipation on the political agenda.

All the countries rely heavily on donor-funded projects. While this is not problematic in itself, it turns into a problem when donor organisations cannot continue to fund the same projects or institutions repeatedly. The continuation of successful projects, though much needed, is often not possible, and the capacity and expertise that has been built up is lost. This exacerbates another obstacle, the lack of experience in using and interpreting the results of skills assessment and anticipation projects. As it is not always a straightforward task to interpret many of these outcomes or to translate them into policy actions, the accumulation of knowledge on specific methods and their use is crucial for the continued success of any LMI system.

Many successful projects were smaller-scale in set-up – either regional or restricted to specific sectors, or both. It might help to build up experience in smaller-scale projects that are easier to initiate and manage but will be scaled up to include more regions or economic sectors in subsequent years, in order to build up expertise and accumulate examples of successful outcomes. Such success stories can help to convince others to join in on similar projects. A bottom-up approach of this kind might be especially successful in countries where the regions play an important role in decision making around education or the labour market. In the same manner, strong sectors could be targeted that are either very dependent on overcoming skills shortages or very competent and willing to providing and participate in the necessary training, once the shortages are identified.

Though experts understand the importance of skills assessment and anticipation in overcoming some labour market problems, keeping skills mismatch prominent on the political agenda remains another big obstacle. Highlighting skills mismatch in this way would concentrate the attention of key decision makers on the importance of having a robust anticipatory approach to skills needs identification. A change of mind in this respect could be achieved if decision makers can be made to understand the importance of labour market information in general and skills anticipation in particular in identifying and overcoming structural economic problems. However, considering that this issue has been widely reported as a barrier to the implementation and success of many projects, it remains a key challenge to keep skills anticipation and skills mismatch on the political agenda and to prioritise skills mismatch among various stringent/problematic policy areas.

Translating findings into policy and programme actions also remains problematic, mainly because skills assessments are carried out ad hoc and/or with irregular frequency, and because of methodological gaps, e.g. in representativeness; disaggregation of occupations, qualifications and skills; delay between data/information production and the timing of policy cycles. Building cooperation, the involvement of relevant actors in all stages of development, and building a common language across different policy sectors and actors remain priorities to ensure that skills assessments results are reflected in the definition or updating of occupational standards and qualifications, career guidance, initial and continuous education and training programmes, employment support measures, and so on. There is also a strong perception of insufficient flexibility to influence and adapt education and employment related policies to local and regional contexts.

When it comes to skills matching, one should take into account the variety of roles and interests' stakeholders have (ETF, 2012). Understanding better the role they play in the policy making cycle, would ensure a more fluid process of translating skills identification results into policies and programmes aimed at skills development.

Partnership approaches (e.g. skills councils) or collaboration arrangements (e.g. skills/human resources development committees and working groups) are frequently mentioned as vehicles for discussion and agreement on policy responses about skills assessment and matching. However, several respondents raise the issue of capacity to sustain these partnerships and to ensure that they have a meaningful role in decision making, a role which is not limited to consultation only.

The most frequently mentioned channels for the dissemination of results are reports and websites. The countries could make better use of the huge potential of social media and could identify other direct or more efficient channels to communicate skills needs results to a wider audience. Heavy reliance on the traditional communication channels leads to a limited outflow of information, mainly towards a specialist audience. Most importantly, there is a risk that the youth of today, who are fully immersed in the digital world, will remain outside these information loops.

The main priority of recent reforms in the SEE countries has been to strengthen responsiveness to employment trends and the demands of the economy in a context of high unemployment rates, especially among young people. However, the countries' capacities at the national, regional and local levels must be improved if they are to deploy a systematic approach to skills anticipation and matching.

An important next step could be to develop a structural, regular approach which builds on the currently existing initiatives and is then broadened in several dimensions. The current practice of employer-focused skills needs assessment could, for example, be extended by systematically adding the dimension of supply and an analysis of mismatch using, for example, LFS data and tracer studies. Another possible development might be to build up a network of experts for the purpose of critically discussing the outcomes of national employer surveys or other skills assessment tools. These

discussions could even take the form of developing and formulating regular, qualitative analyses and outlooks of current and future skills mismatch.

The informal economy is very important in the SEE countries, and it is difficult to capture all elements of the labour markets in survey-based instruments. So a first approach to combining and analysing existing data sources, preferably by establishing longer-term commitment towards regular evaluations, can help to build up such structures and expertise. This can be done in skills observatories or within existing organisations analysing education or the labour market, such as ministries, agencies or independent organisations.

A key recommendation for all the countries is, therefore, to establish a structural approach to skills assessment and anticipation. As most countries have adopted and institutionalised the employer survey, this tool can be used as a starting point towards a more balanced skills anticipation framework. More instruments can be included gradually.

It would be helpful to integrate networks or groups that are responsible for some key aspects of an overall national skills anticipation organisation. International experience shows that these can be located within an existing organisation, such as the German Institute for Employment Research (IAB) as an independent research organisation with the German the public employment services, or they can be independent organisations like the Research Centre for Education and the Labour Market (ROA) in the Netherlands. These centres can serve as aggregators of knowledge and experts that build up and transfer knowledge within an organisation, but also across the entire nation.

Skills assessment and anticipation should be done repeatedly and should be monitored and provided with feedback, so as to build up experience with tools and outcomes. In this way the necessary experience with outcomes, methods and the biases of the results can be identified, and more reliable interpretations and policy recommendation can be obtained by using the experience of experts in the specific instrument.

Networks of stakeholders should be established and maintained. They provide the base for discussing, criticising, and developing skills anticipation methods and outcomes further. Ideally, they should consist of working groups of key stakeholders and experts, to allow for a thorough and comprehensive discussion and evaluation of any skills anticipation exercise. Appropriate networks or working groups that take the outcomes of skills anticipation to the sectors and regions where decisions on education and training are taken are key to a successful use of results in policy formulation and support.

Avenues of information dissemination should be built up. A start could be made by including key experts and stakeholder organisations, but in the medium term, an approach geared to spreading the information more widely should be adopted, fully using the advantages of social media tools, especially to reach out to the end users of skills needs information, namely young people, future graduates and job seekers.

The above topics or priorities for further development could guide future actions of the SEE countries. Follow-up to these recommended priorities would help countries in the medium to long run to establish a regular, methodologically solid and country-relevant model for assessment of current and anticipation of future skills needs.

ANNEX 1. STANDARD QUESTIONNAIRE ON ASSESSING, ANTICIPATING AND RESPONDING TO CHANGING SKILLS NEEDS

This questionnaire was developed by the OECD, in collaboration with the ETF, Cedefop and the ILO. Four slightly different templates were used to gather information from ministries of education and labour (including executive/subordinated agencies), employers' organisations and trade unions. Given a wider profile of organisations involved in skills needs identification and matching in the SEE countries (e.g. research institutes, universities), the ETF designed an additional template specifically for 'other stakeholders'.

Example of template: Assessing, anticipating and responding to changing skill needs

Background and motivation

Skills mismatches and shortages have important economic implications and have become a growing concern among policy makers. At the individual level, skills mismatch affects job satisfaction and wages. At the firm level, it reduces productivity and increases on-the-job search and turnover, while shortages increase the cost of hiring and hinder the adoption of new technologies. At the macroeconomic level, mismatch increases equilibrium unemployment and reduces GDP growth via the loss in human capital and/or the reduction in productivity it generates, while skills shortages have equally adverse effects on labour productivity.

Improving the match between the supply and demand for skills can limit these negative effects. Effective assessments of skills shortages and mismatches, as well as the anticipation of future skills needs, can be important tools in this respect. However, while many countries have such tools in place, their effectiveness may be limited because of difficulties of integrating information about skills needs into policy and practice.

Therefore, the OECD, in collaboration with Cedefop, the ETF and the ILO, has launched a new project to identify effective strategies among countries for turning qualitative and quantitative information on skill needs into relevant action for policy. Through the present questionnaire, the OECD and ETF hope to gather information on: the extent to which skills assessment and forecasting exercises influence labour market, education and/or migration policy; the involvement of the key potential stakeholders, including ministries of labour and education, employers and trade unions; and any good practice and/or barriers which are encountered in using such exercises in policy development. An important aspect of the study is to try and understand the degree and nature of institutional linkages between the various bodies responsible for skills policy in assessing, anticipating and responding to changing skill needs. Adapted questionnaires have also been sent to the Ministry of Education and social partners.

This questionnaire has been sent to the Ministries of Education and Labour and social partners from all South Eastern European countries. The ETF will draft and share a cross-country report on current state of play of practices and policies on skills anticipation in the region. The findings should inform country stakeholders (a) to further develop skills anticipation systems and make them more effective; and (b) to reflect skills anticipation outcomes better in skills development policies and programmes.

Key ministry contact

Once the completed questionnaire is returned, further questions of clarification on certain issues may arise. Please provide a contact person to whom all such questions could be channelled.

a. Name:
b. Organisation:
c. Position:
d. Telephone number:
e. E-mail address:

INSTRUCTIONS

Respondent(s)

The individual best placed to respond to this questionnaire would typically be someone in the Ministry of Labour knowledgeable about skills needs assessment and forecast exercises carried out in your country and/or their use. This person is likely to be a member of staff of the Ministry (or subsidiary body) directly involved in skills assessment and/or anticipation exercises. In the absence of such a person, the best-placed respondent is likely to be the head of research/analysis or long-term planning/strategy in the Ministry (or equivalent). In some cases, however, it might be necessary to obtain information from other members of staff and/or external contacts in order to provide as accurate an answer as possible – particularly where multiple skills assessments/forecasts exist, a large number of actors are involved, an external body is primarily responsible for the provisions of the skills information and/or these exercises and the policy response occur at a decentralised (regional or sub-regional) level.

Scope

In responding to the questions below, please focus on skills assessments and forecasting exercises that are carried out in your country on a regular basis and are considered to have (or the potential to have) an important impact on policy making and the decisions of individuals and organisations. These include exercises your Ministry may not be directly involved in (e.g. activities carried out by another ministry, exercises carried out at a regional/sub-regional/sector level, or assessments/forecasts made by employer organisations, trade unions, research institutions and think tanks).

DEFINITION OF KEY TERMS USED THROUGHOUT THE QUESTIONNAIRE

A number of technical terms will be used throughout the questionnaire. In order to minimise confusion, the following definitions will be adhered to. When in doubt, please do not hesitate to contact the ETF.

- **Skills** will be interpreted broadly and can refer either to particular qualifications (e.g. technical/vocational, university), field of study (e.g. law, medicine, economics, catering), or specific skills (e.g. numeracy, literacy, problem-solving, soft skills).
- **Skill shortages** arise when employers are unable to recruit staff with the required skills in the accessible labour market and at the going rate of pay due to a lack of an adequately qualified workforce. They can be defined in terms of unfilled and/or hard-to-fill vacancies.
- **Skill mismatch** either refers to the inadequacy of a worker's skills relative to the requirements of the job (skill deficit or gap), or to the opposite phenomenon whereby a worker's skills exceed those required by the job (skills under-utilisation or over-skilling).
- **Matching** can be seen as the deliberate attempt to bring the supply of, and demand for, skills better in line with each other.

- **Skill needs assessments** evaluate the current supply and demand for skills, with a particular focus on mismatches or shortages. General labour market information systems (LMI) are included under this heading, as long as they specifically set out to assess the relative supply of and demand for skills.
- **Skills anticipation** attempts to evaluate future skills needs as part of a strategy to improve matching.
- **Skill needs forecasts** are qualitative or quantitative studies that use available information or gather specific information to anticipate future skills needs, mismatches or shortages.
- **Green economy** is a low-carbon, resource efficient and socially inclusive growth paradigm. Transition to a green economy means to enable economic growth and investment while increasing environmental quality and social inclusiveness (UNEP 2010).

SECTION I. SYSTEMS AND TOOLS FOR SKILLS ASSESSMENTS AND FORECASTS

The aim of this section is to gather information on the main tools used in your country to assess skills shortages and mismatches, and to forecast future skills needs, as well as the degree and nature of your Ministry's involvement in such exercises. These include exercises your Ministry may not be directly involved in (e.g. activities carried out by another ministry, exercises carried out at a regional/sub-regional/sector level, or assessments/forecasts made by employer organisations, trade unions, research institutions and think tanks) – as long as they are regular exercises in your country that have the potential to inform skills policy making.12 In responding to this section, it is also important to distinguish between systems designed to assess current skills needs and those that aim to forecast future skills needs.

Special instructions for Section I

This section will first ask about exercises aimed at current skills assessments, and then about future skills assessments (i.e. forecasts). Where more than one exercise exists, please complete sections 1.1 and/or 1.2 separately for each assessment/forecast.

Assessments of current skills needs

Please describe any systematic and regular assessments of current skills needs that exist in your country. The focus here is only on the production of the information. LMIs that are used for skills policy can be included in this section. Please complete this section separately for each different exercise in cases where there is more than one.

1.	What is the title of the exercise?		
2.	Please indicate the extent of your ministry's involvement in this exercise (mark with an X the answer most applicable):		
	• Your ministry is the lead organisation (e.g. main sponsor or carries out the exercise).		
	• The assessment is mainly carried out by another organisation, but your ministry participates either in an advisory capacity, through the provision of inputs, or with a financial contribution.		
	• Your ministry is not directly involved, either financially or otherwise.		
3.	Please indicate: (i) Which of the following actors are involved in the exercise (mark with an X as many as apply). (ii) Which of these actors is the lead organisation (i.e. main sponsor or the institution carrying out the assessment) (mark with an X as many as apply).		
		Involved?	Lead?
	a. Ministry of Education		
	b. Ministry in charge of migration		

[12] Skills policy may include labour market, education and/or migration policies.

	c.	Ministry of Finance
	d.	Ministry of Environment
	e.	Other sectoral ministries
	f.	Central Bank
	g.	Statistical Office
	h.	Regional development agencies
	i.	Regional governments
	j.	Subregional governments
	k.	Public employment services
	l.	Private employment agencies
	m.	Special observatories
	n.	Universities/research organisations/think tanks
	o.	Employer organisations/individual employers
	p.	Trade unions
	q.	Professional associations
	r.	Skills councils
	s.	Other(s) (please specify):
4.	What is the frequency of this exercise?	
5.	What definitions of skills are included in this assessment? (mark with an X as many as apply)	
		Included
	a.	Qualifications by level (e.g. primary, lower/upper secondary, undergraduate degree, master's degree)
	b.	Qualifications by type (e.g. academic, vocational)
	c.	Fields of study (e.g. science, nursing, social work)
	d.	Specific skills (e.g. numeracy, literacy, problem-solving, soft skills)
	e.	Other (please specify):
6.	What are the main tools/instruments/methods used? (mark with an X as many as apply)	
		Used
	a.	Employer surveys asking about skills shortages
	b.	Analysis of job vacancy data
	c.	Analysis of job advertisements in the media and on the internet
	d.	Analysis of wage pressure indicators
	e.	Analysis of general labour market pressure indicators
	f.	Analysis of occupation/sector-specific growth
	g.	Analysis of school and university enrolment or graduation rates
	h.	Tracer studies (i.e. surveys of graduate outcomes)
	i.	Skills audits
	j.	Interviews or focus groups with experts or key informants
	k.	Other (please specify):
7.	Does this skills needs assessment exercise explicitly consider skills needed for a successful transition to a green economy? If so, please describe how.	
8.	If available, please provide any internet link(s) to the most recently available results of this assessment (or attach relevant material to this questionnaire) as well as any bibliographic references to the results or reports using these results.	

Skills forecasts

Please describe any systematic and regular forecasts of future skills needs that exist in your country (if an ad-hoc forecast only has been conducted, please refer to it and reply to the following questions indicating also when such an exercise has been conducted). The focus here is only on the production of the information. Please complete this section separately for each different exercise in cases where there is more than one.

1.	What is the title of this exercise?
2.	Please indicate the extent of your Ministry's involvement in this exercise (mark with an X the answer most applicable):
	• Your ministry is the lead organisation (e.g. main sponsor or carries out the forecast).
	• The forecast is mainly carried out by another organisation, but your ministry participates either in an advisory capacity, through the provision of inputs, or with a financial contribution.

- Your ministry is not directly involved, either financially or otherwise.

3. Please indicate:
(i) Which of the following actors are involved in the exercise (mark with an X as many as apply).
(ii) Which of these actors is the lead organisation (i.e. main sponsor or the institution carrying out the assessment) (mark with an X as many as apply).

	Involved?	Lead?
a. Ministry of Education		
b. Ministry in charge of migration		
c. Ministry of Finance		
d. Ministry of Environment		
e. Other sectoral ministries		
f. Central Bank		
g. Statistical Office		
h. Regional development agencies		
i. Regional governments		
j. Subregional governments		
k. Public employment services		
l. Private employment agencies		
m. Special observatories		
n. Universities/research organisations/think tanks		
o. Employers		
p. Trade unions		
q. Professional associations		
r. Skills councils		
s. Other(s) (please specify):		

4. What is the frequency of this exercise?

5. What definitions of skills are included in this assessment? (mark with an X as many as apply)

	Included
a. Qualifications by level (e.g. primary, lower/upper secondary, undergraduate degree, master's degree, …)	
b. Qualifications by type (e.g. academic, vocational)	
c. Fields of study (e.g. science, nursing, social work)	
d. Specific skills (e.g. numeracy, literacy, problem-solving, soft skills)	
e. Other (please specify):	

6. What are the main tools/instruments/methods used (qualitative and quantitative)? (mark with an X as many as apply)

	Used
a. Employer surveys asking about future skills needs	
b. Quantitative forecasting models	
c. Qualitative methods (interviews, focus groups/round tables and other Delphi-style methods such as scenario development)	
d. Other (please specify):	

7. Does this skills forecasting exercise explicitly consider skills needed for a successful transition to a green economy? If so, please describe how.

8. If available, please provide any internet link(s) to the most recently available results of this forecast (or attach relevant material to this questionnaire) as well as any bibliographic references to the results or reports using these results.

Future plans with regard to skills needs assessments and forecasts

1. Are there any plans to build new, discontinue, or significantly alter existing skills needs assessments or forecasting exercises (e.g. expand the coverage of industries, skills and occupations; change the frequency; adapt to consider skills requirements for a successful transition to a green economy)? Please provide a brief description of the changes planned, and the rationale behind them.

2. What obstacles, if any, lie in the way of (further) developing these activities in your country? (mark with an X if considered an obstacle; mark as many as apply).

	Obstacle
a. Lack of interest/support by policy makers	
b. Low reliability and accuracy of past exercises	
c. Difficult/lack of coordination with other agencies involved in skills needs assessments	
d. Poor statistical infrastructure	
e. Lack of human resources with relevant knowledge and expertise	

	f.	Lack of funds
	g.	Other obstacles to development (please specify):

SECTION II. USING THE KNOWLEDGE AND INFORMATION PRODUCED BY SKILLS ASSESSMENTS AND FORECASTS

This section seeks to understand how the skills assessments and forecasts described in the previous section feed into the formulation and implementation of skills development policy, as well as what works and what does not in this respect – particularly in relation to the collaboration between your Ministry and other stakeholders.

While skills assessments and forecasts are now treated jointly, please do indicate and specify any significant differences between these two types of exercise if necessary/applicable.

Policy uses of skills needs information

1. Column (i): Please indicate whether the information from skills forecasting/assessment exercises is used for any of the following policy purposes (mark with an X as many as apply).
   Column (ii): Where used, please indicate the importance of these exercises for each purpose (1 = not very important; 2 = moderately important; 3 = very important)
   Column (iii): Please also indicate to what extent subregional (local) policy makers have the ability to influence change in these areas (1 = low influence; 2 = medium influence; 3 = high influence)

	(i) Used (X)	(ii) Importance (1–3)	(iii) Local (1–3)
a. Updating occupational standards			
b. Upskilling or reskilling of trainers			
c. On-the-job training programmes			
i. Revising content of training programmes			
ii. Designing new training programmes			
iii. Deciding which and how many training programmes to offer			
d. Retraining programmes			
i. Revising content of training programmes			
ii. Designing new training programmes			
iii. Deciding which and how many training programmes to offer			
e. Designing incentives (tax breaks/subsidies) for workers or employers			
i. Hiring with incentives for workers with specific skills			
ii. Incentives to employers to upskill or reskill workers in specific sectors or with specific skills			
iii. Incentives for the geographic mobility of workers			
f. Hiring or dismissal of workers in the public sector or public companies			
g. Informing collective bargaining processes			
h. Other policy uses of skills needs information (please specify):			

2. Are the results of skills needs assessment and forecast exercises used in your ministry to develop policies to help with the transition to a greener economy (e.g. changes in hiring subsidies or retraining programmes that are offered)? Yes ____ No ____

Collaboration and stakeholder coordination

Collaboration between ministries

1.	a.	Are results from skills forecasts and assessments discussed across two or more ministries (e.g. education, labour, migration, environment, sector ministries)?	Yes		No	
	b.	If so, which ministries are generally involved in such discussions?				
2.	a.	Are policy responses to skills forecasts and assessments developed collaboratively across ministries?	Yes		No	
	b.	If so, which ministries are generally involved and for which policy uses mentioned in section 2.1?				
3.	Please provide a very brief description of any mechanisms/systems in place to enable cross-ministerial collaboration (e.g. dedicated groups that meet regularly, ad-hoc meetings, a contact point for interministerial collaboration in each ministry).					

4.	What are the main challenges in enabling coordination/collaboration between ministries?
5.	With respect to collaboration/coordination between ministries, what (if anything) has worked well?

Coordination across administrative levels

6.	Please indicate which (if any) of the following administrative levels are involved in: (i) discussion of the skills assessments/forecasts findings (ii) elaborating a national policy response (iii) elaborating a local policy response (mark with an X as many as apply)			
		(i) Discussion of findings	(ii) Developing national response	(iii) Developing local response
	a. National			
	b. Regional			
	c. Subregional			
7.	If the involvement of regional or subregional levels in the discussion of findings or in developing a local policy response is limited, what are the main reasons behind the limited involvement? (mark with an X as many as apply).			
	a. Lack of sufficient flexibility for regional/subregional to engage in the process			
	b. Absence of a body to coordinate the regional/subregional governments			
	c. Lack of capacity from regional/subregional governments			
	d. Other reasons (please specify):			
8.	Please provide a very brief description of any mechanisms/systems in place to enable collaboration across different administrative levels when developing policy responses (e.g. regular meetings between central and regional/subregional governments, special coordinating offices)			
9.	What are the main challenges in enabling coordination/collaboration across administrative levels?			
10.	With respect to collaboration/coordination across different administrative levels, what (if anything) has worked well?			

Stakeholder involvement

11.	Please indicate which (if any) of the following stakeholders are involved: (i) in the discussion of the skills assessments/forecasts findings (ii) in elaborating the corresponding policy response (mark with an X as many as apply)		
		(i) Discussion of findings	(ii) Developing response
	a. Employer organisations		
	b. Individual employers		
	c. Trade unions		
	d. Professional associations		
	e. General education providers		
	f. Vocational education and training (VET) providers		
	g. Skills councils		
	h. Other (please specify):		
12.	Please provide a very brief description of any mechanisms/systems in place to enable collaboration with stakeholders (e.g., trade unions or employer organisations participate as advisors in discussions or policy responses).		
13.	What are the main challenges in enabling coordination/collaboration with stakeholders?		
14.	With respect to collaboration/coordination with stakeholders, what (if anything) has worked well?		

Reaching consensus over skills needs and policy

15.	a.	Is there any evidence of conflicting interests/objectives between different actors when it comes to agreeing on skills needs?	Yes		No	
	b.	Is there any evidence of conflicting interests/objectives between the different actors when it comes to responding to skills needs?	Yes		No	
	c.	If you answered Yes to either of the questions above, please provide an example, detailing the nature of the disagreement and the actors involved.				
16.	Please describe any mechanisms/procedures in place to resolve such conflicts and achieve consensus.					

Barriers in translating skills needs information into policy and practice

This section explores the barriers that limit the use of skills needs assessments and forecasts in policy making. It distinguishes between methodological, output and dissemination, and policy development barriers.

Mark with an X as many barriers as apply. For each barrier identified, please also indicate how important this barrier is (1 = not very important; 2 = moderately important; 3 = very important) and specify where appropriate.

1.	What, in your view, are the main methodological barriers to skills assessments and forecasts being successfully translated into policy and practice?		
		Barrier (X)	Importance (1, 2, 3)
	a. The way skills are measured and defined do not map to useful variables in the policy-making domain (e.g., results by occupations do not translate to fields of study)		
	b. Results are too specific (e.g. limited to certain occupations, education levels or regional entities)		
	c. Results are not sufficiently disaggregated (e.g., more detail is needed by occupation, field of study or regional/subregional level)		
	d. Lack of consideration of key labour supply/demand dynamics (e.g. demographic, migration, educational enrolment, industry or occupation, regional/subregional trends)		
	e. Lack of consultation regarding skills needs and forecasts with stakeholders and experts (e.g. employers, regional governments)		
	f. Approach is too qualitative		
	g. Approach is too quantitative		
	h. Lack of reliability and accuracy of previous exercises		
	i. Time scope of forecasts is not useful for policy making		
	j. Please provide further detail on the methodological barriers mentioned above, or for other methodological barriers not previously mentioned:		
2.	What, in your view, are the main barriers relating to the output and dissemination of skills assessments and forecasts hindering them from being successfully translated into policy and practice?		
		Barrier (X)	Importance (1, 2, 3)
	a. There are too many assessment and forecast exercises		
	b. The outputs are too technical / difficult to understand by non-experts		
	c. Time inconsistencies between the production of information and planning/policy cycles		
	d. Results are not sufficiently shared with key stakeholders (e.g. general and vocational education providers, employers, workers, regional/subregional governments)		
	e. Results are not sufficiently shared with a wider audience		
	f. Please provide further detail on the output and dissemination barriers mentioned above, or for other output and dissemination barriers not previously mentioned:		
3.	What, in your view, are the main barriers relating to the development of a policy response to skills assessments and forecasts?		
		Barrier (X)	Importance (1, 2, 3)
	a. Results are not sufficiently discussed with key stakeholders (e.g. other ministries, employer organisations, employers, trade unions, general and vocational education providers, regional/subregional governments)		
	b. No consensus is reached about current or future skills needs		
	c. The development of a policy response to skills needs assessments and forecasts does not involve key stakeholders enough		
	d. Policy response is scattered across government levels (e.g. national, regional) or agencies (e.g. different ministries)		
	e. Lack of political support from senior decision makers for use of skills needs information in policy development		
	f. Local levels of government lack the flexibility and tools to influence:		
	i. Labour market policy		
	ii. Education policy		
	g. Please provide further detail on the barriers mentioned above, or for other barriers limiting the development of a policy response not previously mentioned:		

Good practice and challenges in translating skills needs information into policy and practice

1. Are there any good examples in your country of how the information and knowledge gained through skills forecasts and assessments feed into policy? What explains the success of these?
   Please describe:
2. Is there any ongoing discussion in your country about how to improve the way information from skills assessment and forecast exercises are translated into policy? If so, please describe who is being engaged and what is expected from these discussions, and provide references to any reports if available.

Dissemination to a wider audience

1. Are the results from skills assessment and forecast exercises disseminated to a wider, non-specialist audience?

Yes		
No		

2. If yes, what are the main channels used for such purposes? (mark with an X as many as apply).

a. Reports		
b. Websites		
c. Public media (TV, radio, newspapers magazines)		
d. Social media (Twitter, Facebook)		
e. Other (please describe):		

3. What, in your opinion, has worked well in making the outputs from such exercises more available to a wider audience?

Additional information or comments

1. Please use this space if you feel there is any additional information that you think is relevant for the understanding of the use of skills assessments and forecasts in your country, and how the results from such exercises are used for the formulation and implementation of skills development policies.

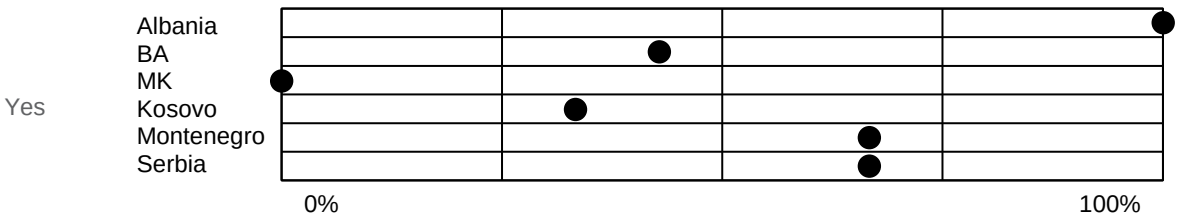
ANNEX 2. SELECTED RESPONSES TO THE SURVEY

In this annex, we provide an overview of the answers given to the standard questionnaire on assessing, anticipating and responding to changing skills needs. We use the approach to aggregate the answers by all relevant respondents. All the results should thus be seen as indicative and based on the response population.

Participating institutions

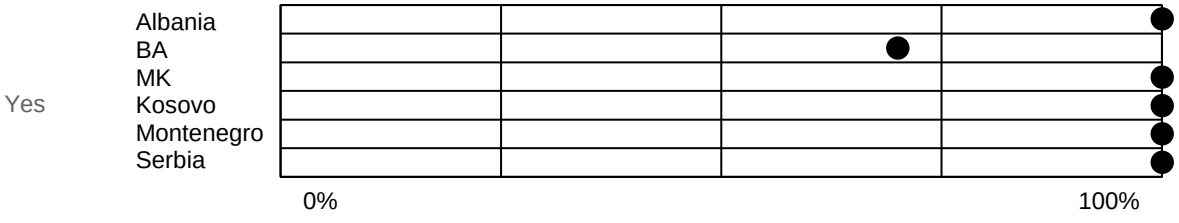
	AL	BA	MK	XK	ME	RS
Ministries of education	2	7	1	2	3	2
Ministries of labour	2	3	2	1	3	1
Trade unions	2	0	0	1	1	2
Employer associations	1	3	1	2	2	1
Other stakeholders	0	1	0	2	0	1
Total	7	14	4	8	9	7

Are the results of skills needs assessment and forecast exercises used in your ministry to develop policies to help with the transition to a greener economy?



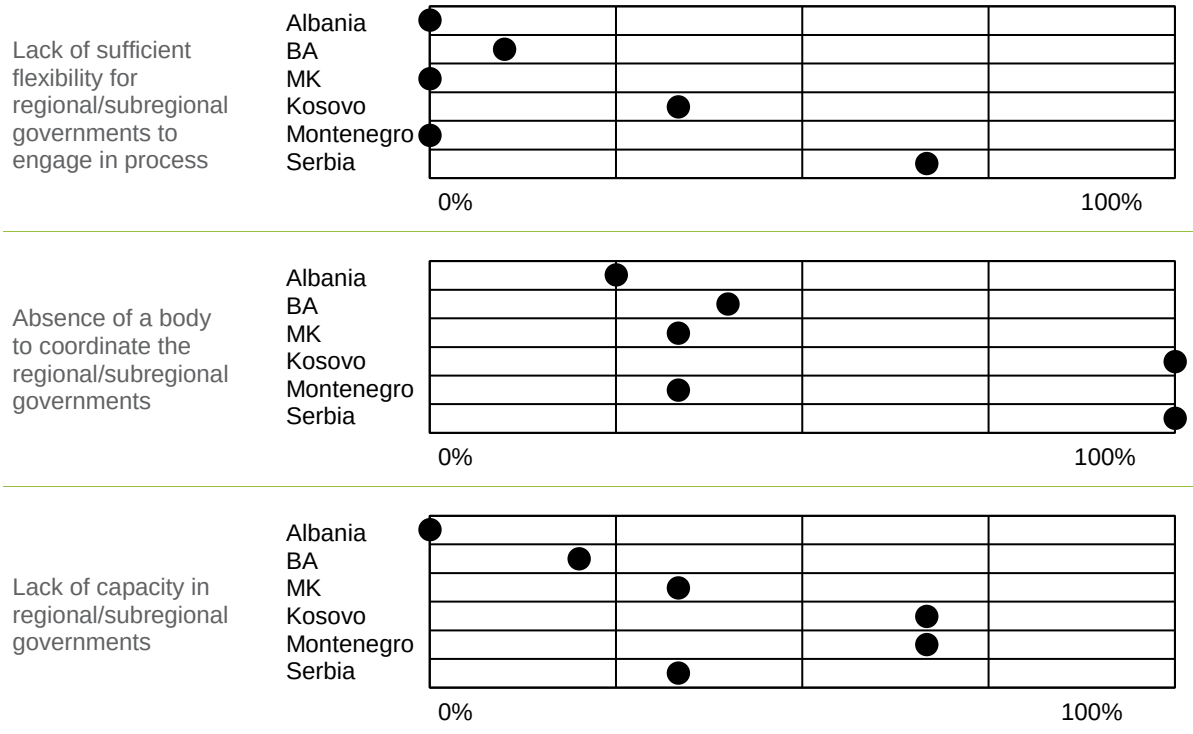
Yes = 100%; No = 0%
Applicable to ministries of education and ministries of labour

Are the results of skills forecasts and assessments discussed across two or more ministries?



Yes = 100%; No = 0%
Applicable to ministries of education and ministries of labour

Main reasons behind the limited involvement of regional or subregional levels in the discussion of findings or in developing a local policy response



Multiple answers possible, mentioned by x % of institutions

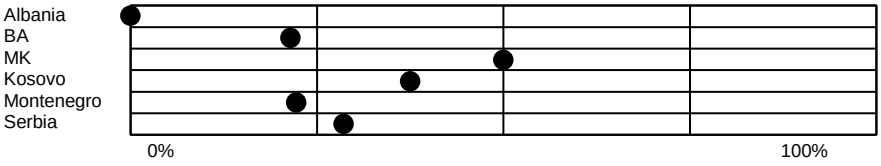
Applicable to ministries of education and ministries of labour

Other reasons mentioned:

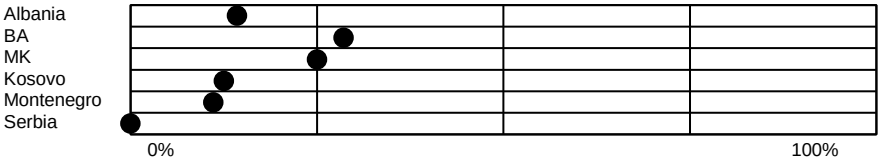
- Montenegro: lack of interest at regional or subregional levels in taking part in discussion of findings or in developing local policy response
- Former Yugoslav Republic of Macedonia: low awareness of importance of involvement at subregional levels in discussions or in developing local policy response

Very important methodological barriers

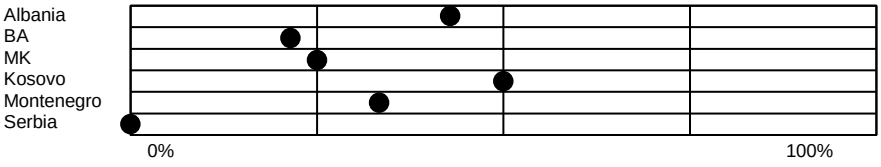
The way skills are measured and defined do not map to useful variables in the policy- making domain



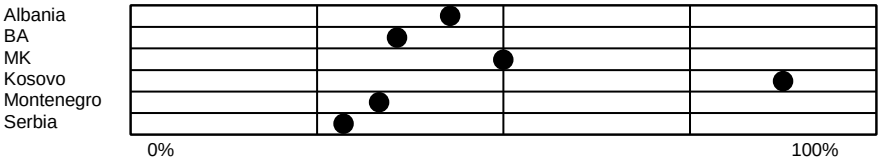
Results are too specific (e.g. limited to certain occupations, education levels or regional entities)



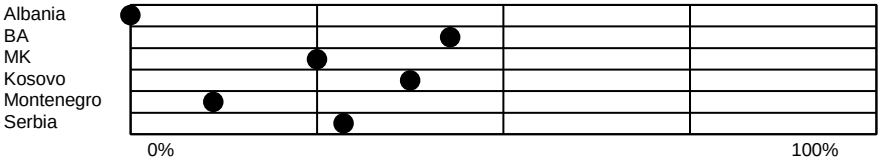
Results are not sufficiently disaggregated (e.g. more detail is needed by occupations, field of study or regional/subregional level)



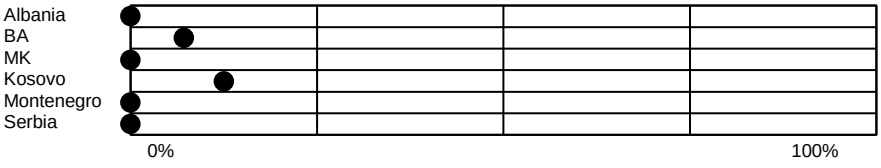
Lack of consideration of key labour supply/demand dynamics (e.g. demography, migration, education enrolment, industry or occupation, regional/subregional trends)



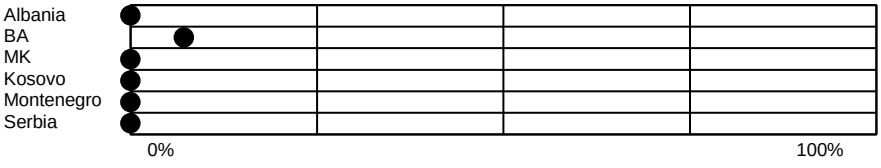
Lack of consultation regarding skills needs and forecasts with stakeholders and experts (e.g. employers, regional governments)



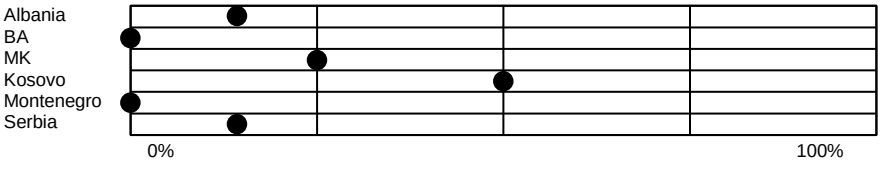
Approach is too qualitative



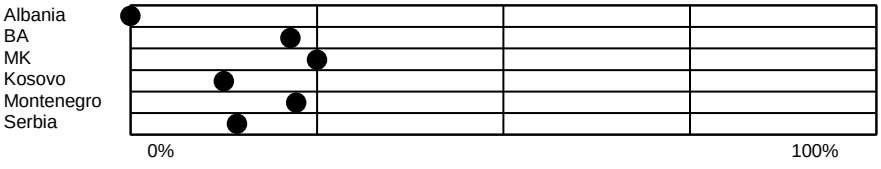
Approach is too quantitative



Lack of reliability and accuracy of previous exercises

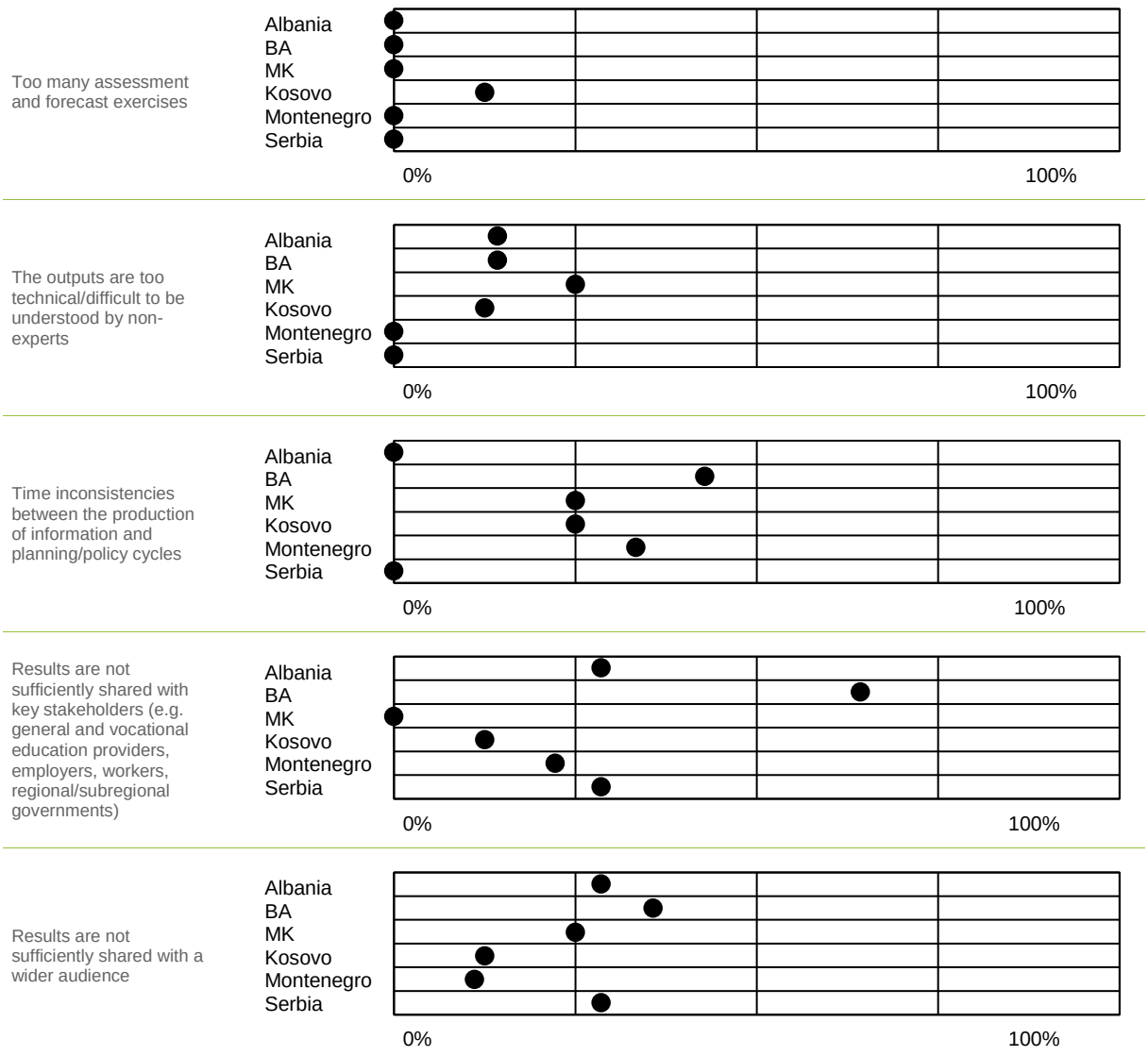


Time scope of forecasts is not useful for policy making



Multiple answers possible, mentioned by x % of institutions
Applicable to ministries of education, ministries of labour, trade unions, employer associations, and other stakeholders

Very important main barriers related to the output and dissemination of skills assessments and forecasts, hindering their successful translation into policy and practice

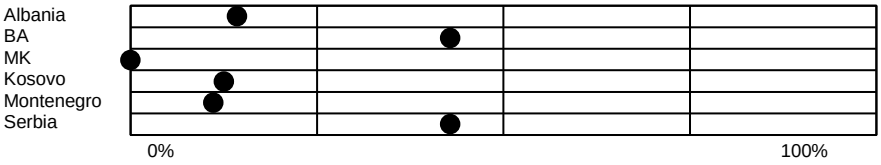


Multiple answers possible, mentioned by x % of institutions

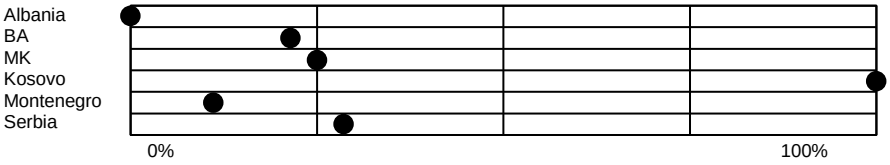
Applicable to ministries of education, ministries of labour, trade unions, employer associations, and other stakeholders

Very important main barriers related to the development of a policy response to skills assessments and forecasts

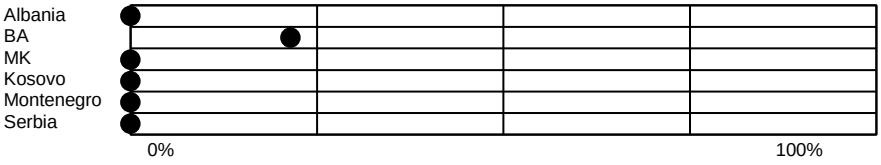
Results are not sufficiently discussed with key stakeholders (e.g. other ministries, employer organisations, employers, trade unions, general and vocational education providers, regional/subregional governments)



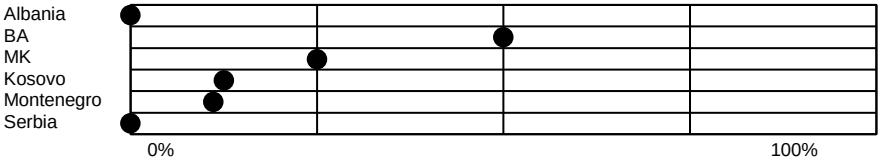
No consensus is reached about current or future skills needs



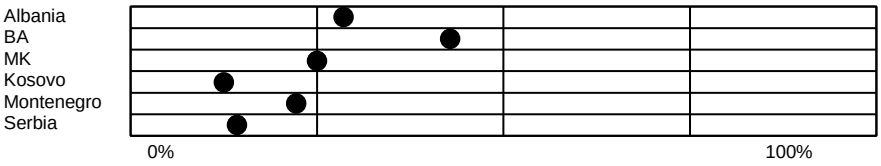
The development of a policy response to skills needs assessments and forecasts does not sufficiently involve key stakeholders



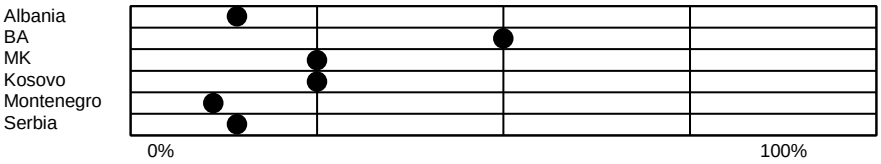
Policy response is scattered across government levels (e.g. national, regional) or agencies (e.g. different ministries)



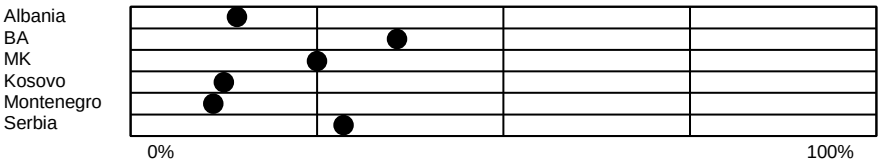
Lack of political support from senior decision makers for use of skills needs information in policy development



Local levels of government lack the flexibility and tools to influence labour market policy



Local levels of government lack the flexibility and tools to influence education policy



Multiple answers possible, mentioned by x % of institutions
Applicable to ministries of education, ministries of labour, trade unions, employer associations, and other stakeholders

ACRONYMS AND ABBREVIATIONS

AL	Albania
BA	Bosnia and Herzegovina
Cedefop	Centre européen pour le développement de la formation professionnelle (European Centre for the Development of Vocational Training)
ESA	Employment Service Agency (former Yugoslav Republic of Macedonia)
ETF	European Training Foundation
EU	European Union
FDI	foreign direct investment
GDP	gross domestic product
ICT	information and communications technology
ILO	International Labour Organisation/Office
IPA	Instrument for Pre-accession Assistance
ISCED	International Standard Classification of Education
ISCO	International Standard Classification of Occupations
LFS	labour force survey
LMI	labour market information
ME	Montenegro
MK*	the former Yugoslav Republic of Macedonia
NAVETQ	National Agency for Vocational Education and Training and Qualifications (Albania)
NES	National Employment Service(s) (Albania, Serbia)
OECD	Organisation for Economic Cooperation and Development
PISA	Programme for International Student Assessment
PPP	purchasing power parity
RS	Serbia
SEE	South Eastern Europe(an)
SME	small and medium-sized enterprise
SSC	Sector Skills Council (Serbia)
VET	vocational education and training
XK*	Kosovo*

*(*) Two-letter code yet to be defined. The provisional code **MK** does not affect the definitive denomination of the country to be attributed after the conclusion of the negotiations currently taking place in the United Nations. **XK** is the provisional code used by Eurostat.*

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The ETF is an EU agency that helps transition and developing countries to harness the potential of their human capital through the reform of education, training and labour market systems in the context of the EU's external relations policy.

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