



Bridging Skills Gaps in South East Europe

The case of the food and beverage
processing sector



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OECD SOUTH EAST EUROPE REGIONAL PROGRAMME

Since 2000, the OECD South East Europe (SEE) Regional Programme has assisted the economies from the region with policy advice on their broad economic reform agenda.

With support from the European Commission and in partnership with the Regional Cooperation Council (RCC) and other regional organisations, SEE governments and the private sector, the OECD has offered recommendations on how to remove sector-specific policy barriers to competitiveness, increase domestic value added and deepen regional economic integration. The work has helped the region identify reform priorities, fostering implementation and bringing SEE closer to both OECD and EU standards.

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GLOBAL RELATIONS POLICY HANDBOOK

*Bridging Skills Gaps in South East Europe:
The Case of the Food and Beverage Processing Sector*

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FOREWORD

A skilled and flexible workforce is increasingly at the centre of an economy's capacity to attract investment, participate in global value chains and sustain economic growth. Consequently, investing in education systems that deliver the right skills for the 21st century job market is high on the agenda of policy makers aiming to boost economic and social well-being.

Skills development is a priority for the economies in South East Europe (SEE). Workforce competencies are central to increasing regional labour productivity to reach EU-28 levels which are about double those of the SEE region. Creating a better match between worker skills and labour market needs could reduce the persistently high unemployment rate, which is more than twice the rate of the EU-28. High youth unemployment and the highest levels of long-term jobseekers in Europe pose additional challenges for SEE policy makers.

While SEE economies recognise the need to address workforce skills in order to boost growth and competitiveness, they need to take more active steps to improve their education and training systems. Policy makers from the region need to focus in particular on the labour market and skills challenges in sectors with strong development potential.

This Policy Handbook focuses on skills challenges in the food and beverage processing sector in SEE and offers a number of policy options for consideration. While the sector has strong development potential, its growth is hampered by substantial skills gaps. To assist SEE partners in bridging skills gaps in the food and beverage processing sector, the OECD carried out a project co-funded by the European Union (EU), which brought together policy makers, industry experts, academics and regional organisations.

Representatives of the seven economies from the region which participated in the project, namely Albania, Bosnia and Herzegovina, Croatia, the Former Yugoslav Republic of Macedonia, Kosovo,* Montenegro and Serbia, engaged in a dialogue to identify obstacles to competitiveness and define policy options for reform. This Policy Handbook synthesises the results of these exchanges and related research.

The SEE Food and Beverage Processing Expert Group (FBEG)

This Policy Handbook is one of the results of the Sector Competitiveness Project performed in collaboration with the SEE Food and Beverage Processing Expert Group (FBEG) under the umbrella of the OECD Next Generation Competitiveness Initiative (NGCI) in co-operation with the Regional Cooperation Council (RCC).

The FBEG, composed of more than 60 members from the public and the private sector as well as academia across seven SEE economies,¹ represents various ministries and government bodies (e.g. ministries of agriculture, ministries of economy and ministries of trade) as well as business sectors (e.g. meat, vegetable, dairy and beverage producers). Between March 2014 and October 2015, the FBEG has convened four times in Paris and in the SEE region to report on the progress of analysis, take key decisions and provide guidance for the further work. The FBEG members have actively contributed to the Sector Competitiveness Project through their substantive contributions to the meetings.

The policy options developed by the FBEG and reflected in this Policy Handbook aim to identify and remove sector-specific policy barriers to competitiveness, in the first instance by bridging workforce skills gaps. Within this context, a pilot project will be implemented in 2016 to develop online training modules for priority skills gaps in the sector. Furthermore, the work of the FBEG has focused on increasing value added through innovation and branding and deepening regional economic integration.

¹ Albania, Bosnia and Herzegovina, Croatia, the Former Yugoslav Republic of Macedonia, Kosovo, Montenegro and Serbia.

* This designation is without prejudice to positions on status, and is in line with United Nations Security Council Resolution 1244/99 and the Advisory Opinion of the International Court of Justice on Kosovo's declaration of independence.

ACKNOWLEDGEMENTS

This report summarises the work carried out by the OECD South East Europe (SEE) Regional Programme, within the framework of the Next Generation Competitiveness Initiative (NGCI). This project aiming at bridging skills gaps in the SEE food and beverage processing sector was run in collaboration with the Regional Cooperation Council (RCC). Its content and the potential options for reform presented here reflect the work of the SEE Food and Beverage Processing Expert Group (FBEG), composed of government representatives from South East Europe (ministries of economy, agriculture, and trade and government agencies), chambers of commerce, and private-sector associations and companies in South East Europe (see Annex 1 for a complete list of the Expert Group members who contributed to the work).

The European Union co-funded the project and provided guidance and support.

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ACRONYMS AND ABBREVIATIONS

ALB	Albania
BEEPS	Business Environment and Enterprise Performance Survey
BIH	Bosnia and Herzegovina
CEFTA	Central European Free Trade Agreement
DIHA	German Association of Industry and Trade in Albania
EU-27, EU-28	The 27 or 28 member countries of the European Union (depending on the date)
EU LFS	European Union Labour Force Survey
FBEG	SEE Food and Beverage Processing Expert Group
FBP	Food and Beverage Processing
GDP	Gross Domestic Product
HRV	Croatia
KOS	Kosovo
LLL	Lifelong Learning
MKD	Former Yugoslav Republic of Macedonia
MNE	Montenegro
NES	National Employment Service (Serbia)
NQF	National Qualification Framework
PES	Public Employment Services
PISA	Programme for International Student Assessment
PPP	Public-Private Partnership

RCC	Regional Cooperation Council
SEE	South East Europe
SRB	Serbia
SSC	Sector-Specific Skills Council
SME	Small and Medium-sized Enterprise
TNA	Training-Needs Analysis
VET	Vocational Education and Training
WTO	World Trade Organization

EXECUTIVE SUMMARY

A skilled and flexible workforce is at the foundation of a country's capacity to attract investment, participate in global value chains and sustain economic growth. Ensuring an adequate supply and use of skills, and supporting skills development are thus key to increasing employment and economic growth, promoting social inclusion, and fostering labour productivity. Consequently, investing in education and training systems that deliver the right skills for the 21st century job market is high on the agenda of policy makers who wish to boost economic and social well-being.

Labour market and skills challenges in SEE

While the SEE economies recognise that low levels of workforce skills are a major barrier to growth, they are not yet sufficiently addressing this challenge. Policy makers from the region have taken steps to improve their vocational education and training (VET), but the curricula are often outdated and are not fully aligned with the needs of the labour market. While there is practical learning, it often takes place in schools instead of business settings. Finally, participation in lifelong learning is relatively low in the SEE region. In 2013, over 10% of individuals participated in education and training in the EU, but in the SEE region only 4% participated on average.

Improved skills could bring major benefits to SEE economies, especially in addressing the challenges in regional labour market performance and labour productivity. The region particularly suffers from high unemployment rates, with 24% of the working-age population being out of work compared to 10.8% in the EU-28 in 2013. Youth and long-term unemployment are among the highest in Europe, putting SEE economies at risk of deteriorating skills and loss of confidence and motivation among the workforce.

The food and beverage processing sector

Policy makers from the region need to focus in particular on the labour market and skills challenges in sectors with strong development potential. Food and beverage processing is the largest manufacturing industry in the region, accounting for 27% of turnover and 18% of employment in manufacturing. This strong track record over a decade coincides with significant growth of SEE food and beverage exports at a time of increasing world imports. The sector's high

potential for further development could benefit from developing critical skills across the region, especially in the areas of purchasing, product development, production, maintenance and quality assurance.

International good practice

International good practice examples provide an important starting point in informing policy debates and developing reforms to improve skills across an economy or within a specific sector. SEE economies have successfully reformed their policy frameworks and invested in skills to improve people's well-being and become more competitive in an increasingly knowledge-based global society. The Policy Handbook draws on good practice examples of workforce development approaches which successfully address skills challenges. It focuses on three priority areas for the region:

- **Efficient and effective education and training systems** are foundational in transferring skills and competencies. Good practice examples concentrate on improving the learning environments in schools and workplaces by increasing the share of practical learning through high-quality and up-to-date curricula. They involve the business sector in the provision of education and training either through public-private partnerships or sector-specific skills councils.
- **Matching business needs and skills supply** through anticipating needed skills in the workforce and ensuring education and training systems are aligned with labour market needs. Governments can do so by improving the effectiveness of public employment services and designing effective career orientation services.
- **Lifelong learning promotion** can support the upgrading of worker skills in the workforce. International good practice suggests that by working alongside businesses, governments can ensure the provision of more relevant, effective and flexible training programmes supporting workforce development.

Policy options

This Policy Handbook aims to help SEE economies better understand their workforce skills strengths and challenges, compare with their peers from the region and learn about relevant policies which could help to bridge skills gaps in

the food and beverage processing sector. The following policy options can guide SEE governments in their reforms:

- **Update curricula** in close co-operation with food and beverage processing (FBP) business representatives to better meet the skills needed by the sector.
- Gradually **increase the share of practical learning in education** through the development of structured work-based learning programmes across different levels and types of education.
- **Improve continuing education opportunities for teachers** through various policy initiatives aimed at improving teaching quality.
- **Set up sector-specific skills councils** to provide proper platforms for collaboration between education and FBP businesses.
- **Increase the capacity of public employment services** by raising the quality of staff and broadening the activities they undertake.
- **Develop effective career guidance services** at different levels of education and foster their deeper co-operation with public employment services.
- **Provide financial incentives for employee training** in different forms, such as vouchers and tax incentives.
- **Conduct sector-specific training-needs analyses** to ensure that training is provided in efficient and cost-effective ways and focuses on the existing critical skills gaps.

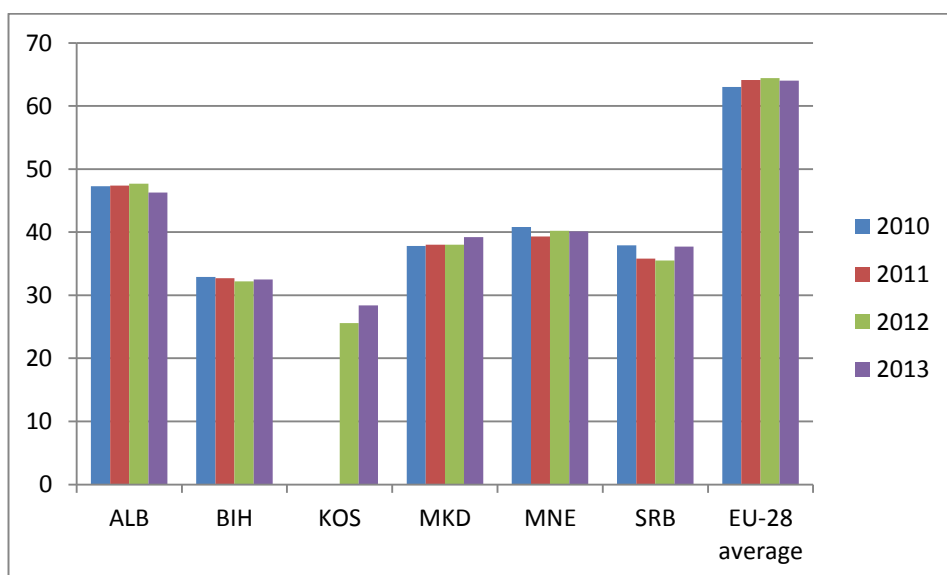
CHAPTER 1: LABOUR MARKET AND SKILLS CHALLENGES IN SOUTH EAST EUROPE

This chapter analyses labour-market and labour productivity challenges in South East Europe. The region suffers from low employment rates and high unemployment, particularly long-term unemployment. The lack of skills in the workforce hinders business development, partly due to difficulties in recruiting the skills enterprises need. The chapter outlines the key challenges the region will need to meet to overcome these issues: SEE education systems do not prepare students adequately for the labour market, their public employment and career guidance systems are not fully effective, and participation in lifelong learning is low.

Labour market challenges

SEE labour markets are characterised by low employment rates (Figure 1). Rates are relatively higher in Albania and lower in Kosovo and Bosnia and Herzegovina while the Former Yugoslav Republic of Macedonia, Montenegro and Serbia are all in a similar range with an employment rate of about 35-40% in 2013. The Former Yugoslav Republic of Macedonia showed an increase in the employment rate between 2010 and 2013, and Kosovo saw an increase between 2012 and 2013, but all other economies have seen their employment rate fall by varying degrees (from -1 percentage point in Albania to -0.2 in Serbia).

Figure 1. Employment rates, 15-year-olds and over (2010-13)

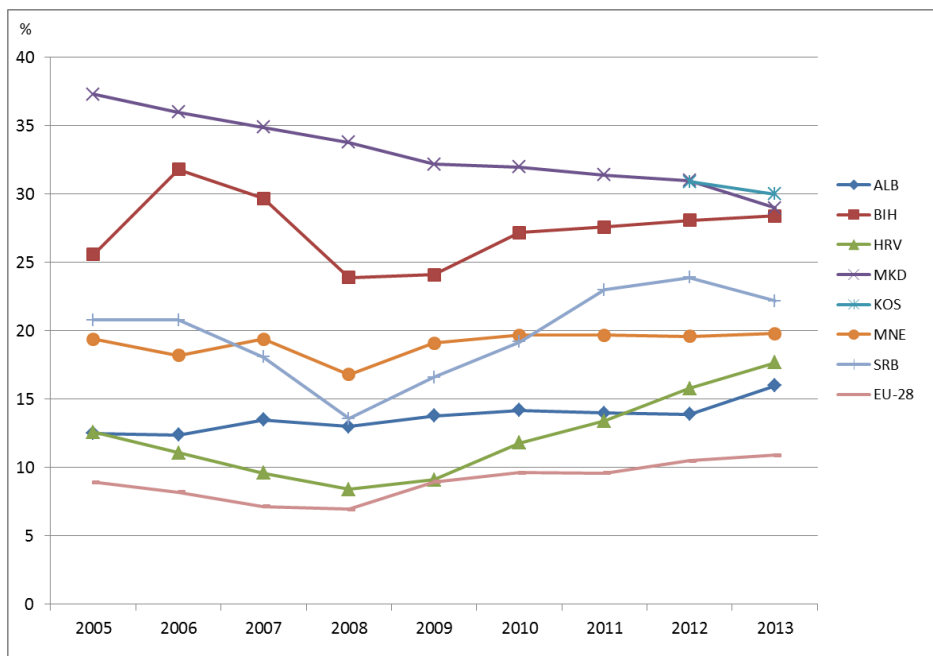


Source: Eurostat (2015a), *Employment and Unemployment (Labour Force Survey)* (database), <http://ec.europa.eu/eurostat/web/lfs/data/database>; ILO (2015a), "Total unemployment", *Key Indicators of the Labour Market* (database), www.ilo.org/global/statistics-and-databases/research-and-databases/kilm/WCMS_422438/lang-en/index.htm; Kosovo Agency of Statistics (2015a), *Labour Market* (database), <https://ask.rks-gov.net/ENG/labour-market/tables>.

Unemployment in the region has been generally on an upward trend, with four SEE economies showing a substantial rise in jobseekers between 2005 and 2013 (Figure 2). In 2013, the average EU-28 unemployment rate was 10.8%, compared to 24% in SEE economies. The Former Yugoslav Republic of Macedonia and Kosovo have particularly high unemployment rates, although

they have slightly decreased to 29% and 30%, respectively. In Bosnia and Herzegovina, unemployment rates are high and increased to 28.5% in 2013. Unemployment rates for Albania, Croatia, Montenegro and Serbia are relatively low, although in Albania unemployment has increased by 2.1 percentage points between 2012 and 2013.

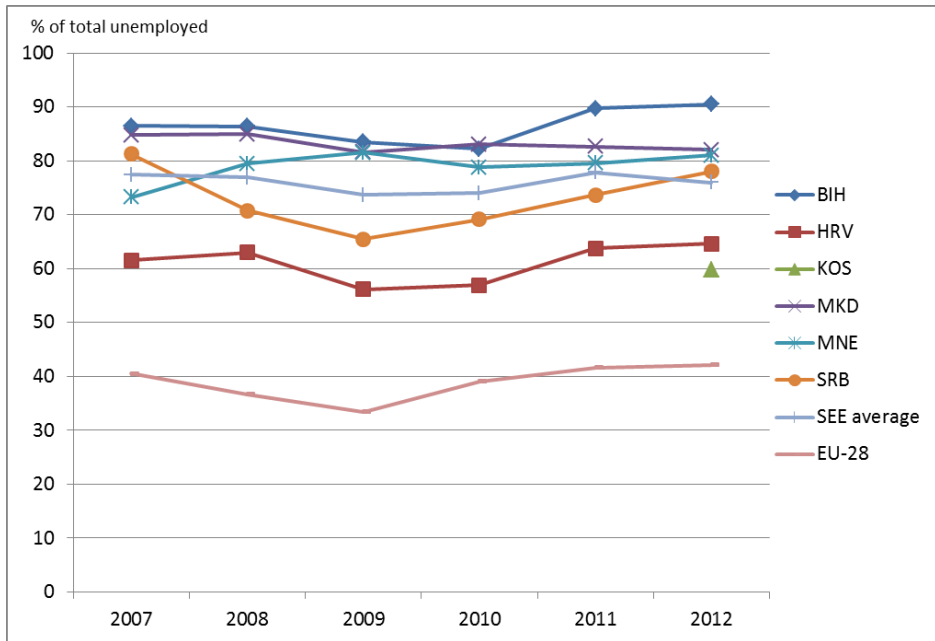
Figure 2. Unemployment rates (2005-13)



Sources: World Bank (2015b), "Unemployment, total (% of total labor force) (national estimate)", *World Development Indicators* (database), <http://data.worldbank.org/indicator/SL.UEM.TOTL.NE.ZS>; Kosovo Agency of Statistics (2015b), *Statistical Yearbook of Kosovo*, Kosovo Agency of Statistics, http://ask.rks-gov.net/ENG/publikimet/doc_view/1347-statistical-yearbook-of-the-republic-of-kosovo-2015?tmpl=component&format=raw, Table: Unemployment rate by year 2001-2014. All accessed 1 September 2015.

Long-term unemployment rates¹ remain very high in the SEE region. In 2012, the share of long-term unemployed was close to 80% of the total unemployed, a rate which is almost twice as high as for the then 27 member countries of the European Union (EU-27).² Long-term unemployment is especially pronounced in Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia and Montenegro, and it has been increasing since 2010, especially in Serbia (see Figure 3).

Figure 3. Long-term unemployment as a percentage of total unemployment (2007-12)



Sources: World Bank (2015c), *World Development Indicators* (database), <http://data.worldbank.org/indicator/SL.UEM.LTRM.ZS>, accessed 1 September 2015; Kosovo Agency of Statistics (2015b), *Statistical Yearbook of Kosovo*, Kosovo Agency of Statistics, http://ask.rks-gov.net/ENG/publikimet/doc_view/1347-statistical-yearbook-of-the-republic-of-kosovo-2015?tmpl=component&format=raw

Long-term unemployment is particularly harmful as it can lead to a deterioration of skills and a loss of self-confidence and motivation. It can also translate into increased social and health problems which reduce people's ability to work and find jobs (OECD, 2014a). Without additional, well-targeted support there is a substantial risk of the long-term unemployed leaving the labour market altogether.³

The region's relatively high share of 15-24 year-olds not in employment, education or training (26% in SEE⁴ compared with 13% for the EU-28) poses an additional concern for future employment prospects (Eurostat, 2015b). A person's first experience of the labour market has a profound influence on his or her later working life. Getting off to a good start integrates young people into the

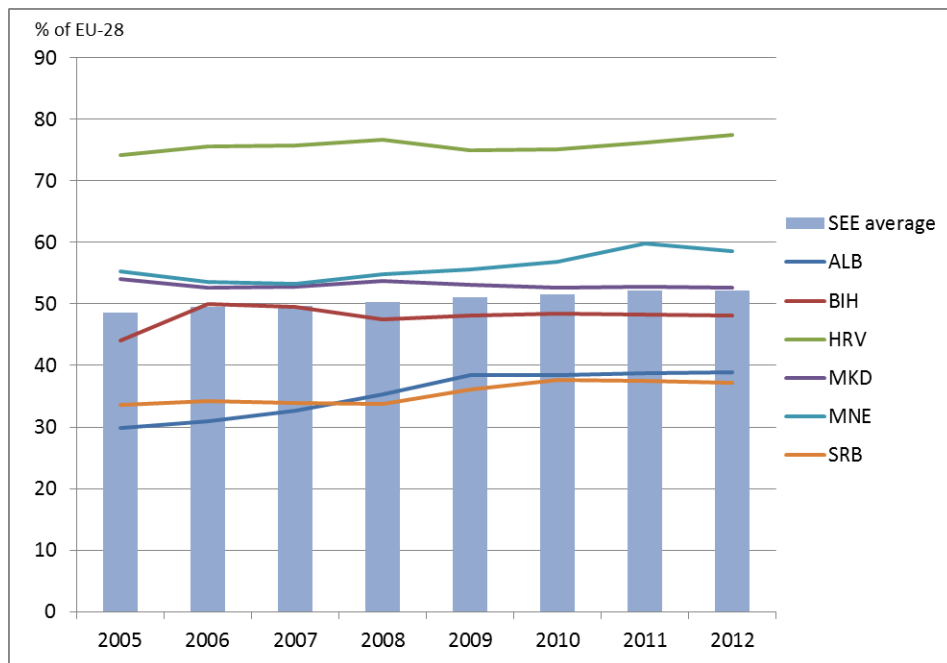
labour market and lays the foundation for a good career, whereas they can find it difficult to catch up after an initial failure (OECD, 2010a).

Several factors explain the weak labour market outcomes in SEE. These include institutional rigidities persisting in the SEE labour market (e.g. employment and social protection), as well as real wage rigidity limiting downward wage adjustments during economic downturns (IMF, 2014). In addition, social insurance contributions remain comparatively high across the region (ibid.).

SEE has recently undergone a profound transition process towards a full market economy. As a result, levels of foreign direct investment, diversification from traditional sectors and private-sector job creation are all still lagging behind (IMF, 2014). While reliable data are not available, a large proportion of the registered unemployed might also be active in the informal economy. However, while the low employment rates in the SEE region indicate a general lack of economic competitiveness, they also suggest that the workforce is not sufficiently productive to be used fully as a factor in production.

Labour productivity, measured as gross domestic product (GDP) per employed person, remains relatively low in SEE: 52% of the EU-27 average in 2012, although this has risen from 49% in 2005 (Figure 4). Croatia has the highest relative labour productivity (78% of the EU-27 average) and Serbia the lowest (37% of the EU-27 average). Labour productivity in Croatia, Montenegro and the Former Yugoslav Republic of Macedonia is higher than the SEE average, while it is below average in Bosnia and Herzegovina, Albania and Serbia.

Figure 4. Labour productivity in SEE economies as a percentage of the EU average (2007-12)



Source: ILO (2015b), "Labour productivity (ILO estimates)", *Key Indicators of the Labour Market* (database), www.ilo.org/empelm/what/WCMS_114240/lang-en/index.htm (accessed 1 September 2015).

Differences in labour productivity rates can be explained by differences in multi-factor productivity, in which workforce skills play a key role (Adalet McGowan and Andrews, 2015a). Workforce skills determine how effectively other production factors are employed, thereby increasing value added. They also permit the production of more complex goods and services which generally have higher margins. Workforce skills are thus crucial to increasing labour productivity (OECD, 2015a).

Skills gaps and business development

Evidence suggests that substantial skills gaps in the SEE economies are hampering labour productivity. At the aggregate level, skill mismatch can negatively affect labour productivity through the inefficient allocation of resources, making it more difficult for productive firms to attract skilled labour

(Adalet McGowan and Andrews, 2015b). Furthermore, recent OECD research shows that differences in skill mismatch across countries are associated with differences in the policy environment. Policies associated with lower levels of skills mismatch include reduced transaction costs on buying property as well as less stringent planning regulations and rental contracts (Adalet McGowan and Andrews, 2015b). Skills gaps are substantially larger in the SEE region than in the Baltic states or Central Europe (IMF, 2015). One in five companies considered a shortage of skilled labour to be a relevant constraint in SEE. Skills gaps are also reported to have become more prominent across the region in the aftermath of the global financial crisis (IMF, 2015). Finally, SEE economies find it harder to retain and attract talent than the new member states of the European Union (EU). This, in turn, contributes to shortages of skilled individuals (IMF, 2015).

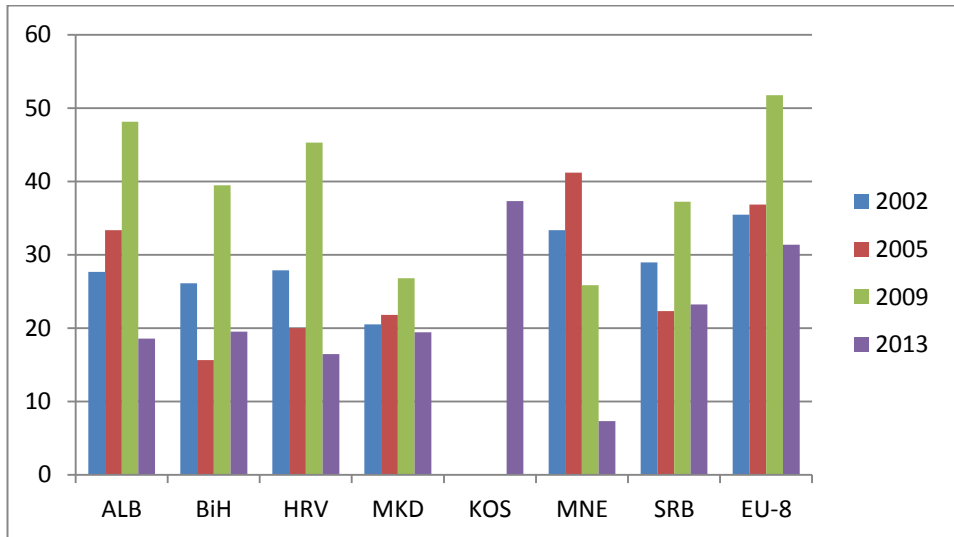
Similarly, evidence from the OECD's Programme for International Student Assessment (PISA), which reflects the output of economies' education systems, shows a low level of performance for most of SEE (OECD, 2014b). The average score for mathematics was 494 for OECD countries in 2012, while SEE economies averaged between 471 (Croatia) and 394 (Albania). Similar gaps can be seen for sciences and reading (see Table 1 in Annex 2).

Croatia and Serbia participated in OECD's Teaching and Learning International Survey (TALIS) which provides insights into the learning environment and teacher working conditions in schools across the world (OECD, 2014c). According to the survey, teachers in Croatia spend more hours per week teaching compared to teachers in other TALIS economies, while the opposite is true for Serbia. In both Croatia and Serbia, a larger proportion of teachers report participating in professional development in the 12 months prior to the survey than in most other TALIS economies. However, in both economies only a relatively small share of teachers believe that their society values the teaching profession (see Box 9 in Annex 2 for detailed results).

Over the past decade, business perception of the availability of key skills has fluctuated. In 2002, 27.4% of companies in the Business Environment and Enterprise Performance Survey (BEEPS) reported an inadequately skilled workforce to be a moderate, major or severe issue (EBRD/World Bank, 2015). Despite generally high unemployment across the region at the time, companies still reported experiencing difficulty accessing the skills they needed. Between 2002 and 2009, the share of businesses reporting it as a major or severe issue increased in all economies, reaching an average of almost 40% across the region (Figure 5). In new EU member countries (EU8⁵) the share of companies

reporting that an inadequately skilled workforce is an issue is on average higher in all survey years suggesting that EU accession could potential lead to an increased demand for skilled labour.

Figure 5. Share of companies identifying inadequately educated workforce as a constraint (2002-13)



Source: EBRD/World Bank (2015). “Business Environment and Enterprise Performance Survey”, *BEEPS Data Portal* (database), <http://beeps.prognoz.com/beeps/Home.ashx> (accessed 1 September 2015).

In 2013, however, the share of companies reporting an inadequately educated workforce to be a moderate, major or very severe issue fell in all economies, to an average of 20%. One possible explanation is that in the post-crisis period, companies were dealing with other more pressing issues. Kosovo was surveyed for the first time in 2013 and here 37% of all businesses reported an inadequately educated workforce to be an issue, which is by far the largest share in SEE.

The availability of a skilled workforce has been proven to be especially important for sectors with the potential to expand. Skilled employees are needed to develop products and services, as well as to adapt operational activities. Furthermore, as sectors expand, they generally attract the entry of more knowledge-intensive competitors, leading to increased need for skills. The FBP sector is one of the sectors in the region with a higher growth potential.

Skills challenges in South East Europe

SEE faces a number of key education and skills challenges. These include further improving the effectiveness of education systems in preparing students for the labour market, fostering skills-matching systems through improved career guidance and public employment services (PES), and further advancing lifelong learning (LLL) throughout the region.

The education system does not prepare students adequately for the labour market

Effective education and skills development systems, which connect education to technical training and the labour market, can help economies sustain productivity growth and translate this growth into more and better jobs (ILO, 2008). The education systems in SEE have a number of significant weaknesses including: 1) outdated curricula and lack of practical training; 2) low quality of teachers; and 3) lack of co-ordination among policy makers.

Relatively outdated curricula hamper the acquisition and development of skills relevant to the labour market, at both upper secondary and tertiary education level. Moreover, in most SEE economies, practical training is reported to be based on the use of relatively outdated equipment (ETF, 2012a). Students in upper secondary education do not have the opportunity to gain practical experience within companies (e.g. through apprenticeships at upper secondary education level or through internships at tertiary education level).

Teacher education and training⁶ remains relatively underdeveloped in the SEE region (European Commission, 2013a). Across the region, teacher training is reported to be predominantly theoretical rather than focused on the acquisition of relevant and practical competencies. For instance, 60% of students in Serbia reported that their teachers have poor or very poor knowledge of their subject, while in Croatia the lack of professional training for teachers was a major issue (ETF, 2014f). Teachers often do not have the opportunity to take continuing education and training.

According to the forthcoming OECD publication *Competitiveness in South East Europe: A Policy Outlook*, SEE economies lack structures to facilitate deeper co-operation between education institutions and the business sector. This co-ordination is crucial to translating learning outcomes into relevant skills (OECD, 2016a). Another issue is the lack of co-ordination between ministries involved in vocational education and training (VET), and fragmented VET

governance. The agencies responsible for the implementation of VET policies are not fully autonomous and they often do not function effectively. Finally, businesses do not play a sufficiently active role in VET policy making.

Skills-matching systems are not fully effective

Effective skills-matching systems can help economies foster labour productivity and contribute to the creation of more and better jobs. “Skills mismatches” refers to a variety of discrepancies between supply and demand in the labour market (CEDEFOP, 2014). Among the main challenges is the relatively limited capacity of employment services. Limited career guidance also leaves students uninformed about job prospects and options for specialisation in education.

Across the SEE region, PES are reported to be generally limited and understaffed. Relatively low funding and staffing levels, together with high unemployment rates, limit their role in bridging the skills gap and reducing unemployment (Mojsoska-Blazevski, 2012). Some studies show that PES staff in SEE economies spend most of their time registering the unemployed and providing basic information (Tomev and Meinardus, 2012). The workload of PES staff is very high, acting as a crucial constraint on effective employment policies. The ratio of staff members to unemployed people in Kosovo, the Former Yugoslav Republic of Macedonia, and Bosnia and Herzegovina is above 1:600, which is very high by international standards (see Vidovic et al., 2011). Montenegro has the lowest ratio with 1:84. Nor do PES in many SEE economies screen people to identify which are employable and which need different kinds of support measures (ETF, 2011).

Relatively underdeveloped career guidance systems are a major hindrance to students attempting to find a job in SEE (ETF, 2014f). Even when career orientation services exist, they often lack trained staff which hampers them from providing students with in-school guidance and counselling services (ETF, 2014f). Their links with employment offices are also reported to be relatively underdeveloped (ETF, 2014f).

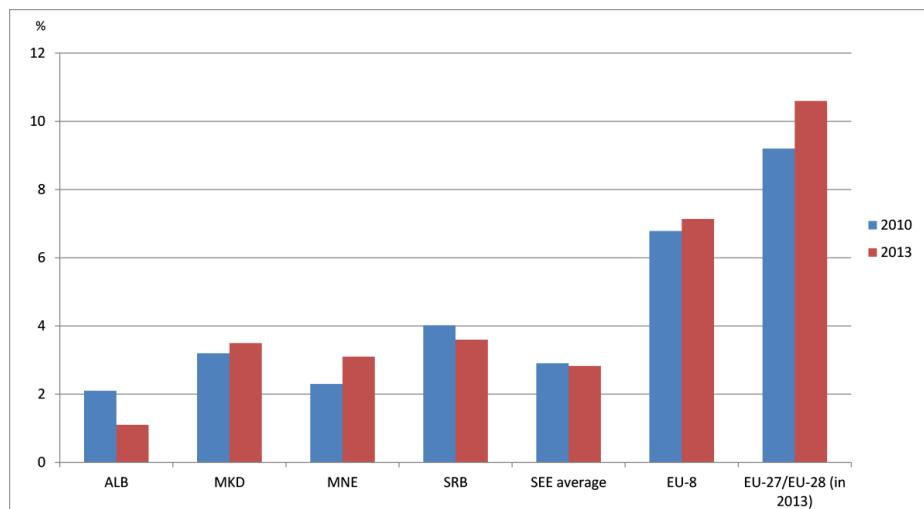
Participation in lifelong learning is low

Constant changes in the labour market mean that continued learning is crucial to maintain and upgrade skills, even once formal education has been completed. LLL and training are considered to be instrumental in fostering the competitiveness of businesses and enhancing labour productivity, as well as

improving the quality of individuals' experience of work (ETF, 2014f). Particularly in a knowledge-based economy, skills need to be continuously renewed and updated to enable structural adjustment, productivity growth, innovation and the effective reallocation of human resources (OECD, 2014a). As companies respond to a more volatile market and shorter product cycles, "jobs for life" become fewer and individuals experience more frequent changes in jobs over their working life.

Relatively few adults participate in LLL in the SEE region even though most economies have included it in their education regulations and strategies. While over 10% of individuals participated in some form of education and training in the EU-28 in 2013, in SEE the figure did not exceed 4% (Figure 6). Adult participation in LLL also fell between 2010 and 2013, whereas in both the EU-27 (EU-28 in 2013) and the new member states (EU-8) it has increased. The EU-8 is taken as a benchmark since this group includes relatively new EU member states. Participation rates are particularly low in Albania and fell even further between 2010 and 2013.

Figure 6. Adult participation in lifelong learning (2010 and 2013)



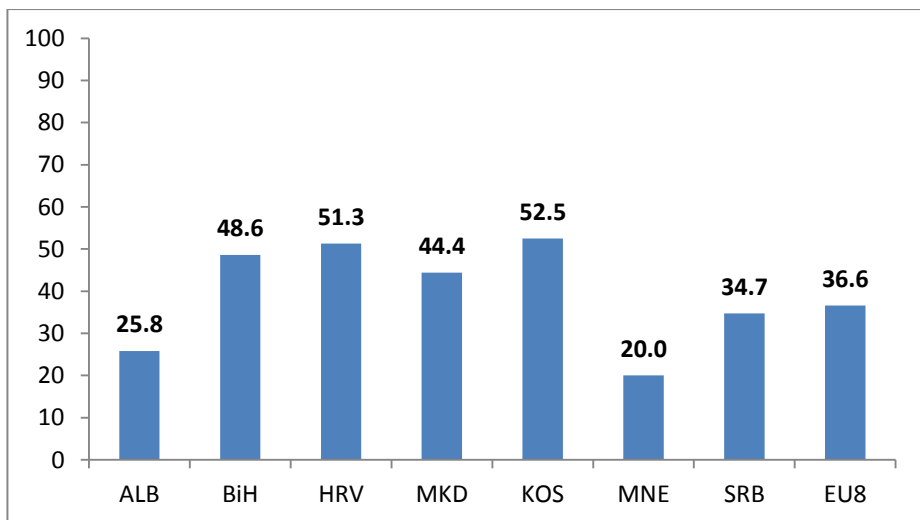
Sources: European Commission (2013b), "Adult participation in learning", *Education and Training Monitor* (database), http://ec.europa.eu/education/dashboard/III/lifelong_en.htm (accessed 1 September 2015); ETF (2014a), *Skills 2020: Albania*, European Training Foundation, Turin; ETF (2014b), *Skills 2020: The Former Yugoslav Republic of Macedonia*, European Training Foundation, Turin; ETF (2014c), *Skills 2020: Kosovo*, European Training Foundation, Turin; ETF (2014d), *Skills 2020: Montenegro*, European Training Foundation, Turin; ETF (2014e), *Skills 2020: Serbia*, European Training Foundation, Turin, all available at www.etf.europa.eu/web.nsf/pages/Frame_project.

Low participation rates in LLL reflect a number of challenges. These include relatively low administrative capacity and quality, as well as a lack of incentives for new vocational training providers to enter the market and provide new services. SEE economies have adopted the European Qualifications Framework, but could improve their adaptation of its LLL systems and training programmes to local conditions and institutional environments (Arandarenko and Bartlett, 2012). Furthermore, awareness of the benefits of LLL is reported to be rather low in the region. The Ministry of the Economy in Montenegro reported low levels of business awareness and business skills as major challenges for local small and medium-sized enterprises (SMEs) development. Also, awareness of the benefits of adult learning for economic development, employment and active citizenship is rather low in the Former Yugoslav Republic of Macedonia (ETF, 2006).

Businesses generally counter skills mismatches or gaps among their employees with job-specific training. However, companies often complain that

the training available is too generic and that more sophisticated management and technical training is either not available or too expensive (see Box 1). Figure 7 shows the relatively low proportion of manufacturers offering formal training programmes to their permanent full-time employees in SEE. In Bosnia and Herzegovina, Croatia, the Former Yugoslav Republic of Macedonia and Kosovo, a larger share of companies offers training to their employees compared to the EU8. Only in Albania and Montenegro a relatively smaller share offers formal training to their employees.

Figure 7. Percentage of manufacturers offering formal training to permanent full-time employees (2013)



Source: EBRD/World Bank (2015). “Business Environment and Enterprise Performance Survey”, *BEEPS Data Portal* (database), <http://beeps.prognoz.com/beeps/Home.ashx> (accessed 1 September 2015).

Box 1. Challenges for skills development in small and medium-sized enterprises

Small and medium-sized enterprises (SMEs) find it particularly hard to access education and skills development programmes. The reasons include: 1) lack of time, workload pressures, resources and cost; 2) complicated paperwork/red tape; 3) lack of enterprise/managers skills, experience, data and support; 4) an operational culture which does not include training; 5) mismatch between learning preferences and what is offered; 6) different training needs; 7) lack of awareness of the benefits and availability of trainings; and 8) market position.

More recent analysis in selected OECD countries shows that one of the most important obstacles to SMEs participating in skills and training activities is the lack of customised training (OECD, 2010b). Firms indicated that the training available is often generic, and that the more sophisticated management and technical training they require is either not available or too expensive (Kubisz, 2011).

Source: OECD (2013b), *Skills Development and Training in SMEs*, OECD Skills Studies, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264169425-en>.

¹ Long-term unemployment refers to individuals who have been unemployed for more than 12 months.

² In 2013, Croatia joined the European Union so statistics after that date refer to the EU-28.

³ For instance, Krueger et al. (2014) show in the context of the United States that those unemployed for 6 months or more are twice as likely to leave the labour force than to return to employment when observed 15 months later.

⁴ This does not include Bosnia and Herzegovina.

⁵ The EU-8 includes: Czech Republic, Estonia, Hungary, Poland, Latvia, Lithuania, Slovakia and Slovenia

⁶ The quality of teaching is at the heart of student learning outcomes. As the most significant and costly resource in schools, teachers are central to school improvement efforts. Improving the efficiency and equity of schooling depends, in large measure, on ensuring that competent people want to work as teachers, that their teaching is of high quality, and that all students have access to high-quality teaching (OECD, 2005).

CHAPTER 2: INTERNATIONAL GOOD PRACTICE

This chapter explores the international good practice used to address the challenges identified in Chapter 1, divided into three broad policy areas. The first aspect is providing efficient and effective education and training systems, addressing the lack of practical learning in education, facilitating public-private partnerships in vocational education and training, and establishing sector-specific skills councils to give the private sector an effective voice in education policies. Second, the chapter looks at how efficient public employment services and careers guidance services can make it easier to match the skills available in the workforce to business needs. Finally, it examines mechanisms to promote lifelong learning by supporting employers in providing training opportunities for employees: financial support for employee trainings, such as tax incentives, or the use of training-needs analysis.

Efficient and effective education and training systems

Adapting education and training systems to meet the demand for skills, and improving learning environments in schools and workplaces help to foster better skills for all (OECD, 2015b). Governments can use a number of policy interventions to foster the efficiency and effectiveness of their education and training systems. These include 1) increasing the share of practical learning in education through high-quality workplace learning and 2) involving the business sector in the provision of education and training either through public-private partnerships (PPPs) or sector-specific skills councils (SSCs).

Good practice in addressing the lack of practical learning in education

Good-quality workplace learning in vocational education and training (VET) programmes, internships and other forms of practical learning give students valuable labour-market experience (OECD, 2015b).¹ Students need two sets of skills to be successful in the labour market: practical occupation-specific skills that will make them immediately employable and productive and facilitate their entry into the labour market, and broader transferable skills, including numeracy, literacy, problem solving, teamwork, communication skills, flexibility and the capacity to learn new skills (OECD, 2014a). These skills are important as many graduates working as professionals and technicians are likely to be confronted with complex tasks. Workplaces provide a strong learning environment because they offer real on-the-job experience that makes it easier to acquire both hard and soft skills (OECD, 2010c).

The OECD (2010c) identifies a number of important practices for effective workplace learning. These include providing students with a strong learning environment enabling them to develop hard and soft skills, and balancing students' preferences with employers' needs to facilitate the flow of information between the demand for and supply of labour. A clear legal framework is a useful tool, underpinning the quality of workplace training and ensuring that apprentices and trainees receive effective learning opportunities while protecting them against possible exploitation. Finally, effective quality control of apprenticeships and internships are needed to ensure that the employers involved deliver on their training responsibilities.

In some countries, such as Austria, apprenticeship training systems are a longstanding tradition and play an important role in preparing students for the labour market (see Box 2). Such systems also exist in Germany and in Switzerland and, due to their success, similar systems are being created in other

European countries such as Spain. Their importance is reflected in the relatively high levels of upper secondary attainment, graduation and enrolment (including subsequent enrolment in higher education) in these countries (OECD, 2013a).

Box 2. Dual VET systems: The Austrian apprenticeship training system

Many countries are beginning to focus on dual VET systems, which integrate work-based and school-based learning to prepare apprentices for a successful transition to full-time employment, and they have become a priority on the EU agenda. The Austrian apprenticeship training system represents a good example of a successful dual VET system. Apprentices in Austria can choose from more than 200 apprenticed trades in various sectors, including crafts, industry and services. The main characteristics of the Austrian dual VET system are:

- The formation/training period varies from 2 to 4 years and students spend 80% of their time in a company and 20% in a vocational school.
- Every apprenticeship occupation has a training regulation that lists all the competencies that have to be taught in company-based training.
- Competencies are split between different institutions (including the Ministry of Economy for the company-based part, the Ministry of Education for the school-based part).
- Completion of the apprenticeship is linked to a final examination that consists of both a practical and theoretical section.
- As of 2013, there were about 125 000 apprentices.

A number of key elements are considered to drive the success of the Austrian dual VET system. These include a governance system that systematically involves social partners, especially companies, in the development of job profiles and training regulations, as well as a co-funding structure, where the companies taking apprentices bear the cost of the company-based training while the public sector finances part-time vocational schooling. The Austrian dual VET system includes quality assurance mechanisms to ensure that the training quality is high and the administrative structure and procedures are transparent. Finally, part of the success of the Austrian system is also linked to the benefits for companies, whose initial expenses are offset by the trainees' productive work and by the demand from young people, for whom dual VET offers a wide choice and varied possibilities.

Sources: European Commission (2013c), "The Austrian apprenticeship system", background paper, Learning Exchange on 'Apprenticeship Schemes', Vienna, 7 November, <http://ec.europa.eu/social/BlobServlet?docId=11197&langId=en>; OECD (2010a), *Learning for Jobs*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264087460-en>.

Good practice in facilitating public-private partnerships

PPPs can be critical to the development of high-quality education as they allow regular communication between employers and education institutions. The OECD defines PPPs as an agreement between the government and one or more private partners according to which the private partners deliver a service in such a manner that the service delivery objectives of the government are aligned with the profit objectives of the private partners, and where the effectiveness of the alignment depends on a sufficient transfer of risk to the private partners (OECD, 2008).

PPPs in VET share a number of common characteristics. These include linking work- and school-based learning to prepare apprentices for a successful transition to full-time employment, a high degree of engagement with employers and social partners, the sharing of costs between the government and the private sector, and the opportunity for companies to hire young, employable workers (OECD, 2013a). Furthermore, PPPs give trainees the opportunity to benefit from relatively high earnings while still learning, and to take responsibility and develop personally and professionally.

One of the strengths of successful VET systems such as Austria's (see Box 2) is that it involves several stakeholders, including experts from the workplace and from VET schools, employers and trade unions, in developing vocational training regulations and curricular frameworks. While the private sector generally assumes responsibility for practical training, vocational schools inculcate the theoretical knowledge necessary for practising a profession. This partnership ensures that the needs of both companies and employees are met. Having binding training regulations and a curricular framework guarantees that the training meets national standards while giving companies the flexibility to agree a training plan with trainees. This could explain why the transition from education to first employment is smooth and the youth unemployment rate is lower in countries with long-standing tradition of PPPs in VET.

Good practice in establishing functional sector-specific skills councils

Sector-specific skills councils promote skills development in priority economic sectors. They are permanent working structures that identify and analyse skill needs and contribute to the education and training needed to prepare the workforce for the relevant economic sector (ETF, 2013). Generally, skills councils provide a platform for different stakeholders to co-operate, such as public authorities, business representatives, social partners and education

institutes. Since SSCs are mostly recognised in legislation, this gives them the legitimacy and recognition they need with the public authorities, as well as clear governance structures and defined roles.

Effective skills councils have been established in the United Kingdom in food and beverage processing (FBP) and in 20 different sectors in the Czech Republic and have contributed to bridging the skills gap between students and the labour market (Box 3).

Box 3. Sector-specific councils in the United Kingdom and Czech Republic

The National Skills Academy for Food and Drink is the SSC for the **United Kingdom's** FBP sector. With around 25 full-time employees, the academy aims to enhance the productivity and innovation of the United Kingdom's FBP sector by providing access to employee training and vocational education. Initially the Academy was fully government funded but it has managed to achieve partial financial sustainability through fees for its services. The academy supports the FBP sector by providing: 1) guidelines for National Occupational Standards for the sector; 2) design of compliance training; 3) online training needs analysis; and 4) online training modules in areas like food safety, personal development, and information technology. The Academy is currently implementing the government-funded Tasty Jobs Initiative, which helps firms find prospective employees in their local area with the basic food safety and specific production knowledge.

SSCs have been established to support the development of the National Qualification Framework (NQF) in the **Czech Republic**. The Czech NQF aims to ensure the needs of employers are taken into account in the education system. At the end of 2008, there were 20 fully established SSCs in the Czech Republic. The councils are led by employers and they aim to promote and support sector interests in human resource development. Since their establishment, they have focused on monitoring labour-market developments in a range of sectors, identifying new trends and assessing their effects on the development of the labour force and on the skills needed. They also evaluate and assess the standards for qualifications, and co-operate with authorising bodies over the framework for the verification and recognition of further education results. SSCs are co-ordinated by a co-ordinating council of SSCs, which assesses, co-ordinates and supervises SSCs' activities and represents SSCs before state authorities and other institutions. SSC members are experts appointed by employers and central authorities. Specifically, the stakeholders involved include representatives of employers' associations, trade unions and education/training organisations. National and regional policy makers, and research institutes also participate in the SSCs.

Sources: National Skills Academy for Food and Drink (2015), "Products", National Skills Academy website, <http://nsafd.co.uk/products> (accessed 1 September 2015); ECORYS (2010) *Sector Councils on Employment and Skills at EU level: Country Reports*, ECORYS, Rotterdam, <http://ec.europa.eu/social/BlobServlet?docId=4768&langId=en>.

Matching between business needs and skills supply

One way to limit mismatches between people's skills and labour market needs is to anticipate the skills needed in the workforce and ensure that they are developed in the education and training systems (OECD, 2015b). Skills-matching systems can also help the unemployed to find new jobs that best match their current skills, or support them in upgrading them. This matching can be facilitated through a number of policy measures, including improving the effectiveness of PES and designing effective career orientation services.

Good practice in creating effective public employment services

PES are the central institutions for connecting people with jobs (OECD, 2015c). Matching and referring jobseekers to vacancies often proves effective in increasing the rate of re-employment, especially for jobseekers that are hard to place or are still unemployed after some period of independent search. Across OECD countries, PES aim to act as a job broker, by offering employers vacancy databases, referrals of appropriate candidates and other more specialised services (OECD, 2015c). PES can also be useful for bridging potential skills gaps. Being usually part of ministries of labour, PES plan and execute labour-market policies to help workers enter the job market or facilitate market adjustments. They also often provide labour-market information to both jobseekers and enterprises (ILO, 2009) (see Box 4).

Box 4. The role of Public Employment Services

Public employment services (PES) can have a positive impact on the labour market, by enabling skills assessment and anticipation. They can direct skill development and active labour market policies to sectors with higher demand. In most countries, PES aim to connecting jobseekers with employers and help match the supply and demand of skills in the labour market through the dissemination of information, training, placement and active support services at local, national and supranational level. PES are strategic actors, as they can use general skills assessment and forecast information to implement local policies. Flexibility, capacity and autonomy are crucial for PES to support national and regional policies by developing effective programmes for jobseekers and employers (Froy et al., 2011).

Effective skills anticipation requires close collaboration between PES and employers and jobseekers to ensure that policies based on skills information are adequately implemented. Andersen et al. (2010) find that most PES emphasise the importance of maintaining a close dialogue with employers and their organisations. However, dialogue between PES and employers can be limited. In most OECD countries PES co-operate on an informal basis with sector organisations to discuss the trends and prospects for the sector. Only few PES are reported to collaborate with employers in designing and developing analyses of skills needs, and even fewer participate in a formal partnership with employer organisations. Exceptions to this trend include Latvia (Bartlett, 2013), Austria, Belgium, France, Sweden and Turkey, where PES are in charge of skill needs assessment and forecast exercises.

Some PES, like the Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding (VDAB, Belgium's (Flanders) public employment service), have started to adopt skills profiling in characterising job seekers to facilitate matches, assess job seekers' risk of unemployment and better inform the needs of job seekers. Through skills profiling, PES describe a job seeker's potential in terms of "generic" and "soft" skills and require employers to include more detailed information on skill requirements in their vacancies (including technical, generic and soft skills). There is currently little evidence to support the potential gains from skills profiling, but a growing body of evidence shows that it can result in an increased exit rate from unemployment, a reduction of long-term unemployment and of the average duration of unemployment, as well as in increased satisfaction of job seekers and employers (Blázquez, 2014). Arbeitsmarktservice Österreich (Austria's PES) is planning to incorporate such skills-based matching in its job-matching programmes.

Source: OECD (2016c), Getting Skills Right: Assessing and Responding To Changing Skill Needs. (Forthcoming – February, 2016). OECD Publishing

Good practice in designing efficient career orientation services

Career guidance aims to assist people to make educational, training and occupational choices to manage their career paths better. They can help provide better understanding of the needs of the labour market and education systems, as

well as provide information about the types of jobs available and the skills needed for them (OECD, 2015b). Career guidance takes place at two different educational levels: after compulsory education, where students need guidance in deciding which subjects to specialise in, and during and after the completion of studies, to better understand the functioning of labour markets. Many OECD countries have recently made efforts to develop comprehensive career guidance systems (Box 5). In EU countries, the employment rates of recent graduates from different fields of study vary significantly. This suggests that education and training systems need to ensure greater labour-market relevance and to provide improved career and counselling services at both of these key stages. If young people choose the wrong career, the costs of later changes are high. Moreover, insufficient information at the critical moment may undermine motivation and cause students to drop out (OECD, 2010d).

Effective career guidance services can foster the transition from school to work, while improving the efficiency of education systems and the labour market. It is crucial that the private sector is involved in the provision of career guidance, as well as the provision of timely and accurate information on the labour market outcomes of different educational paths. This has been the case for instance in some OECD countries (see Box 5).

Box 5. Developing labour-market information as a tool for career guidance in Italy

One of the major characteristics of good-quality career guidance is the timely and accurate provision of labour-market information about different education paths, programmes and institutions. Many OECD countries have recently taken steps to develop labour-market information as a tool for career guidance.

For instance, Italy has developed a systematic and comprehensive data collection process. Since 1994, Italian universities have joined together in the AlmaLaurea Consortium, which has developed a tracking survey aiming to collect information on the profile of graduates and their performance in the labour market. Twenty years after its establishment, the consortium now keeps track of 80% of graduates from Italian institutions and the results (freely accessible online at www.almalaurea.it) are provided to higher education institutions to help them further develop and adjust the provision of programmes.

The AlmaLaurea Consortium carries out a number of surveys that are used to inform the education and training systems, as well as the business community, on the profiles of new graduates. For instance, the last survey, carried out in 2014 indicates that 57% of 2014 graduates did an internship or traineeship during their studies, 12% spent some time abroad (for instance through the Socrate/Erasmus or other European Union (EU) programmes). Furthermore, 45% of total graduates are reported to have graduated in time (*in corso*). The number of graduates in Italy in 2014 was 228 240 and the survey involved 209 463 of them.

Source: OECD (2015c), *OECD Skills Outlook 2015: Youth, Skills and Employability*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264234178-en>.

Promoting lifelong learning (LLL)

Successful training programmes typically involve i) outreach to engage reluctant participants, ii) profiling to identify skill needs, iii) define requirements and incentives to ensure participation, iv) links to indicators of skills demand, v) links to other activation programmes (e.g. employment subsidies, entrepreneurship support), and vi) links to placement programmes (Hall, Metcalfe and Irving, 2015). Public employment services (PES) are key institutional players in creating all these connections, referring users to training programmes and buying programmes from training providers to promote the employability of jobseekers (OECD, 2016b).

Technological and demographic changes are a challenge to the labour markets of advanced and less advanced economies: skills are becoming obsolete at an increasing speed while employees stay working longer due to rising

retirement ages (Muller and Behringer, 2012). Many governments consider that both employers and employees should contribute to paying the costs of implementing LLL, considering the substantial private return linked to it (OECD, 2004). As a consequence, a broad range of policies have been developed to increase the incentives for employers to invest in developing their employees' skills.

Good practice in financial support for employee training

Many European governments provide incentives to stimulate employer-provided training (Muller and Behringer, 2012). The need to foster LLL for employees has led to the development of several joint financing schemes across Europe to stimulate investment in education and training, both by individuals and enterprises. Support schemes include subsidies, loans, training funds, training vouchers and tax incentives. The latter have been used in Belgium and Lithuania (Box 6).

Box 6. Tax incentives for employer-provided training

Tax incentives for employer-provided training are widespread. For instance, tax incentives for enterprises exist in 15 member states of the EU (CEDEFOP, 2009) and 23 US states (Hollenbeck, 2008). Training vouchers aim to increase the demand for adult education by reducing its direct cost while simultaneously enhancing individuals' ability to exercise a choice in the labour market (Schwerdt et al., 2011). Several economies have recently started to introduce voucher programmes to foster adult education. Interesting examples of tax incentives for employee training come from Flanders, in Belgium and Lithuania.

The region of Flanders employed a tax incentive during the years from 1999 to 2001 (Stone, 2010; EIM and SEOR, 2005). The programme was terminated after some elements failed to meet with European regulations. Businesses were permitted to write off training expenditures for employees against their property tax, if they could prove that 1) training expenditures in 1999 were higher than in the preceding year; 2) the size of the workforce had remained stable or increased over the last two years; and 3) the tax savings had been reinvested in training for employees in the given year. The instrument targeted specific sectors with limited training incidence. These included construction, transport, employment offices, cleaning and information and communications technology-related companies. According to Stone (2010), eligible forms of training included internally organised informal training.

This "Vlamivorm" project has been viewed in the literature as being rather successful in targeting small enterprises: 73% of participating businesses were small, 11% medium-sized and 16% large. Before May 1999, 5 299 enterprises were reported to have applied for a tax reduction, of which 4 126 were accepted. Most belonged to the

industrial, construction and transport sectors. However, when interpreting these figures one should also take into account the skewed distribution of company size in the survey population. Training intensity was reported to be higher in small companies than in medium-sized and large ones. Nevertheless, more than 60% of the expenditures claimed as tax reductions were incurred by large companies, and only about 20% by small ones. EIM and SEOR (2005) rate the instrument rather positively and it is considered to have contributed to a substantial rise in employers' training efforts. Companies' obligation to prove that they have increased their training spending is seen as a critical element of its success. In addition, including informal training activities is reported to have been crucial for reaching small and SMEs. The bulk of training was provided internally; in small companies the figure was 65%.

Lithuania introduced incentives for individuals to participate in both formal and non-formal VET in 2008:

- Up to 25% of training-related expenditure can be deducted from the annual tax return. Furthermore, the Law on Corporate Income Tax, in place since 2005, allows deductions for continuing training courses of employees that are linked to their present occupation.
- The Labour Code sets out training leave conditions for employees who participate in a VET programme. They may be determined in collective agreements or by agreement of the parties.
- To finance VET, enterprises and organisations may use the grant scheme under the human resources development operational programme. A similar measure exists for civil servants. In addition, from 2008 to 2012, the Ministry of Agriculture implemented a project to reorient the workforce in rural areas from agriculture to other activities. People were offered the opportunity to change their field of activity and qualifications and participate in formal or non-formal VET not related to agriculture. The project value was EUR 8.8 million.
- Payback clauses for individuals and future employers were both introduced in 2005. The Labour Code provides general conditions allowing employers to claim compensation from an employee for the costs of training over the past year if they quit the job earlier than the predetermined period.

Source: Muller, N. and F. Behringer (2012), "Subsidies and levies as policy instruments to encourage employer-provided training", *OECD Education Working Papers*, No. 80, OECD Publishing, Paris, <http://dx.doi.org/10.1787/5k97b083v1vb-en>.

Good practice in training-needs analysis

Providing effective training can be a challenge if the training available is not well targeted in terms of topic, audience and delivery method. For this reason, it is important to formulate training based on a needs analysis. Many

governments consider training-needs analysis (TNA) to be an effective way to identify relevant training needs and to better formulate and implement targeted trainings. A TNA can provide a comprehensive analysis of all training and development needs across an entire company, but it can also be used to describe a detailed analysis of individual employee's training and development requirements (Natural Resources Institute, 2015). An effective way to conduct a TNA is to implement a survey across companies in the sector, to provide input into the analysis of training needs and recommendations.

As part of its Lifelong Learning Programme (LLP), the European Commission funded a project to strengthen the local meat supply chain in Denmark, Finland, Ireland and Spain. The project included a TNA with the objective of formulating targeted training for local meat producers (Box 7).

Box 7. Training needs analysis in the meat sector in Denmark, Finland, Ireland and Spain

The aim of the project was to build an online learning platform directly addressing the needs of the meat sector with the objective of strengthening local meat supply chains. This was done through a TNA. As part of the TNA, questionnaires were distributed to SMEs in the meat sector in Denmark, Finland, Ireland and Spain. The SMEs in the target group were involved in different activities including primary production/farm shops, production of high-value cuts/processed meat, sales of products and catering. Another questionnaire was distributed in the same four countries to organisations active in the meat industry or government departments, in order to get a good picture of the training support offered by public and/or private organisations.

The TNA provided reliable information about what training programmes are required by the SME target group in the project. This served as a platform to decide which type of training materials to develop. The TNA provided three types of information: 1) the company's general situation (e.g. type of business, number of employees); 2) the company's current training situation (e.g. staff training programmes in place, level of qualification of employees, current training budget); and 3) its specific training needs (e.g. barriers to training, relevant training characteristics). The conclusions of the TNA were as follows:

- In general, the majority of companies in the analysis were well-established businesses with many years of experience in the market place.
- The majority of the companies were small companies with an average of 15 employees.
- Only about one-third of respondents had a staff training programme in place and slightly more than half provided no training at all.

- More than half of the companies did not have a budget allocated for training and about one-fifth of the companies had a yearly budget of EUR 5 000. All Finnish companies, however, had a budget ranging between EUR 5 000 and EUR 20 000. One reason for this relatively high training budget is that Finnish companies are obliged by government regulations to offer training to their employees.
- The cost of training, time and content ranked as the highest barriers to training.
- The training preferences for companies included: meat safety and hygiene, new product development, branding and marketing, meat quality, sustainability/ethics and animal welfare, new technologies, and work safety.

Source: Wahlgreen, K (2013), *Training Needs Analysis Meat Sector: Analysis results of Ireland, Finland, Spain and Denmark*, Strengthening Local Meat Supply Chains Project, Lifelong Learning Programme, Education and Culture DG, www.slm-sc-project.eu/graphics/reports/SLMSC_TNA.pdf.

¹ In 2015 the OECD launched a study on work-based learning in VET to deliver policy messages about how to use work-based learning to achieve better economic and social outcomes. Six modules of the study have been confirmed so far: 1) identifying the costs and benefits of work-based learning; 2) strengthening incentives and implementation; 3) strengthening school-to-work transition; 4) promoting innovation and economic growth; 5) certifying and recognising work-based learning; and 6) strengthening guidance and career information.

CHAPTER 3: THE FOOD AND BEVERAGE PROCESSING SECTOR IN SOUTH EAST EUROPE

This chapter examines the main characteristics of the high-potential food and beverage processing sector within South East Europe. The sector is one of the region's key strengths with high potential for further development and a number of competitive advantages. Exports are growing faster than other manufacturing sectors and it is a significant employer in the region, with potential for innovation. Finally, the chapter reports on the identification of number of key skills which are both very important to the sector and very scarce.

An important sector in South East Europe

Food and beverage processing¹ is a major sector in SEE. It represents the largest manufacturing industry in the region, accounting for 27% of turnover and 18% of employment in manufacturing (OECD, 2014d). In comparison, the manufacturing of basic metals, the second-largest industry in terms of turnover, only accounts for 9% of turnover and 5% of employment. The FBP sector also significantly contributes to exports: exports of processed food, beverages and tobacco range from 4% of total exports in Albania to 15% of total exports in Serbia.

Taking primary agricultural production into account as well, the sector's contribution to SEE economies is even greater. On average, the combined contribution of agriculture and the FBP sector to gross domestic product (GDP) amounted to 12% in 2010 (GFA Consulting Group, 2010), compared to 6% in the then 27 member countries of the European Union (Eurostat, 2015c). The sector also accounted for 22% of total regional employment in 2009, as opposed to only 5% in the EU-27.

The size of the sector varies across economies

While FBP is an important sector for the entire SEE region, its size varies across economies. Measured by sheer turnover, Serbia and Croatia are the main processors of food and beverage in the region with turnovers of EUR 5 483 million and EUR 3 667 million respectively in 2012. In relative terms, Kosovo is the economy where FBP accounts for the largest share of manufacturing turnover (36%). The sector is also relatively sizable in Serbia and Montenegro, where it accounts for 33% and 27% of manufacturing turnover respectively, but is relatively less important in Bosnia and Herzegovina (18% of manufacturing turnover) and Albania (18.8% of manufacturing turnover). Employment data confirm the relative importance of FBP in Croatia, Serbia and the Former Yugoslav Republic of Macedonia, where the FBP accounts for 8%, 6% and 6% of total employment respectively (OECD, 2014d).

The region's key strengths in food and beverage processing

Several factors explain the strong contribution of FBP to the GDP of the region. The SEE region has a number of key advantages in the sector, including abundant natural resources, especially in Serbia and Croatia, and the Adriatic coastline in Croatia, Montenegro, and Bosnia and Herzegovina. SEE also benefits from varied climates, soils and agricultural practices, which provide the region with a diversified range of processed food and beverages. In addition,

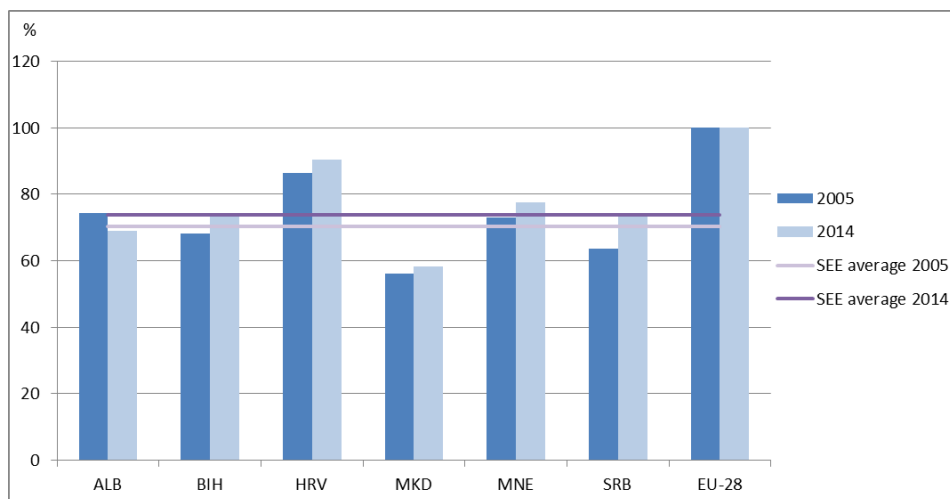
most SEE economies have favourable natural conditions for agriculture, with a share of agricultural land close to or higher than the EU average. However, a sizable portion of SEE is mountainous or hilly and provides less favourable conditions for agricultural development (Volk, 2010).

Furthermore, the region's natural resources are relatively unpolluted. Limited use of chemicals and mineral fertilisers, combined with rather extensive protected natural areas (such as natural parks and reserves) could provide favourable conditions for organic farming. However, air and water pollution remains relatively high in some areas (Hsu et al., 2014). In addition, natural resources in the region continue to face a number of challenges. These include coastal and urban sprawl, overfishing in local seas, and growing municipal solid waste which threaten natural resources in the region (EEA, 2010).

SEE economies also benefit from price competitiveness in several segments of the FBP sector, especially in fruit production. Data from Eurostat (see Figure 8) show that, on average, food and non-alcoholic beverage prices in SEE have increased during recent years but they are still at a lower level than for the EU-28. As a consequence, the region retains its price competitiveness in the sector.

Figure 8. Food and non-alcoholic beverage prices, purchasing power parity terms (2005 and 2014)

(EU-28 = 100)



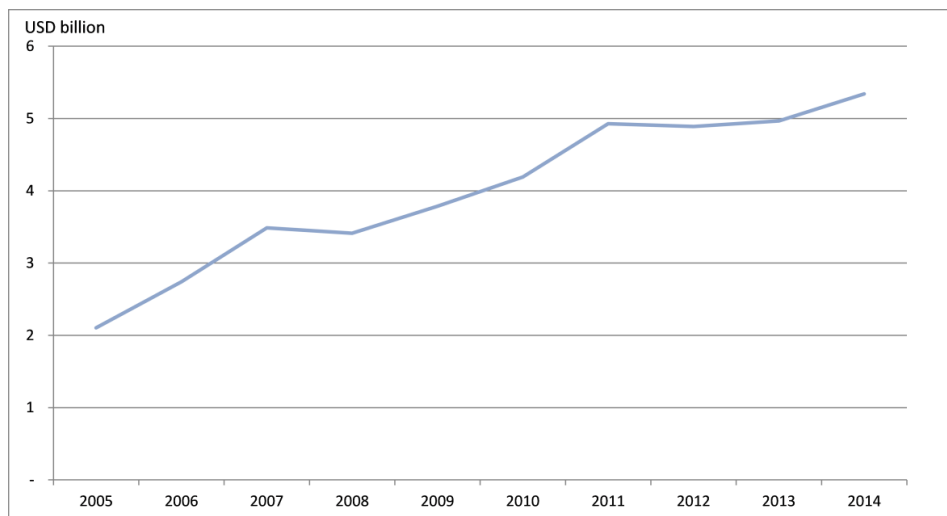
Source: Eurostat (2014), “Comparative price levels of consumer goods and services”, *Statistics Explained* (database), http://ec.europa.eu/eurostat/statistics-explained/index.php/Comparative_price_levels_of_consumer_goods_and_services (accessed 1 September 2015).

Finally, preferential access to the Central European Free Trade Agreement (CEFTA) and EU markets represents an important advantage for FBP producers in the SEE region. Exports of food and beverages to CEFTA and the EU economies have increased over the years. For instance, in 2005 Albania exported 69% of its total food and beverage exports to CEFTA and the EU-27;² by 2014 the figure was 87% overall. Similarly, Bosnia and Herzegovina increased the share of its food and beverage exports going to CEFTA and the EU-27 from 33% in 2005 to 60% in 2014 (United Nations, 2015).

High potential for further development

The FBP sector in the SEE region remains on a growth path. Exports of food, beverage and tobacco products have grown faster than other manufacturing sectors, rising by about 150% from 2005 to 2014. Total SEE exports of food and beverage increased from USD 2.1 billion in 2005 to USD 5.3 billion in 2014 (Figure 9).

Figure 9. South East Europe exports of food and beverages (2005-14)

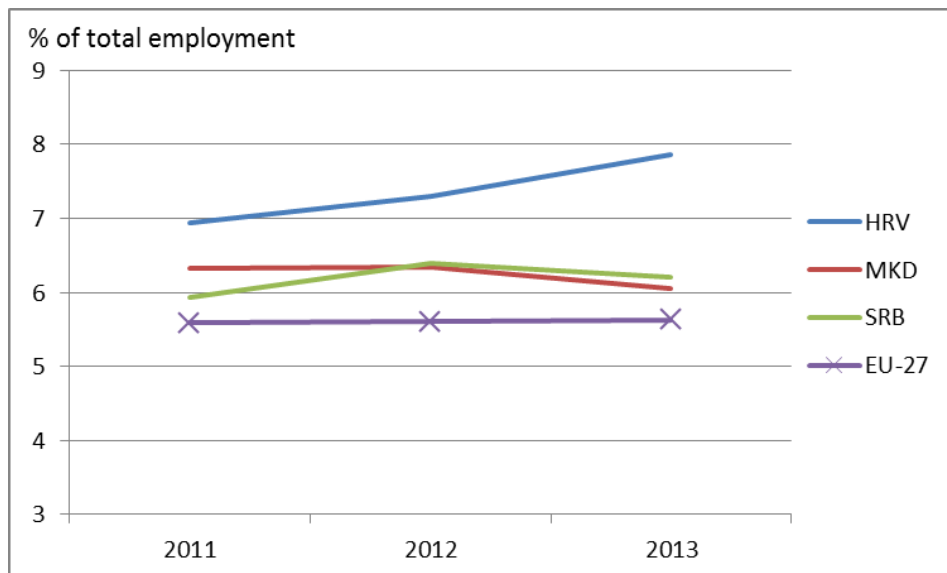


Source: United Nations (2015), "Trade data", *UN Comtrade* (database), <http://comtrade.un.org/data/> (accessed 1 September 2015).

Exports of food and beverages have also increased as a share of total exports, from 11% in 2005 to 13% in 2014. In some SEE economies, the increase has been even sharper. For instance, food and beverage exports increased from 8% to 27% of total exports from Montenegro in the period 2005-14 (United Nations, 2015).

The FBP sector also represents a substantial share of total employment in the region, averaging 6.7% of total employment. For instance, 7.9% of all employees work in the FBP sector in Croatia, 6.1% in the Former Yugoslav Republic of Macedonia and 6.2% in Serbia (Figure 10). The percentage of people employed in the FBP sector increased between 2011 and 2013 in Croatia and Serbia, although it fell slightly in the Former Yugoslav Republic of Macedonia. In addition, the share of employment in the FBP sector is higher across SEE economies than for the EU-28. This suggests that the sector plays a comparatively important role in the region's labour market.

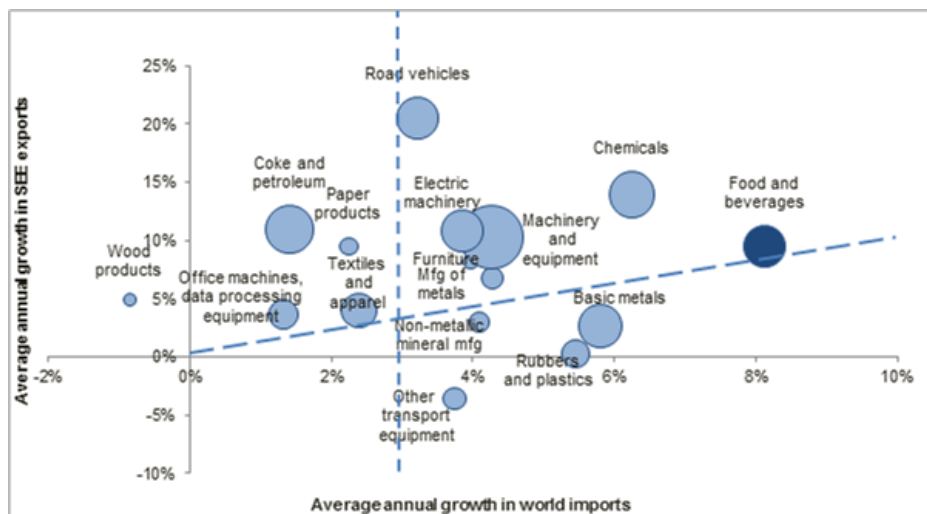
Figure 10. Employment in the sector as a percentage of total employment (2011-13)



Source: ILO (2014), "Employment", *ILOSTAT* (database), www.ilo.org/ilostat/faces/help_home/data_by_subject?_afrcLoop=4503064803481002&_afrcCtrl-state=12iwf1qgvi_243 (accessed 1 September 2015).

In light of the sector's strengths in the region, and its economic and employment track record over the last decade, the FBP sector has high potential for further development. Figure 11 shows that the sector is characterised by strong regional export growth coinciding with strong growth in world imports. However, a number of challenges need to be addressed in order to unlock the full potential of the sector in the region.

Figure 11. Growth in SEE exports and world demand (2006-12)



Source: United Nations (2015), "Trade data", *UN Comtrade* (database), <http://comtrade.un.org/data/> (accessed 1 September 2015).

Innovation and skills are needed to realise the sector's potential

The FBP sector shows significant potential for innovation. Some innovations are demand driven, like the production of healthier FBP products, or products with less preservatives and additives. Other innovations are more technology driven, for example the application of nanotechnology or genetically modified ingredients in FBP. These innovations, however, will depend to a large degree on relevant skills, which will need to be developed (see Box 8).

As part of the research activities undertaken within the framework of the SEE Food and Beverage Processing Expert Group (FBEG), the OECD conducted a survey of SEE FBP sector experts to identify skills gaps in the SEE FBP sector. The survey was carried out between March and October 2014. Detailed input was collected by 30 SEE FBP sector experts, from the 7 SEE economies. The experts were representatives of the FBP sector, the government, research institutions and international organisations. The objective of the survey was to identify skills which were both scarce and very important in the eyes of a critical share of regional experts ("focus skills"), in order to develop policy recommendations to bridge the skills gaps in the SEE FBP sector.

The survey identified 74 skills across various business functions as relevant for SEE FBP sector businesses. Of these relevant skills, 21 were identified as focus skills, being both very important and scarce, mainly in purchasing, product development, production and maintenance, and quality assurance (Figure 12). Some discrepancies emerged in the perception of focus skills between the private and public sector, namely:

- The public sector perceived suitable purchasing skills to be important and scarce.
- The private sector identified the lack of understanding of national and international product regulations standards as the main constraint in product development, while the public sector emphasised the lack of customer and market needs analysis to define product development goals.
- The private sector identified the inadequacy of application and documentation of hygienic procedures as the main constraint in production and maintenance, while the public sector identified the lack of training and supervising of unskilled workforce in production processes as the top priority.
- A number of options were identified to bridge skills gaps (e.g. designing efficient and effective education systems, supporting employers in employee training, facilitate skills-matching between businesses and labour market).

Box 8. Fostering skills for innovation

Formal education systems equip students with knowledge relevant for innovation. Increasingly, both secondary and tertiary education systems try to strike a balance between content knowledge and other skills such as creativity, communication and teamwork. The aspects that affect students' acquisition of innovation skills through the formal education system include:

- **Disciplines:** to foster skills for innovation it is important to develop simultaneously three categories of skills: 1) technical skills; 2) skills in thinking and creativity; and 3) behavioural and social skills. This is particularly important in the FBP sector, as many dimensions such as safety, taste, trust, price, identity, culture and habits have to be taken into account.
- **Pedagogies:** active pedagogies such as problem-based solving and co-operative learning are important means of reaching better outcomes in the development of skills for innovation. In many cases, implementing these pedagogies would require a change in curriculum.
- **International mobility:** one important way to foster skills for innovation lies in the mobility of students, programmes and institutions. Internationalisation of ideas and tacit knowledge is a major trend in higher education in the OECD area and worldwide.
- **The participation of women** in science and technology may require particular policy attention. Their relatively low involvement in some areas of science and technology raises concern as the skills of some highly trained women remain underutilised, risking the loss of their social and individual investments in education. This is particularly important considering that women are concentrated in some fields directly relevant for innovation in the FBP sector, such as biology. Barriers to female participation include gender stereotypes and non-transparent nomination and appointment procedures. Policies to address gender issues in science include equal opportunity legislation, gender mainstreaming, units for women within science ministries, targets and quotas, networks and mentoring programmes, and policies on maternity and paternity leave.

Fostering skills for innovation in enterprises

While formal education is an important way to develop relevant skills, these only lead to actual innovation if companies and other organisations make appropriate use of them. Moreover, innovation requires people to be lifelong learners and raises the question of the supply of continuous education and training. Fostering skills for innovation in enterprises can be achieved through:

- **Fostering better collaboration with educational institutions** in order to develop skills in a specific area of innovation. For instance, many governments are introducing innovation vouchers to incentivise SMEs to develop skills for innovation. Innovation vouchers are small lines of credit provided by governments

to SMEs to purchase services from public knowledge providers with a view to introducing innovations (new products, processes or services) in their business operations.

- **Human resources management policies:** a series of policies have come to be associated with more innovation and more staff contribution to the innovation process. The provision of formal training is both a source and a consequence of innovation, but other organisational practices can also foster more informal on-the-job training. Staff mobility, domestically and internationally, is another important source of innovation.

Sources: OECD/World Bank (2013), "Skills for innovation", Innovation Policy Platform website, www.innovationpolicyplatform.org/content/skills-innovation (accessed 1 September 2015); OECD (2011), *Skills for Innovation and Research*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264097490-en>.

Figure 12. Priority scarce and very important skills for companies operating in the SEE FBP sector



Skill category legend: items including "P" refer to purchasing, "PD" to product development, "PM" to production and maintenance, "QA" to quality assurance, "L" to logistics, "SM" to sales and marketing, "GM" to general management
 *Percentage of respondents indicating skill is very important ; **Percentage of respondents indicating skill is less available
 Source: FBEG (2014), "Second Meeting of the South East Europe Food and Beverage Processing Expert Group", meeting organised by the OECD Regional Programme for South East Europe, Paris 2 October 2014

¹ According to the statistical classification of economic activities in the European Community, the food and beverage sector includes manufacture of food products and beverages and manufacture of tobacco products (Eurostat, 2009). Food and beverages are further subdivided into nine groups covering meat, fish, fruit and vegetables, fats, dairy products, grain mill, starch products, and prepared animal feeds.

² EU-28 from 2013 onward.

CHAPTER 4: POLICY OPTIONS

This chapter provides specific policy options to unleash the development potential of the food and beverage processing sector in the SEE region in three policy areas: 1) designing efficient and effective education and training systems to ensure that young people are better prepared for the labour market; 2) facilitating business needs and skills supply alignment through building the capacity of public employment and career guidance services and creating systems to anticipate future skills needs; 3) promoting lifelong learning through financial incentives for employee training and sector-specific training needs analyses.

Efficient and effective education and training systems

High-quality education institutions and strong co-operation with employers and other stakeholders will be crucial to ensuring that young people are well prepared for the labour market in SEE. On leaving the education system, young people should have developed a broad range of skills and ideally acquired some initial labour-market experience (OECD, 2015b). SEE economies could consider a number of policy interventions to design efficient and effective education and training systems.

Updating curricula in co-operation with industry

SEE economies need to improve the quality of their vocational education and training programmes by updating curricula to meet the needs of industries, both in content and in the way students learn. This needs to be done in close co-operation with business representatives. Programmes in the FBP sector could mainly focus on raising students' skills in understanding and handling customer needs and market trends, understanding and operating internal and external customer and quality audits, and analysing customer and market needs to define product development goals. Curricula need to be regularly updated so that the knowledge and skills they cover continue to reflect the needs of the sector, given frequent technological and regulatory changes, such as process automation, new food processing and packaging techniques, and biotechnology on the technical side and in health and safety, quality control, and certification on the regulatory side (Higgins, 2014).

Gradually increasing the share of practical learning in education

SEE economies need to consider how they will foster the development of structured work-based learning programmes across different levels and types of education to better integrate students into the labour market. The share of practical learning needs to be increased in both upper secondary and tertiary education. Such work-based learning programmes could be designed alongside the companies which would be taking the students on. Programmes based on the Austrian dual VET system could be piloted in a number of selected schools relevant to the FBP sector. Based on lessons learned from the pilot, the work-based learning programme could be gradually extended.

Raising teachers' skills to improve the quality of education

SEE economies would benefit from a number of policy initiatives directed towards the teaching profession. First, they could consider taking steps to make

teaching a more attractive career choice, improving the image and status of teaching, the competitiveness of teachers' salaries, and their employment conditions. Second, teachers' knowledge and skills could be further developed through continuous education opportunities to improve the quality of teaching. For instance, teacher profiles could be further improved to encompass strong subject matter knowledge, pedagogical skills, and the capacity to work effectively and contribute to the school and the profession (OECD, 2005). Third, SEE economies could support the development of a lifelong learning perspective among teachers, supporting them in the early stage of their careers and providing them with incentives and resources for ongoing professional development.

Establishing sector-specific skills councils to provide a platform for education-business exchange

SEE economies would also benefit from the creation of SSCs to discuss employers' skills needs and share good practice on employee training. Such SSCs can focus on potential developments in employment and skills needs within their sector to assist their development and act as a bridge between the demand for and supply of labour, identifying industry-specific needs and training opportunities (ETF, 2013). To achieve this, councils could help collect data on skills needs, provide analysis, conduct studies and make recommendations on the education system and the labour market to their national authorities. They may also have a role in monitoring and mapping the structure of occupations in the FBP labour market to inform policy makers. In addition, they could also work on increasing the commitment of employers to training and the creation of a learning culture within their sector. This would contribute, among other things, to improving the effectiveness of the skills system, tackling skills imbalances and engaging employers in the task of ensuring a skilled workforce.

Skills councils need to involve a variety of stakeholders, including employers' associations, trade unions, education and training organisations and national and regional policy makers (e.g. representatives of the Ministry of Agriculture and of local chambers of commerce) as well as experts in the field of FBP.

Matching business needs and skills supply

SEE economies have only a few skills-matching systems in place. Linking the education system more prominently to the labour market, and preparing young people better for the job market, would reduce the build-up of large imbalances between the supply and demand of skills. They need specific policies

to help young people find jobs which match their skills, allow them to develop skills to adapt to the changing needs of the job market and to make the best use of their skills overall. SEE economies could consider a number of policy interventions to facilitate skills-matching between business needs and skills supply including 1) increasing the capacity of their public employment services; 2) developing systems and tools to assess and anticipate skill needs; and 3) developing effective career guidance services.

Increasing the capacity of public employment services

A number of measures could help SEE economies improve the capacity of their PES. PES staff in SEE economies spend most of their time registering the unemployed and providing basic information (Tomev and Meinardus, 2012). Their work load is very high, limiting their ability to effectively match jobseekers with the vacancies that meet their skills.

Moreover, given that training represents an important element of the labour-market measures employed by PES in the region, the business sector should be systematically screened and monitored, and constantly consulted, to bring the content of the training provided closer to actual skills needed in the labour market (ETF, 2011). PES could consider recording the exact skills and competencies of jobseekers, and searching for a match based on the requirements of businesses with vacancies. This would require advanced information technology systems and a comprehensive characterisation of skills. More guidance could also be given to jobseekers on the use of such systems and how to critically assess their own skills.

Creating systems and tools for assessing and anticipating skills needs

Creating systems to better anticipate the skills needed by the labour market would help SEE economies develop the right skills, ease students' transition from school to work and reduce the risk of people gaining skills that will be of little use to the economy. Several approaches can be used to assess and anticipate future skills needs. National-level quantitative forecasts can be derived from macroeconomic models, while sectoral or occupational studies provide information about changes in the labour market in particular sectors. Employers can be surveyed about the type of skills they are likely to need in the short term, and focus groups and round tables of experts can be used for more qualitative techniques of foresight analysis using scenario development methods (Bartlett, 2012). Such systems and tools would be mainly used by PES or skills councils.

Developing effective career guidance services

The lack of career guidance and counselling services is considered to be a major hindrance for students in SEE attempting to find a job (ETF, 2014f). SEE economies could consider taking steps to establish or expand career guidance services at two key levels: 1) after compulsory education, when students decide on their specialisation; and 2) during and after the completion of their studies, when they need to better understand the functioning of the job market. Policy makers should also consider fostering deeper co-operation between existing career guidance services and PES in order to provide timely and accurate labour market information. Career guidance service staff need to be well trained to provide the right information. Finally, students should be provided with timely, relevant information on the market returns of various career paths, and about appropriate education and training programmes, which should be monitored to ensure quality.

Lifelong learning promotion

Training provided by employers is considered one of the most important sources of further education for individuals once they have entered the labour market, since returns are generally higher for training financed by employers (Hansson, 2008). SEE economies could consider a number of policy interventions to support employers in providing training opportunities for employees including 1) providing financial incentives for employee training; and 2) conducting a sector-specific training-needs analysis.

Providing financial incentives for employee training

SEE economies should consider increasing the financial incentives available to businesses for employee training. Such incentives could take the form of vouchers, tax incentives or preferential interest rates on training loans. Other measures to support employers in providing employee training include measures to support the training of business trainers (e.g. financing foreign experts to provide training for local trainers or sending trainers for training abroad), and the development of employer and employee training materials (such as learning manuals and online tutorials for key skills).

Several incentive schemes already exist in the region. Before designing and providing more, it would be useful to conduct a business survey similar to the continuous vocational training survey conducted in EU countries. These surveys ask companies what type of schemes they find most useful; the answers can be used to ensure more relevant schemes are offered to businesses.

Conducting sector-specific training-needs analysis

SEE economies could consider conducting TNAs to ensure that training is provided in an efficient and cost-effective way and that it is tailored to existing skills gaps. A TNA involves a number of steps. First, a gap analysis identifies major training and skills gaps, and the causes of any performance problems. Second, a comprehensive list of training needs can be developed from the gap analysis and placed in order of priority and importance. Finally, solutions can be identified and growth opportunities developed. SEE economies could take further steps to develop national TNA frameworks involving governments, social partners and the business community, particularly in economic growth sectors.

For example, in 2014 the OECD's SEE Food and Beverage Processing Expert Group conducted a survey in the SEE region to identify skills gaps (Chapter 3). This expert survey built on complementary expertise in the SEE FBP sector provided by 30 regional sector experts. The results found that 21 relevant skills were very important and scarce in the sector, mainly in purchasing, production/maintenance and quality assurance (FBEG, 2014). The survey identified a number of training levers to bridge these skills gaps: developing relevant skills, activating skills supply, putting skills to effective use, etc.

Similar TNA frameworks could be used to identify skill weaknesses and gaps in the workforce and future skill requirements through a variety of instruments, such as document reviews, in-company interviews and external interviews. Wider national economic development plans could include standard data collection instruments and a data management system. TNAs could be implemented among small businesses in growth sectors and made publicly available on a recognised website for access by enterprises, training providers and policy makers.

CHAPTER 5: ECONOMY PROFILES AND POLICY OPTIONS

This chapter provides snapshots of the food and beverage processing sector in each of the SEE economies, including existing initiatives to foster sector competitiveness. For each economy, it covers the economic contribution of FBP to GDP, employment and exports and levels of investment. Based on international and national sources, it identifies key challenges to the development of the sector and provides economy-specific policy options, building on the policy options developed in this Policy Handbook.

Albania

Overview

The food and beverage processing sector in Albania has undergone marked and sustainable development in recent years and is now an important part of the economy (FAO, 2013a). Agriculture and the FBP sector combined contribute around 21% to Albania's gross domestic product (GDP), which is well above the average of 12% for the South East Europe region (GFA Consulting Group, 2010). In 2009, the FBP sector employed 14.4% of the manufacturing workforce and this share has been increasing over time (FAO, 2013a). Agriculture and the FBP sector have together been one of the drivers of growth and employment for the Albanian economy.

The Albanian FBP sector is complex, made up of small private businesses created as a result of the privatisation of former state enterprises and new investment from private initiatives. The sector is currently highly focused on and driven by the need to comply with the conditions of EU accession and World Trade Organization (WTO) regulations in order to access more diversified markets.

Challenges

The quality of the education system needs to be further improved. In 2013, about 20% of Albanian companies identified an inadequately educated workforce to be a major constraint. The quality of both teacher training and continuing education are still relatively low in Albania. Even though the economy has developed the legislation and regulation needed to strengthen teachers' recruitment, retention and continuing professional education, Albania still lacks a systematic mechanism to identify teachers' training needs and align them with the skills students need (European Commission, 2014a). Vocational education shows a declining trend – the number of students enrolled in vocational education fell by over 38% in the period 2006-11 (ETF, 2014a). In a survey conducted by the German Association of Industry and Trade in Albania (DIHA), most companies in the FBP sector identified the following issues with vocational education: outdated curricula that do not reflect the needs of businesses, too little practical experience included in the learning process, unqualified teachers and lack of commitment among students (DIHA, 2010). In addition, links between the educational institutions and the business sector are still weak and work-based learning is still in its infancy despite policies to promote it having been put in place.

Skills-matching systems are not efficient enough. Albania offers students only basic career services, providing them with information about the types of jobs and career paths available, but not supporting their entry into the job market. There are career orientation services which operate at a tertiary education level and include information on education programmes, career opportunities and future job prospects, but such guidance is rarely made available at secondary school level (European Commission, 2014a). Furthermore, despite evident progress in improving the functioning of Albania's public employment services (PES), they are still inefficient and the capacities and the levels of expertise of PES staff are low.

Lifelong learning needs further support. Adult participation in lifelong learning (LLL) in Albania is extremely low. In 2013 around 1% of adults participated, less than in 2010, compared with the EU-27 average of around 11% (ETF, 2014a). Company-based training is still undeveloped. Encouragingly, LLL programmes represent one of the main parts of the Albanian National Strategy on Employment and Skills (2014-2020). There is also a certain level of awareness and readiness to further improve in-company training by the business sector (DIHA, 2010), but a lot of work remains to be done to foster LLL and skills development in Albania.

Policy options for consideration

- Further improve the quality of vocational education and training (VET) by increasing the effectiveness and capacity of the National Agency for Vocational Education and Training and sector-specific committees (European Commission, 2014a), supporting awareness-raising campaigns about the importance of and opportunities in VET in urban and rural areas, and designing a public interactive web portal/database on the qualifications, curricula and training offered by VET providers.
- Provide employment services for all individuals registered with the National Employment Services – through self-service, group counselling and job search training – and more intensive and targeted assistance for those who are “hard-to-place”.
- Increase the scope of the career orientation services' activities – mainly by providing career guidance at secondary school level.

Bosnia and Herzegovina

Overview

The FBP sector in Bosnia and Herzegovina forms a large part of the economy, contributing 2.7% to GDP and 23.6% to the total value added by manufacturing industries, and it is growing at a rate of 13.2% a year (FAO, 2013b). The combined contribution of agriculture and the FBP sector to GDP is 10%, lower than the SEE average. Over the last decade the sector has been recovering from a long period of underinvestment and is growing rapidly (Foreign Trade Chamber of Bosnia and Herzegovina, 2015). Dominated by small and medium-sized enterprises, the FBP sector employed 16.5% of the manufacturing labour force in 2009, and employment has grown by 1.7% a year on average since 2006 (FAO, 2013b).

Challenges

Bosnia and Herzegovina could further raise labour productivity in the FBP sector and improve its overall competitiveness.

The education system is not aligned with job market needs. The reasons for this lie in inadequate teacher training, which has been mainly project driven rather than systematically implemented (ETF, 2012b); equipment that is relatively outdated and even obsolete; and low expenditure on education in general. In Bosnia and Herzegovina expenditure on teacher training is just 0.14% of GDP compared to the EU-27 average of 0.55% of GDP (Bartlett, 2012). Furthermore, little progress has been made in improving the management and administration of vocational education and training. Bosnia and Herzegovina is in a unique situation where policy and governance for the VET system are divided across 15 different competent institutions at the state, entity, district and canton levels (ETF, 2012b). This fragmented governance limits co-operation among VET actors, weakens the collection of information and statistics about VET, and makes social inclusion policies heavily dependent on the capacities of the relevant entity. The VET system is characterised by traditional teaching methods and a lack of external evaluation and quality assessment (ETF, 2012b). Furthermore, even though a strategy for VET exists, no measures were proposed to strengthen co-operation between education and businesses. Practical training is often organised at schools since companies seem reluctant to provide training to students (European Commission, 2014b).

Skills-matching systems are not efficient enough. The public employment services are responsible for labour-market data, but their activities

are rather sporadic and there is no systematic data collection (European Commission, 2014b). Also, PES have a wide variety of responsibilities which hampers them from efficiently managing employment mediation. As in the other SEE economies, career orientation services in Bosnia and Herzegovina exist only at the higher education levels.

Lifelong learning has been enhanced, but needs further development.

Adult participation in LLL in Bosnia and Herzegovina seems to be more developed than in other economies in the region even though the government has not yet undertaken specific measures to promote it. Two-thirds (66%) of companies offered formal training programmes to permanent full-time employees in 2008, compared with an EU-27 average of 48%, demonstrating Bosnia and Herzegovina's potential to further develop LLL programmes (European Commission, 2014b).

Policy options for consideration

- Improve co-operation, co-ordination and reporting mechanisms between the VET department and other relevant institutions (schools, pedagogical institutes, education ministries, and labour and employment ministries) in order to harmonise and improve VET system governance (ETF, 2012b).
- Increase the capacity of the PES and systematically collect labour-market data as a part of the wider national economic development plan.
- Develop a more strategic approach to tackle the challenges in the training and education system by effectively prioritising measures based on mapping skills gaps, taking into account the needs of the FBP sector.

Croatia

Overview

The FBP sector represents one of the leading industries and one with good growth prospects in Croatia, contributing 3.2% to GDP. In 2009, the sector generated about 23.4% of the total added value of the manufacturing industry (FAO, 2013d).

The FBP sector in Croatia is one of the few industries that have managed to maintain stability during the last decade. It is of increasing importance due to its high annual growth rate of 1.6% (Pervan, Mlikota and Sain, 2013). In 2009, the FBP sector employed around 19% of the manufacturing workforce, and employment in the sector has grown by 1.7% per year since 2006. As in other SEE economies, the sector is dominated by small and medium-sized enterprises; large enterprises make up only 1.2% of all FBP companies in Croatia (FAO, 2013d). One trend in the FBP sector is the expansion and growth of conglomerates, which are active in several sectors within FBP.

Since becoming an EU member in July 2013, Croatia has faced increasing pressure on prices and competitiveness in the sector. In order to maintain the stability of its FBP sector and take advantage of joining the EU, Croatia should further improve its competitiveness by raising its labour productivity.

Challenges

So far Croatia has taken significant positive measures to improve its skills base in the FBP sector. However, it lacks a comprehensive, stand-alone development plan for education reform for the next five years.

Croatian employees lack the skills, knowledge and competencies to enable enterprises to develop globally competitive products and services. The reasons for these skills gaps are mainly: the limited educational attainments of the Croatian labour force; a VET system ill-adapted to market needs; low, albeit increasing, tertiary education enrolment rates; and insufficiently developed lifelong learning (World Bank, 2009). Furthermore, teaching methods are outdated and the curricula have not responded to the changing economy, although VET education has been significantly improved. Another issue with the VET system has been narrowly defined occupation bases. Co-operation between businesses and schools is still unsatisfactory and vocational schools should co-operate more deeply with stakeholders at both the local and regional levels. There is still little awareness in the business community of the good returns that

can be achieved from developing a closer relationship with the education sector (ETF, 2012c).

Skills-matching systems need further enhancement. Skills-matching systems represent one of Croatia's employment policy priorities. The Croatian Employment Service has been largely improved and career guidance and counselling services have been provided in different sectors of the education system. However, there is no national body responsible for monitoring the system as a whole.

Lifelong learning is still underdeveloped in Croatia. With just over 2% of adults participating in LLL in 2013, Croatia was well below the EU-27 average rate of around 11%. There is also a lack of awareness within the business sector on the benefits of in-company training. The Croatian state tried to use tax deductions to promote on-the-job training but these were not successful, due to both lack of awareness among employers and the complexity of the administrative procedures (ETF, 2012c).

Policy options for consideration

- Further stimulate the development of the VET system by increasing VET programmes' flexibility (widening the occupation base, creating a flexible VET modular structure, etc.).
- Strengthen the link between the education and business communities through more structured information flows and co-operation between schools, universities, the FBP sector and ministries (ETF, 2012c).
- Foster workplace training and learning by providing subsidies, credits and other incentives to both learners and providers.
- Further improve employment support services and provide direct counselling services to SMEs, which make up the largest proportion of FBP companies.

Former Yugoslav Republic of Macedonia

Overview

The FBP sector plays an important role in the economy of the Former Yugoslav Republic of Macedonia, accounting for about 21.5% of manufacturing output and, together with agriculture, contributing around 10% of GDP (GFA Consulting Group, 2010). In 2009 the FBP sector employed about 6% of all employees and 14% of the manufacturing workforce, an increase of 5% over the 2008 level (FAO, 2011).

Similar to the other SEE economies, the FBP sector is dominated by small and medium-sized enterprises. Output and investment in the sector have not been stable over time, but its employment share has remained steady. Labour productivity has increased by 12% in food production and by 22% in beverage production over 2005 level (FAO, 2011). One of the main reasons for this increase has been government measures undertaken to foster skills and thus productivity.

Challenges

Nevertheless, several skills challenges still need to be addressed to realise the development potential of the FBP sector in the Former Yugoslav Republic of Macedonia.

Education does not respond quickly enough to labour market changes. Outdated curricula and the overall low quality of education infrastructure hamper the process of skills improvement. Teacher training is not efficient enough since there are no systematic mechanisms to identify teachers' training needs (European Commission, 2014d). The effectiveness of vocational education and training programmes could be further improved since currently there are no monitoring or assessment mechanisms, and staff training is provided on a rather ad hoc basis. Completing an internship is obligatory at higher education levels, but it often remains a formality, without offering much of a learning experience (European Commission, 2014d). In addition, although there are many measures in place intended to strengthen linkages between the education system and the business sector, there is still a lack of proper monitoring and evaluation.

Skills-matching systems could be further improved. Even though the Former Yugoslav Republic of Macedonia has more advanced career orientation centres than other SEE economies, these often lack adequate staff, significantly

reducing their ability to support students with in-school guidance and counselling services (ETF, 2014b). Nor are the public employment service agencies efficient enough, due to the lack of expertise of their staff. Skills gap analysis is hampered by a lack of labour-market information (European Commission, 2014d).

The lack of a lifelong learning strategy is hampering development. Adult participation in lifelong learning in 2013 was around 3%, an increase on 2010 but still well below the EU-27 average of around 11%. There is a lack of awareness among employers on the benefits of in-company practical training. For instance, in 2008 only 19% of companies offered formal training programmes to permanent full-time employees in the manufacturing sector, which is rather low compared with the EU-27 average of 48% (World Bank, 2010b).

Policy options for consideration

- Provide more efficient teacher training courses that are better aligned with labour-market needs, and improve teachers' working conditions and pay.
- Improve the way the obligatory internships are run so that they are not just a formality which does not provide a genuine learning experience.
- Increase the efficiency of the public employment service agencies and build their capacity and improve staff training. Use the skills-needs analyses that are being conducted by the agencies as a basis for policy making.
- Introduce a LLL strategy with concrete measures to promote on-the-job training and foster skills within the sector, such as automation and food safety-related skills, organisation and management.

Kosovo

Overview

Both Kosovo's economy and its food and beverage processing sector have developed over the past few years. The combined contribution of agriculture and FBP to GDP in Kosovo is around 7%, the lowest in the SEE region (GFA Consulting Group, 2010).

Kosovo's FBP sector consists mainly of small family businesses. In 2009 approximately 87% of agricultural land was in private hands and the remainder was administered by the Kosovo Privatisation Agency (GFA Consulting Group, 2010). Calculations based on survey data indicate that in 2012 the total number of employees in the sector had increased by 31% since 2011 (Ministry of Trade and Industry Kosovo, 2014).

Challenges

The education system needs to be better aligned with the labour market. A survey conducted by the Ministry of Trade and Industry in Kosovo found a number of issues with skills that should be tackled to increase the potential of the FBP sector. Over half the firms interviewed felt that the top three professions for skills shortages were machinery operators, professionals in the field of agriculture and food technologists (specifically "meat processing technologists"), which were in high demand and very important (Ministry of Trade and Industry Kosovo, 2014). Kosovo also suffers from insufficient investment in education. As in other SEE economies, the quality of VET is low, mainly due to poor and outdated equipment, outdated curricula, and lack of expertise among teachers. Co-operation between the education system and the business sector is also rather weak, meaning the education system is failing to generate skills relevant to the labour market (ETF, 2014c). Furthermore, businesses seem very reluctant to engage with and contribute to VET curriculum development and to invest time and effort in training students (European Commission, 2014c).

Skills-matching systems need to be further improved. Data on the labour market are incomplete, hindering the provision of information on labour demand and supply. Career orientation services are almost non-existent, leaving young people without quality help and guidance in choosing future careers and education options. Kosovo's public employment services require urgent reform, since their role has been simply to keep records of jobseekers rather than to actively implement labour-market policies (European Commission, 2014c).

Lifelong learning should be further promoted. LLL is included in several strategic documents, but these are individual policies without any strategic approach or co-ordinated effort. On-the-job training in Kosovo is rather rare and normally confined to male employees, suggesting that companies do not perceive the value of training staff in raising productivity and that there are significant gender issues in the field.

Policy options for consideration

- Further improve teachers' competencies through better quality teacher training including strengthening the pedagogical skills teachers need to teach their own subjects and developing cross-cutting key competencies such as entrepreneurship skills.
- Increase the efficiency and effectiveness of career guidance in schools and employment services, improve co-operation between schools and employment services, and establish more formalised structures for integrated career guidance at a lower secondary school level.
- Introduce incentives for on-the-job training of both male and female employees and raise awareness on the various benefits of such training.
- Develop a lifelong learning strategy with measurable objectives and targets.

Montenegro

Overview

The food and beverage processing sector and agriculture play an important role in Montenegro's economy, contributing 8% to its GDP (GFA Consulting Group, 2010). Along with the tobacco industry, it is the second largest manufacturing sector in Montenegro, accounting for 38% of total manufacturing value added in 2009 (FAO, 2013c). Survey data show that the FBP sector is skewed towards small businesses – about 70% of enterprises in the sector employ fewer than 15 workers, and only 4 employ more than 250 (FAO, 2013c). They employ 23.8% of the manufacturing workforce in Montenegro.

Challenges

In terms of skills, there are several challenges that need to be tackled to unleash the development potential of the Montenegrin FBP sector.

The education system does not sufficiently prepare students for the labour market. University curricula could be further oriented towards the job market. For instance, employers are generally not involved in the definition of education programmes, and curricula often lack practical skills. The quality and relevance of the training system could be enhanced to improve labour-market outcomes for current workers, while ensuring that learning outcomes are translated into relevant skills. Finally, the quality of work-based learning is reported to have room for improvement. The 2009 Labour Force Survey Data show that VET programme graduates in Montenegro are more likely to be out of work than those who have followed general school pathways (ETF, 2014d). This suggests that the effectiveness of the VET system could be improved to further meet the labour market's needs.

Few skills-matching systems are in place with almost no system for monitoring and anticipating skill needs. There is no regular collection of data and analysis of skills gaps. While career orientation services operate at higher education levels, with information on education programmes and career opportunities, future jobs and prospects and so on, such guidance is rarely made available at secondary school level. In addition, there are barely any systems in place to anticipate future skills needs (ETF, 2014d).

Lifelong learning could be further promoted and developed. The provision of in-company practical training in real work environments and through learning-by-doing are still at an initial stage in Montenegro. Only 1.84%

of employees in Montenegro participated fully in some sort of training or skills development in 2009 (Ministry of Labour and Social Welfare of Montenegro, 2011), and the private sector invests little in ongoing training for employees. For instance, in 2009, the private sector devoted just 0.57% of gross revenues to training, and only 25.2% of companies engaged in manufacturing offered formal training to their employees (Ministry of Labour and Social Welfare of Montenegro, 2011). Only 3% of adults participated in any form of LLL in 2013, well below the OECD average of almost 11% and even below the SEE average of 4%. Although this represents an increase on 2010, it is still too low and a number of changes are needed to catch up. A new way of thinking is needed about the benefits of LLL among individuals, entrepreneurs and family business owners as well as the human resources managers of larger, more structured companies (ETF, 2014d).

Policy options for consideration

- Ensure that there is systematic co-operation between education and business actors on several levels: policy design, formulation, implementation and evaluation.
- Develop monitoring and feedback mechanisms for work-based learning schemes, including skills validation.
- Implement the policies planned in the LLL strategy, ensuring there is clear budget allocation and sufficient funding.
- Strengthen co-operation between education policy makers and/or the Ministry of Labour and further develop skills-matching systems through the use of skills gaps analyses.

Serbia

Overview

As one of the most developed sectors in Serbia, food and beverage processing constitutes a large part of the economy, contributing 4.3% to GDP in 2009, and about 33.4% of the total output of manufacturing industries (FAO, 2013e). The combined contribution of agriculture and FBP to GDP in 2009 was around 18%, which is well above the SEE average of 12% (GFA Consulting Group, 2010).

In 2009, around 22% of the entire manufacturing labour force was employed in the FBP sector, mainly in the small and medium-sized enterprises that dominate the sector in Serbia (FAO, 2013e). Large enterprises make up only 1.2% of all enterprises in the sector and represent around 12% of all large companies in Serbia.

During the transition years, FBP was one of the few sectors to develop and grow strongly. As in Croatia, an increasing trend in the sector is the expansion and growth of conglomerates, which are active in several sectors (FAO, 2013e). Made-in-Serbia food is present around the globe, from Japan to the United States, and is sold under Serbian brands and through the world's largest supermarket chains (FAO, 2013e).

Challenges

Despite the FBP sector's recent growth and success, Serbia still has several skill-related issues to address in order to raise productivity and fully realise its potential.

The education system provides little practical training. The reasons for this lie in outdated curricula and obsolete teaching methods (only 5% of the education budget is devoted to innovation), very little investment in education in general (3.8% of GDP in 2011) and poor co-ordination between the relevant ministries and services (ETF, 2014e). Furthermore, the VET system is also underdeveloped. Although Serbia's Education Strategy prescribes co-operation between VET institutions and businesses, no formal apprenticeships or other formal work-based learning schemes have been established (European Commission, 2014e). VET schools too often fail to provide relevant skills, instead using outdated programmes developed by the Ministry of Education (Bartlett, 2012). Serbia also lacks a permanent, systemic and multi-sectoral mechanism for forecasting and monitoring labour market demands, which is

closely related to the limited dialogue between education and the business sector.

Officials lack capacity to conduct skills gap analyses. The National Employment Service (NES) in Serbia is the primary body responsible for the implementation of the labour policies, but it has limited capacity, a significant workload and inadequately trained staff (ETF, 2014e). For instance, it has only five employees in the Department of Statistics and Analysis (Bartlett, 2012). Career guidance and counselling, take place only at higher education levels, and the quality of service offered is questionable (European Commission, 2014e).

Lifelong learning needs to be further enhanced. Adult participation in LLL was around 3% in 2013, a slight decrease from 2010. Serbia has no LLL strategy in place and there are no incentives for on-the-job training programmes. Just 37% of manufacturing companies offered formal training to permanent full-time employees in 2008, compared to the EU-27 average of 48% (World Bank, 2010a). Both employers and employees lack incentives to undertake training within companies. The employers' surveys conducted by the Serbian Chamber of Commerce indicate the main challenges for SMEs (which make up almost 99% of all companies in the FBP sector), in improving their skills base were: employers' lack of management knowledge and recognition of the importance of continued education and training of their employees, difficulties over releasing workers from their daily work, and the financial resources needed to offer training to their employees (ETF, 2014e).

Policy options for consideration

- Make education more responsive to labour-market needs through a proper identification of the skills needed based on skill analyses, a dialogue between education and businesses from the sector, and enhanced co-ordination between the responsible institutions.
- Develop a comprehensive VET framework and implement it by introducing structured apprenticeship schemes.
- Improve the National Employment Service by building capacity, providing regular staff training, widening the scope of its activities and introducing regular monitoring mechanisms to ensure the quality of its services.
- Develop a LLL strategy and introduce incentives for in-company training such as tax breaks or subventions.

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ANNEX 1: THE SEE FOOD AND BEVERAGE PROCESSING EXPERT GROUP (FBEG)

Members of the SEE Food and Beverage Processing Expert Group include:

- Representatives of SEE governments and government agencies: Luljeta Cuko, Ministry of Agriculture of Albania; Anduena Dejda, Ministry of Economic Development of Albania; Merita Fetahu, Ministry of Trade and Industry of Kosovo; Eriola Furxhiu, Ministry of Agriculture, Rural Development and Water Administration of Albania; Grigor Gjeci, Ministry of Agriculture, Rural Development and Water Administration of Albania; Ekrem Gjokaj, Ministry of Agriculture, Forestry and Rural Development of Kosovo; Delvina Hana, Ministry of Agriculture Forestry and Rural Development of Kosovo; Halit Hoxhat Ministry of Agriculture of Kosovo; Kolinda Hrehovic, Ministry of Agriculture, Forestry and Water Management of Serbia; Milica Jevtic, Ministry of Agriculture and Environmental Protection of Serbia; Zeljko Kljun, Ministry of Trade, Tourism and Telecommunications of Serbia; Darko Konjevic, Ministry of Agriculture and Rural Development of Montenegro; Lea Shllaku, KIESA – Ministry of Trade and Industry of Kosovo; Irfan Lipovica, Ministry of Trade and Industry of Kosovo; Jasmina Majstorovska, Ministry of Economy of Macedonia; Irena Milosevic, Ministry of Economy of Croatia; Edita Perić, Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina; Tomislav Pokaz, Ministry of Economy of Croatia; Ivona Savicevic, Ministry of Economy of Montenegro; Ljiljana Simovic, Ministry of Agriculture and Rural Development of Montenegro; Ivana Zecevic, Directorate for Development of SME's of Montenegro; Blerim Zlatku, Ministry of Economy of Macedonia.
- Representatives of the private sector: Aleksandar Bogojević, BVS center Bogojević, Vinarija Bogojević; Gjorgji Bebedakov, Winery Povardarie; Afrim Berisha, Bylmeti; Fatmir Berisha, EuroLona; Radoslav Berkov, Grupa Univerexport Backa ad; Marta Bogdanic, Agrokor; Tanja Brajkovic, Šimšić Montmilk DOO – Dairy Lazine; Jordi Cano, Ama Caffè; Nikica Cavor, Meat Processing Cluster Initiative; Marko Damjanovic, Posavina Koka; Gordana Duric, Linija voca d.o.o.; Alaidin Fusha, Abi L.L.C; Mario Hako, Hako sh.p.k; Divna Jordanovska, Cekorovi Vinarija; Nikola Knezevic,

BlikProduct; Ramadan Kosumi, Agrovin; Majlinda Krasniqi, FUNGO SHPK; Ivana Lukić, Lucic group Verica Maras, Plantaze Podgorica; Ivana Markovska, Association of Food Processors; Nizami Mavric, Doo Milki Way; Gvozden Micic, Linija Voca d.o.o.; Aldo Mita, Sejega; Genci Mita, Sejega; Rei Mita, Tirana Champignons; Zvonimor Novak, EUVITA Cluster; Gentian Orhani, Dhermiu Olive Oil; Petar, Ivanišević; Slobodan Petrovic, IMLEK; Nazmi Pllana, Agrovin; Christiaan Prins, Unilever; Hajrudin Skender, ZIM Zenica; Ivan Šulog, Šulog doo; Marco Vujasinovic, Metejob.

- International organisations and experts: Karlheinz Dobnigg, Business Advisory Council for South-eastern Europe and Eurasia (BAC SEE); Renata Vitez, Central European Free Trade Agreement (CEFTA) secretariat; Aleksandra Rakovic, Central European Free Trade Agreement (CEFTA) secretariat; Benjamin Vallin, European Commission (EC); Ulrike Damyanovic, European Training Foundation (ETF); Gavril Lasku, European Training Foundation (ETF); Simona Rinaldi, European Training Foundation (ETF); Stefano Catani, Permanent Delegation of Italy to the OECD; Eliza Kończyk, Permanent Delegation of Poland to the OECD; Istvan Mikola, Permanent Delegation of Hungary to the OECD; Iztok Jarc, Permanent Delegation of Slovenia to the OECD; Veronika Boskovic Pohar, Permanent Delegation of Slovenia to the OECD; Zeljka Mrksa, South East European Centre for Entrepreneurial Learning (SEECCEL); Efka Heder, South East European Centre for Entrepreneurial Learning (SEECCEL); Boban Ilikj, Regional Rural Development Standing Working Group (SWG); Julija Brzovska, Regional Rural Development Standing Working Group (SWG); Michael Adam, Team Leader JobBörse German Federal Labour Agency; Goran Damovski, United States Agency for International Development (USAID) Regional Economic Growth Project.

ANNEX 2: OECD SURVEYS AND SKILL-RELATED TERMINOLOGY

The Programme for International Student Assessment (PISA) is a triennial international survey which aims to evaluate education systems worldwide by testing the skills and knowledge of 15-year-old students. To date, students representing more than 70 economies have participated in the assessment. The most recently published results are from the assessment in 2012.

Table 1. Pisa average scores in 2006, 2009 and 2012

	Science			Maths			Reading		
	2006	2009	2012	2006	2009	2012	2006	2009	2012
ALB	n.a.	391	397	n.a.	377	394	n.a.	385	394
HRV	493	486	491	467	460	471	477	476	485
MNE	412	401	410	399	403	410	392	408	422
SRB	436	443	445	435	442	449	401	442	446
OECD	500	501	501	498	496	494	492	493	496

Source: OECD (2014b), *PISA 2012 Results: What Students Know and Can Do (Volume I, Revised edition, February 2014): Student Performance in Mathematics, Reading and Science*, PISA, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264208780-en>.

Box 9. OECD TALIS

Since 2008, the OECD Teaching and Learning International Survey (TALIS) supports policy makers in understanding how to better prepare teachers to face the diverse challenges in today's schools. As part of the survey, teachers and schools are asked about their working conditions and learning environments, covering a broad range of themes ranging from initial teacher education and professional development to teachers' instructional beliefs and pedagogical practices. The survey involves lower secondary education teachers and leaders of mainstream schools.

Among SEE economies, TALIS covered Croatia and Serbia in the 2013 survey. Main results from the survey include:

- Teachers: in Croatia the share of female teachers (74.3%) is larger than in most other TALIS economies (68.1%), while in Serbia female make up a lower share of total teachers (65.6%).
- School leadership: in both Croatia and Serbia, a larger share of school principals are female than on average for other TALIS economies (59.9% and 55.3% respectively, compared to the TALIS average of 49.4%)
- Professional development of teachers: in Croatia 96.8% and in Serbia 92.9% of teachers reported having participated in some professional development activities in the 12 months previous to the survey, as compared to 88.4% on average for TALIS economies.
- Teaching practices: teachers in Croatia reported spending an average of 39.6% hours per week at work. Teachers in Serbia reported spending 34.2 hours, as compared to the TALIS average of 38.3%.
- Teachers' self-efficacy and job satisfaction: a slightly smaller proportion of teachers in Croatia (71.9%) believe that the teaching profession is valued in society relative to most other TALIS economies (77.4%). In Serbia, the proportion is slightly larger than the TALIS average (81.4%)

Box 10. The main education- and skill-related terms used in this Policy Handbook

An **apprenticeship** is a formal, structured programme of vocational preparation, sponsored by an employer, combining part-time off-the-job instruction with on-the-job training and work experience, which leads to a recognised vocational qualification at craft or higher levels, and takes at least two years to complete. In continental Europe, vocational and general education form part of the package and apprenticeship is treated as part of vocational education, usually at upper secondary level.

Vocational education and training (VET) includes education and training programmes designed for, and typically leading to, a particular job or type of job. It normally involves practical training as well as the learning of relevant theory. It is distinct from (academic) education – for example in mathematics, which is relevant to a very wide range of jobs. In the United States, the usual term for VET is career and technical education. Education and training for some high-level professions such as medicine and law meet the definition but are not normally described as VET. VET may be divided into initial and continuing VET. **Initial VET** includes programmes mainly designed for and used by young people (we would suggest those under 30) at the beginning of their careers and commonly before entering the labour market. **Continuing VET** is all other sorts of VET, including enterprise training of employees, and training provided specifically for those who have lost their jobs. These definitions and distinctions inevitably leave some blurred edges, since programmes can meet some of the relevant criteria but not all of them (for example programmes designed for direct labour market entry but which rarely result in that outcome).

Practical and theoretical VET: Typically VET involves both knowledge (theoretical understanding) and practical skills. For example a baker needs to understand how yeast works and an electrician needs to understand the physics of electricity. This corresponds to vocational theory. In addition VET involves learning practical skills: how to do things such as baking bread, or rewiring a house. These practical vocational skills are supplemented by practical generic skills covering a range of soft and harder skills associated with a wide range of jobs. These would include skills like dealing with customers, and dealing with accounts and government regulations.

Workplace learning: a diverse set of practices ranging from brief periods allowing the learner to observe a workplace to structured long-term apprenticeships leading to a qualification:

- Job shadowing: very short periods of time – typically days – in which students “shadow” a worker to learn about their job. It often involves younger students and serves the purpose of career exploration.
- Service learning: voluntary work by students, typically in non-profit organisations, designed to provide a service and at the same time to provide a learning opportunity to students. In Belgium-Flanders, for example, some students in part-time VET participate in such learning.
- Internships: short periods of time – typically weeks or months – in which students attend workplaces and undertake work there, typically for zero or nominal wages. They may be governed by a special contract. Students in school-based upper secondary VET participate in internships in various OECD countries, for example

in Austria, Belgium-Flanders, Chile, Hungary and Mexico (although typically not all VET students participate).

- Apprenticeships: more structured long-term workplace learning typically over a period of years, leading to a qualification (see above).

Workplace training includes both formal apprenticeships lasting for a period of two to four years and leading to a formal qualification, and other shorter and informal forms of training for youth, and, finally, training for employees.

Lifelong learning (LLL): all learning activity undertaken through life, with the aim of improving knowledge, skills and competence, within a personal, civic, social and/or employment-related perspective. There are four types of LLL based on the type of education institution in which learning occurs and stage of life at which an individual engages into learning. **Formal education** is learning at different levels which happens in early childhood, school-based compulsory education, tertiary education, adult education, etc. **Non-formal learning** is mainly enterprise-based training and public labour market training. There is also **experience acquired in working life** in different types of organisations and through specific activities such as research and development, and **informal learning**, which takes place in the more informal environments of, for instance, interest networks, families and communities.

Source: OECD (1998), *Human Capital Investment: An International Comparison*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264162891-en>; OECD (2010a), *Learning for Jobs*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264087460-en>; European Commission (2002). "Council Resolution of 27 June 2002 on lifelong learning", *Official Journal of the European Communities*, 163/1 2002/C, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2002:163:0001:0003:EN:PDF>.



BRIDGING SKILLS GAPS IN SOUTH EAST EUROPE

THE CASE OF THE FOOD AND BEVERAGE PROCESSING SECTOR

A skilled and flexible workforce is the foundation of an economy's capacity to attract investment, participate in global value chains and sustain economic growth. Ensuring an adequate supply and use of skills, and supporting skills development are thus key to boosting employment and economic growth, promoting social inclusion, and fostering labour productivity. While SEE economies recognise that low levels of skills are a major barrier to growth, they could take further steps to bridge skills gaps in the workforce.

What challenges do SEE policy makers encounter in their workforce? What good practices in workforce skills development could be relevant to the region? What policy options could SEE economies consider for the future? This Policy Handbook focuses on key challenges and presents a number of policy options to foster competitiveness in the South East Europe food and beverage processing sector.

This Policy Handbook is one of the results of the OECD Sector Competitiveness Project undertaken in collaboration with the SEE Food and Beverage Processing Expert Group (FBEG) under the umbrella of the Next Generation Competitiveness Initiative in co-operation with the Regional Cooperation Council. The FBEG is composed of representatives from the ministries of economy, agriculture, trade and environment, as well as government agencies, chambers of commerce, private-sector associations and private-sector companies in South East Europe.



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