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STRENGTHENING SKILLS ANTICIPATION AND MATCHING IN BULGARIA

Bridging education and the world of work through better coordination and skills intelligence

CEDEFOP

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The **European Centre for the Development of Vocational Training** (Cedefop) is the European Union's reference centre for vocational education and training, skills and qualifications. We provide information, research, analyses and evidence on vocational education and training, skills and qualifications for policy-making in the EU Member States.

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Foreword

High-quality and timely skills intelligence is a powerful policy tool, helping improve economic competitiveness and fostering social progress and equality through the provision of targeted skills training to all citizens. As recognised by the European Commission's 2020 skills agenda, skills intelligence is particularly crucial in making informed policy and personal decisions to navigate the digital and green transitions.

Reliable information on current and future labour market trends and skill needs is critical in responding to a rapidly changing world of work. Skills governance refers to the involvement of key stakeholders in the generation, dissemination and use of such labour market and skills intelligence, to support employers, citizens, education and training providers, and other stakeholders in making informed choices. A central feature of successful skills governance is consensual dialogue among key stakeholders to bridge the worlds of education and work.

As part of its commitment to the EU skills agenda, in 2016 Cedefop started providing direct support to Member States to strengthen their skills intelligence policies and systems. Skills governance country reviews have now been concluded in four countries: Bulgaria, Estonia, Greece and Slovakia.

These reviews have sought to identify country-specific challenges and provide informed policy support to the respective governments, in close alignment with national policy priorities and interacting with key national bodies and stakeholders. The reviews have employed a tailor-made methodology and analytical framework to analyse the governance of skills anticipation and matching in the national context, and to identify potential development opportunities for the near future.

This report summarises the key insights of the review of the Bulgarian skills anticipation and matching approach. Having taken significant steps towards improving the collection and analysis of labour market and skills intelligence, including while Cedefop's review was in process, the country has developed clear potential in mitigating skills mismatches by better linking education and training with the labour market. The insights the report provides also support making progress towards new EU policy priorities for the coming years. The second building block of the new skills agenda,

launched in 2020, highlights the role of skills intelligence as a foundation for up- and reskilling and emphasises the importance of inclusive, holistic and whole-of-government approaches in shaping national skills strategies.

The analysis in this report is built on inputs by stakeholders from education and the world of work, national, regional and local authorities, as well as academics and researchers. The national policy roadmap was formed in close consultation and agreement with national stakeholders. It reflects realistic and tangible actions that could be implemented to improve Bulgaria's skills intelligence and its use in policy-making, taking into account the specific needs and possibilities of the country. In the context of the twin digital and green transition and Covid-19 and its economic impact, this report hopes to offer Bulgaria useful insights and a set of policy actions that could facilitate tackling these challenges through more robust use of skills intelligence in policy-making.

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Disclaimer

This report was prepared as part of Cedefop's thematic project Governance of EU skills anticipation and matching systems: in-depth country reviews. The Bulgarian review was initiated following a letter sent to Cedefop on behalf of the Deputy Prime Minister for European Policies Coordination and Institutional Affairs and Minister of Education and Science Mrs Meglena Kuneva, dated 16 December 2016 Protocol No 17-789, expressing interest in including Bulgaria in Cedefop's project regarding potential strengthening of skills anticipation and matching in Bulgaria.

The programme was governed by a 'Terms of collaboration' agreement signed by both parties at the start of the review, which clearly stipulated that all programme outputs and processes were subject to the scrutiny of an appointed national steering committee. All implementing actions suggested as part of the review are the responsibility of the national government.

Executive summary

Matching skills in a changing world

In the years after the economic crisis, the Bulgarian economy rebounded in line with the EU average. Until the impact of the Covid-19 pandemic was felt ([1]), employment rates and economic growth in the country showed a positive outlook. However, Bulgaria faces immediate challenges in the form of a steep demographic decline and uncertainties about future skills demands in the country. While workers indicate confidence about the relevance of their own skills on the labour market, the share of underachievers in OECD's Programme for international student assessment (PISA) scores continues to be relatively high. Employers, on the other hand, are concerned about increasing difficulties in finding qualified workers, but, at the same time, invest relatively little in additional upskilling of their employees. As a backdrop to all this, the modest increase in educational attainment identified in the last few years is insufficient to align the supply of skills with labour market needs. These challenges are made more acute by the country's stark demographic decline, limited training provision by employers, and a relatively high share of long-term unemployed. This means that to avoid a future increase in skill mismatch, the provision of information about skill needs in the labour market and development of new ways to provide information on learning opportunities are vital in strengthening skills anticipation and governance.

The development of skills governance in Bulgaria

In response to these challenges, the Bulgarian authorities requested Cedefop in 2016 to conduct a review of its skills governance arrangements

([1]) Cedefop's review, as well as the analysis in this report, reflects the state of play before the outbreak of the Covid-19 pandemic and its adverse effects on the Bulgarian economy. The pandemic broke out at the final drafting stages of this report and so its impact on the country's economy, employment and skill needs cannot yet be fully assessed.

and support the country in its further development, within the context of Cedefop's project *Governance of skills anticipation and matching in EU countries: in-depth country reviews*. The scope of the review is shaped by the priorities suggested by national stakeholders. A national steering committee (NSC) was convened for the purpose of the project, which defined the following key priorities:

(a) the review should be used to support better coordination of existing tools and methods for skill anticipation in Bulgaria, and contribute to better understanding of its possibilities as well as inconsistencies and gaps related to the data infrastructure;
(b) to allow the effective use of skill anticipation tools, NSC members underlined the need to focus on the main challenges regarding the organisational structure of skills governance. There are concerns about the lack of knowledge and experience of various stakeholders with skill anticipation activities, as well as a possible lack of awareness of the importance of skills intelligence and a lack of understanding of roles and responsibilities in skills anticipation exercises;
(c) the review needed to identify possible ways of improving the use of the results of skills anticipation in policy-making.

A multi-faceted research design was employed to address how the system of skills governance might be improved. A background report was produced, which summarised the current situation with respect to the demand for, and supply of, skills and levels of mismatch between the two. The background report also provided a description of the current system of skills governance and anticipation. Cedefop's skills anticipation analytical framework (Table 1) was used to address systematically the priorities and issues identified by the NSC. By mapping the issues to the framework, it is possible to identify all the factors that need to be taken into consideration to improve the skills anticipation approach in Bulgaria.

Table 1. **Cedefop analytical framework used for Bulgaria**

	Organisation	Resources	Stakeholders	Use of information
Foundations	**A** Legal and institutional framework	**D** Funding and human resources	**G** Cooperation arrangements	**J** Feedback mechanisms
Processes	**B** Management and control	**E** Data, methods and expertise	**H** Feedback and validation	**K** Customisation and dissemination
Sustainability	**C** Vision and strategy	**F** Stability	**I** Integration of stakeholder needs	**L** Reputation

Source: Cedefop skills governance country reviews.

A set of key issues that need to be addressed was constructed for each highlighted cell in the framework; these cells indicate the areas the review focuses on ([2]). These formed the basis for designing a semi-structured interview schedule for carrying in-depth face-to-face interviews with policy-makers, academics and social partners to understand their perspectives on the current skills governance arrangements. This was followed by phone interviews with a variety of stakeholders to understand better how skill anticipation activities could help inform their work.

The interviews were used to distil the issues to be addressed in a consensus-building exercise (CBE). Participants in the CBE were those charged with responsibility for skills anticipation in ministries, agencies, and social partners. The CBE sought, over its three rounds, to concentrate minds on those issues (or actions), which needed to be addressed over the short to medium term, and on which its participants agreed progress could be made. These were used to develop a roadmap to guide the future development of skills governance in Bulgaria. By way of context, an online survey of local governments was conducted in 2019, which provided a better insight into how local authorities deal with skills governance issues, how they cooperate with national and regional stakeholders, and what solutions they develop.

([2]) An enhanced framework was developed, where all possible issues relevant to a particular cell in Table 1 were identified.

Skills governance in Bulgaria: state of play

From 2004 onwards, Bulgaria was able to undertake the first steps towards setting up a skills governance system, following a 15-year period of deep structural change and economic restructuring. In this time, several steps were taken to increase overall knowledge of labour market demand and supply. An important milestone in the cooperation between government institutions in skills anticipation and matching was the adoption of a formal 'Mechanism for including the results of forecasts of supply and demand of labour in developing and implementing government policies' in 2013. This mechanism provides the legal framework and outlines which competent institutions should use the results of skill forecasts to be developed by the Ministry of Labour and Social Policy (MLSP), and how. Funding is primarily provided through MLSP with European Social Fund (ESF) support. The ESF is also the main form of support to skills anticipation activities by stakeholders, such as those of the National Network for Competence Assessment (NNCA).

Currently, a range of authorities and stakeholders operating in labour policy and education and training are involved in activities shaping skills governance, ranging from various ministries to national agencies and social partners. However, the coordination of work between them is not fully institutionalised, and commitment is perceived to be uneven. This may be increased through raising awareness among stakeholders of the importance of their roles and responsibilities in skills anticipation exercises; linking ownership to the benefits of exploiting skills anticipation results.

Skill anticipation is conducted through numerous activities within this broader system, such as regular MLSP forecasts, skill assessment initiatives, employer surveys and privately funded sectoral studies. Despite expertise gained through such activities, many of these activities still face challenges, primarily in terms of sustainability and their relevance for policy-making purposes. Data collected lacks detail or consists of time horizons that are different from what is needed for policy-making, for instance as input for vocational education and training (VET) planning in the form of admission plans or VET programmes. Stakeholders also identify a need for additional surveys about VET and a longitudinal survey and data, to provide insights into education, skills formation and labour market needs.

Exploring options for change

The interviews with stakeholders pointed to several areas, where improvements may be pursued:

(a) ensuring clear management and control: stakeholders emphasised the importance of knowing which institution is leading and what its responsibilities are. Suggestions were collected to bring together public and private stakeholders in the management of skills intelligence, for instance by supporting the development of common terms and concepts, revising existing arrangements for financial support for skills governance, and increased possibilities for private stakeholders to contribute, not just with data in a 'one-way' collection, but also in the design and identification of needs;

(b) improving data and methods: even though the scope of skill anticipation activities can be expanded, numerous activities are already taking place. There is potential to make better use of existing data collections and occupational forecasts for a range of public and private stakeholders. Actions can be taken to reduce current limitations in terms of methodological challenges, differences in scope, terminology, time-path, complexity, lack of customised dissemination and access to results;

(c) defining the role of stakeholders in skills governance: the current arrangements for the governance of existing skill anticipation practices are predominantly top-down, and do not sufficiently involve education and labour market actors, nor stakeholders at the sectoral or local level. Present cooperation arrangements can be revised, the procedures for collecting feedback and validation of skills intelligence can be strengthened, and the integration of stakeholder needs in the production of skills intelligence can be improved;

(d) using skills intelligence for education planning: outcomes of the labour market and skills forecasts are currently insufficiently used for the purposes of education planning. This could be improved by facilitating better cooperation between MLSP and the Ministry of Education and Science (MES), to 'translate' the results of forecasts to the 'language' of the education system. This would ease the admission process, facilitate programme development, and support career guidance.

Based on these inputs and suggestions, a consensus-building exercise was organised between December 2018 and April 2019. Its results were

validated in a final meeting with national stakeholders in June 2019. This exercise served to prioritise ideas and suggestions and transform these into concrete activities that could be implemented in the short (within 12 months) to medium term (12 to 36 months). It applied an online Delphi method, in which an online questionnaire was distributed among stakeholders in three rounds. The first round sought to define the main priorities, based on which policy alternatives were selected in the second round. In the third round, concrete activities were defined for the selected policy alternatives and assigned to stakeholders. Jointly, these activities constitute a roadmap for skills governance in Bulgaria, which forms part of this final report.

The first priority area of the consensus building addressed the question of increasing the utility of existing skills anticipation tools. Respondents drew particular attention to improving the collection of inputs on labour market needs, through concrete 'methodological improvements'. A second priority area addressed the link between skills intelligence and education and training. Participants viewed the need to increase the use of existing skills intelligence in education and training, as their main priority. Third, participants were mostly in favour of relatively small and practical improvements in management and coordination; they had only limited support for changes that do not necessarily lead to tangible results in the short term, such as new legal frameworks. The establishment of comprehensive skills governance structures at the local level also received little support.

The second round explored additional actions to leverage existing skills anticipation tools for education and training. Respondents were asked about VET planning (admission plans/VET programmes) and career guidance. Stakeholders were asked to prioritise a limited set of actions; in VET planning they most often opted for the harmonisation of definitions and improvement of skill needs data collection as short-term priority. As medium-term priorities, stakeholders most often called for the revision of forecast time horizons and the (centralised) collection of data on graduate employment rates. In career guidance, stakeholders saw as a short-term priority the collection of sectoral data on skill needs and the harmonisation of definitions. As medium-term priorities, they most often called for the revision of the forecast time horizons and the integration of dynamic labour market trends into career guidance provision. Stakeholders largely agreed that the National Agency for Vocational Education and Training (NAVET) would be best equipped for interactions between tripartite partners to strengthen management and coordination, as well as for facilitating

interactions between public stakeholders at national level. At the same time, stakeholders also shared concerns about NAVET's current capacity to coordinate skill anticipation activities.

In the third round, at least one activity was explicitly assigned to each of the major stakeholders to contribute to improving the use of skills intelligence for VET planning (including admission plans and the content of VET programmes) and for career guidance in the coming years. Respondents in the third round were very receptive to the activities suggested under both headings, as they view these without exception as relevant and feasible. The activities are presented in more detail in the roadmap (as presented in Chapter 7), which also distinguishes between activities that can be taken within the next year (short-term), or within the next three years (medium term). Activities were defined for each of the four different management roles, allowing revision of the management structure bottom up:

(a) defining the short- and medium-term strategic orientation of skills governance: stakeholders agreed on the establishment of a multi-stakeholder body for this task, including the three core ministries (Education, Labour and Economy), as well as key social partners and other actors;
(b) monitoring day-to-day implementation: stakeholders suggested that this can be done by NAVET, provided its institutional capacity is strengthened towards this purpose (human resources, and/or financial). This does not mean that NAVET will have to implement everything in-house but can be responsible for contracting out where expertise is not available;
(c) assessing technical/scientific quality: it is suggested that national stakeholders in the management board assess the more specific needs and define potential models for ensuring the technical and scientific quality of skills anticipation activities;
(d) monitoring policy relevance of deliverables: stakeholders nominated various possible institutions, such as NAVET, a relatively all-encompassing management board, or Ministry of Education. The last is expected to draw the least opposition from other stakeholders.

The main activities identified and roles of the different stakeholders for each of these activities are presented in the roadmap.

Strengthening skills governance at local level

The project identifies additional actions and priorities for further improving skills governance in Bulgaria, requiring that local actors are equally involved. The scoping exercise called for better involving local actors and better integrating their expertise in the national structure. To expand understanding of how local actors are currently interacting with national stakeholders and using skills intelligence, an online survey was conducted in early 2019, among policy officers from all 265 municipalities in Bulgaria. The survey aims to add a local dimension to skills governance by soliciting the view of municipalities on various aspects of the process in Bulgaria. Its results fed directly into the third round of the consensus-building exercise.

Municipalities see the effects of skill mismatch most visibly in their local contexts and engage in various activities to reduce its negative impact. They most often cooperate with the regional employment directorates but, within their jurisdictions, also work directly with VET providers on developing tailored admission plans. They support active labour market measures in VET or try to encourage students to opt for vocational tracks of education. In these activities, municipalities indicated that the most commonly used sources of skills intelligence were the short-term National Employment Agency (NEA) skills forecast and, to a lesser extent, the medium- to long-term MLSP forecast. The latter is not considered particularly useful, as it does not provide municipalities with detailed sectoral or regional data. Municipalities also indicated that tackling skill mismatch in their local context may require additional support to engage in durable cooperation with social partners and secondary vocational schools. They viewed direct cooperation between business or employer representatives with training providers as a priority in tackling skill mismatch.

Towards a roadmap for skills governance in Bulgaria

The various elements of the project are brought together in a roadmap proposing concrete activities for the different stakeholders. This roadmap was agreed by stakeholders in the third round of the consensus-building exercise and was further validated during a workshop in Sofia.

Participants agreed to the activities shown in Table 2 for each stakeholder to aid applying skill anticipation better to VET planning.

Table 2. **Suggested actions per stakeholder regarding VET planning**

Stakeholder and role	Short term	Medium term
NAVET: Engaging stakeholders to harmonise definitions	Set up small task force (including MLSP, Ministry of Education and Science, and Ministry of Economy), to identify what data is most relevant for VET planning, and what is needed to make the best use of it	Liaise with other stakeholders to ensure sufficient involvement and ensure continued data quality/ relevance for VET planning
Ministry of Labour and Social Policy: Offer relevant sectoral labour market forecasts	Mobilise knowledge within and outside ministry to expand existing forecasts with sectoral component	Develop means to integrate dynamic labour market trends into forecasts
Ministry of Education and Science: Expand on existing data collection methods	Mobilise expertise (internal/ external experts/research scientific organisations) to set up structure for graduate tracking	Put in place structural analysis of the quality/suitability of VET providers, based on labour market relevance
Ministry of Education and Science: Apply the results of additional data in VET planning		Set up a structure that allows to benefit from the additional data, collected for the purpose of VET planning
Ministry of Economy: Offer data and insights on economic priorities	Liaise with NAVET/task force on how data and insights on economic priorities can be meaningfully integrated into VET planning	Support the continued involvement of employers/ professional organisations, as required by education stakeholders
Branch organisations and nationally representative employers' organisations: Mobilise members	Mobilise members to participate in the survey on the needs of employers for labour force, carried out by NEA twice a year	Mobilise members to contribute to identified needs for (continued) data collection
Experts/scientific organisations (including the National Statistical Institute, NSI): Independent development of methods	Mobilised on the basis of identified needs by task force	

Source: Cedefop skills governance country review in Bulgaria: consensus-building exercise.

Respondents see potential in applying skill anticipation activities to career guidance. Consensus has been reached on the following roles for stakeholders (Table 3).

Table 3. **Suggested actions on career guidance for stakeholders in the short and medium term**

Stakeholder and role	Short term	Medium term
NAVET: Engaging stakeholders to harmonise definitions	Setting up a small task force, with representatives of MLSP/ NEA and MES, to identify most relevant data for career guidance, and what is needed to make better use of it	Liaise with other stakeholders to ensure sufficient involvement and continued data quality/relevance for career guidance
Ministry of Labour and Social Policy: Adapt NEA service provision to become more data-driven	Identify bottlenecks to improve use of data in NEA service provision	Integrate sectoral forecast methodology into NEA service provision
Ministry of Economy: Offer data and insights on economic priorities	Liaise with NAVET/Task force on how its data and insights on economic priorities can be meaningfully integrated into career guidance	Support the continued involvement of employers/ professional organisations to ensure consistent flow of information
Ministry of Education and Science: Develop a systematic approach to career guidance in VET	Relay relevant information on skill needs to VET providers	Put in place structural analysis of the quality/suitability of VET providers, based on labour market relevance
VET providers: Promotion of labour market relevant programmes	Receive relevant information on skill needs for the purpose of in-school guidance	Focus on promoting VET programmes with highest labour market/skill needs
Branch organisations and national employers' organisations: Engage in communication activities	Set up communication campaigns for professions with shortages	Mobilise members to contribute to promotion of professions with highest labour market/skill needs
Experts/scientific organisations (including NSI): Independent development of methods	Mobilised on the basis of identified needs by a task force	

Source: Cedefop skills governance country review in Bulgaria: consensus-building exercise.

Four management and coordination functions were conceptualised and linked to specific activities through which skills governance can be improved. For each of these areas, the following actions were agreed upon (Table 4).

Table 4. **Suggested actions for stakeholders to improve management and coordination**

Defining the short- and medium-term strategic orientation		
Stakeholder	**Short term**	**Medium term**
Government (involvement of at least MLSP, MES, Ministry of Economy)	Decide on organisations to be part of a management board, representing key stakeholders (at minimum, the relevant ministries, and social partners)	Organise meetings at fixed intervals to discuss the priorities and define short- and medium-term priorities that inform strategic decision-making
Government (involvement of at least MLSP, MES, Ministry of Economy)	Identify knowledge gaps among management board	Reduce the impact of identified knowledge gaps among partner institutions/ representatives
Government (involvement of at least MLSP, MES, Ministry of Economy)	Prepare a plan for strengthening institutional capacity of management board members/key institutions	Engage in institutional capacity building
Monitoring day-to-day implementation		
Stakeholder	**Short term**	**Medium term**
Government/high-level officials	High-level political agreement on NAVET's expanded role; agreement and actions to change NAVET's remit in legal framework/regulations	Institutional capacity building to be able to assume responsibilities agreed
Government/high-level officials	High-level political agreement for NAVET to obtain sufficient resources (financial and expertise)	

Assessing technical/scientific quality		
Stakeholder	**Short term**	**Medium term**
Management board	Discuss potential models (and their financial/institutional implications) to ensure technical/scientific quality of the work, for example: • MLSP or MES, strengthened with specialised personnel? • Collaboration of the two ministries? • Outsource to academia/scientific organisation? • Other?	Decide which (pool of) organisation(s) could take the lead on this activity
Management board and NAVET	Consider contracting missing expertise for the organisation(s) to lead this activity, and its financial implications	
Management board and NAVET		Periodically assess the work of the responsible organisation
Monitoring policy relevance of deliverables		
Stakeholder	**Short term**	**Medium term**
Strengthened NAVET	Discuss and agree with key stakeholders the thematic areas that each will be responsible for to assess the policy relevance of deliverables (e.g. for VET admission, the MES; for VET training for the unemployed, the MLSP and social partners.)	Develop conflict resolution mechanisms to manage any conflicting agendas/priorities among key stakeholders
Management board and NAVET		Periodically assess alignment of policy relevance of deliverables and national strategic priorities

Source: Cedefop thematic country review in Bulgaria: consensus-building exercise.

CHAPTER 1.

Matching skills in Bulgaria in a changing world

1.1. The skill matching challenge for Europe

As the European economy is grappling with the challenges posed by digitalisation, including the fourth industrial revolution and artificial intelligence (AI), globalisation, ageing societies, migration, climate change and overall low productivity, its job market appears to be gripped by uncertainty. Technological change, in particular, in its various guises appears to be constantly on the verge of transforming the world of work, if not eradicating it (Frey and Osborne, 2017; Cedefop, 2017a). Nonetheless, more recent analyses of how AI, robotics and new digital technologies are likely to affect employment in Europe reveal an employment impact rather more limited than initially suggested (Nedelkoska and Quintini, 2018; Pouliakas, 2018; Cedefop, 2019a). However, even piecemeal change can accumulate over time and displacement effects associated with technological change can often be concentrated in specific sectors or locations, affecting vulnerable population groups, such as the lower-skilled. What these factors imply is the need for employment and skills systems – and the policy-makers embedded within them – to be informed, prepared and agile with respect to changes they might need to anticipate and accommodate.

These broad changes to the labour market are made even more urgent in contexts where labour markets already face a short supply of skills. More acutely than the rest of Europe, Bulgaria faces an ageing population, with the old-age-dependency ratio expected to double from its current level of around a third to 63% by 2060 ([3]). The combination of ageing, negative natural-population growth and persistently high emigration levels indicate that the country is expected to have the world's highest population decline rate between 2015 and 2050 (UN DESA, 2015). This clearly underlines the

([3]) The ratio between the number of those aged 65 or older over those of working age. See for instance Cedefop, 2018a. Consult Eurostat (proj_15ndbims) for the specific data.

urgency to ensure that the declining supply of available skills can be most effectively mobilised, while also ensuring that the future supply of skills is targeted in line with the expected future demand for skills.

Presently, too much of Europe's post-compulsory education and training is supply-driven. This is also true for Bulgaria, where delivery of programmes is largely driven by the current capacity of providers, and the consumers of that education and training – the learners – are not sufficiently informed about the skills and courses that might yield a favourable return in the labour market. Post-compulsory education and training systems need to anticipate developments in the labour market better and consider the necessary reforms that allow continued revisions of curricula, courses and programmes to increasing and emerging skill needs. The challenge is to devise skills structures that encompass labour market and skills intelligence (LMSI) systems, which provide the evidence to take targeted action to ensure that skills supply and demand are in balance, both currently and in the future; this is effective skills governance. Maintaining the delicate balance between skills demand and supply over time is challenging. Cedefop skills forecasts, for instance, suggest a pressing demand for workers in the agricultural sector, which is driven by the need to replace those leaving occupations (for retirement or mobility) (replacement demand) ([4]) and not creation of new jobs (Cedefop, 2018b). Effective skills governance should therefore be able to consider that developments in technology will significantly shrink employment in certain occupations, while creating new opportunities in others.

This report deals with skills governance in Bulgaria and is based on a national review, carried out by Cedefop between 2017 and 2019 at the request of the Bulgarian authorities. At the moment the time of the country review there was no structured skills governance system in Bulgaria. In recent years, the importance of effective skills governance and of skills anticipation methodologies, and their role in bridging employment and educational and training policies, have been recognised and gained momentum in Bulgaria's policy agenda. The need for linking existing skills anticipation activities and for their better coordination was highlighted in the review. The findings also point towards opportunities for improving the links between education/vocational education and training (VET) and the labour market. Using skills anticipation in policy decisions to steer provision (for example

([4]) See Cedefop, 2012 for a full definition of replacement demand and a description of estimation technique.

financing of studies, provision of programmes) can rationalise the allocation of human and financial resources, while offering programmes more pertinent to labour market needs and boosting the overall quality and attractiveness of VET. Doing this may require methodological improvements, including the harmonisation of classifications (of economic activities, job descriptions, professions and training courses), currently used in official statistics and education programmes/curricula. More attention is also needed to raise stakeholder awareness, both of the importance of skills anticipation and of the roles and responsibilities in skills anticipation exercises.

The review applied a tailor-made approach to identify ([5]) challenges and possible actions to help Bulgaria move forward. The challenges identified are to be viewed in their specific context: they reflect and are part of the country's economic structure and state of play, its employment and education/VET policies, its core socioeconomic characteristics and challenges. It is advisable that the steps and findings of the review should be viewed through this lens, as stemming from and applicable only to Bulgaria in the specific point of time and circumstances. For this reason, the rest of Chapter 1 presents the most pertinent contextual challenges in more detail, also in a comparative context. Attention is paid to broader economic and employment perspectives, and current trends in skills supply and demand in the country. This provides the background which informs the more specific approach taken for this country review, as presented in Chapter 2.

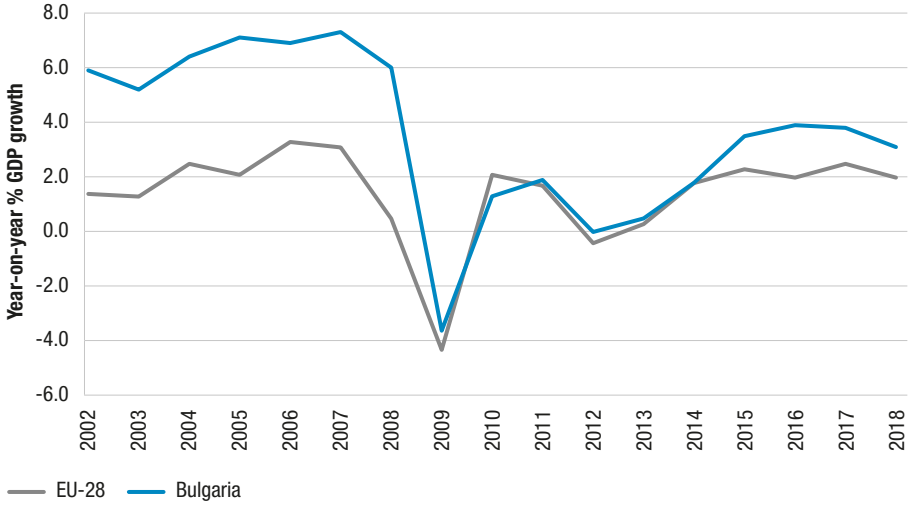
1.2. Economy and employment

Bulgaria was strongly affected by the 2008 economic crisis. Up to then Bulgaria's economy was growing at a higher pace than the – at the time – EU-28, both before and after the country's entrance to the EU in 2004. Post-crisis recovery shows GDP growth rates that are roughly similar to the EU average, though still lower than before 2008 (Figure 1). From 2015 onwards, Bulgaria shows GDP growth rates above the EU average again. The European Commission's economic forecast ([6]) predicted stable GDP growth in 2019 and 2020 as well. However, the Covid-19 pandemic is expected to affect the

([5]) For more information on the methodology followed, see Annex 2.
([6]) European Commission, 2019.

Bulgarian economy adversely, as with the rest of the EU ([7]). The Bulgarian government offered a stimulus package (the '60/40') to support businesses and prevent lay-offs but the number of registered unemployed was already surging in April ([8]). Cedefop's review, and the data and information collected for the analysis of the economic and employment situation in the country, took place before the Covid-19 pandemic.

Figure 1. **Real GDP growth rate 2002-18: Bulgaria and EU-28**



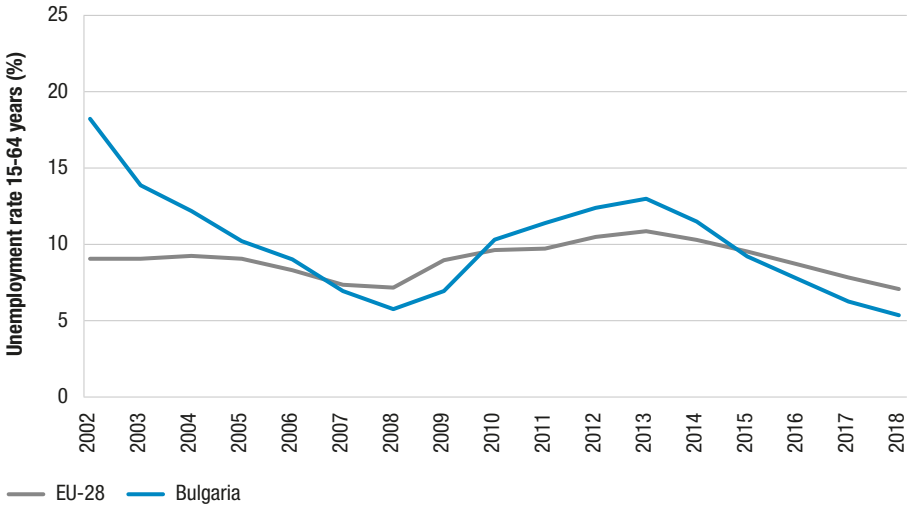
Source: Eurostat GDP and main components (output, expenditure and income) [nama_10_gdp].

([7]) For example, see:
(a) www.bnr.bg/en/post/101292496/oecd-second-wave-of-covid-19-will-shrink-the-bulgarian-economy-by-over-8 [accessed 12.10.2020].
(b) https://balkaninsight.com/2020/04/29/covid-19-blamed-for-rising-unemployment-in-bulgaria/ [accessed 12.10.2020].
(c) www.novinite.com/articles/204111/Three+Scenarios+for+the+%D0%9Cacroeconomic+Consequences+in+Bulgaria+of+Fighting+COVID-19 [accessed 12.10.2020].

([8]) For example, see:
(a) www.segabg.com/hot/category-economy/krizata-uvelichi-bezrabotnite-45 [accessed 12.10.2020].
(b) www.dnevnik.bg/biznes/2020/04/02/4049567_ot_shemata_6040_biha_se_vuzpolzvali_edva_8_ot_firmite/ [accessed 12.10.2020].

While the economic crisis also had an impact on unemployment levels in Bulgaria, the country's unemployment figures remained roughly in line with the EU average. From 2013 onwards, the trend of declining unemployment observed in the pre-crisis era continued and the unemployment rate returned to pre-crisis levels in 2016, and even surpassed them ([9]).

Figure 2. **Unemployment rates 2002-18: Bulgaria and EU-28**



Source: Eurostat unemployment rates (15 to 65 years) by sex, age and nationality (%) [lfsa_urgan].

Particular attention is necessary for specific unemployed groups, such as older unemployed adults. These account for about 2.5% of the total adult population with low education in the country, which is considerably higher than in other EU countries (Cedefop, 2020). This suggests the need for targeted policy actions in upskilling this particular cohort, also bolstered by the ageing workforce of the country and its overall acute demographic challenge.

A full recovery can be observed since 2014, when the labour market started to show sustainable growth in demand and a fall in unemployment.

([9]) Youth (15 to 29 year-olds) unemployment rate was 7.4% for the fourth quarter of 2018 (12.4% for the same quarter of 2016) and 6.9% in the 2nd quarter of 2019 (Bulgarian National Statistical Institute).

GDP growth in the past few quarters, supported both by an increase in household consumption and by exports of goods and services, is a positive sign for a stable labour market. Employment rates continued growing and, according to Eurostat, reached 72.4% in 2018, increasing by 4.7 percentage points, compared to the same period of 2016 ([10]). Against this background, unemployment in Bulgaria continued its downward trend from 2014; for the last quarter of 2018, the unemployment rate was 4.7% (for the population aged 15 to 65 years), its best value since the pre-crisis year 2008 (5.0% for the same quarter of 2008) ([11]). However, unemployment rates are also mirroring the significant emigration waves in the country, as well as the ageing population and demographic shift that the country is facing. The economic fall-out from the Covid-19 pandemic is likely to impact economic and labour market trends adversely in the near future.

From a sectoral perspective, manufacturing and wholesale and retail trade, followed by public administration and construction, are the main employers. Cedefop skills forecasts highlight weak employment growth to 2030, while the working age population (15 to 64) is expected to shrink because of high retirement levels. Until 2030, professional services, arts and recreation and administrative services are the sectors where fastest employment growth is expected. Due to the still-strong agriculture sector, skilled agricultural workers are foreseen to be the fastest growing occupation, followed by legal and social professionals and protective service workers (Cedefop Skills Panorama) ([12]).

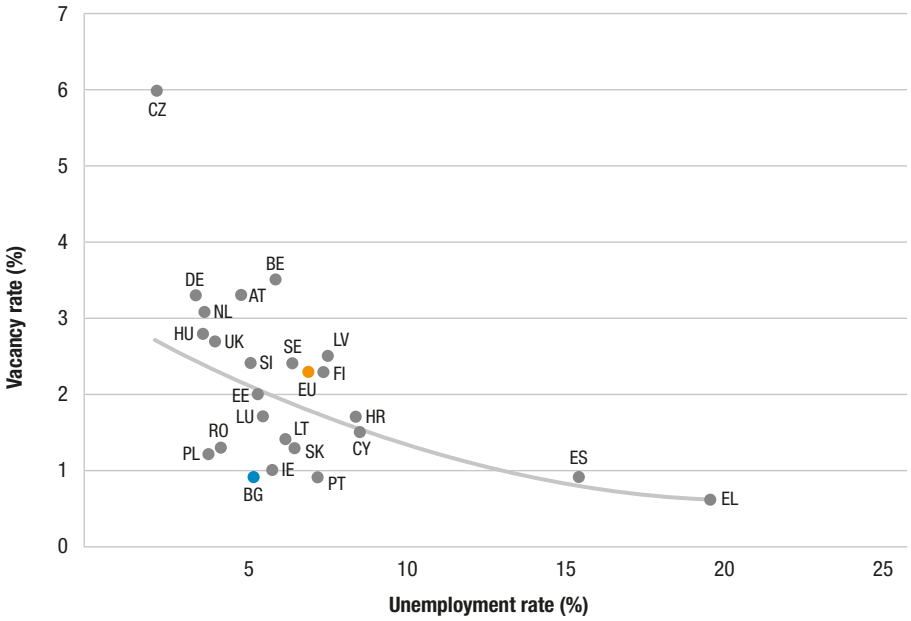
Despite the improvement in employment rates (72.4% in 2018), regional disparities remain high. People living in rural areas, along with young people and Roma, are more severely challenged in finding work (European Commission, 2020). The importance of localities in Bulgaria was recognised in Cedefop's country review and the role of municipalities in skills anticipation was examined (Chapter 5).

While unemployment rates are largely comparable to the EU average, Bulgaria has among the lowest job vacancy rates in the EU (Figure 3). This means that there are comparatively few vacancies among the total number of paid posts (including those vacant). However, that this does not necessarily

([10]) Based on Eurostat [t2020_10], measured by the share of persons aged 20 to 64 in employment compared to the total population of the same age.
([11]) Bulgarian National Statistical Institute.
([12]) https://skillspanorama.cedefop.europa.eu/en/countries/bulgaria [accessed 12.10.2020].

point to low demand for workers; in a tight labour market, employers cannot afford to keep positions open for a long time and may be forced to scale down their selection criteria, if they cannot meet their specific demand for certain skills. Figure 3 illustrates Bulgaria's position.

Figure 3. **Unemployment and vacancy rates in the EU**



Source: Eurostat vacancy and unemployment data [jvs_q_nace2; lfsq_urgan].

Bulgaria is challenged by labour shortages, particularly in specific sectors (such as building and services) and localities, which are expected to be aggravated by the steadily decreasing population. The 25 to 49 age cohort (that has an average labour market participation of 86%) is expected to decline the most among all cohorts (-26.7% by 2030) (European Commission, 2020).

Employers have also expressed their concerns regarding the effects of the lack of skilled workers, considered one of the main obstacles to investment (EIB, 2019). In the 2015 employer skills survey, conducted by the Ministry

of Labour and Social Policy (MLSP, 2015), employers had forecast that the most pressing shortages were ([13]):

(a) for those with higher education: information and communications technology (ICT), business and administrative (financial and sales) professionals, teachers, mathematicians;
(b) for those with secondary education: service and sales workers (cooks, waiters, bartenders, hairdressers and beauticians), workers in food and wood processing, operators of stationary machinery and equipment, drivers of motor vehicles;
(c) for those with primary or lower secondary education: workers in agriculture, forestry and fisheries; workers in mining and manufacturing, construction, in food processing, clothes and wood product manufacturing.

In the face of increasing demand for labour, it is necessary to prevent specific skills shortages limiting the potential to reach pre-crisis economic growth levels. Employers pointed to this risk persistently in the various phases of Cedefop's country review, underlining difficulties in finding workers with the right skill sets. Ensuring a better quality of skills supply, and its responsiveness to skill demand, remains of high policy importance.

1.3. Skills supply, demand and mismatches

1.3.1. **Skills supply**

An overview of skills supply can be gained by looking at the distribution of skills in the working age population.

Levels of education attainment in Bulgaria have been traditionally high (Cedefop, 2018a), and have increased over the last decade (Table 5); for instance, in 2006, 18.2% of those of working age had tertiary level education, which later rose to 24.8% by 2018. Even so, the percentage of people with tertiary level education in 2018 was below the EU-average.

([13]) Based on Cedefop, 2018a.

Table 5. **Skill supply indicators in Bulgaria and EU-28**

	Bulgaria	EU-28
Educational attainment (15-64 years) (1)	**2018 (2006)**	**2018**
% with tertiary level attainment	24.8 (18.2)	28.7
% with upper secondary or tertiary	78.4 (69.5)	74.5
% with upper secondary education	53.6 (51.3)	45.8
Participation in vocational education (2)		
IVET students as a % of upper secondary students (2016)	53.7	48.0
IVET students in work-based learning as a % of upper secondary education (2015)	n/a	28.4
Low achievement in 2015 PISA (3)		
Percentage of low achieving pupils shows the proportion of 15-year-olds with attainment below level 2 in science, maths and reading combined	29.6	12.4 (EU-28)
Participation in lifelong learning and continuous VET (4)		
People (18 to 64 year-olds) in receipt of education and training in last four weeks (4)	8.2 (12.7)	16.9
% of enterprises providing continuing VET(2015) (5)	42.2	72.6
Share of all individuals in 2019 whose level of digital skills is above basic (2019) (6)	11	31*

Source: (1) Eurostat [lfs_edat_03];
(2) Cedefop, 2018b;
(3) OECD, 2016;
(4) Eurostat [lfs_trng_01];
(5) Cedefop, 2019b;
(6) Eurostat ICT Usage in households and by individuals; available at Cedefop Skills Panorama (14).

A comparatively large share of students in upper secondary education (53.7% in 2016, above the EU average of 48%) is in the vocational stream. These figures relate largely to young people taking part in mainly school-based VET. Dual VET programmes leading to VET qualifications have also been offered (15), with some pilot/programmes also supported by foreign industrial chambers of commerce (Austrian, German-Bulgarian) and with the Swiss-Bulgarian cooperation programme (Cedefop, 2018a; Cedefop, 2019c). Another component of skills supply is the extent to which adults engage in the

(14) https://skillspanorama.cedefop.europa.eu/en/indicators/digital-skills-use [accessed 12.10.2020].
(15) The 2014 amendments in the VET Act came into force in 2016. The first pilot dual VET classes started in school year 2015/16.

development of their skills. In Bulgaria, the participation of adults in learning ([16]) has been traditionally very low. Improvement has been marked between 2013 and 2018, but reaching only 2.5%. Participation in adult learning in the country remains one of the lowest in the EU (European Commission, 2020).

One problem in Bulgaria is also faced by the EU labour market as a whole: the large share of the population with low skills. The 2016 skills agenda (European Commission, 2016) had pointed out that this is potentially a drag on competitiveness and poses a number of risks to those whose skills are poorly developed (see social exclusion). The 2015 PISA results revealed that around 70 million people in the EU have low skills. Table 5 shows that this issue is particularly pertinent in Bulgaria, with scores considerably below EU average in skills development in reading, mathematics, and science, according to PISA results. The challenge seems to be aggravated by projections that, until 2030, more than half of all job openings in the country (including replacements for vacated jobs) will be for individuals with medium-level qualifications ([17]).

A considerable challenge seems to be digital skills gaps: in 2019, Bulgaria had the second lowest share in the EU-27 of digital skills exceeding basic level, both for all individuals (11%) and for those aged 18 to 24 (18% versus 47% in EU-27). The Eurostat community statistics on information society CSIS-2015 data (Cedefop, 2020) confirm that, in 2015, Bulgaria was one of the four EU countries, where at least two-thirds of adults had insufficient digital skills (measured as no use of the internet recently or below basic digital skills in activities, such as information, communication, content creation and problem-solving). In the era of fast-paced technological change and digitalisation, low levels of digital skills raise concerns over the impact on skill matching across most occupations and sectors.

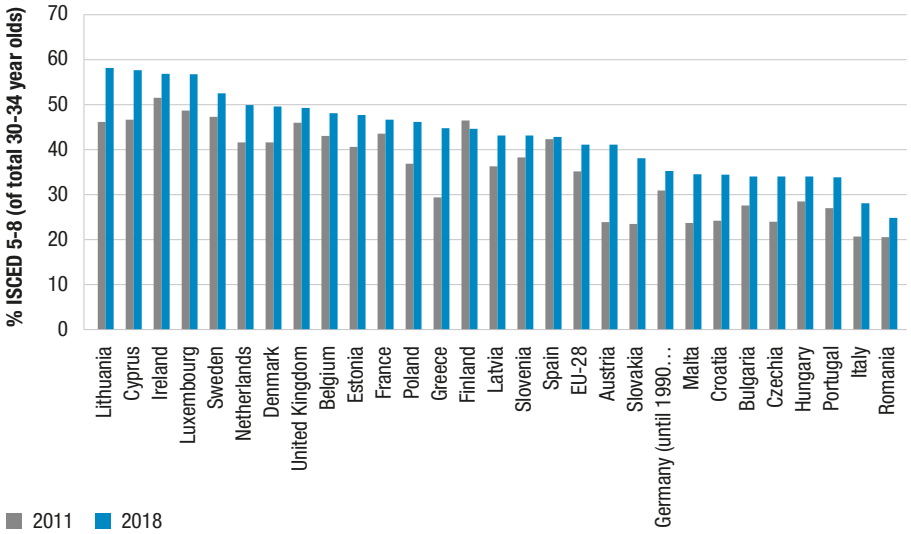
Another proxy measure for skills supply in the near future – albeit an imperfect one – is the percentage of people aged 30 to 34 years, who have attained tertiary level education (at ISCED levels 5-8). As opposed to the general population, it provides better insight into the development of skill supply in the coming years. Figure 4 suggests increasing levels of education

([16]) Eurostat, sdg_04_60. The indicator measures the share of people aged 25 to 64, who stated that they received formal or non-formal education and training in the four weeks preceding the survey (numerator). https://ec.europa.eu/eurostat/databrowser/view/sdg_04_60/default/table?lang=en. [accessed 12.10.2020].

([17]) Cedefop Skills Panorama: https://skillspanorama.cedefop.europa.eu/en/countries/bulgaria [accessed 12.10.2020].

attainment in this age group over between 2011-18. In 2011, 27.3% of those aged 30-34 had attained tertiary level educational attainment; this increased to 33.7% by 2018. Despite this trend, the percentage of people with tertiary level education remains considerably below the EU-average and below the Europe 2020 target (European Commission, 2020).

Figure 4. **Tertiary level educational attainment of 30 to 34 year-olds in the EU, 2011 and 2018**



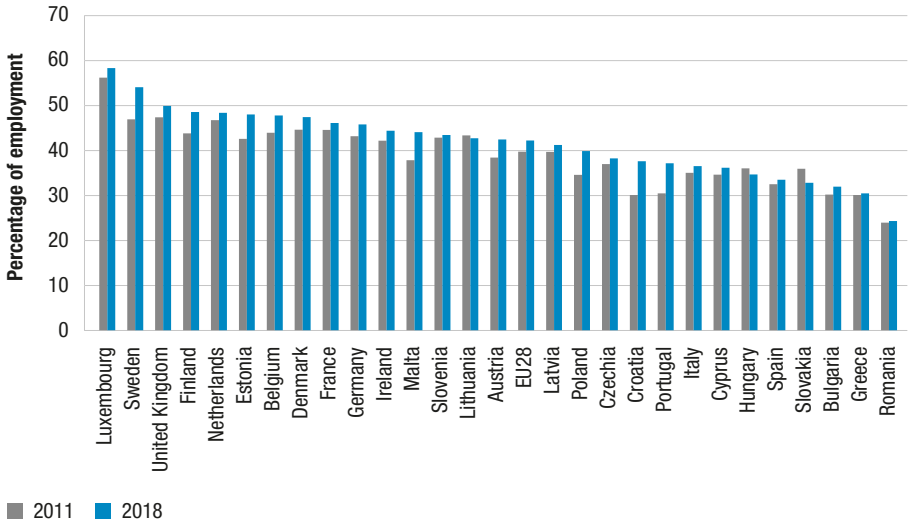
Source: Population by educational attainment level, sex and age (%): main indicators [edat_lfse_03].

Despite this reported increase in skills supply, employers experience difficulties in finding people with the right skills. There is some evidence to back up this perception, showing that the skills system struggles to meet the (modest) levels of specific skills demand it faces. Cedefop's European skills index (ESI) offers an insight into the comparative performance of national skills systems by providing separate scores for three individual pillars of the system:

(a) skills development: the training and education activities of the country and the immediate outputs of that system in terms of the skills developed and attained;

(b) skills activation: the potential workforce of a country determined by the development of skills in the population, but also by the activation (or participation) of skills in the labour market;

Figure 5. **Percentage of people employed in high level occupations (ISCO 1, 2 and 3) in the EU-28 in 2011 and 2018**



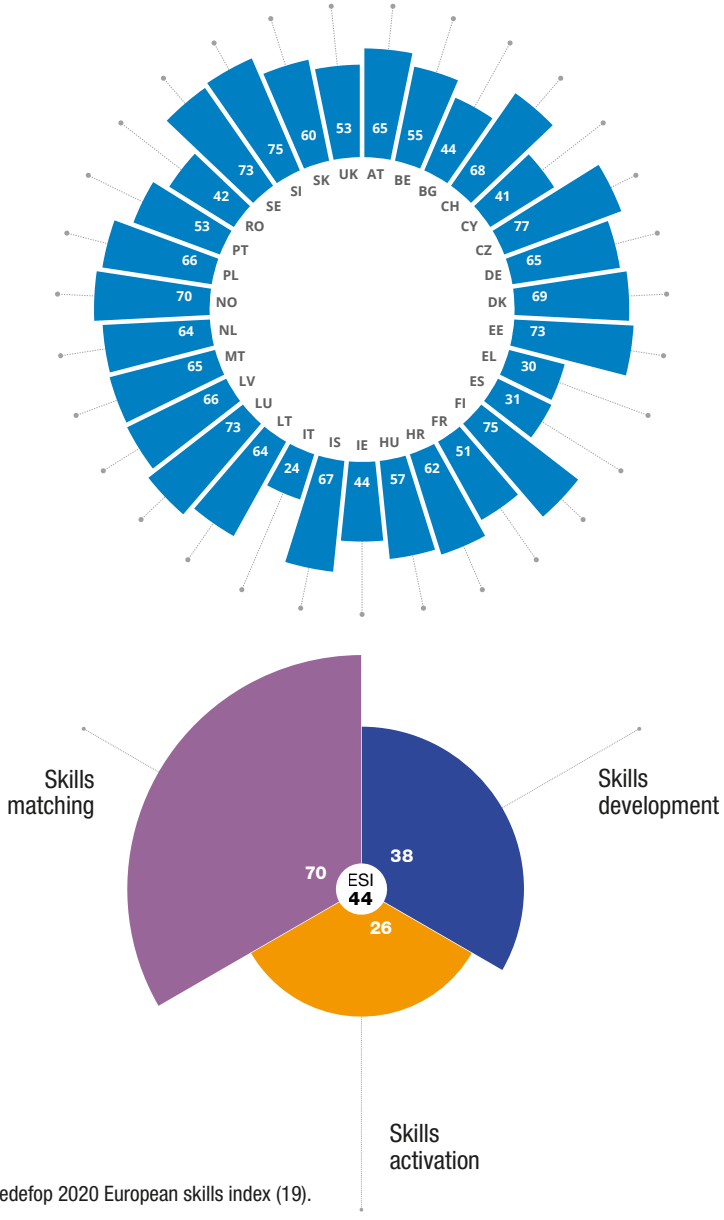
Source: Population by educational attainment level, sex and age (%): main indicators [edat_lfse_03]

(c) skills matching: the degree of successful utilisation of skills and the extent to which skills are effectively matched in the labour market.

The ESI provides a measure of the distance from an ideal performance. The ideal is scored at 100 and each country is given a score measuring the percentage achievement of the ideal. For Bulgaria, this gives an overall score of 33, indicating that it is 33% of the way to achieving ideal performance. This puts Bulgaria at the lower end of the European scale, as shown in Figure 6. Its scores on the individual components vary considerably: scores for skills development and skills activation are low, particularly for activation (38% and 11% respectively). Skills activation performance is below its European peers for early leaving (27th of 28 Member States) and its activity rate of 20 to 24 year-olds (28th out of 28 Member States) ([18]). For skill matching, Bulgaria scores considerably above the EU average (64%).

([18]) www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/european-skills-index/country/bulgaria [accessed 12.10.2020].

Figure 6. **Overview Cedefop ESI scores across EU countries**



Source: Cedefop 2020 European skills index (19).

(19) www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/european-skills-index [accessed 12.10.2020].

1.3.2. **Skills demand**

Despite the modest increase in higher education graduates over recent years, a question arises as to whether these skills could be efficiently allocated by the labour market. Demand for people to work in the types of jobs where a university education might be considered a prerequisite appears relatively low in Bulgaria (Figure 5); however, Cedefop's skills forecast expects increased demand in the coming years (Section 1.2). At present the percentage of people employed in high-level occupations (as managers, professionals, or associate professionals) is among the lowest in the EU-28 (and has seen only a marginal increase over the 2011 to 2018 period). This suggests that the country currently faces comparatively modest demand for higher education graduates, which may be in line with its moderate supply.

The aggregate figures of number of people in occupations that require high-level skills, and the share of graduates in tertiary education, mask considerable differences, between different education levels, different sectors, and regions ([20]). This was also confirmed by the online survey, conducted as part of Cedefop's country review among municipalities and interviews with regional governors, who play an important role at local level assisting the unemployed and steering school admission policies. Most of these policy-makers indicated that there are substantial skill mismatches on the labour markets within their jurisdiction (Chapter 5). These are reflected in the country's current rate of young unemployed people not in education, employment or training (NEET), which was above the EU average (18.7%) in 2018. The employment rate for recent graduates was below the EU average (75.5% against an EU average of 81.6%).

1.3.3. **Skill mismatch**

As Figure 7 shows, the share of people, who are educated to tertiary level, more or less synonymous with university education, that are employed in jobs, where this level of education might be considered overly high ([21]), is around the EU average and has been relatively stable since 2011.

([20]) See, for instance, Cedefop, 2018a.

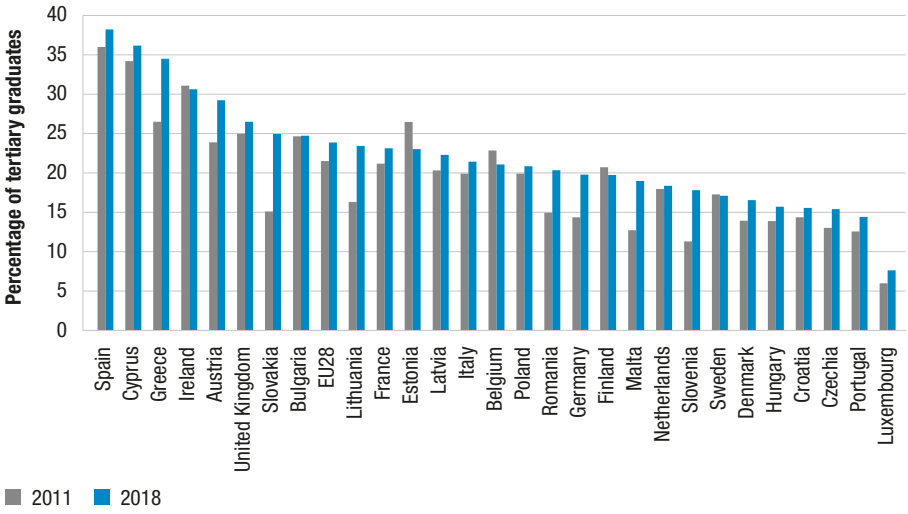
([21]) That is ISCO major groups 4 to 9. For more information on ISCO groups: www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_172572.pdf [accessed 12.10.2020].

Table 6. **Indicators of skill demand in Bulgaria and EU-28, 2018**

	Bulgaria	EU
Demand for young people		
NEET rate (18 to 24 year-olds) (%)	18.7	13.7
% employment rate of recent graduates (20 to 34 year-olds)	75.5	81.6
Hi-tech skill demand		
% employment in high-tech industry and knowledge-intensive economic activities	3.9	4.1
% all in employment whose digital skills use is above basic (2019)	14	40
Future demand		
Share of total job openings for high qualifications, 2018-30 (%)	45	50

Source: Eurostat [edat_lfse_21]; Eurostat [edat_lfse_24]; Eurostat [htec_emp_nat2]; Cedefop, 2018b; Eurostat digital skills use available at Skills Panorama (22).

Figure 7. **Percentage of people educated to tertiary level, employed in occupations other than managerial, professional and associate professional ones in the EU in 2011 and 2018**



Source: Eurostat employment by sex, age, professional status and occupation (1 000) [lfsa_egised].

([22]) https://skillspanorama.cedefop.europa.eu/en/indicators/digital-skills-use [accessed 12.10.2020].

Employed adults are relatively confident that their skills will continue to be relevant in the next five years, scoring around the average for the EU in the European skills and jobs survey. Whether justified or not, there is confidence that they will be able to maintain their skills in line with requirements in the near future. Given the low level of skills development and skills activation measures, employees with vocational qualifications feel relatively secure about the relevance of their skills in their jobs. This also reflects the comparatively low share of high-tech production and product/service/ organisational innovation in the economy (Smart Specialisation, 2015), offering limited challenge to employee skills in terms of upgrading needs.

This was confirmed by a 2015 report, prepared on behalf of the Ministry of Labour and Social Policy on expected labour market developments ([23]). The report findings, based on a representative survey among 1 804 employers in 2015, indicate almost half (47.3%) of employees hired immediately after graduation suffered from knowledge and skills deficiency, often related to lack of communication and behavioural skills (MLSP, 2015). In some cases, the high levels of deficit identified may even prevent them from being hired. This is more likely an issue in small and medium-sized enterprises (SMEs). Larger enterprises are more inclined to hire low-skilled staff and invest time and resources in their training to prepare them for work.

Other evidence tends to reinforce this view:

(a) results from PISA show relatively poor results for Bulgaria with respect to skills such as problem-solving and proficiency in mathematics ([24]);
(b) engagement in continuing education and training is low, compared with other EU countries ([25]);
(c) the vocational pathway through post-compulsory education is underdeveloped, with a relatively small percentage of young people entering vocational education and training in upper secondary school (Cedefop, 2018a).

([23]) MLSP, 2015.
([24]) OECD, 2016; OECD, 2018; OECD GPS: https://gpseducation.oecd.org/CountryProfile?primaryCountry=BGR&treshold=10&topic=PI [accessed 12.10.2020].
([25]) See, for instance, Cedefop, 2018a, p. 18.

It seems that individuals prefer to take the academic pathway through the education system, which more directly leads to tertiary education; the vocational pathway, as in many countries, is considered second best, despite the fact that there is an oversupply of people with tertiary level qualifications.

1.4. Conclusions

In recent years, and following its joining the EU, Bulgaria has achieved significant economic growth. The 2008 economic crisis not only had adverse effects on its economy, but also exposed several structural challenges regarding the country's skills supply and demand. These relate to stark demographic decline, low levels of adult learning, and bottlenecks to labour market participation for its relatively high share of low-skilled workers, young cohorts and specific social groups (Roma). At the same time, the country is asked to tackle persistently high rates of NEETs and early school leavers, while PISA results underline room for improving school performance. In an era of acute technological progress that demands quick adjustments in curricula and expanding learning opportunities, Bulgaria reports a very low level of digital skills. Skill needs and mismatches vary significantly between sectors and regions, which would benefit from focused policy actions. To avoid future increasing skill mismatch, the provision of information about skill needs in the labour market and development of new ways to provide information on learning opportunities are vital elements in strengthening skills anticipation and governance. These actions are also important in dealing with the economic and labour market challenges linked to the Covid-19 pandemic.

CHAPTER 2.

Reviewing skills governance in Bulgaria

2.1. Conceptualising skills governance

The Cedefop project Governance of skills anticipation and matching in EU: in-depth country reviews ([26]) is concerned with understanding how skills anticipation and matching in EU countries might be improved. In the Bulgarian country review the focus was to assess previous action and contribute to a better understanding of how skills anticipation might become more responsive to the country's skill needs and challenges. How that assessment is made is described in detail in Chapter 2.

The country reviews were built on Cedefop's definition of a skills governance system (Box 1).

Box 1. **Skills governance system**

A skills anticipation and matching system refers to the process of producing and building on available labour market and skills intelligence with the aim of balancing supply and demand for skills and providing an informed basis for further economic development via targeted skills investments by an individual country. Governance of such a system refers to the process of involving stakeholders from the public, private and third sector, from different economic sectors and geographic units, in generating, transmitting and using skills intelligence for implementing and steering education and training policies. It comprises formal or ad hoc institutional bodies, incentive structures and other procedures in place for steering education and training provision and assuring the quality of training in accordance with available skills intelligence. It includes a negotiation perspective, which represents the needs of the education system and of the labour market from short-, medium- and long-term perspectives.

Source: Cedefop.

([26]) More information on the project: Pouliakas, 2017; www.cedefop.europa.eu/en/events-and-projects/projects/assisting-eu-countries-skills-matching [accessed 12.10.2020].

Cedefop's definition of a skills governance system stresses the negotiation perspective, representing the needs of the education system and of the labour market from short-, medium- and long-term perspectives. Skills governance covers a wide range of issues related to skills anticipation and matching:

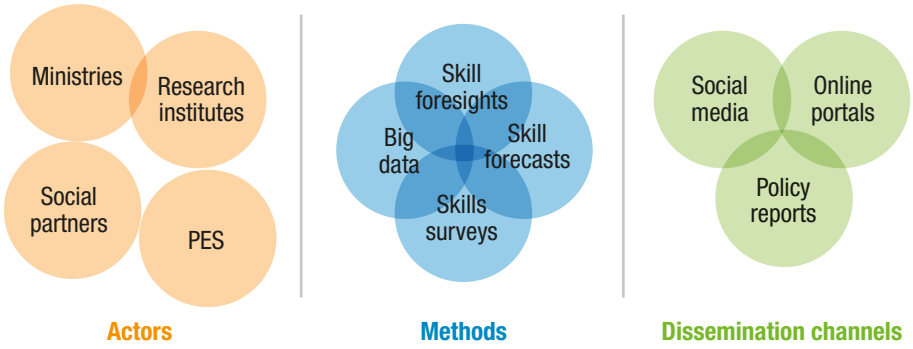
(a) skill needs at the entry point into the labour market;
(b) the utilisation of workers' skills in the labour market;
(c) future skill supply and skill demand trends to support the transformation of the labour market and the employability of the workforce in a life cycle perspective.

The core of the skills governance process is the generation of labour market and skills anticipation information and data, its analysis, dissemination of results and their use in steering the design of policies (education and training, employment, active labour market, migration, environmental) and ensuring that the skills system is responsive to findings. What constitutes effective skills governance will be largely dependent upon national specificities as well as the ability of a country to overcome information asymmetries and coordination failures among key stakeholders (Pouliakas and Ranieri, 2018). The methodological quality underpinning a country's skills assessment and anticipation practices, and the effectiveness with which it communicates and acts upon their results, can be seen as the lubricant that keeps different parts of the skills formation system running smoothly in a coordinated manner and so determines the effectiveness of skills governance in a country.

As Figure 8 illustrates, there is a need to consider stakeholders at multiple levels. This includes the agencies involved in the production and use of skills assessment and anticipation at a strategic level (such as various government ministries), at a policy level including various stakeholders (often the social partners) who potentially have some opportunity to shape skills anticipation exercises, and at an operational level (the organisations, such as research bodies, that produce the skills anticipation outputs).

The methodological accuracy and relevance of the tools used to undertake skills anticipation exercises are also of critical importance (ETF et al., 2016). Skills anticipation can be based on skill assessments/surveys (employers/employees/sectoral bodies) that review the current state of skills demand and supply, using labour market indicators and information. They may also be undertaken through forecasts of the future demand and supply of skills, typically using an economic model where skills are typically proxied by occupations and/or qualifications. Skill forecasts are projections of future

Figure 8. **Cedefop classification of a skills anticipation system**



Source: Cedefop skills governance country reviews.

skill supply and demand that assume continued progression along past trajectories. Deeper insight into the future trajectory of a country's labour market may be gauged through technological and skill foresight activities that commonly use more qualitative methodologies to develop informed views about likely 'futures' or how to shape a desired future.

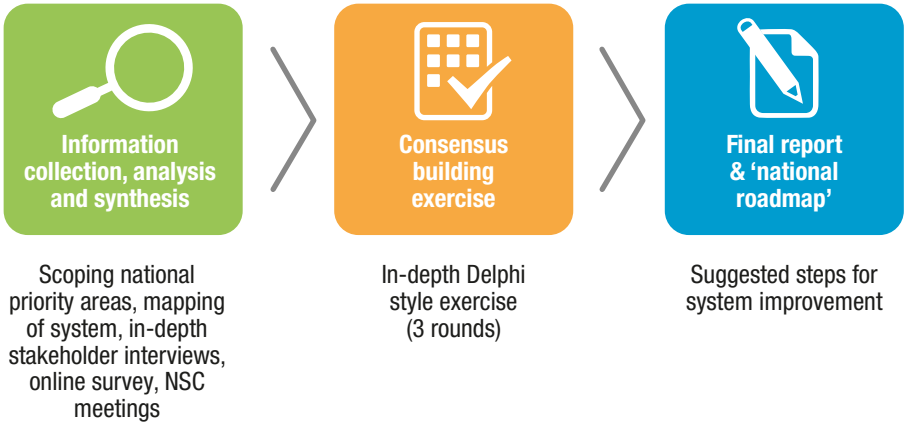
The final layer of a skills anticipation system is dissemination. This incorporates considering who are the audiences or target groups at which those outputs are aimed, developing suitable and impactful communication approaches and formats for diverse user groups, and ensuring a continuous cycle of feedback between the VET system and the labour market.

2.2. Analysing skills governance and skills anticipation in Bulgaria

In 2016, the Bulgarian Ministry of Education and Science (MES) asked Cedefop to conduct a review of its skills governance arrangements and support the country in its further development, within the context of Cedefop's project Governance of skills anticipation and matching in EU countries: in-depth country reviews. The main steps of the project are summarised in Figure 9 ([27]).

([27]) For more information on the methodological steps undertaken during the review see Annexes and 2 and 3.

Figure 9. **Methodological steps of Cedefop's country review**



Source: Cedefop skills governance country reviews

One of the first steps of Cedefop's country review included the formation of a national steering committee (NSC), comprising public and private actors, currently active in the present structure of skills governance arrangements ([28]). The first step was a scoping exercise conducted among the NSC members to identify the key priority issues that the programme should address. Cedefop worked together with the NSC to define a limited number of priority areas that would serve as the basis for the country review (Box 2) ([29]).

The issues identified through the scoping exercise were subsequently mapped to Cedefop's generic skills governance analytical framework (Table 7) (Cedefop, 2017b). The framework is a key transversal activity of the Cedefop project that supports the skills governance reviews in all countries. The analytical framework identifies the common elements that need to be considered when thinking about the effectiveness of skills governance in a holistic manner. Depending upon the specific issues that need to be

([28]) The remit of the NSC was to assume ownership of all the review proceedings and outputs. It operated in close coordination with a dedicated team of Cedefop experts and actively engaged in all steps and project activities to facilitate, validate and disseminate the project outcomes (Annex 3 gives the list of experts and organisations comprising the NSC).

([29]) A background report, based on a literature review, was also produced; this offered an initial mapping of key actors and activities in Bulgaria's skills anticipation and matching approach and summarised the state of play and key issues relevant to skills demand and supply in the country.

Box 2. **Priorities defined by the national steering committee**

- Improve the coordination of existing tools and methods for skill anticipation in Bulgaria, and contribute to a better understanding of its possibilities, as well as identifying inconsistencies and gaps related to the data infrastructure.
- Improve the effective use of existing skill anticipation tools and identify the main challenges of the organisational structure of skills governance. There are concerns about the lack of knowledge and experience of various stakeholders with skill anticipation activities, as well as a possible lack of awareness of the importance of skills intelligence and a lack of understanding of roles and responsibilities in skills anticipation exercises.
- Identify possible ways of improving the use of the results of skills anticipation in policy-making.

Source: Cedefop skills governance country reviews.

addressed in a particular national context, some elements may be more important or pressing than others. Table 7 mostly summarises the interlinked parts common to any system of skills governance. It is this framework that has guided the assessment of skills governance in Bulgaria.

For each highlighted cell in the framework, a set of key issues that need to be addressed was constructed ([30]); this formed the basis for designing a semi-structured questionnaire for in-depth face-to-face interviews with policy-makers, academics and social partners to understand their perspectives on the current skills governance arrangements. From the issues brought up by interviewees in the interviews, several points of interest were identified that warrant additional attention. Additional follow-up telephone interviews were organised around these themes, involving stakeholders including policy-makers (local, regional and national), employer and sector organisations and education providers.

The interviews served to distil further the issues to be addressed in three rounds of a consensus-building exercise (CBE). Participants in the CBE were those charged with responsibility for skills anticipation in ministries, agencies, and social partners, mainly members of the NSC. The CBE sought, over its three rounds, to concentrate minds on those issues (or actions),

([30]) An enhanced framework was developed, where all possible issues relevant to a particular cell in Table 7 was identified.

Table 7. **Cedefop analytical framework used for Bulgaria**

	Organisation	Resources	Stakeholders	Use of information
Foundations	**A** Legal and institutional framework	**D** Funding and human resources	**G** Cooperation arrangements	**J** Feedback mechanisms
Processes	**B** Management and control	**E** Data, methods and expertise	**H** Feedback and validation	**K** Customisation and dissemination
Sustainability	**C** Vision and strategy	**F** Stability	**I** Integration of stakeholder needs	**L** Reputation

Source: Cedefop.

which needed to be addressed over the short to medium term, and on which its participants agreed progress could be made. The results of the CBE were then transformed into a national policy roadmap with concrete policy alternatives to guide the future development of skills governance in Bulgaria.

By way of context to the findings from the semi-structured interviews, an online survey of local governments was conducted in early 2019, which provided a better insight into how local government dealt with skills governance issues at the local level, how they cooperated with national stakeholders, and what solutions they developed. The results of this survey are presented in Chapter 5.

The findings from the research are summarised in Chapters 4 to 6 to demonstrate how the policy roadmap (Chapter 7) prioritises certain actions over the short- to medium-term perspective.

CHAPTER 3.

Skills governance in Bulgaria: state of play

3.1. Introduction

National skills anticipation and matching approaches have not been formed or operate in a vacuum: they are amalgams of a country's historical route, policy choices that have shaped its economic structure, and its specific demographics and socioeconomic characteristics. Additionally, any review of state-of-the-art skills anticipation practices presumes a good understanding of the structural inconsistencies, embedded in institutional developments that have taken place over recent decades. To support better understanding of the state of play, the challenges and opportunities of the Bulgarian approach to skills governance, Chapter 3 reviews the historical context that has shaped the Bulgarian economy and education and training system. It also offers an outline of the state of play in the country regarding key skills anticipation actors and activities.

3.2. Historical context

The transition from a centralised economy to a market-oriented one started in 1990. The period between 1990 and 1996 was characterised by high economic volatility and almost constant decline in real income, less progress in employment reduction, and relatively high inflation. As a result, in the second half of 1996 and the beginning of 1997, Bulgaria found itself on the verge of a severe financial and economic crisis that necessitated increased pace in the implementation of reforms. The implementation of urgent measures, aimed at stabilising the macroeconomic situation in the country, started in 1997. A currency board was introduced and fiscal policy was tightened to influence the dynamics of the economic processes in the country. Government interference in the country's economy was restricted and the process of liberalising the pricing system continued. The privatisation

processes were sped up, both in the real and the banking sector. In the years that followed, the country witnessed sustainable economic growth with the annual GDP growth reaching 4.8% in 2000, one of the highest levels for the transition economies ([31]).

On the labour market, active reforms during the pre-accession period (2000-06) led to further improvement of the macroeconomic environment and positive developments in economic activity and employment. The 2007 interim evaluation of the implementation of the National employment strategy 2004-10 reported marked progress in reducing unemployment: 6.9%, according to National Statistics Institute (NSI) data, compared to the EU average of 7.1% for 2007. However, despite the gradual increase in employment, its level (61.7% for the age group 15 to 64 as per NSI data) remained at about three percentage points below EU-average and several other challenges remained, including lagging economic activity and labour productivity, which were far from the Lisbon strategy targets ([32]).

The negative effects in Bulgaria of the global crisis, which were first felt in the fourth quarter of 2008, ended the upward trend in employment and labour market in general. The reduced activity of companies, following the economic downturn, had a negative effect on labour market indicators, especially from mid-2009 onwards. Falling revenues and limited financing opportunities made employers seek ways to reduce their labour costs. Until the beginning of the third quarter of 2009, entrepreneurs strived to retain their staff, anticipating that the economy would recover rapidly and return to its positive development trend of previous years. During these months, they tried to optimise their labour resource by introducing short-time working arrangements; this soon exhausted its potential to impact positively on the economic situation of enterprises, leading to a sharp increase of lay-offs in the second half of 2009.

The delay in the effect of the economic crisis on the Bulgarian labour market for a period between one and two quarters, depending on the economic sector, led to enterprise restructuring and fuelled the rapid decline in employment from the beginning of 2010; the employment rate among 15 to 64 year-olds fell to 60.2%. In the private sector, the year-on-year reduction in the number of employed for the second quarter of 2010

([31]) See, for instance, Eurostat nama_10_gdp, measured in chain linked volumes, as a percentage of the previous year.

([32]) See: Updated employment strategy of the Republic of Bulgaria 2008-15 (MLSP, 2008).

showed a slowdown, compared to the previous quarter, and levelled out at 6.8%. In the public sector, however, the processes of staff optimisation linked to government efforts to reduce the budget deficit, led to an upsurge in employment loss (Todorov, 2010).

Data on regional employment underline significant differences among regions in the country, underlying the importance of skills anticipation activities at that administrative level, as well as relevant results to inform regional policy decisions. According to data administered by the public employment service (National Employment Agency, NEA) for the third quarter of 2017 ([33]), the number of registered unemployed fell in all regions of the country, at rates varying from 28.6% in Pernik to 12.2% in Silistra. In 12 of the 28 districts, mostly in the south-west and the south-central regions, the decrease in the unemployment rate was higher than the national average. In the north, this was the case only in the districts of Gabrovo, Razgrad, Dobrich and Lovech. The districts with the weakest unemployment rate reductions were Silistra, Targovishte, Kardzhali, Burgas and Sofia (the capital city, as a separate district).

Despite these recent improvements in employment, the 2008 financial crisis exposed structural weaknesses in the education system, and VET specifically, that potentially limit responsiveness to labour market needs. The links between education/VET and the labour market are still considered weak and there is potential to improve quality assurance (Cedefop, 2018a). There are limited interactions, for instance, between district and local levels of government; there is no comprehensive working mechanism in place to ensure that state admission plans link the education offer at VET schools and secondary schools with vocational classes to regional socioeconomic characteristics. This can be considered a barrier to the provision of high-quality VET programmes that could be well-accepted by employers.

3.3. Developing labour market intelligence

Although significant steps have been taken in the recent years, the Bulgarian labour market intelligence system can be considered to be in a developmental stage. Experience with skills anticipation, including employment and skills forecasting in the conditions of an open market economy, has so far remained

([33]) www.az.government.bg/stats/3/ [accessed 12.10.2020].

fairly limited. This is mainly due to the fact that effective skills governance requires a relatively stable economic environment and predictable economic performance, at least on a medium-term time frame: this was not the case for the Bulgarian economy. There was a 15-year period of deep structural change and economic restructuring, following the country's transition to a market economy in the late 1980s, before being able to work towards sustainable economic development. With the basic prerequisites for the development of skills governance in place, the Bulgarian authorities initiated a number of steps from 2004 to 2009. While these do not yet amount to a fully coherent policy framework for skills anticipation and matching, they were important first steps as presented in Table 8.

Subsequent skills governance efforts were increasingly supported in multi-stakeholder bodies, such as the National Advisory Council for Vocational Qualification of Labour Force, established by the Ministry of Labour and Social Policy in 2009 ([34]). The council was a standing committee for coordinating development of national policy and strategies, regarding vocational training of unemployed and employed persons. It also coordinated the interaction among the associated representative organisations of employers and employees at national level regarding lifelong learning in Bulgaria. The council was chaired by the Deputy Minister of Labour and Social Policy and its members were representatives of ministries, government agencies, commissions, nationally representative organisations of employers and employees at national level and other non-profit legal entities. With the support of the Council, and leadership by the MLSP and the public employment service, two other major skills needs anticipation activities were initiated in 2010-13 (Table 9).

Currently, the functions of the council have passed to the National Council for Promotion of Employment ([35]).

The National Network for Competence Assessment (NNCA) – an online platform developed in 2010-14 and funded by the European Social Fund (ESF) and the European Regional Development Fund (ERDF) – led to closer collaboration of key stakeholders ([36]). The NNCA was formed and implemented by the Bulgarian Industrial Association (BIA), in partnership

([34]) Established by the MLSP in 2009. See: http://saveti.government.bg/web/cc_49/1 [accessed 12.10.2020].

([35]) www.mlsp.government.bg/index.php?section=POLICIESI&lang=_eng&I=234

([36]) http://en.competencemap.bg/ [accessed 12.10.2020].

Table 8. **Overview of key initiatives on skills anticipation 2004-09**

Initiative	Aim	Methods used	Outputs
Sociological research and forecast of employer demand for labour force qualifications ([37])	Identify labour demand characteristics by educational and professional groups	Qualitative and quantitative data collection	Short-term, one-year forecasts were made at national level and for all economic sectors
PHARE technical assistance project entitled Development of a system for analysis of the needs for vocational education and training and a strategy for adult learning ([38])	Improve the competitiveness and mobility of the national labour force, and support matching between skills supply and demand	Studies, training, technical assistance	System designed for investigating, identifying and monitoring employer and employee needs for vocational training
Survey and forecast of employer demand for workforce with certain qualifications (2007) ([39])	Identify labour demand characteristics by skills (categorised as being of basic, medium, specific and high/managerial level), as well as any mismatch between labour supply and demand by professional groups	Qualitative and quantitative data collection	The resulting report presented national and sectoral short-term predictions for 2007 and medium-term projections for the 2008-10 period.
Regular surveys conducted by the NEA and collection and analysis of data received from local labour offices ([40])	Analyses of skills demand	Surveys and other quantitative data	Monthly, periodical and yearly reports on the labour market needs at national, regional and local levels

Source: See related footnotes.

([37]) European Commission et al., 2010.
([38]) Cedefop ReferNet Bulgaria, 2010.
([39]) www.pz.government.bg/strateg/prou4v.pdf [accessed 12.10.2020].
([40]) www.az.government.bg/pages/pages-prouchvane-potrebnosti-rabotna-sila/ [accessed 12.10.2020].

Table 9. **Overview of key initiatives on skills governance in 2010-13**

Initiative	Aim	Methods used	Outputs
Development of workforce competence assessment systems by sectors and regions (CASSY) ([41])	Enhancing labour market adaptability and effectiveness, as well as striking a better balance of labour market demand and supply	Skills assessment	Setting up a system for workforce competence assessment by sectors and regions
Pilot model for medium-term labour market forecasts ([42])	Develop a system for regular employment and skills forecasts	Modelling, quantitative data	Model for expected labour market developments by 2020

Source: Cedefop skills governance review Bulgaria.

with the two major national trade union associations: the Confederation of Independent Trade Unions in Bulgaria (CITUB) and the Confederation of Labour Podkrepa (CL Podkrepa). With the help of sector skills units, competence models were developed for 20 sectors, validated and implemented. A pilot model for medium-term labour market forecasts was developed in the MLSP, and its results were published in 2012 ([43]). The establishment of a new research unit within MLSP (national unit for forecasting the development of the Bulgarian labour market) was envisaged, which would be responsible for collecting, classifying and summarising information and intelligence on the labour market. The unit, which was to be sustained by the State budget after completion of the project, would ensure that the labour market forecasts were regularly updated and sustained. The functioning of the unit, however, was limited to the duration of the pilot project, as subsequent forecasting exercises (Section 3.4) were assigned to subcontractors.

An important milestone in the cooperation between government institutions in skills anticipation and matching, was the adoption of a Mechanism for including the results of forecasts of supply and demand of labour in developing and implementing government policies, formalised

([41]) www.cedefop.europa.eu/en/tools/matching-skills/all-instruments/development-workforce-competence-assessment-system-sectors-and-regions-cassy [accessed 12.10.2020].
([42]) www.capital.bg/politika_i_ikonomika/bulgaria/2012/01/25/1752618_rabotnata_sila_v_bulgariia_shte_namalee_s_10_do_2020_g/ [accessed 12.10.2020].
([43]) www.capital.bg/politika_i_ikonomika/bulgaria/2012/01/25/1752618_rabotnata_sila_v_bulgariia_shte_namalee_s_10_do_2020_g/ [accessed 12.10.2020].

by a decision from the Council of Ministers (CoM) of 10 July 2013 ([44]). The Mechanism outlines which competent institutions should use the results of skill forecasts, developed by MLSP, and how. It underlines, and sets clear and transparent guidelines for, the exchange of information (and annual feedback from them) and the involvement of institutions in the various activities of skills governance, and assigns a central coordination role for the MLSP. The mechanism has become the most important framework document for inter-institutional coordination and cooperation and the systematic use of its results for skills anticipation. Section 3.4 explores in more detail how the decision impacts the formal and informal roles of the various stakeholders.

3.4. Skills anticipation activities

The institutional framework, described in Section 3.3, structures a substantial variety of skill anticipation activities. Note, however, that additional positive developments on the alignment of main skill anticipation activities can be found in the years since the ministerial decision in 2013; these often take place 'below the radar', in specific sectors or regions. Section 3.4 further assesses national activities and discusses their strengths and weaknesses. These activities can be grouped into the following five broad categories:

(a) skills forecasts;
(b) skills assessments;
(c) skills matching;
(d) employer surveys;
(e) sectoral studies.

Skills forecasting was initiated by the Council of Ministers in 2013, the responsible institution being MLSP. The forecasts are based on a macroeconomic model and incorporate data from employer surveys and from organisations such as NEA, NSI, National Social Security Institute (NSSI) and the National Revenue Agency (NRA). They were extended with the financial support of the ESF during 2013-15 ([45]). As part of the project, MLSP

([44]) https://mlsp.government.bg/uploads/24/politiki/zaetost/kratki-analizi/za-vklyuchvane-na-rezultatite-ot-prognozite.doc [accessed 12.10.2020].
([45]) Project No BG051PO001-6.1.09-0001 'Development of a system for forecasting the needs of labour force with certain characteristics'.

undertook skills forecasting and published a long-term forecast on labour force supply and demand for 2014-28 ([46]). Within the same project, an in-depth analysis of the future skills needs of enterprises was conducted in 2014 by NEA, as a pilot study under the guidance of the MLSP. The results of the study provided a short-term forecast of the development of the labour market in Bulgaria ([47]). These two forecasts were updated in 2015 ([48]). In line with the provisions of the mechanism, in 2017 MLSP drafted the report *Labour supply and demand in Bulgaria in 2015 and 2016: forecasts for the development of the labour market until 2025*. In its projection section, however, the report used Cedefop data, instead of forecasts developed by MLSP ([49]).

In the meantime, work had started on a second skills forecasting project, again funded by the ESF through operational programme Human resources development (OPHRD) 2014-20 ([50]). The project involved developing updated medium and long-term (2032) labour market forecasts, as well as assessing the net effect of the active labour market policy funded by the state budget; both are necessary for improving the efficiency of employment policy. The first analytical report, *Medium and long-term forecasts for the development of the labour market in Bulgaria: factors of labour demand, employment trends, regional and educational imbalances (2008-32)* was produced by a subcontractor consortium and was released in January 2019 ([51]). The macroeconomic model used for the previous forecast was updated and upgraded to include tailored modules for separate economic activities ([52]). Its main advantage is the consistent methodology, building on earlier forecast results. It produces comprehensive forecasts for labour demand and supply, employment rate, job creation and job loss by economic activities and education level. Annual updates of the skill supply and demand forecasts are planned within the project, together with their dissemination among stakeholders.

([46]) https://mlsp.government.bg/uploads/24/politiki/zaetost/kratki-analizi/za-trseneto-i-predlaganeto.pdf [accessed 12.10.2020].
([47]) https://mlsp.government.bg/uploads/1/doklad-forecast-1.pdf [accessed 12.10.2020].
([48]) https://mlsp.government.bg/uploads/1/doklad-analizi-i-prognozi.pdf [accessed 12.10.2020].
([49]) https://mlsp.government.bg/uploads/1/doklad-za-pazara-na-truda-2017-i-prognozi.pdf [accessed 12.10.2020].
([50]) Project No BG05M9OP001-1.007-0001 'Increasing the effectiveness of the implemented employment policy'. http://2020.eufunds.bg/bg/4/0/Project/BasicData?contractId=HpUm8h9nObo%3D&isHistoric=False [accessed 12.10.2020].
([51]) Simeonova-Ganeva et al., 2019.
([52]) The methodological framework includes eight interconnected modules. The forecasts made have the following parameters: 120 professions, 35 economic activities, 28 districts, four education levels, gender, six age groups.

Skills assessments continued within the framework of an existing two-year ESF-funded project MyCompetence ([53]), initially led by BIA ([54]). The project's main goal was to improve the effectiveness of national policies and measures on the labour market, by providing relevant data and analysis on the skills and competence needs of the workforce. Together with sectoral consultative councils, which were convened for this purpose, 20 pilot sectors were selected for the development of a user-friendly classification of competences ([55]), in three categories:

(a) specific competences;
(b) core transversal competences;
(c) managerial competences.

This allows identifying the skill needs requirements for key occupations in a number of sectors. The MyCompetence system mediates between the various stakeholders and performs both a coordinating and a research function in defining standards for key competences, based on studying the actual skill needs of employers. VET and higher education institutions and vocational training centres use the competence standards developed by the NNCA as input for adjusting the education programmes offered and their respective curricula, so that graduates meet the labour market demand for specific competences. With the continued development of the project, it became more institutionalised and its sectoral consultative council currently consists of representatives of the education institutions, employers, trade unions and other organisations. In 2016, the MLSP took over coordination and funding of the project and added five sectors:

(a) automotive;
(b) energy;
(c) cosmetics;
(d) construction;
(e) mining and quarrying.

([53]) Information about MyCompetence as a best practice is on the database of the Mutual learning programme of the European Commission: https://ec.europa.eu/social/main.jsp?catId=1080&langId=en&practiceId=80 [accessed 12.10.2020].

([54]) Project No BG05M9OP001-1.013-0001 under Procedure No BG05M9OP001-1.013 'Development of national system for competence assessment: MyCompetence' of OP HRD 2014-20. www.mlsp.government.bg/index.php?section=POLICIESI&I=703&lang= [accessed 12.10.2020].

([55]) Available at: http://en.mycompetence.bg/ [accessed 12.10.2020].

Following this expansion, the system covered 25 sectors in total. The project was completed by the end of 2019, achieving:

(a) competence models for 20 key job positions in the five sectors;
(b) competence models of the key job positions in an additional 20 sectors were updated in correspondence with economic development;
(c) five new online tools for assessment and self-assessment of competences;
(d) seven new online training courses for acquisition of key competences;
(e) e-modules for job analysis and assessment at the enterprise and for evaluating learning shortages and the effect of a training course;
(f) online catalogue of competences grouped by occupations and a national classification of competences.

By the end of 2019, MyCompetence included 541 competence profiles for key positions in 25 industrial economic sectors, 20 online tools for assessment and self-assessment of competences, 47 online training courses for acquisition of key competences, 1 000 competences described in a national classification of competences, and an online catalogue of competences grouped by occupations.

The Higher Education Directorate of MES makes use of its own skill needs anticipation data. The directorate is legally required to take labour market and skill anticipation forecasts into account when determining higher education admission plans. Consequently, like the VET Directorate, it is limited by the MLSP results. To overcome these, the Higher Education Directorate uses a combination of sources at its disposal. First, it makes use of the placement rate of graduates in jobs related to the speciality acquired at higher education institutions (HEI), as measured by the rating system of higher schools ([56]). The introduction of CoM Decree No 64 of 2016 offers another type of data: to cover the sectors and areas not included in the rating system of higher schools, the decree set up an inter-ministerial working group, headed by the deputy minister of MLSP, which collectively decides to identify a sector with skill shortages. Following approval, the State funds the training of such qualifications offered in higher education institutions.

Skills matching activities have taken place only in higher education, initiated in 2012 within the procedure Updating study programmes in higher

([56]) In place since 2010, updated annually, under the responsibility of the Higher Education Directorate. Available online at MES site: http://rsvu.mon.bg [accessed 12.10.2020].

education in accordance with labour market requirements ([57]). The procedure aimed at establishing closer links between study programmes in universities and labour demand. Fifty projects were implemented between 2013 and 2015 by 36 Bulgarian higher education institutions, offering measures for updating and bringing bachelor degree study programmes more in line with employer needs. This was achieved through the establishment of direct links between senior management in HEIs and employers (faculty councils and company management, respectively). Key business experts were involved, who, together with academic staff, redefined and updated the education programmes. More structurally, the recent changes in the Higher Education Act from 2016 have a positive contribution on how labour market needs are incorporated in training programmes in the formal education system. Based on the good experience, MES and MLSP have initiated closer cooperation – through an inter-ministerial working group – to assess the labour market relevance of newly established educational programmes in public HEIs.

Employer surveys were introduced through an amendment in the Employment Promotion Act (EPA) in 2016; this requires that employment committees in district development councils conduct semi-annual surveys among employers on their skill needs, process the information collected at district level, and provide it to the NEA. In the beginning of 2018, the first short-term skills forecast survey among employers was launched, based on a standardised survey questionnaire: three rounds of the survey have already been conducted, two in 2018 and one in February-March 2019). Through this survey, MLSP aims to get information about each employer's location (district), type of enterprise (micro, small, medium-sized and large), its economic activity and the skills (defined in terms of occupations) the employer needs. However, although increasing, participation of employers in the survey rounds is still below expectations, which complicates using its outcomes for policy-making purposes.

Sectoral studies also take place, generally organised by sectoral organisations themselves, based on which they can develop longer-term plans for their sector. Organisations in sectors that face pressing skills shortages, such as ICT, wood processing, textile and clothes, transport, and tourism, tend to be particularly active. These skills intelligence efforts at sectoral level are often linked to the professional schools that most sectoral

([57]) Procedure number BG051PO001-3.1.07. More information at: http://ophrd.government.bg/view_doc.php/5643 [accessed 12.10.2020].

chambers manage. A 2016 survey, organised by Manpower-Bulgaria ([58]) among 621 employers in the developed economic regions, indicated considerable skills shortages for sectors such as telecommunications, wholesale trade, transport, hotels and restaurants, services and call-centres; these were expected to increase in the coming years. The survey results are complemented with data provided by the NSI on sectoral employment, leading to them receiving broader attention. More generally, however, such private initiatives are often not considered in policy-making, such as for the purpose of planning VET admission plans in schools.

3.5. Management and coordination of existing skill anticipation arrangements

Mapping the existing organisations that play a key role in the governance of skills anticipation and matching already highlights areas for improvement, such as stakeholder involvement and sustainable funding, which were further explored in Cedefop's review.

A range of authorities and stakeholders from labour policy and education and training are involved in activities shaping skills governance. While no full skills governance system is in place, stakeholders are already working towards skills anticipation. The 2013 Ministerial Council Decision put in place a basic framework structure (the 'mechanism'), in which reporting requirements and interactions between key stakeholders were introduced. However, beyond such reporting requirements, the cooperation between stakeholders is not fully institutionalised, and can be characterised as loose. While the mechanism formally includes sectoral interests, in practice social partners are not represented; trade unions or sectoral employer organisations are not involved. Table 10 summarises the main stakeholders and their responsibilities, which include a variety of public and private stakeholders.

([58]) www.manpowergroup.com/wcm/connect/fdf0e610-04ef-41f2-a819-ed9ccf41fcdd/BG_Q416_MEOS.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-fdf0e610-04ef-41f2-a819-ed9ccf41fcdd-mUxivlU [accessed 12.10.2020].

Table 10. **Key actors in skills governance in Bulgaria**

Entities	Acronym	Type	Responsibilities
Council of Ministers	CoM	The supreme executive government body in Bulgaria	Responsible for the endorsement of the most important strategic document; Determines national education and labour market policy
Ministry of Labour and Social Policy	MLSP	Ministry	Central coordination of skill anticipation; Provides annual reports on labour market needs
Ministry of Education and Science	MES	Ministry	The main policy-maker and coordinator of the activities related to education and science in Bulgaria; provides data on the HE system and VET
Sectoral ministries (*)		Ministries	Sector ministries are essential institutions of the skills governance network; each has its own indicators to monitor employment and training in their sectors
National Employment Agency	NEA	Executive agency of MLSP	Implements the state employment policy at local and regional level; Provides insights regarding the needs of employers for labour force with particular skills and qualifications (carries out regional forecast and analysis)
National Agency for Vocational Education and Training	NAVET	Specialised State body with the Council of Ministers, established in 1999 under the Vocational Education and Training Act	Plays a key role in modernising the VET system in the country: sets the standards for VET qualification; maintains and updates list of professions and their labour market relevance. The tripartite principle of management ensures consistency and coordination between the state institutions and the nationally representative organisations of employers and employees in the implementation of policies in the vocational education and training system
National Network for Competence Assessment	NNCA	Online portal	Brings together employer and employee organisations and is responsible for the cooperation, consultation and institutionalisation of cross-sectoral competence assessment
Regional and local authorities	-	Administrative districts/ municipalities	Limited role in skills anticipation; participation in the development of elements of VET policy and implementation of government policies for employment and VET qualifications ([59])

([59]) For more information on the role of regional and local authorities in VET, see Cedefop, 2018a.

Entities	Acronym	Type	Responsibilities
Institutions/agencies, feeding MLSP reports			
National Statistical Institute	NSI	State agency	Collects official statistics that feed MLSP reports
National Revenue Agency	NRA	Specialised State body with the Ministry of Finance	Collects and administers state taxes and obligatory social security contributions; Provides official statistics that feed MLSP reports
National Social Security Institute	NSSI	Public institution, reporting to the National Assembly (Parliament)	Manages the State social security in Bulgaria; Provides official statistics that feed MLSP reports

(*) The sectoral ministries listed in the mechanism are the Ministry of Economy (and its two agencies: the Executive Agency for Promotion of SMEs and the Bulgarian Investment Agency); the Ministry of Regional Development and Public Works; the Ministry of Transport; the Ministry of Environment and Water; the Ministry of Health; the Ministry of Agriculture and Food; the Ministry of Defence.

Source: Cedefop skills governance country review: Bulgaria

To date, the 2013 Council of Ministers' Decision on the mechanism remains the central legal arrangement for skills anticipation in Bulgaria. To aid skills matching and promote economic growth, the Minister for Labour and Social Policy approves an annual report by the end of January each year with forecasts on the labour demand and supply in Bulgaria. The MLSP annual report on labour market needs is based on official data from NSI, NEA, NRA and NSSI. Data on the higher education system are delivered by the Ministry of Education and Science. The data produced by the NEA (Section 3.4), which is an executive agency of MLSP that implements State employment policy at local and regional level, play a central role in this framework. Through its regional/local labour offices, the NEA carries out short-term regional forecasts and analysis to provide insights into the needs of employers on professions, competences, knowledge and skills (the online survey is conducted twice a year since 2018). The information collected relates also to the demand for labour in the next 12 months, as well as for the next three to five years.

The report is submitted to State institutions: ministries and other institutions and to regional administrations. Where applicable, institutions should use labour demand and supply projections for the development and implementation of public policy. By the end of February of the following year, upon receipt of the report, the State institutions send reports to the Ministry of Labour and Social Policy on how they use the results of the labour demand and supply forecasts in the policies they are implementing. By the end of March, MLSP summarises the information received and prepares a national report with conclusions and recommendations. The report is approved by the Council of Ministers. The conclusions and recommendations are taken into account when developing the next annual report with forecasts of labour supply and demand in Bulgaria.

The Ministry of Economy (ME) is involved in skills anticipation processes, providing input to the admission plans in HEIs: ME collects information from branch organisations on their anticipated recruitment needs for higher education employees. The ME is also directly involved in skills anticipation through its engagements under the mechanism. It is responsible for the implementation of the Innovative strategy for smart specialisation (IS3) and the national strategy for promotion of small and medium-sized enterprises. Both strategies define the priority sectors for the development of the Bulgarian economy for the period 2014-20 and outline the guidelines for the development of workers with secondary and higher education. The government's goal is to promote investment in high-tech industries and services for opening highly productive jobs, as well as in the regions with the highest unemployment rate. The socioeconomic analysis of the IS3 also draws attention to the need for linking the admission plans for HEIs with the needs for specialists in the high-tech industries, so that the share of graduates in engineering and exact sciences is further increased. Despite these activities, some stakeholders interviewed under this country review, had highlighted that ME is currently insufficiently involved in the skills governance process (Chapter 4).

The National Agency for Vocational Education and Training (NAVET) is a specialised body within the Council of Ministers. The agency develops the State educational standards for the acquisition of VET qualifications; it maintains the list of professions for vocational education and training according to the needs of the labour market; it licenses and exercises further control on the activities of VET centres for people over 16 years old, as well

as supporting the implementation of VET centre validation procedure. It provides crucial directions and insights into the skill system.

A key principle in the development and implementation of employment policy is the partnership between institutions, social partners and non-governmental organisations. NAVET, with its tripartite management structure, and the NNCA contribute in this respect. They bring together a variety of stakeholders, including employers and their organisations, government experts, trade unions, consultancy companies and education providers. Outside the NAVET structure, the regulatory framework does not clearly specify obligations, parameters, and deadlines for social partner participation.

At regional and local level, matching of supply and demand for education, training and qualification is the responsibility of the regional employment directorates (divisions of the NEA). These are represented at district level by the labour office directorates (LODs) and the regional governances of education (RGEs), which function as territorial administrations under the Minister for Education and Science. Both RGEs and LODs are represented in the district employment councils, established by the regional governors, which also include representatives of trade unions, employer organisations, regional and municipal administrations and schools. The main task of the councils, which are permanent bodies, is to discuss and adopt the regional admission plans, to be proposed by the regional employment directorates to MES for approval.

Regional (28 administrative districts) and local (265 municipalities) authority intervention is somewhat limited. Their comparatively weak involvement could be attributed to the centralised (top-down) structure of skills governance and the insufficient regional/local financial resources and level of expertise.

3.6. Funding and resources

The State funds centrally led skill anticipation activities. The forecasting work is funded by MLSP via the ESF. NEA employer surveys are financed from its own institutional budget, which depends indirectly on MLSP funding (Cedefop, 2017c). The ESF does not only fund State-led activities, but is also the main form of support to skills anticipation activities by stakeholders, for instance those of NNCA.

NNCA used the ESF to promote labour market flexibility and efficiency to finance a variety of social partner projects under the operational programme Human resource development 2007-13 ([60]). Regardless of the availability of these European funds, Bulgarian stakeholders widely view them as an insufficiently sustainable solution for longer-term skills anticipation activities. A project-based approach, shaped by the specific duration of the funding, could hamper the uptake of more sustainable approaches to skills anticipation and the development of a more holistic, comprehensive, national approach. The latter requires, among others, feedback loops and continuity, to allow relevant and high quality LMSI to feed into policy.

Apart from such financial constraints, stakeholders that contributed to the country review often highlighted a need to focus on the capacity building of the stakeholders involved. In their opinion, some stakeholders lack/have low levels of awareness of the importance of LMSI, limited understanding of the roles and responsibilities in skills anticipation exercises, and insufficient knowledge and/or experience in skills anticipation activities.

The limited – and sometimes non-existent – involvement of stakeholders (especially of those at regional/local level), indicates the need to raise awareness of the importance of skills intelligence and of increasing understanding of the roles and responsibilities in skills anticipation exercises. In the Strategy for the development of State administration 2014-20, similar problems/needs were identified ([61]). The strategy foresees activities to build capacity at local level to manage decentralised functions in education, health and social services (currently being implemented). The strategy also aims at improving information exchange between central administration, regional administrations and municipalities, through the establishment of appropriate information systems. An important precondition for effective information exchange is administrative capacity; local administrations do not always have sufficient expert capacity to provide the necessary information. The current focus of activities undertaken to implement strategy is, therefore, to develop expert capacity at all levels of government, but these activities reach only a limited number of people. More efforts could help drive change towards a culture that encourages continuous learning, improvement and development among stakeholders

([60]) See, for instance, for ESF operational programme Human resources development 2007-13: http://archive.eufunds.bg/document/468 [accessed 12.10.2020].
([61]) www.strategy.bg/FileHandler.ashx?fileId=4647 [accessed 12.10.2020].

and contributes to developing knowledge and expertise needed by the changing skills anticipation environment in the country.

3.7. Cooperation arrangements

Institutional cooperation between the different public stakeholders in the skill anticipation system is the responsibility of the MLSP. The National employment action plan (NEAP) to implement the updated employment strategy of the Republic of Bulgaria 2013-20 is, for instance, developed in collaboration with the other ministries and the social partners. Through public policies and specific measures adopted in the annual NEAP, the ministry can address the consequences of labour market restructuring trends, for example by adopting budgets and programmes for training, the mobility of workers, and subsidised employment (Kirov, 2014). Annual NEAP implementation is funded by the State budget for the relevant year (funds for active labour market policy) and by the European Structural and Investment Funds (ESIF).

Other sector ministries are also essential institutions in the skills governance network. These work towards their own targets, and also regularly organise studies on the labour market mismatches at national, branch, local or enterprise levels. However, increased coordination arrangements between these ministries in their approach to employment and training could further increase potential synergies in the national approach to skill anticipation. During the interviews (Chapter 4), stakeholders confirmed the lack of sufficient coordination. 'Silos' in the administrative approach to skills anticipation and matching were also reported, which support ad hoc and project-based activities and hinder a more coordinated approach.

Most visibly, the lack of coordination affects the involvement of local/regional development agencies or authorities in skills anticipation activities. Most of the policies and measures developed are financed by EU funds, organised at national level, and pay limited attention to local needs. The lack of involvement of regional/local stakeholders is already identified as a challenge in the annual report 2015 on the implementation of the National strategy for lifelong learning 2014-20 of MES: 'Initial conditions for stakeholders' coordination have been established at national level, but the other levels of government remain out of the reach of the strategy implementation'. As stated in the same report, 'the lack of a working mechanism for cooperation between the responsible State and local authorities with employers' sectoral/

branch organisations is the reason for the adoption of a State VET admission plan without a clear vision and indicators for the needs of a skilled workforce at regional/local level' (ibid, p. 96).

Cooperation among stakeholders in skills anticipation has improved over recent years (Cedefop, 2017c). The NCCA has had a positive impact on the national admission plan in higher education and VET. Cooperation between higher education and VET providers and employers' organisations has become more effective. Despite these good practices, effective coordination mechanisms for the involvement of all stakeholders at all levels are still missing. However, the process of building collaboration culture is generally slow and, in addition, Bulgaria lacks a strong tradition in this area. The commitment of stakeholders might be increased through raising their awareness of the importance of their roles and responsibilities in skills anticipation exercises and by linking 'ownership' to the benefits of exploiting skills anticipation results.

CHAPTER 4.

Exploring options for change

4.1. Introduction

Chapter 4 summarises stakeholders' views on how to improve skill anticipation arrangements in Bulgaria so that outputs and insights can better satisfy a wide range of user needs. It builds on the findings from Chapter 3, where the main activities and developments so far were highlighted. Chapter 4 commences by providing a summary of the stakeholder views about how skills governance needs to develop in the future: these views were of vital importance in designing the three rounds of consensus-building exercises undertaken as part of the study.

4.2. The stakeholder interview process

A key ambition of the semi-structured interviews with stakeholders was to gain insights from their experience with skill anticipation activities, aiming to identify strengths and weaknesses. The population from which the respondents were drawn included a wide spectrum of stakeholders, representing the country's skills governance at both policy and implementation level. At the policy and governance levels, interviews were held with members of key ministries, national committees, councils or key national institutions and bodies which have a responsibility for skills governance in the country. At the implementation level, social partners, national and regional chambers, sectoral and certification bodies and selected experts were interviewed. Training and career counselling providers and representatives of the public employment service were also interviewed.

In total, 30 semi-structured face-to-face interviews were conducted from end 2017 to mid-2018, following a staged research design and process. Respondents were asked to reply to the questionnaire based on their own experience and expertise, taking into consideration the institutional realities of their organisations; their responses cannot be considered formal positions

of organisations but, as intended, views of experienced stakeholders in the field. The broad profile of the respondents was as follows ([62]):

(a) education actors (11 interviews): three ministerial representatives, three regional governments, one university, two education institutes supervised by the Ministry of Education, one representative of the competence assessment council and one representative of the national association of municipalities;
(b) labour market actors (19 interviews): five ministerial representatives, five employer associations, two employee associations, four labour market intelligence providers and three regional employment directorates.

The balanced presence of education and labour market stakeholders, as well as views from public and private stakeholders, national and regional is a critical factor that enables a thorough understanding of different aspects of the national skills governance processes and practices currently in place. This provides a good basis for understanding the relative strengths and weaknesses of skills governance, as perceived by key institutional stakeholders in Bulgaria, and gives an insight into what might be promising options for change.

The main interview stage revealed major challenges in relation to how existing skill anticipation efforts need to be better linked to the education sector. Subsequently, a second round of interviews was carried out. Participants in these 20 'lighter' semi-structured telephone interviews were high-ranked officials of the Council of Ministers (one from the parliamentary committee on labour policy), a representative from a higher education institution, five representatives from employers' organisations that were not involved in the first round, as well as three with regional chambers of commerce from regions with skills shortages. The remaining interviews were conducted with VET providers (three respondents), and three representatives of continuing vocational education and training (CVET) providers, as well as three representatives of local governments (two municipalities and one regional government).

([62]) As part of the project and interview phase, Cedefop and the project team followed a strict confidentiality and data protection protocol, in alignment with the EU's general data protection regulation (GDPR) directive (once it was enforced) and own institutional data protection policies before that. Therefore, it is not possible to provide in this report detailed information regarding the profile and institutions of the survey respondents.

The variety of insights gained through the 50 interviews conducted was analysed using the analytical framework introduced in Chapter 2. Some elements of the framework were explored in more detail with some interviewees, while other elements were discussed with others. Throughout the process, interviewers made sure to collect the views of multiple types of stakeholders for each of the subjects analysed in the framework, so that individual points of view could be corroborated by others. The findings are structured under the following headings, which reflect the elements of the analytical framework that have guided the work:

(a) management and control;
(b) data and methods;
(c) the role of stakeholders, in terms of cooperation, validation and stakeholder needs;
(d) the use of information (customisation and dissemination).

The findings for each of these headings are explored in more detail in Sections 4.3 to 4.5.

4.3. Improving management and control

Provisions for management and control relate to the more formal organisation of responsibilities of the various skills governance activities (see Section 2.2 for a more detailed discussion of the analytical framework used). Various suggestions were received on the distribution of responsibilities.

Respondents emphasised the importance of knowing which institution is leading and what its responsibilities are. MLSP expertise is appreciated, but there were opinions that a more holistic approach to forecasting/skills anticipation is necessary, so that it delivers LMSI with greater relevance for policy-making. Some stakeholders suggested to establish a separate State body to deal with the coordination and management of the process. MLSP expertise in skills forecasting could be used and preserved, while the LMSI is governed by a separate state body. The desirability of creating a national State body to coordinate skills anticipation, responsible for data collection that informs the setting of State admission plans, was confirmed in telephone interviews. While views diverged on what its exact role should be (coordination body, technical forecasting unit) some stakeholders suggested

NAVET could take on this role. These suggestions were further explored in the consensus-building exercise (Section 4.6).

At the same time, stakeholders see the current approach to skills governance predominantly as a 'one-way street', in which the government provides forecasts, and the private sector can use them. To move beyond such a structure, according to interviewees, it is necessary first to define common interests; based on these, common responsibilities can be agreed. The development of competence standards may bring together public and private stakeholders around a common theme, where both have a clear interest. Further developing common terms/concepts can enable institutions to 'speak one language' and increasingly interact in a meaningful way. Moreover, by better clarifying every stakeholder's rights and responsibilities, cooperation between government institutions, social partners and training providers can be better supported (Section 4.5). Some interviewees suggest that some contribution by business organisations may be beneficial, serving as a stronger incentive to align the needs of employers and other stakeholders. Almost all stakeholders agree that funding should come increasingly from national sources, instead of its current dependence on project-based ESF support, to ensure that activities are sustainable in the longer term.

For other skill anticipation activities, however, various private stakeholders suggested partially redistributing existing MLSP responsibilities to other institutions. This could allow for improvements in the collection of relevant data, increase the interaction with stakeholders and, by doing so, facilitate a more structured dialogue among stakeholders, and lead to more useful data as a result. Stakeholders feel that the current approach is dominated by the MLSP's background in unemployment policies. As a result, skills anticipation activities currently tend to be targeted towards active labour market policies and training of the labour force in line with immediate skill demands in the labour market. If, for instance, the Ministry of Economy (ME) was more involved, it could provide information on economic sectors that are expected to have the largest contribution to the GDP and for which, trained staff is and will be needed. The ME links to economic sectors seem, to some stakeholders, as the missing part of the current skills anticipation approach for the labour market.

Various interviewees suggested that the whole process of skill needs assessment and forecasting must become more efficient. The establishment of a permanently operating administrative unit was suggested; the unit would be responsible for the collection, processing and dissemination of

the results. As a minimum, this organisation could be made responsible for the coordination of the process and dissemination of some key information. While this function is currently taken up by the MLSP, some interviewees argued that the ministry's limited links with the employers/businesses hinders its capacity to do this effectively. As the MLSP focuses mainly on labour market policies and the unemployed, anticipation of future skill needs tends not to be its primary focus. A concern was also expressed regarding whether the ministry has sufficient expert capacity to develop and run skills forecasts, granted that it currently subcontracts this to external organisations. A permanent, dedicated body could also ensure more sustainable funding, if it operated under the auspices of the Council of Ministers and was regularly financed by the State budget, rather than on a project basis. Overall, stakeholders in favour stress that this should be a permanently functioning body that has the resources and is authorised to collect information from all ministries and relevant stakeholders.

The role of NAVET in skill anticipation activities is generally well appreciated by interviewees: its tripartite governance approach and its capacity for coordinating different stakeholders were praised. Some stakeholders suggest that NAVET takes a more active coordinating role, for instance with regard to the activities undertaken by MES and MLSP. However, it was also mentioned that the lack of legislative powers constrains NAVET's activities, limiting its effectiveness.

Another suggestion welcomed the involvement of the Bulgarian Small and Medium Enterprises Promotion Agency (BSMEPA). It is currently not actively involved in the process but could play a more prominent role in skill anticipation to move the balance from mapping the current unemployed to future skill anticipation.

4.4. Improving data and methods

One of the priorities of Cedefop's review, as identified by the NSC in the scoping exercise (Section 2.2) was to identify possible improvements in the existing data and methods used for skills anticipation in Bulgaria. Doing this would help defining effective solutions in response to present-day challenges in skill supply and demand on the labour market. Stakeholders agree that better use can be made of existing methods of skill anticipation. For instance, stakeholders point out that the medium- and long-term skill needs forecasts

developed by MLSP remain at the macro-level. For employers it is often difficult to apply these findings in their own context. Due to their design, the pilot/first MLSP medium- and long-term labour market forecasts were also of limited use for policy-making in the education sector. Interviewees agree that these forecasts need to become more detailed to allow for analysis by type of specialty, economic sector or geographic location, possibly also including a wider range of statistics (on salary, education level). These requirements were expected to be addressed by the second/follow-up skills forecasting project ([63]). To sustain and, where possible, improve their value in the future, stakeholders recommend regularly surveying forecast users directly. This will also require an adequate dissemination strategy, as many people interviewed during the review were unaware of MLSP medium- and long-term forecasts and how these can be used. The web-based platform ([64]), developed to present forecasts results, aims at improving dissemination in a user-friendly and more understandable way to end-users, allowing, for instance, to search and filter specific information as needed by the particular user.

The MLSP/NEA forecasts for the short and medium term are considered more relevant, but better use can be made of these as well. The respondents' suggestions to make short-term forecasts more suitable for policy purposes mirror the concerns they had when commenting on the usefulness of medium- to long-term forecasts. Encompassing much more detail (120 professions, 35 economic activities, 28 districts, four educational levels, gender, six age groups), the updated and upgraded macroeconomic model, used for the MLSP medium and long-term forecast, released in January 2019, is a step in the right direction. More detail can also be provided by better using existing data sources, tools and methods used for skills anticipation. It would be of common benefit, if a combination of the NEA data (short-term), MES (medium-term, five years) and MLSP (long-term ones), could be made; and if these could make use of a common classification system for qualifications, specifically defining whether these are at secondary or university levels of education.

In response to these limitations, at the end of 2017 the MES VET Directorate developed its own pilot forecast model, in cooperation with

([63]) According to the MLSP, the results of the second labour market forecasting project (available here) were presented and disseminated through two conferences held in March and October 2019 and two training events that aimed at raising user awareness. Representatives of stakeholders, social partners, academics and the media attended the events.

([64]) https://lmforecast.mlsp.government.bg/ [accessed 12.10.2020].

the nationally representative employers' organisations ([65]); this aimed to align admission plans better to labour market needs. The model is based on expected replacement needs within five years in each economic sector (according to the national classification of occupations and posts, NCOP) ([66]). It uses anonymised data from the National Social Security Institute, based mainly on labour contracts, and data on learners in the VET system.

At the beginning of 2018 MES prepared a list of 55 specialities with expected labour market shortages, which will be updated annually ([67]). While the list is considered a useful tool, various interviewees pointed to some key limitations: the underlying model on which it is based does not fully capture employers' recruitment needs in new or expanding sectors. Shortages are mainly determined on the basis of replacement needs. As a result, the list underestimates shortages in the ICT sector, in which most recruitment reflects employment growth and there is little replacement demand, due to its relatively young workforce. Similarly, the model has limitations in sectors with a high share of informal workers, such as agriculture.

Further improvements in the use of existing data and methods can be made by tapping the potential of combining different institutions' administrative registers. This could serve as a basis for developing new insights on the current education and qualification levels of the labour force. There are also opportunities to use sectoral information better. Currently, sectoral organisations tend to run their own surveys and analyses; longer-term plans for their sector are based on these. Organisations in sectors that face pressing shortages tend to be more active and aim to link their intelligence efforts to adjust the offer provided by professional schools, which they manage. They also draw upon data provided by the National Statistical Institute on sectoral employment, but this information is not available free of charge.

While the link with the professional schools is logically quite immediate, some stakeholders are of the opinion that their input is insufficiently reflected in MES/VET admission plans in schools. There is also no instrument to translate information about job vacancies into the language of the necessary

([65]) These are the Bulgarian Industrial Capital Association, the Association of Industrial Capital in Bulgaria, the Bulgarian Industrial Association, the Confederation of Employers and Industrialists in Bulgaria, the Bulgarian Chamber of Commerce and Industry and the Union for Economic Initiative.

([66]) www.europeandataportal.eu/data/datasets/mtsp-nkpd?locale=en [accessed 12.10.2020].

([67]) The list of specialities with expected shortage on the labour market (54 in number) was approved with Decision of the Council of Ministers on 20.6.2018, together with the list of State-protected specialities of professions (29 in number).

skills, for use by the education and training system. This could be beneficial for all stakeholders, as it would allow them to interpret better the forecasting information on skills needs generated by MLSP. Interviewees highlighted the web platform (which was being developed at the time the interviews were held), as a good step in this direction.

4.5. Strengthening the role of stakeholders in skills governance

The most pressing skills governance challenges in Bulgaria revolve around the involvement and role of stakeholders. Following the scoping exercise at the start of the project, most issues the review considered have a bearing on the role of stakeholders. Using Cedefop's analytical framework (Chapter 2), the suggestions received from interviewees to address them can be grouped under three headings:

(a) arrangements for cooperation between stakeholders;
(b) feedback and validation of results by stakeholders;
(c) integration of stakeholder needs.

4.5.1. **Cooperation arrangements**

Many interviewees had ideas on how cooperation between stakeholders in skill anticipation can be further improved. Representatives from both public and private organisations suggest the Council of Ministers' 'mechanism' should encourage more wide-ranging cooperation between stakeholders, mainly by involving, alongside ministries and government agencies, the social partners, district administrations and municipalities, and research and non-government organisations. Research and non-government organisations were identified as actors that can support government ministries and agencies in the policy-making process. Research institutions and scientific/academic organisations could contribute to and help stimulate the use of science-based approaches in skills assessment and anticipation, and, by doing so, contribute to methodological development and innovation.

Several interviewees viewed changing the acts regulating the involvement of organisations as a precondition for increasing the involvement of research organisations and academia. Increasing and formalising their contribution could also help address lack of expert capacity among stakeholders involved in skills anticipation. Lacking expertise was identified as one of the key

bottlenecks to involving and engaging stakeholders more actively in skills assessment and anticipation.

Interviewees suggest that to make labour market forecasts more relevant to, and usable for, policy-making, there is a need for stronger links between government institutions and between them and other stakeholders. This could, for instance, be achieved by increasing the involvement of non-governmental organisations, trade unions, representation of non-unionised workers from the service sector, as well as local-level administrations and stakeholders, as mentioned in Sections 3.6 and 3.7. Youth organisations were also proposed as potential stakeholders to involve. These organisations are well aware of the difficulties young people face in local labour markets and can therefore contribute to shaping skills assessment and anticipation processes with a view to making them more usable.

Bulgaria has significant regional differences in terms of unemployment, economic structure and skill needs and challenges. Some interviewees expressed a need for more detailed data at regional/local level. More detailed data would allow for insights on future skill needs in all parts of a region and would enable regional employment councils to become more involved in the admission plan-setting process. The potential role municipalities could play in coordinating the collaboration of local actors was also put forward. Regional employment councils were identified as platforms for organising such coordination.

Stakeholders viewed MyCompetence as a successful example of how such stakeholder cooperation between interested parties can be further amplified. Social partners and government institutions saw the process of setting up regional and sectoral (20) councils as good practice. The next phase of MyCompetence will add five sectors to expand the scope of the system (Section 3.6). With the MLSP assuming a coordinating role in the system, different approaches across sectors can be streamlined, increasing the potential for cross-sectoral analysis of, for example, sector-specific, transversal or emerging skills. At the same time, with MLSP rolling out the MyCompetence follow-up, stakeholders pointed to the risk of expert councils (the strong success factor from the earlier phase) becoming less central, potentially limiting the involvement of other project partners. Mobilising a sufficient variety of stakeholders is already a challenge, as usually only a small number of (larger) enterprises, with well-developed human resource management systems, realise the importance of skill needs assessments

and actively engage in them. It is important to avoid that upscaling the initiative results in more limited stakeholder involvement.

4.5.2. **Dissemination, feedback and validation**

Involving more stakeholders in skills anticipation activities is important from an inclusiveness perspective, but also to ensure valid and reliable data collection and analysis. Some interviewees emphasise the importance of employer involvement in skill anticipation initiatives; however, they had diverse views on their more exact role. These included the need to involve individual employers, and not only their umbrella organisations, as the latter may know little of the realities 'in the front line'. Although their response rate was insufficient for more general conclusions, the three employer surveys on skill needs run by NEA in 2018 and 2019 were seen as good attempts. The survey response rate increased over time but remained low, due to the technical phrasing of the questions and the use of the national classification of occupations, which employers may find hard to relate to. Apart from ensuring data collection methods are better aligned to respondents' needs, more must be done to involve employers in setting admission plans via attractive and suitable channels. It was suggested to set up an online platform to help employers more easily and directly communicate their skill needs to education stakeholders. This platform could function at national or local level and would help shed more light on how individual employers assess their short- and longer-term skill needs.

The platform could also help in reaching out to individual employers. It could be used to disseminate the good practices and success stories of larger enterprises and offer more user-friendly and tailored information. It could also include insights into how to interpret the outcomes of skill anticipation and their possible implications for business activities.

The lack of feedback loops was also highlighted: although the MLSP forecast results are publicly available, there is no clear mechanism for their verification nor for providing follow-up to the stakeholders concerned. This shortcoming was often linked to the project-based approach to developing forecasts, which relies on external subcontractors. Stakeholders are also not included in the development of forecast publications. At the time of the interviews, MLSP had not yet launched the new web portal. Interviewees had highlighted the role of the platform in facilitating two-way communication and stakeholder engagement. This could be complemented with sectoral or

regional roundtables or discussion workshops, where stakeholders are given the opportunity to verify and follow-up on forecast findings.

The need to involve more stakeholders is also considered relevant to strengthening dissemination of skills anticipation results to a wider audience. It was highlighted that results of skill forecasts and anticipation mechanisms are currently insufficiently – if at all – presented in an easy-to-read form.

4.5.3. **Integration of stakeholder needs: local level**

A third issue relates to the usefulness of skill anticipation activities to key stakeholders and the extent to which the results are actually used. Lack of attention to local stakeholder needs and their limited representation were the issues most often-mentioned as underlying these challenges. It was suggested local authorities are given a more prominent role in skills governance. Local authorities can be more involved in the process of setting local admission plans, in close collaboration with local employers and heads of vocational secondary schools. Their strong connections at local level would allow them to aid stakeholder participation in skill anticipation.

Such increased collaboration at the local level could also be made more effective through greater inclusion of local employer representatives. Currently, the national employers'/branch organisations are the primary point of interaction, which results in overly formalised cooperation in vocational education and training. According to some interviewees, this reduces the effectiveness of such cooperation, particularly at local level. The potential for wider involvement of local administrations in skill anticipation was explored in the online survey among municipalities as part of the review (Chapter 5). Nationally represented employers' organisations are members of the VET consultative council (VETCC, *Консултативен съвет по професионално образование и обучение*) and the Resource Working Group (*Ресурсна група*) that supports the work of the council. Employers are actively involved in all processes, including rules for admission plan design and VET development priorities. The VETCC was established in November 2018 and meets every two months; the Resource Working Group meets monthly.

For a better grasp of regional needs and developments, it was also suggested national line ministries (such as the Ministry of Agriculture and the Ministry of Tourism) are more actively involved in the employment committees, which have an important role at the regional governance level. These line ministries could participate where relevant, depending on the economic profile of each region.

Stakeholders also indicated they see current involvement of employers in local skill anticipation policies as insufficient. Interviewed stakeholders indicated that MLSP and NEA have only a limited reach to explore local skill needs through the local labour directorates. Increased involvement of local employers could help them in moving beyond their traditional priorities of supporting the unemployed and inactive people; these are not easily matched to labour market shortages. Stakeholders pointed out the importance of employer organisations supporting this process. Some that participate in local tripartite cooperation bodies indicate that employer organisations do not always actively participate. According to some interviewees, the practice of a single person representing multiple employer organisations also has a negative impact on the effectiveness of local cooperation.

Municipal administrations could possibly take a more active role in coordinating collaboration between employers, schools and local labour offices, which could stimulate relevant data collection and sharing (Chapter 5). The CVET centres, which offer training organised by the sectoral chambers, are of particular relevance from this perspective. Their involvement is important, because these institutions tend to be better aware of skill-relevant surveys and analysis conducted by employer/branch organisations than formal education providers. The review showed both types of providers are aware of additional efforts made by employers to collect more data. CVET centres (run by employers) are more specifically aligned to skill anticipation efforts by employers and can more directly adjust their programme offer to the outcomes of regular skill needs mapping exercises. While formal education providers (vocational schools and universities) mainly depend on the admission plans to align education to labour market needs, some employer surveys are used as input to local admission plans, but on an ad hoc basis. Regularly assessing the needs of local employers for the next five years can help reinforce local admission plans with evidence and improve the match between training provision and local skill demands.

Stakeholders commonly identified the lack of financial resources at the local level as a substantial limitation of the more active engagement of the regional and local administrations. Resources tend to be distributed centrally, and do not reach the necessary local level.

4.6. Use of information: customisation and dissemination

Respondents representing many different types of organisations shared the opinion that the outcomes of the labour market skills forecasts are currently insufficiently used for the purposes of education planning. The need for cooperation between MLSP and MES to improve this was highlighted, particularly on how forecasts results can be translated to the language of the education system and used adequately in developing admission plans, education plans and for programme development. The need to feed admission plans with (more) detailed skills intelligence was a recurring theme in many stakeholder interviews. Concerns were expressed about the extent to which current skills shortages are reflected in admission plans. Addressing this demands strengthening links with updated and relevant skills intelligence. Stepping up the contribution to, and overall involvement of employers in, skills anticipation, along with appropriate data collection methods, were often seen as key factors in developing higher-quality skills intelligence and better admission plans.

Stakeholders interviewed also suggest a revision of the existing system of 'delegated budgets', in which schools are financed on a *per capita* basis. Most of them argued it incentivises schools to attract as many students as possible, regardless of programme type and whether it produces graduates with skills that are needed by the labour market. Data on the education-to-work transition (graduate tracking) could be used more extensively to inform education programmes. More widely available information on graduates' employability (not only for the educational institution and accreditation authority, but also, for instance, for students and their parents), could help prevent skills mismatches.

According to interviewees, key factors limiting the use of skills forecasts by the world of education and beyond are poor dissemination and insufficient customisation to user needs. So far, skills forecast results have been presented as lengthy academic documents, uploaded on the MLSP website. The new web portal under development by MLSP (Section 4.5) could be a platform for improving dissemination. Along with expanding employers' access to the results/LMSI, better and more user-centred dissemination can also be a means to motivate their broader participation in skills anticipation. Interviewees emphasised that efforts to encourage the participation of

employers tend to be more effective than imposing obligations to reach a certain objective.

Interviewees also mentioned the benefits of engaging with national and regional media, as relevant stakeholders, since these could actively support the dissemination of information on current and future skills needs among end users; as some interviewees stressed, end users are the ones that skills information should be actually intended for. The media could also promote information on developments in education and training choices, particularly regarding the new dual form of education.

One of the ways to improve the use of skills intelligence could entail making it suitable for developing more elaborate and targeted career guidance, relevant not only to counsellors in VET, but also to sectors with skill shortages or skill gaps. Along with admission plans, interviewees viewed improving career guidance as a key lever for better steering skills supply in the country. Better use of skills intelligence both demands and enhances collaboration between schools and employers. It was suggested that this collaboration could be improved by an approach such as the once planned mechanism for promoting VET. The mechanism had been planned by the MES regarding guidance and counselling in schools for grades V-VII. It was not put in place in the end but was replaced by decentralised activities at school level ([68]). Another potentially good practice in closer cooperation was that between the Sofia Municipality and the Sofia Privatisation Agency. This resulted in an online platform prototype launched in 2018, which was supposed to develop a comprehensive overview of the education programmes offered in the city (HEI and secondary education) and ask employers to indicate which graduates they would be most interested to hire ([69]).

While admission plans should be perhaps the key recipients of LMSI, according to interviewees the plans do not stimulate learners to choose programmes providing training for jobs in sectors (and regions); while there are many vacancies, they are of little interest. From this perspective, information campaigns for learners, highlighting key results of skills anticipation/assessment activities, can play an important role.

Several stakeholders recognised the potential of targeting the population at large, as LMSI users and beneficiaries. Apart from benefiting from it,

([68]) At the same time, a portal for career guidance, created within an already finalised ESF project was re-established and will be maintained: https://orientirane.mon.bg/ [accessed 12.10.2020].
([69]) Until early October 2020, this platform was not operating.

broad dissemination would also make end users become more aware of the importance and use of skills anticipation/assessment exercises. Several interviewees suggested organising broad awareness campaigns, in which schools and employers together could support students making informed career choices. National and regional/local level media could be engaged to support and promote these events. Websites, social media campaigns, 'open-door' days at school and enterprises can be used to disseminate more widely information on current and future skill needs and education and training options, including the new dual form of education.

4.7. Summary

The interviews held with national and regional level stakeholders in Bulgaria provided Cedefop with valuable insights of what were perceived as the key skills governance challenges. Stakeholders also suggested a range of possibilities for improving skills governance in the country. It was evident that the use of LMSI, stemming from skills anticipation/assessment activities to inform admission plans, and the development or upgrade of VET programmes, was a key priority for stakeholders.

Building on the interview findings and keeping in mind the priorities identified by the NSC in the scoping exercise at the outset of the review, Cedefop agreed with the NSC three key areas where the consensus-building exercise should focus. Possible policy responses to address the challenges these areas represent were also defined and agreed, which shaped the first CBE round. Selecting key issues and possible policy responses was essential to structure the CBE and work towards a policy roadmap for action. The selection made does not necessarily cover all conceivable possible policy responses, nor does it claim to have definitive solutions to the challenges identified. Stakeholder views and suggestions were used to focus on realistic short- and medium-term policy responses that involve concrete stakeholder involvement.

These areas were:

(a) management and coordination of skills anticipation efforts:
    (i) challenges identified: management and coordination of existing skill anticipation practices do not sufficiently involve education and labour market actors. There is limited sectoral/local involvement in skills anticipation processes, which take a predominantly top-down approach;

(ii) possible policy responses:
- update, upgrade and expand the wider legal framework governing skills anticipation and matching (for example reform of the 2013 CoM Mechanism, other relevant guidelines/legal regulations);
- moving towards setting up a national agency/authority as the leading actor for skills anticipation (which could be responsible for coordination of activities, facilitating interactions, improving links between ministries and other tripartite partners, monitoring and evaluation of results);
- designate an existing agency/authority to become the leading actor in skills anticipation (coordination of activities, facilitating interactions improving link between ministries and other tripartite partners, monitoring and evaluation of results);
- concentrate on improving regional/local structure functions to coordinate stakeholder involvement in skills anticipation at different levels of government;
- strengthen the role of employers/their representatives in the skills anticipation process;

(b) increasing the usefulness of existing skills anticipation tools:

(i) challenge identified: limited value of existing skill forecasts for public and private stakeholders (methodological challenges, such as differences in scope, terminology, time path, complexity; lack of customised dissemination and accessible results);

(ii) possible policy responses:
- optimising data collection by collecting inputs on labour market needs from a wider range of stakeholders (sectoral organisations, SMEs, others);
- focus on methodological improvements (for example data collection approaches, linking data sources; time horizon and breakdowns of forecasts) that are better tailored to stakeholder needs (for example for education policies);
- increase involvement of external experts (academia, research organisations) in validating methods and findings;
- develop a dissemination strategy to make skills anticipation outputs better tailored to stakeholder needs (employers, education providers and citizens);

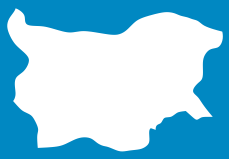
(c) better linking skills intelligence to education and training:
  (i) challenge identified: skills intelligence insights are not systematically applied to the design and implementation of education and training policies;
  (ii) possible policy responses:
    - additional data collection focused on informing (policies for) education sector (such as graduate tracking, medium-term forecasts) and employers in making training/HR decisions;
    - define the use of existing skills intelligence in education and training policies (setting admission plans, programme development, curricula update, apprenticeships, active labour market policies (ALMPs), adult training, including on-the-job training);
    - better use of skills intelligence in the provision of career guidance (in terms of providing counsellors with labour market information);
    - encourage additional interaction between education providers and companies.

Figure 10.

Bulgaria

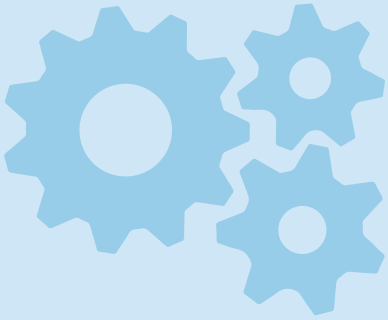
Strengthening skills governance

Based on stakeholders 'suggestions



KEY SKILLS GOVERNANCE CHALLENGES

- Skill shortages
- World´s highest population decline rate (2015–50)
- Skills anticipation methods & tools
  - ✓ Not coordinated
  - ✓ Cannot fully serve multiple policy needs



USE OF SKILLS INTELLIGENCE

Inform VET admission plans

- Influence the number of students to study fields/ programmes with future skills needs
- Set the learning outcomes of qualifications, defining VET curricula

Define VET programmes´ content

- Support students in programme selection relevant to future skill needs

Career guidance

- include all relevant stakeholders
- Improve data and information collection relevant to guidance
- Support regional realities and information needs

ACTIVE ROLE OF

- Ministry of Education
- Ministry of Labour
- Public employment service (NEA)
- NAVET
- Ministry of Economy
- VET providers
- Branch organisations
- National representatives of employers´organisations
- Experts/scientific organisations

CHAPTER 5.

Strengthening skills governance at local level

5.1. Introduction

Findings presented in Chapter 4 are largely based on the views of a wide range of stakeholders involved in skills governance at national level. Interviewees frequently suggested there is a need for more involvement of local actors and greater integration of their expertise at local level. An online survey among municipalities was conducted in February to March 2019 to understand better how local actors are currently interacting with national stakeholders and using skills intelligence ([70]). It collected views about how skill demand in Bulgaria might be more effectively met in the future, from the perspective of staff responsible for labour market and education policies in municipalities ([71]).

Local policy-makers share responsibility for VET planning within the municipality, contributing to policies to reduce skill shortages and support the vocational orientation of pupils/students and of the unemployed. Local authorities manage the municipal budget, on approval of national authorities: this includes the financial resources for organising vocational education and the funds for VET, which is part of active labour market measures. Interviewees were of the opinion that the municipalities (265 in total) rarely have adequate budgets and leeway to intervene efficiently. As branches of central government structures, regional and local actors mainly implement policy. They play a role in the provision of data and information at that level but have no decisive role in decision-making. Stakeholders interviewed

([70]) The results, presented in Chapter 5, concern the point of view of the responding municipalities and should not be used as statistical outcomes. They can offer useful indications on the challenges that municipalities face and the possible ways that they can be further supported in tackling skill mismatches at local level. More information on the methodology followed can be found in Annex 2.

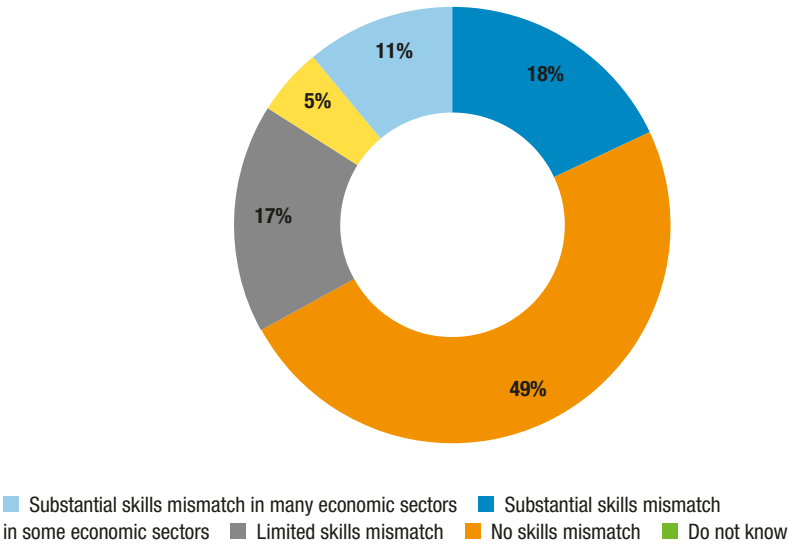
([71]) Where a municipality did not have staff responsible for this policy area, mayors were requested to respond themselves. More methodological information on the survey can be found in Annex 2.

pointed to the potential for more active and effective involvement of local authorities in discussions around skills mismatch/shortages. Their role in policy-making can be strengthened in several ways, as municipalities already have connections with all local stakeholders, allowing them to facilitate the participation of local stakeholders in the process of skills anticipation.

5.2. Extent of skill mismatch

The online survey showed the importance of prioritising skills governance, since substantial skill mismatch in many or some economic sectors is reported by two thirds of the municipalities. Substantial skill mismatch in many economic sectors is reported by almost one fifth (18.6%) of municipalities. Another 49.1% report substantial skill mismatch in some economic sectors. Small municipalities are more likely to report substantial skill mismatch in many sectors, while mismatch in some economic sectors appears to be more likely in large municipalities. A relatively large share of municipalities reporting limited skill mismatch is medium-sized.

Figure 11. **Assessment of extent of skill mismatch at municipal level**

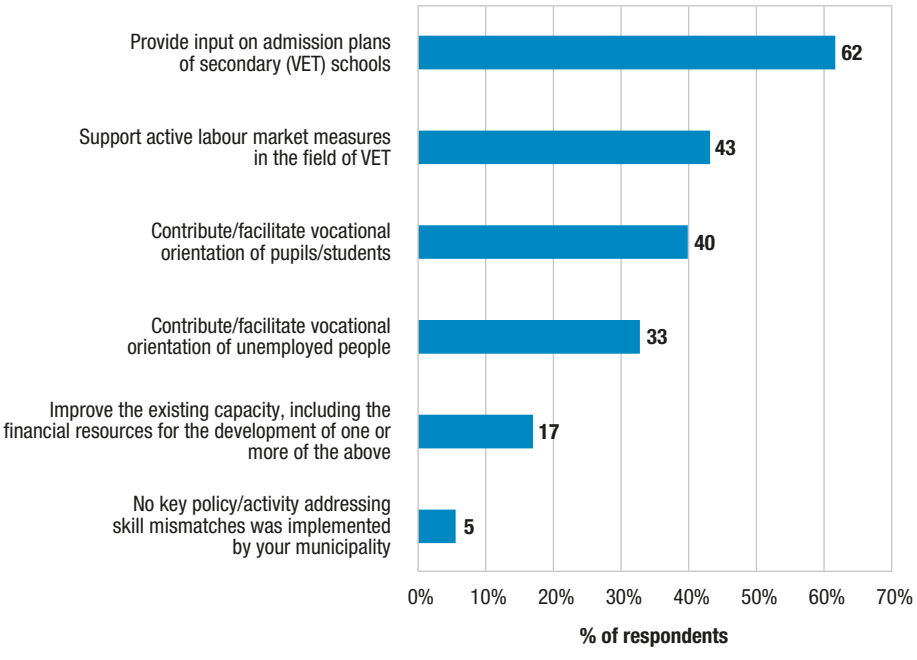


Source: Cedefop online survey among Bulgarian municipalities.

5.3. Activities at local level to counter skill mismatch

To understand possible solutions and involvement at local level better, respondents were asked to select the activities they already undertook in response to the skill mismatches they encountered (Figure 12). The most popular activity is to provide inputs on admission plans of secondary VET schools (62% of the municipalities). Supporting active labour market measures in VET (43%) and aiding the vocational orientation of students (40%) are other common responses to skills mismatch. Municipalities with substantial mismatch in some economic sectors and those with limited mismatch seem to be the most active in terms of implementing some or several of these policies, projects or activities. Municipalities reporting limited mismatch appear to be more likely to aid the vocational orientation of the unemployed. Only one in every 20 municipalities indicated not having undertaken any policies and activities to address skill mismatch.

Figure 12. **Activities undertaken by municipalities to combat skill mismatch**



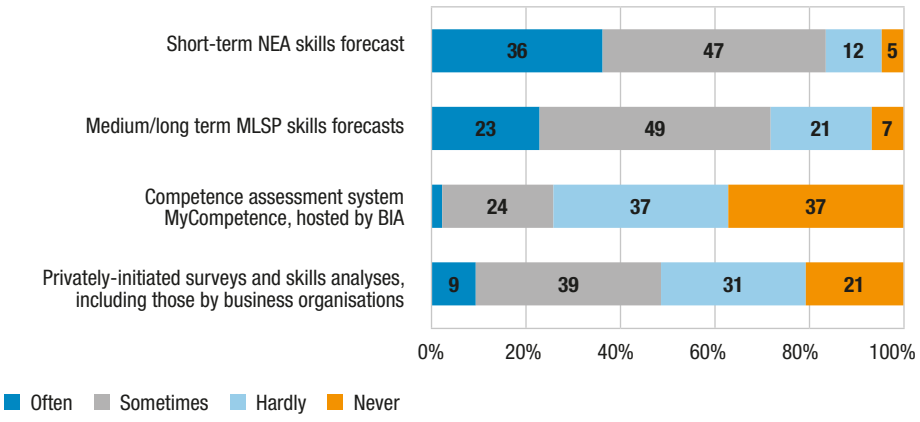
Source: Cedefop online survey among Bulgarian municipalities.

An open question was included on actions to reduce skill mismatch beyond the measures suggested in Figure 12. Responses were similar, with most municipalities emphasising that local shortages or mismatches can be tackled by providing specific courses, qualifications or pathways. Supporting the unemployed, or retraining workers at risk of losing adequate employment through VET, or activation in the context of ALMPs, were also commonly mentioned. The emphasis is on gearing education and training towards the skills the labour market needs. Dual training was mentioned several times in this context. Some municipalities suggested measures to inform learners about labour market needs and trends. This included guidance and counselling for students, information meetings for parents, schools, and employers, and more general approaches, such as better linking of businesses with education institutions or providing insights into regional labour market issues to stakeholders.

5.4. Use of labour market and skills intelligence

To understand how skills governance currently functions at local level, it is important to be aware of the LMSI municipalities use to underpin their efforts. The sources used at national level, often mentioned in the scoping exercise and during stakeholder interviews, also prove relevant at local level.

Figure 13. **LMSI use by municipalities**



Source: Cedefop online survey among Bulgarian municipalities.

The most often-used type of skills intelligence is the short-term NEA skills forecast, used often by 36% and occasionally by 47% of municipalities (Figure 13). About a quarter (23%) used MLSP skill forecasts often, while 49% sometimes used the forecasts. Privately initiated surveys or skills analyses were used much less, with the vast majority of municipalities reporting they only use them occasionally or not at all. MyCompetence, the competence assessment system developed by BIA, is reportedly used least often. About one quarter of municipalities used it sometimes, occasional use was reported by 37% and a similar share reported it had never used it.

Skills intelligence is most commonly used as input for admission plans for secondary VET schools (reported by 64% of municipalities). Second and third place LMSI use includes activities to support the vocational orientation of the unemployed (43%) and the general vocational orientation of pupils (42%). Skills intelligence is also used to inform active labour market policies at municipal level (34%). In a minority of municipalities (16%), LMSI helps improve internal capacity to tackle skill mismatch: to decide on staff allocation/expansion in particular policy areas; to shape or set priorities for expert training and development; or to justify requests for additional national funding needed to implement such actions.

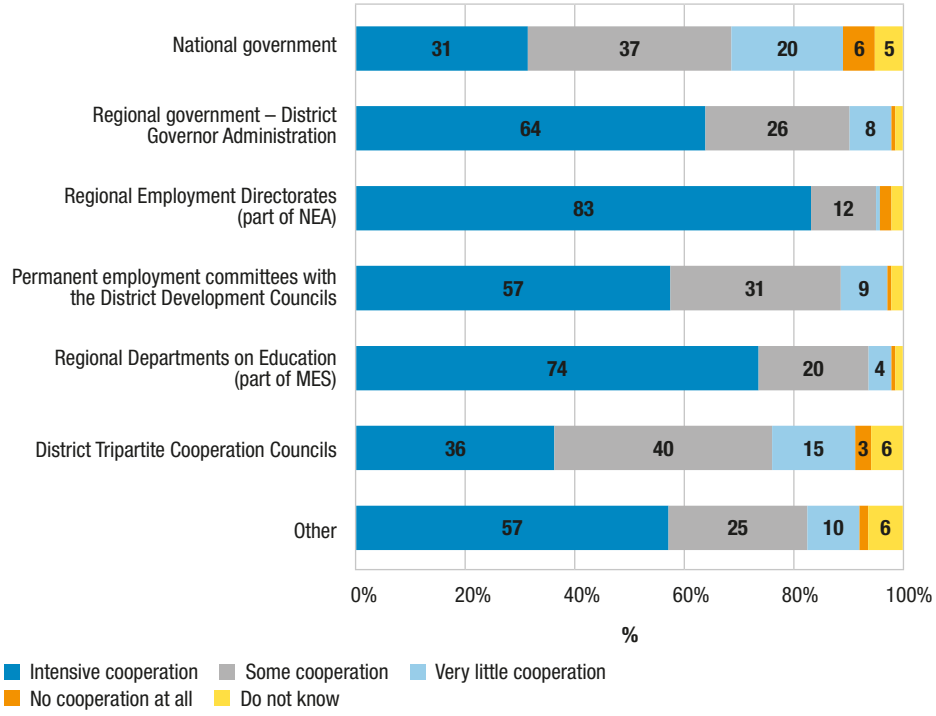
The municipal policy officers and mayors responding to the survey were asked to indicate what type of information and data would be needed at municipal level to tackle skill mismatch better. The most requested improvement was regional (preferably municipal) breakdowns of existing data and analysis. Many respondents also saw a need for more detailed breakdowns, focusing on sectors of importance in their region. Such information would help them better map the local labour market situation in terms of skills demand and supply. A minority of municipalities indicated they use the LMSI currently available. This implies they consider it sufficient or assume no other data can be provided additional to that they already use.

Some municipalities mention that they would benefit from reports and analyses from various stakeholders, such as NEA and branch organisations; others suggested more demographic information that could assist in education planning and facilitate an understanding of future labour market imbalances, as well as LMSI broken down to sectoral, regional and local level. There were municipalities that reportedly already take an active role in gathering their own information through meetings, especially with representatives of businesses or business associations.

5.5. Cooperation with stakeholders

Municipalities cooperate extensively with stakeholders on skills anticipation (Figure 14). With 83% of municipalities reporting intensive, and 12% some, cooperation, regional employment directorates are the most common cooperation partners. Most municipalities also cooperate with regional departments of education (74% intensive and 20% some cooperation) and regional government or district governor administrations (64% intensive, 26% some). Cooperation with district tripartite cooperation councils ([72]) appears much less intensive and 26% have had no or very little cooperation with the national government.

Figure 14. **Cooperation between municipalities and stakeholders in skills anticipation**

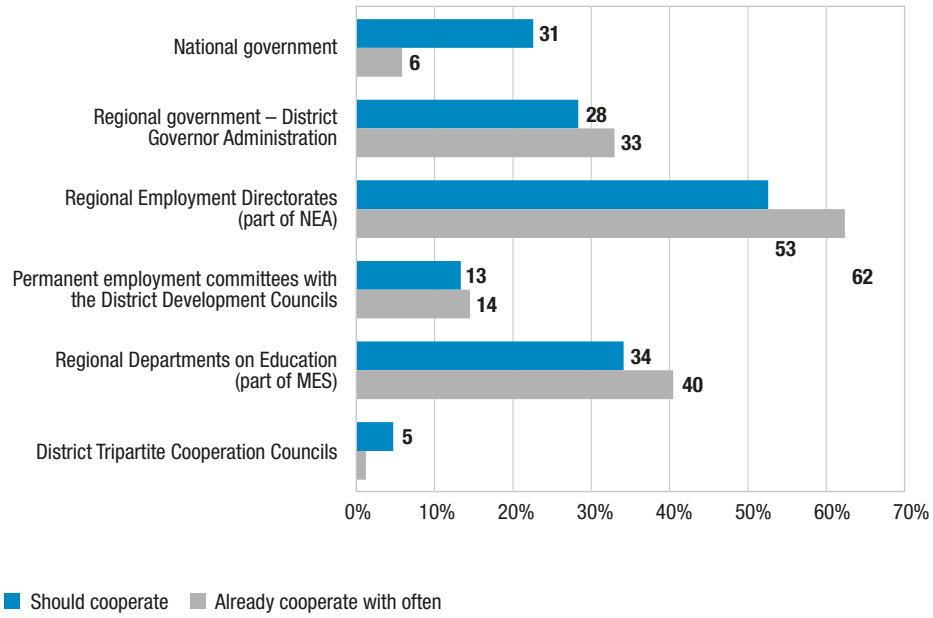


Source: Cedefop online survey among Bulgarian municipalities.

([72]) Councils for tripartite cooperation discussing issues of the municipality.

Respondents were asked to indicate which institutions they cooperated with most often, and with which institutions they think it would be important to strengthen cooperation to develop effective policies targeting skill mismatch (Figure 15). These two dimensions (current practice and perceived as desirable) are strongly related: the share of municipalities reporting cooperation as part of current practice is slightly above the share that sees it as desirable. Cooperation with the national government is the exception: only 6% reported cooperation as part of current practice, while 23% would find such cooperation useful.

Figure 15. **Municipalities' cooperation with stakeholders to develop skill mismatch policies: current practice versus perceived usefulness**



Source: Cedefop online survey among Bulgarian municipalities.

Municipalities were also asked to characterise the intensity of cooperation between their own administration and local actors (social partners, secondary vocational schools, and centres for vocational training providing VET for adults) and between employers and training providers. They characterised the cooperation between municipalities and secondary vocational schools as most developed. Some 70% reported very intensive cooperation, 18% some cooperation, while only 10% thought there was little or no cooperation at all. Cooperating with social partners also appears well developed, with 49% reporting strong and 39% reporting some cooperation. Cooperation with vocational training centres ([73]) is perceived as weak: only 14% reported intensive cooperation, 34% some, while 40% report little or no cooperation at all.

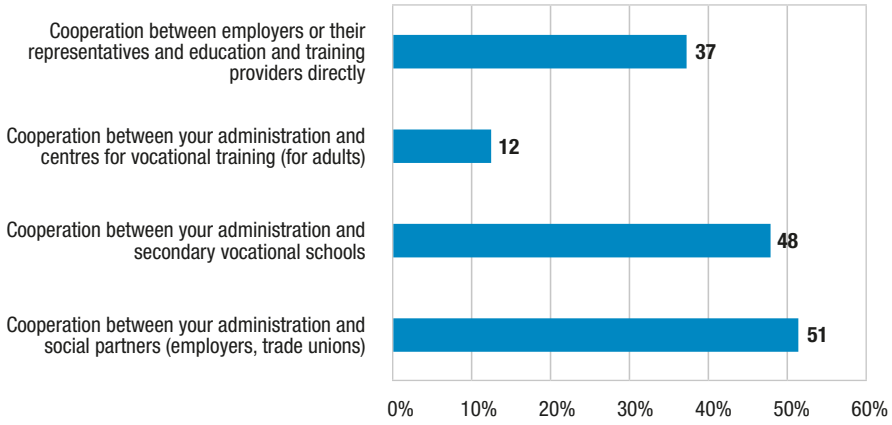
5.6. Strengthening cooperation arrangements

To provide insight into how local skills governance could be strengthened to reduce skill mismatches, respondents were asked to consider existing cooperation arrangements between municipalities and regional and national stakeholders, and to provide suggestions on what types of (additional) cooperation should be prioritised. Prioritising cooperation with social partners (51%) and secondary VET schools (48%) was seen as most important (Figure 16). Municipalities tend to justify their choices by referring to the need to receive essential and up-to-date information, and their perceived role in bringing together various stakeholders in the process.

Collaboration with secondary VET schools is emphasised because of their role in laying the groundwork for future skills, but also because of the moderating function municipalities see them having in aligning the local VET offer to regional labour market needs. While only 12% of municipalities prioritised cooperation with VET centres for adults, those that did so explained their choice was driven by the desire to ensure retraining and new skills taught to adults matches regional needs. Direct cooperation between employers and education and training providers is also considered beneficial for improving employer estimations of future skill needs.

([73]) Vocational training centres are adult training institutions, see Cedefop, 2018a.

Figure 16. **Prioritised cooperation to tackle skill mismatch**



Source: Cedefop online survey among Bulgarian municipalities.

5.7. Conclusions

The online survey provided rich insights into municipalities' use of LMSI, collaboration with national, regional and local stakeholders, and their priorities, aspirations and challenges. The key finding is that more than two-thirds of the municipalities reported substantial skill mismatch in all or at least in some economic sectors, showing that skill mismatch is a key concern also at local level. The activities that are put in place to counteract local skill mismatches are manifold; most prominent are working with VET schools on targeted admission plans, but so are supporting active labour market measures in VET or trying to contribute to the vocational orientation of pupils.

The survey also confirms data availability bottlenecks and shortcomings and shows that this crucial issue for skills anticipation at national level has important local-level consequences. Municipalities scramble to use whatever exists, relying on short-term NEA skills forecast and the MLSP forecasts. They attempt to extract the most relevant data from these sources but would need more detailed sectoral or regional breakdowns to make them more useful for their work.

Municipalities find cooperation with regional employment directorates most useful. More than half of the municipalities actively engage in such

cooperation. While cooperation with the regional departments on education and with the regional government is also common, links with the national government on skills anticipation appear far less developed.

Prioritisation in tackling skill mismatch should start, according to the municipalities, with strengthening cooperation between the municipalities and the social partners and/or the cooperation between municipalities and secondary VET schools. Municipalities also see direct cooperation between business or employer representatives and training providers as a priority in tackling skill mismatch. Few see much gain in prioritising cooperation with vocational training centres, preferring adult retraining as a better avenue to address skills mismatch.

CHAPTER 6.

Consensus-building exercise

6.1. Consensus-building exercise

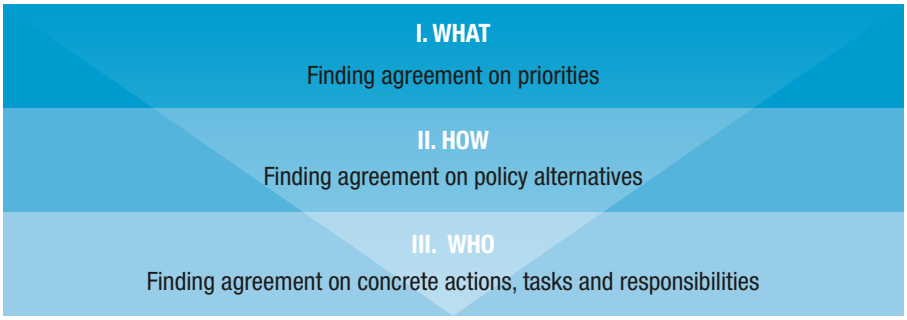
To transform the main issues identified during the previous rounds of the country review into a meaningful policy roadmap, it is necessary to narrow down their scope, develop more concrete and actionable policy alternatives and agree on the role of different stakeholders in implementing them. As detailed in Chapter 2, a selection of stakeholders was brought together to take part in the consensus-building exercise ([74]). The CBE provided a platform to exchange views on preferred steps, strategies and potential policy changes required to converge to a national policy roadmap that could strengthen the national skills governance system. The goal of the CBE was to identify more specific priorities and actions that might be reasonably undertaken over the short- to medium-term, taking into consideration the state of play and existing resources in Bulgaria.

This process was managed through an online Delphi method, in which a questionnaire, with closed and open questions, was distributed among stakeholders in three rounds. Each round narrowed down the findings from the previous one to arrive at a sufficiently focused and action-oriented national policy roadmap that reflected possible tangible actions supported by stakeholders. The outcome of each round is discussed in Chapter 6, while the roadmap is presented in Chapter 7.

The first round served to agree on the main priorities, setting the stage for the remainder of the exercise. The second round was used to gather detailed stakeholder views on different options to address the main areas prioritised in the first round. Round three aimed at finding agreement on how these should be implemented and on the roles and responsibilities of different actors. At the end of the exercise, consensus was obtained on those issues where action could be taken – and not resisted – over the short- to medium-term (Figure 17).

([74]) For more information on the methodology, see Annex 2.

Figure 17. **Overview of the consensus-building exercise rounds**



Source: Cedefop.

In addition to the scoping exercise, priorities and the findings identified in the various stages of the country review, the views from municipal stakeholders collected in the online survey (reported in Chapter 5) were also taken into consideration in the final round of the exercise.

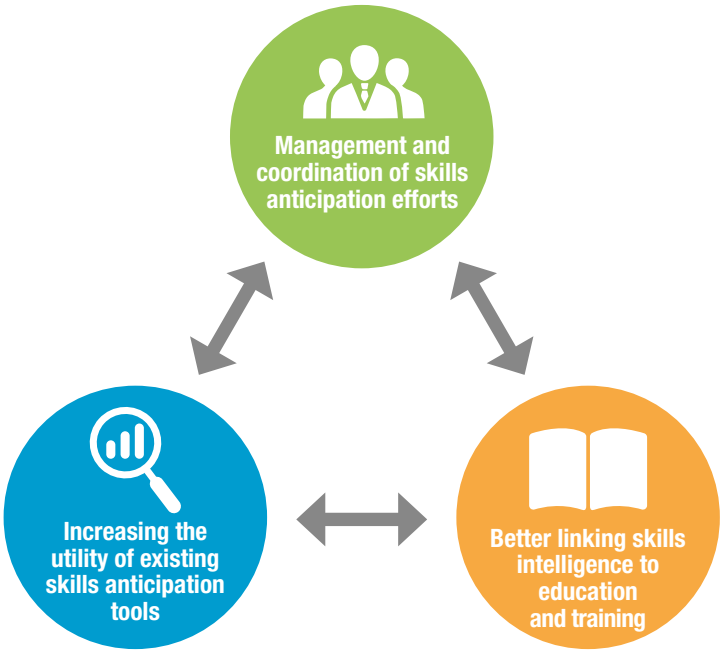
6.2. Priorities from the consensus-building exercise

6.2.1. **First round: finding agreement on priorities**

In the first round of the CBE, the three priority areas agreed with the NSC (Section 4.7) were addressed (Figure 18). The aim was to identify participants' views on the policy responses and actions that should be prioritised. Given that the CBE focused on gathering respondents' views on possible practical and tangible actions, they were also asked to assess the likeliness of key stakeholders' agreement over each of the suggested policy responses.

In the management and coordination of skill anticipation and matching, participants stressed their desire for relatively small and practical improvements (Figure 19). Such improvements would require a clear coordinating actor, to ensure that all stakeholders do their part. Respondents indicated that they would prefer to designate an existing institution to take on a coordinating role rather than setting up a new organisation. Some participants recommended NAVET could be considered, despite its constraints in terms of financial and human resources, as it already has considerable experience in coordinating interests and demands from a variety of stakeholders through

Figure 18. **The three priority areas addressed in the first CBE round**



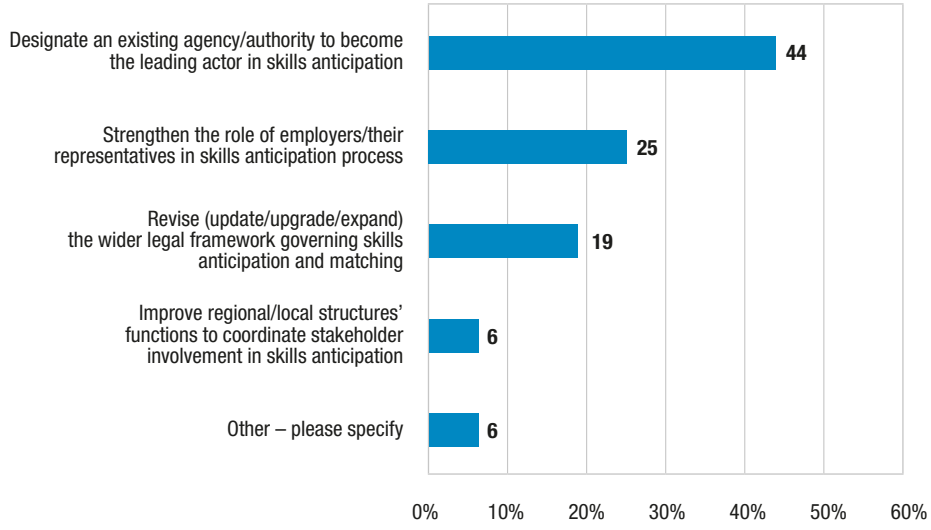
Source: Cedefop.

its tripartite management board. Support for the design of new ambitious legal frameworks was limited.

Respondents viewed as a second priority strengthening the role of employers, possibly in combination with the designation of an agency to improve coordination. The establishment of comprehensive skills governance structures at regional or local level did not receive much support from respondents.

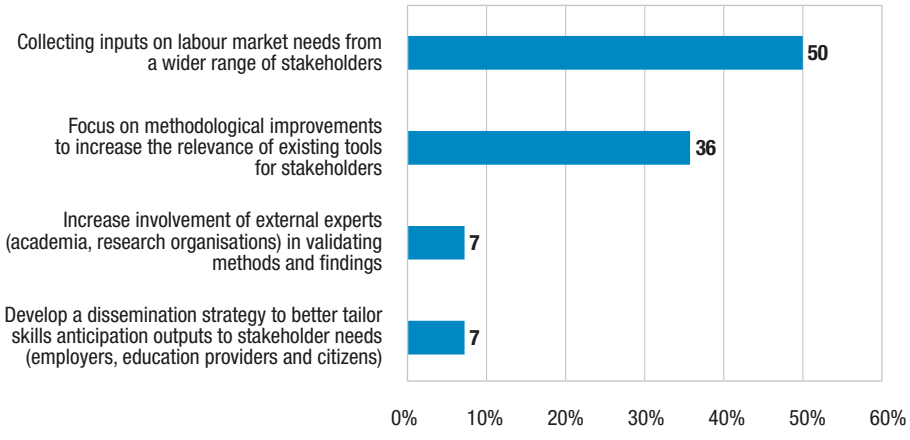
To increase the utility of existing skills anticipation tools, respondents clearly prioritised improving the collection of inputs on labour market needs. This is considered an important prerequisite to improving the overall usefulness of skill anticipation tools and includes a need to improve the methodology to increase the relevance of existing tools for stakeholders. Actions could involve improving the completeness and quality of information on employer skill needs or better aligning the different time horizons and classifications in use.

Figure 19. **Strengthening management and coordination: which of the following policy responses would you prioritise?**



Source: Cedefop skills governance country review, CBE, round 1.

Figure 20. **Increasing the utility of existing skills anticipation tools: which of the following policy responses would you prioritise?**

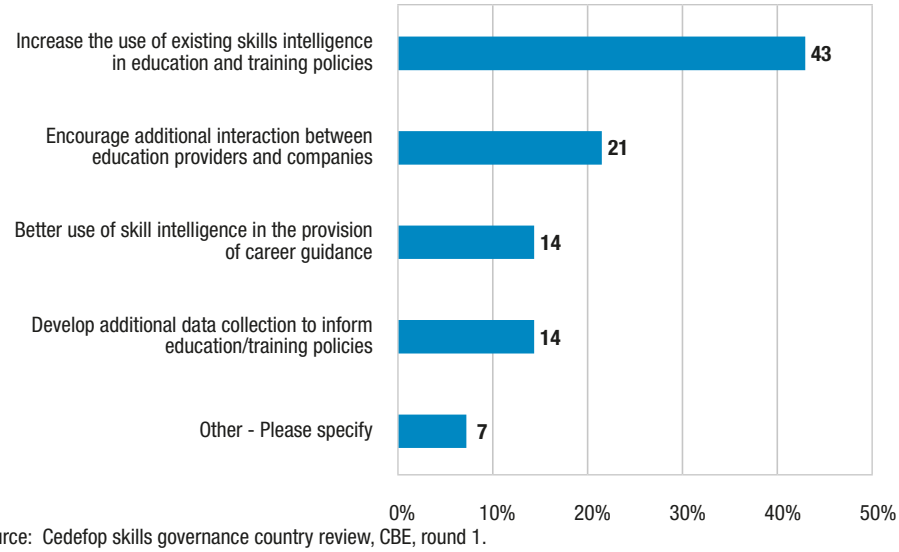


Source: Cedefop skills governance country review, CBE, round 1.

When asked to reflect on how to link skills intelligence better to education and training, participants viewed increasing the use of existing skills intelligence in the latter as their main priority. This option was also the one where perceived agreement among stakeholders is highest. The main suggested focus for forging closer links between LMSI and education and training is strengthening cooperation between stakeholders. It is important to point out this will also contribute to improving the management/coordination of skills anticipation and matching activities, the first priority area addressed in the CBE.

Some participants commented that improving data collection and methodologies used in skills anticipation can increase and strengthen the use of existing skills intelligence in admission plans and development of VET programmes and curricula.

Figure 21. **Better linking skills intelligence to education and training: which of the following policy responses would you prioritise?**



Source: Cedefop skills governance country review, CBE, round 1.

6.2.2. **Second round: finding agreement on policy alternatives**

The first-round results highlighted the importance of considering management and coordination of skill anticipation as a transversal priority, as it directly or indirectly links to all three areas explored. Suggestions received for the two other areas addressed in the first round (increasing the utility of skills anticipation tools and improving the link between LMSI and education and training), helped formulate more specific actions. These priority areas were considered jointly in shaping the second CBE round to help in reaching a policy roadmap with targeted and tangible suggestions. Better linking skills intelligence to education and training was explored from the perspective of the three most often mentioned applications of skill anticipation tools. Suggestions for improvement of skill anticipation in the short and longer term were collected:

(a) in admission plans for VET schools;
(b) for planning the contents of VET programmes;
(c) in career guidance.

These application areas had repeatedly surfaced as in need of improvement in previous steps of the country review. They also encompass three key stages where LMSI is essential:

(a) helping learners select careers;
(b) defining the skills they learn in education;
(c) helping them to apply the newly acquired skills in sustainable employment.

Figure 22. **Topics addressed in CBE round 2**

Better linking skills intelligence to education and training	Management and coordination
Through making better use of skills intelligence in: • VET admission plans • content of VET programmes • career guidance	• Exploring practical improvements • Reconsider allocation of reponsibilties among stakeholders

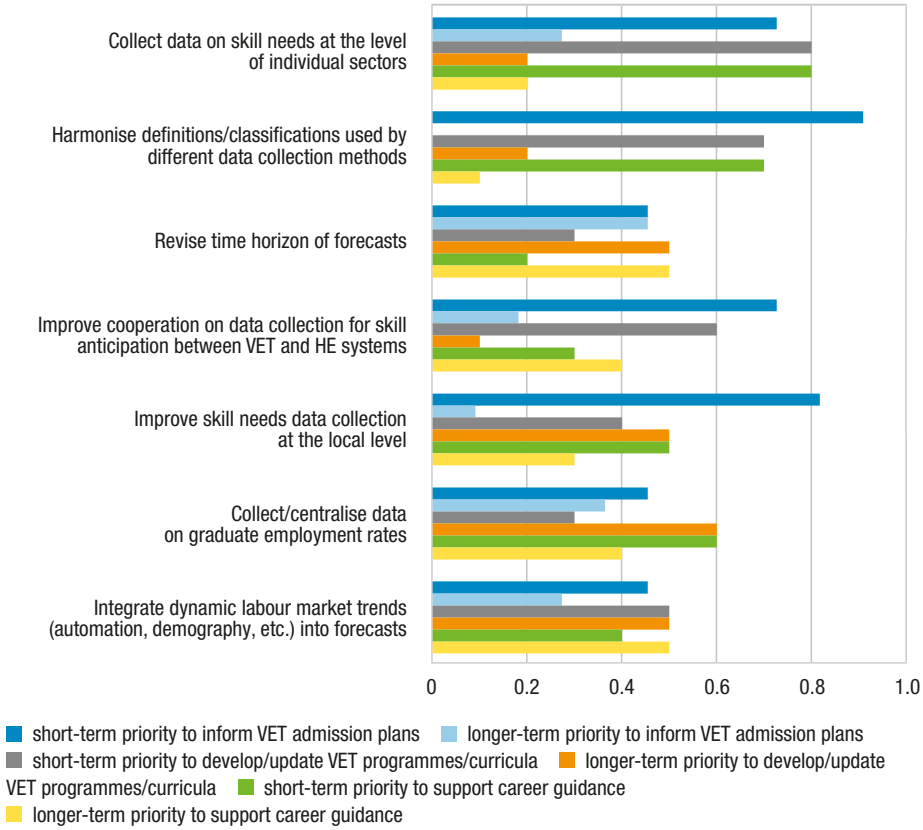
Source: Cedefop skills governance country review, CBE, round 2.

6.2.2.1. Making better use of LMSI to strengthen VET planning and guidance

Although respondents were asked separate questions on VET admission plans and the content of VET programmes, suggestions relating to planning on

linking skills intelligence better to education and training tended to be similar (Figure 23). Respondents most often considered key short-term priorities the harmonisation of definitions and the improvement of skill needs data collection at sectoral level (also a long-term priority). As longer-term priorities, respondents most often called for the revision of the time horizon of forecasts and starting (centralised) data collection on graduate employment rates, which can shape programme assessment and inform career guidance. For all actions, CBE respondents underlined the importance of including stakeholders from outside the education sector in using skill anticipation tools for VET planning.

Figure 23. **Short- and long-term priorities to start using existing tools for admission plans; for developing/updating VET programmes/curricula and for career guidance**



Source: Cedefop skills governance country review, CBE, round 2.

There is coherence of respondents' views regarding the two key ways to support the use of skills intelligence for career guidance in the short term: collecting sectoral data on skill needs and harmonisation of definitions. Longer-term perceived priorities were mostly methodological improvements, such as revising the time horizon of forecasts, development/update of VET programmes/curricula, and integrating dynamic labour market trends into career guidance provision. For all actions aiming at promoting the use of skills intelligence in career guidance, respondents emphasised the importance of including additional stakeholders. Although expressed in a small number of open comments by participants, it is important to note the suggestion for establishing a national vocational guidance system covering all age groups – from kindergarten pupils to those employed in pre-retirement age – as an antidote to the current mosaic of several activities.

Along with the harmonisation of definitions from across different data collections, participants identified data collection on skill needs at sectoral level as an urgent short-term priority. This was identified as the highest priority in the long term, along with admission plans, followed by the need to integrate dynamic labour market trends (such as automation and demography) in skills forecasts.

6.2.2.2. Strengthening management and coordination

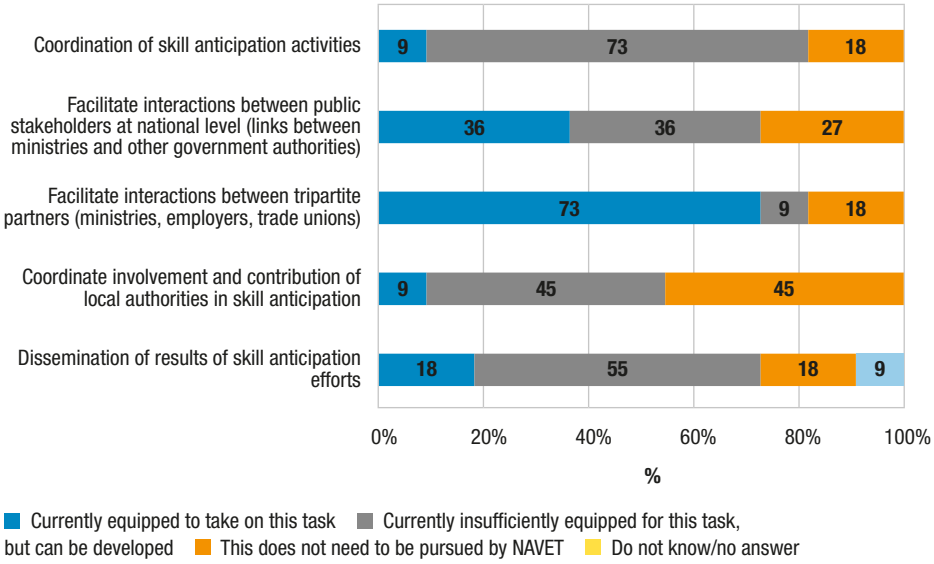
To identify possible directions for change in management and coordination arrangements, respondents were asked to reflect on the interaction between stakeholders and their contribution to skills anticipation. With most respondents seeing potential for all stakeholders to contribute more to data collection to improve admission plans and VET programmes via curricula development and updates, the need to include more stakeholders was again highlighted. Many respondents saw scope to strengthen the contribution of already quite active stakeholders in data collection and skills anticipation. Close collaboration between the Ministry of Labour and employers was perceived as opportunity to capture skill needs better via improved employer surveys; tracer studies/graduate tracking could be supported by MES.

The Ministry of Economy was often singled out because of its potentially stronger role in contributing to existing data collection. It is viewed as an actor with potential to enrich skills anticipation, as it can channel information on sectoral trends and provide strategic national and regional perspectives. For some respondents, stronger involvement of employer/professional and

sectoral organisations and trade unions would be a way to reinforce the goal of better understanding sectoral and employer needs.

Following first-round findings, employers were asked to reflect on which agency or authority should oversee coordinating skills anticipation activities. Most respondents supported allocating this responsibility to NAVET.

Figure 24. **Perceived capacity of NAVET to take on coordination roles**



Source: Cedefop skills governance country review, CBE, round 2.

According to respondents, NAVET, among all stakeholders, would be best equipped to facilitate interactions between tripartite partners and between public stakeholders at national level. Reinforcing what several respondents had pointed out in round 1, there were concerns about NAVET's capacity to coordinate skill anticipation activities, considering its current financial and human (staff and expertise) resources. Apart from increasing these and setting up a new unit/directorate within NAVET specifically to work on coordination of stakeholders, it was also suggested that NAVET would need to expand and improve its communication with employers. Some respondents viewed extending NAVET's mandate, also in terms of its functions in VET, as a prerequisite for taking on a coordination role.

Notwithstanding the strong support for the possible enlarged role of NAVET at national level, several respondents saw its current national focus without regional branches as an obstacle to coordinating regional/local stakeholders. This mirrors findings from the online survey (Chapter 5), which showed – in skills anticipation – municipalities mainly interact with the regional bodies of national government (local NEA/MES actors) and little with the national level. CBE respondents suggested linking NAVET to the regional administration, perhaps by appointing regional representatives to work in partnership with the regional employment committees and development councils to strengthen links with the regional NEA offices and municipalities.

The findings from the second round of the CBE demonstrate the large variety of policy responses that can be pursued to improve the use of existing skill anticipation tools, both for VET planning (including admission plans and VET programme provision), and career guidance. The findings also showed how each of the priorities were interlinked: in order to coordinate and organise practical responses for the purpose of VET planning and career guidance, it is necessary that an institution takes up the coordination role, distributes responsibilities and follows up implementation of such efforts in the coming years.

6.2.3. Third round: finding agreement on concrete actions, tasks and responsibilities

To ease the effective and efficient implementation of various activities, management and coordination issues were further explored in the third round of the CBE. Several respondents suggested in earlier rounds that current management and coordination of skill anticipation practices should be less top-down. CBE participants were asked to reflect and comment on alternative management arrangements and stakeholder collaboration formats to gather insights into how skills governance could become more inclusive.

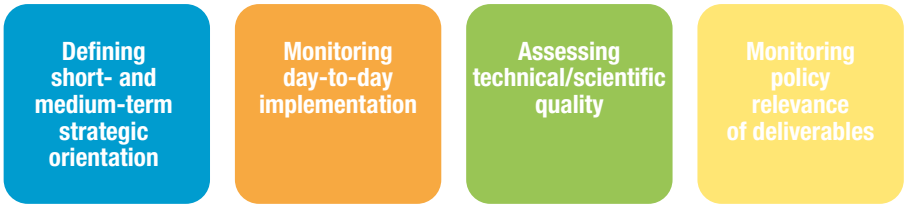
Although many respondents saw NAVET as potentially the leading actor in facilitating and coordinating contributions by different national stakeholders, they also voiced concerns about the resources (financial, workforce and expertise) the agency currently has at its disposal. The possibility of a ‘strengthened’ NAVET was suggested. This suggestion assumes NAVET taking up coordination responsibilities is accompanied by action to fortify the agency in terms of resources and mandate, possibly via legal reform.

To aid reflection on possibilities for restructuring current management arrangements, four main management and coordination roles were identified

(Figure 25). Given the complexity of skills governance and the current capacity of the key stakeholders, it was acknowledged that no single organisation could effectively take on all of them. Therefore, for each role, respondents were asked to indicate their preference:

(a) strengthened NAVET;
(b) the Ministry of Education and Science;
(c) the Ministry of Labour and Social Policy;
(d) a different ministry (to be specified by the respondent);
(e) an inter-ministerial group (for example labour, education, finance);
(f) a multi-stakeholder body (a management board) similar in composition and size to the national steering committee guiding the review;
(g) a small executive management board set up for this purpose (respondents could suggest which stakeholders should be involved).

Figure 25. **Four main management and coordination roles of skills governance**



Source: Cedefop.

Respondents were also asked to indicate how they perceived the likelihood of stakeholders' agreeing to or resisting these alternative arrangements.

The main findings are as follows:

(a) defining the short- and medium-term strategic orientation (for example in the form of a strategic vision and/or a work programme) is a crucial element of skills governance. In this process, needs identified by key stakeholders should have a central position. It is assumed that, regardless of which entity will have the responsibility to define such priorities, it explicitly takes key stakeholder needs and views into account. Stakeholders agreed on the establishment of a multi-stakeholder body for this task, including the three core ministries (education, labour and economy), as well as key social partners and other actors. Its size should be sufficient to ensure representation of key actors but not hinder its agility and ability to regularly interact;

(b) monitoring day-to-day implementation (distribute the work, monitor progress, follow up deliverables) will be necessary to ensure that activities of various stakeholders are aligned with strategic objectives. Stakeholders suggested that this role can be taken up by NAVET, provided its institutional capacity is strengthened through expanding its resources (human and/or financial). Such day-to-day implementation does not necessarily imply all technical work needs to be done in-house. Instead, it is suggested NAVET maps the available expertise among public authorities and key stakeholders and complements this where necessary by mobilising external partners in public-private partnerships;
(c) assessing technical/scientific quality is important to ensure continued quality skills anticipation work. Making one actor responsible helps ensure a consistent approach to assessing quality of methods and outputs and helps establish a quality culture focused on making improvements over time. CBE respondents suggested national stakeholders in the management board assess more specific needs and define potential models for ensuring the technical and scientific quality of skills anticipation activities. This mirrors the outcomes of a 2019 functional analysis of VET policy in Bulgaria, which recommended that technical expertise is outsourced to specialised partners wherever possible;
(d) monitoring policy relevance of deliverables is important to ensure continued relevance of the outputs and information produced by skills anticipation activities. This will help identify shortcomings and establish a basis for further development.

Stakeholders agreed that different key actors would better use their expertise in assessing the policy relevance of different types of deliverables. It was agreed that a strengthened NAVET is best placed to discuss with all key stakeholders and decide which actor should take up responsibility to monitor policy relevance for a particular type of deliverable. In practice, this could entail the Education Ministry taking the lead in assessing policy relevance of skills anticipation and intelligence for shaping VET admission. The MLSP and social partners could take on this role for VET training provision to the unemployed and to employees, for upgrading qualifications or requalification. A strengthened NAVET, along with the management board, could periodically assess the extent to which deliverables also serve strategic priorities.

The third CBE round also asked respondents to reflect and comment on a proposal, outlining concrete actions and responsibilities that stakeholders could take forward. Following the main findings from round 2, short- and long-term actions to improve use of skills intelligence for VET planning and career guidance were proposed (Figure 26).

Figure 26. **Proposed actions for the short and long term**

Improving use of skills intelligence for VET planning (admission plans/VET programmes)	Improving use of skills intelligence for career guidance
In the short term: • Harmonisation of definitions • Collection of sectoral data as input for admission plans and VET programmes	**In the short term:** • Harmonisation of definitions • Collection of sectoral data
In the longer term: • Setting up a structure for collecting data on graduate employment • Integrate dynamic labour market trends	**In the longer term:** • Revision of time horizons of forecasts • Integrate dynamic labour market trends

Source: Cedefop skills governance country review, CBE, round 3.

At least one activity was suggested for each of the major stakeholders (Table 11). Respondents were asked to assess not only the relevance of each activity in terms of the stakeholder's role and expertise, but also the feasibility for that stakeholder to implement it successfully.

Mirroring respondents' views in round 2 of the CBE, the key actors identified to lead actions for VET planning were a strengthened NAVET, the Ministry of Economy and employer/sectoral or professional organisations (Figure 27). Responses confirmed the relevance of key stakeholders, including independent actors. These three actors were regarded as the ones that already have (or could have in the case of a strengthened NAVET) the relevant expertise to implement respective actions.

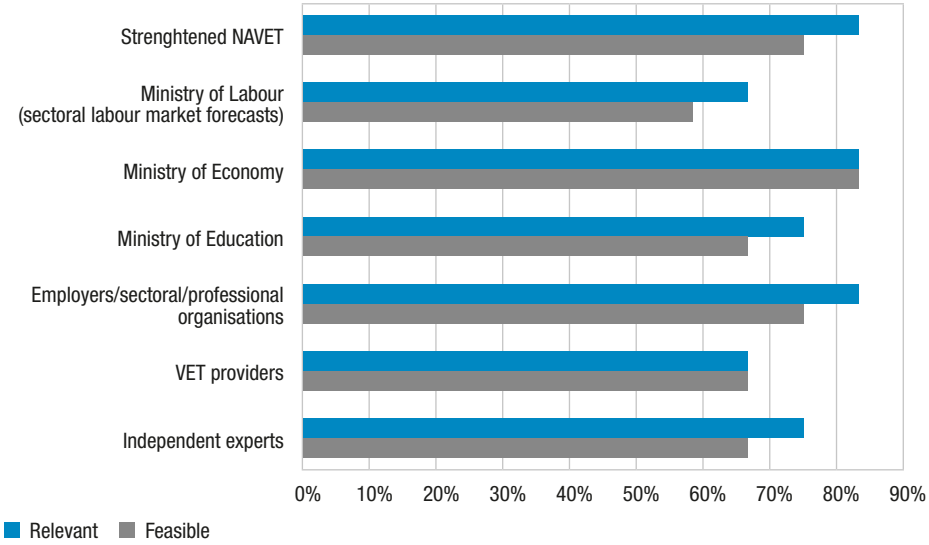
Potential additional actions each stakeholder could take to improve the use of existing data collection as input for career guidance were suggested (Table 12). Those suggested for social partners were considered of highest relevance (92% of responses), followed by independent experts (Figure 28).

Table 11. **Suggested actions per stakeholder regarding VET planning**

Stakeholder	Actions
Strengthened NAVET	Engage stakeholders to harmonise the use of definitions by various stakeholders (as part of coordination efforts)
Ministry of Labour	Offer relevant sectoral labour market forecasts/needs for specific skills and occupations
	Ensure forecast (e.g. time horizon, data collected) meets the needs for use for VET planning
Ministry of Economy	Offer data and insights on economic priorities and sectoral trends (at national and regional levels)
Ministry of Education	Explore possibilities for improving graduate tracking through new structure of graduate employability assessment (by sector)
Employers/sectoral/ professional organisations	Mobilise members to contribute to data collection
VET providers	Consult with social partners on learning content
Independent experts	Develop methods and assessment independently/from an external perspective

Source: Cedefop.

Figure 27. **Relevance and feasibility of suggested actions for each stakeholder: VET planning**



Source: Cedefop.

Table 12. **Suggested actions per stakeholder regarding career guidance**

Stakeholder	Actions
Strengthened NAVET	Engage stakeholders to harmonise different approaches and definitions towards common use in career guidance
Ministry of Labour	Reorganise NEA service provision at local level
	Revise forecast methodology (e.g. time horizons)/outputs toincrease relevance for career guidance purposes
Ministry of Economy	Offer data on sectoral investments/insights in dynamic labour market trends
Ministry of Education	Develop a more systematic approach to career guidance, including a dissemination strategy and involving parents
Employers/sectoral/professional organisations	Engage in communication activities, offering information about (dynamic trends in) professions (e.g. work content, skills required, career development options)
Trade unions	Contribute to information provision on content of work, taking into account present-day and dynamic trends
VET providers	Promote available programmes to students/parents, link employers/students
Independent experts	Develop methods and tools, inspired by foreign good practices

Source: Cedefop

VET providers and the MES were also identified as having the capacity to perform the suggested actions. The role of strengthened NAVET and the Ministry of Labour seemed weaker in this perspective, according to respondents.

The main activities identified and roles of the different stakeholders for each activity are included in the policy roadmap, which is presented in Chapter 7.

Box 3. **Involving organisations beyond key current stakeholders in skills governance**

Apart from identifying potential roles for key stakeholders currently involved, in the second round of the CBE, participants suggested other stakeholders that could have a more active role in skills anticipation and skills governance overall. These were:

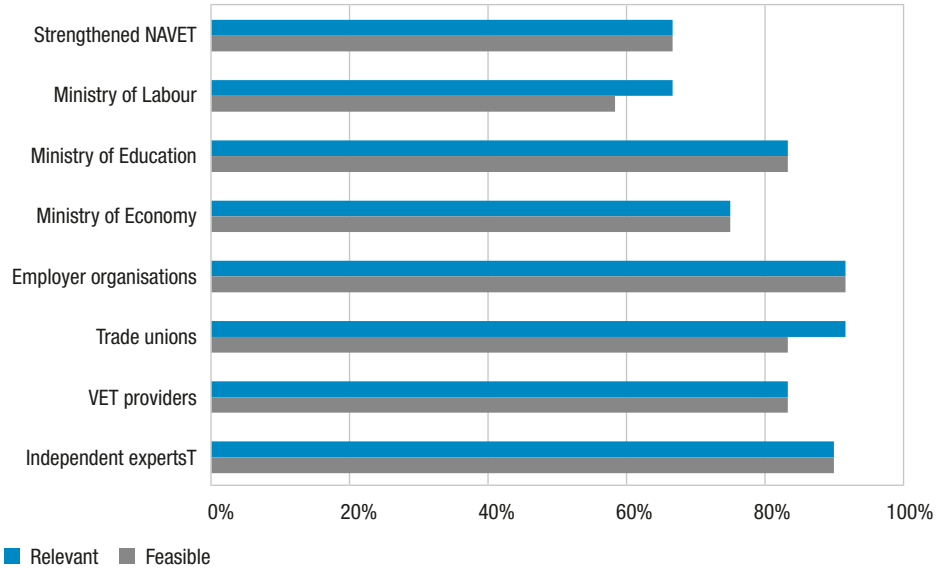
- Invest Bulgaria Agency;
- the Executive Agency for SMEs;
- the National Statistics Institute.

As the third round of the CBE aimed at exploring possible synergies between stakeholders to enrich skills governance with more data sources and more contributions from a wide range of interested parties, participants were asked to assess their potential role in supporting the activities led by the main stakeholders. Provision of data is regarded as a key contribution area for all three organisations, but particularly for the National Statistics Institute, as could be expected. The latter was also identified as potential contributor to supporting the analysis of skills anticipation results. Linked to numerous actors across sectors and geographic levels, the two agencies are seen as potentially effective partners in encouraging their members to participate in skills governance and to disseminate results.

Source: Cedefop skills governance country review Bulgaria, CBE.

Linking to the findings of the online survey (Chapter 5), participants were also asked to assess the way that municipalities could better be involved in the national structure for skills governance, in relation to VET planning and career guidance. Across areas, stakeholders mainly suggested municipalities could coordinate links between local stakeholders. Stakeholders also signalled the need for additional budget and human resources from ministries to their regional structures for municipalities, as well as for social partners to engage more with them.

Figure 28. **Relevance and feasibility of suggested actions for each stakeholder: career guidance**



Source: Cedefop skills governance country review Bulgaria, CBE, round 3.

CHAPTER 7.

Strengthening skills governance: a roadmap for change

7.1. Introduction

The consensus-building exercise provided a wealth of inputs for drawing up a policy roadmap for activities to help improve skills governance in Bulgaria. It helped focus attention on desired improvements in three main areas:

(a) better apply skill anticipation to VET planning (what information needs to be provided to support effective and efficient planning in VET admission plans, which stakeholders need to be mobilised and how?);
(b) improve the link between career guidance and the information available on future skill needs and supply;
(c) improve the management and coordination of skill anticipation activities (what are the preferred management structures, and who needs to do what to enhance the use of existing tools and develop new mechanisms?).

These three areas structure the development of concrete actions to strengthen skills governance in the short and medium term. The emphasis on practical short-term action was suggested by the participating Bulgarian stakeholders, who preferred to focus efforts on concrete short- and medium-term actions over longer-term systemic changes to skills governance. A draft version of the roadmap was reviewed by the members of the NSC, who offered feedback and validated the roadmap in a meeting in Sofia in June 2019.

The roadmap concentrates on activities that can be undertaken within the next few years, and also assigns responsibility for each action to a specific stakeholder. With incremental improvements, each area´s effects remain visible and progress can be clearly evaluated, allowing the skills governance system to satisfy the expectations of stakeholders better.

7.2. Roadmap activities related to VET planning

CBE respondents suggested VET planning as an area where improvements in skill anticipation can be applied:

(a) skills intelligence can be applied to VET admission plans to influence the number of students guided towards fields of study with future skill needs;

(b) stakeholders also agreed that better use could be made of skills intelligence in defining the content of VET programmes (setting the learning outcomes for qualifications, defining VET curricula).

CBE respondents agreed that each of the stakeholders would follow up with clearly defined activities, in the short term (up to 12 months) and medium term (12 to 36 months) (Table 13).

Table 13. **Suggested actions on VET planning for stakeholders in the short and medium term**

Stakeholder and role	Short term	Medium term
NAVET: Engaging stakeholders to harmonise definitions	Set up a small taskforce (including MLSP, Ministry of Education and Ministry of Economy), to identify what data is most relevant for VET planning, and what is needed to make best use of it	Liaise with other stakeholders to ensure sufficient involvement and develop terms of reference to mobilise external knowledge to cover information gaps
Ministry of Labour and Social Policy: Offer relevant sectoral labour market forecasts	Mobilise knowledge within and outside ministry to expand existing forecasts with sectoral component	Develop means to integrate dynamic labour market trends into forecasts
Ministry of Education and Science: Expand on existing data collection methods	Mobilise expertise (internal/ external experts/research scientific organisations) to set up structure for graduate tracking	Put in place structural analysis of the quality/suitability of provision of VET by providers, based on labour market relevance
Ministry of Education and Science: Apply the results of additional data in the area of VET planning		Set up structure that allows to benefit from the additional data collected for the purpose of VET planning

Stakeholder and role	Short term	Medium term
Ministry of Economy: Offer data and insights into economic priorities	Liaise with NAVET/taskforce (*) on how its data and insights on economic priorities can be meaningfully integrated into VET planning	Support the continued involvement of employers/ professional organisations as required by education stakeholders
Branch organisations and national employer representative organisations: Mobilise members	Mobilise members to participate in the survey on the needs of employers for labour force, carried out by the National Employment Agency twice a year since 2018 ([75])	Mobilise members to contribute to identified needs for (continued) data collection
Experts/scientific organisations (including NSI): Independent development of methods	Mobilised on the basis of identified needs by taskforce (*)	

(*) This taskforce may include at least the Ministry of Labour and Ministry of Economy; or be part of a management board/multi-stakeholder body for skill anticipation (Section 7.4).

Source: Cedefop skills governance country review Bulgaria, CBE.

After around three to four years, it is suggested to carry out an evaluation that maps the activities undertaken, the role played by each of the stakeholders and the results achieved in the area of VET planning. Key questions driving this evaluation could be how these activities have impacted VET planning, and whether these have been relevant, effective and efficient.

7.3. Career guidance

The second concrete area respondents suggested to improve with the help of skill anticipation activities is career guidance. Also within this area, agreement was reached on the activities to be taken forward (Table 14). The roadmap below further operationalises these activities into short-term (up to 12 months) and medium-term (12 to 36 months) components.

([75]) www.az.government.bg/web/files/PageFile/290/10863/analitichen-doklad.docx [accessed 12.10.2020].

Table 14. **Suggested actions on career guidance for stakeholders in the short and medium term**

Stakeholder and role	Short term	Medium term
NAVET: Engaging stakeholders to harmonise definitions	Setting up a small taskforce, with representatives of MLSP/ NEA and MES, to identify what data is most relevant for career guidance, and what is needed to make the best use of it	Ensure continued involvement of stakeholders and define terms of reference for possible external partner to assist in data collection, as input for career guidance, based on outcomes of taskforce discussions
Ministry of Labour and Social Policy: Adapt NEA service provision to become more data-driven	Identify bottlenecks to improve use of data in NEA service provision	Integrate sectoral forecast methodology into NEA service provision
Ministry of Economy: Offer data and insights on economic priorities	Liaise with NAVET/taskforce on how its data and insights on economic priorities can be meaningfully integrated into career guidance	Support the continued involvement of employers/ professional organisations to ensure consistent flow of information
Ministry of Education and Science: Develop a systematic approach to career guidance in VET	Relay relevant information on skill needs to VET providers	Put in place structural analysis of the quality/suitability of provision of VET by providers, based on its labour market relevance
VET providers: Promotion of labour market relevant programmes	Receive relevant information on skill needs for the purpose of in-school guidance	Focus on promoting VET programmes with highest labour market/skill needs
Branch organisations and nationally employer representative organisations: Engage in communication activities	Set up communication campaigns for professions with shortages	Mobilise members to contribute to promotion of professions with highest labour market/skill needs
Experts/scientific organisations (including NSI): Independent development of methods	Mobilised on the basis of identified needs by taskforce	

Source: Cedefop skills governance country review Bulgaria, CBE.

After around three to four years, it is suggested to carry out an evaluation that maps the activities undertaken, the role played by each of the stakeholders and the results achieved. Key questions driving this evaluation

could be how these activities have impacted career guidance, and whether they have been relevant, effective and efficient.

7.4. Management and coordination

The CBE clearly showed that effectively and efficiently organising the activities set out above calls for changes to the way skill anticipation activities in Bulgaria are organised. The roadmap presents the responsibilities and subsequent activities agreed by national stakeholders. Within 'management and control', four essential management and coordination functions were discussed to promote effective skills governance:
(a) defining the short- and medium-term strategic orientation;
(b) monitoring day-to-day implementation;
(c) assessing technical/scientific quality;
(d) monitoring policy relevance of deliverables.

Section 7.4 presents for each of these four functions a set of activities for stakeholders, based on the outcomes of the consensus-building exercise. These have been validated by the NSC.

7.4.1. **Defining the short- and medium-term strategic orientation**

Setting short- and medium-term priorities for skills anticipation and skills matching activities in Bulgaria (for example in the form of a strategic vision and/or a work programme) is a crucial element of its governance. Stakeholders agreed to establish a multi-stakeholder body for this task. More specifically, the following short- and medium-term actions are proposed in Table 15.

7.4.2. **Monitoring day-to-day implementation**

Given that each of the national stakeholders involved in skills governance in Bulgaria will define tasks and responsibilities for contributing to the work programme flowing from the strategic priorities, it will be necessary to coordinate this work. This involves interacting with all stakeholders on who does what and engaging with them to ensure timely delivery of high-quality outputs and results. The short- and medium-term actions are proposed in Table 16.

Table 15. **Suggested actions for stakeholders on defining strategic orientation in the short and medium term**

Stakeholder	Short term	Medium term
Government (involvement of at least MLSP, MES, Ministry of Economy)	Decide on organisations to be part of management board, representing key stakeholders (at minimum the relevant ministries and social partners)	Organise meetings at fixed intervals to discuss the priorities and define the short- and medium-term priorities that inform strategic decision-making
Government (involvement of at least MLSP, MES, Ministry of Economy)	Identify knowledge gaps among management board	Reduce the impact of identified knowledge gaps among partner institutions/ representatives
Government (involvement of at least MLSP, MES, Ministry of Economy)	Prepare a plan for strengthening institutional capacity of management board members/key institutions	Engage in institutional capacity building

Source: Cedefop skills governance country review Bulgaria, CBE.

Table 16. **Overview of suggested actions for stakeholders on monitoring day-to-day implementation in the short and medium term**

Stakeholder	Short term	Medium term
Government/high-level officials	High-level political agreement on NAVET's expanded role; agreement and actions to change NAVET's remit in legal framework/regulations	Institutional capacity building to be able to assume responsibilities agreed
Government/high-level officials	High-level political agreement for NAVET to obtain sufficient resources (financial and expertise)	

Source: Cedefop skills governance country review Bulgaria, CBE.

7.4.3. Assessing technical/scientific quality

To ensure continued good quality in skills anticipation, it is important to allocate responsibility for quality control. Making one actor responsible helps ensure a consistent approach to assessing quality of methods and outputs and facilitates establishing a quality culture, focused on making

improvements over time. This does not necessarily mean that such knowledge is expected to be in-house, and a single institution responsible may well depend on external knowledge. It is suggested that national stakeholders in the management board assess the more specific needs and define potential models for ensuring the technical and scientific quality of skills anticipation activities. The short- and medium-term actions are proposed in Table 17.

Table 17. **Suggested actions for stakeholders assessing technical/ scientific quality in the short and medium term**

Stakeholder	Short term	Medium term
Management board	Discuss potential models (and their financial/institutional implications) to ensure the technical/scientific quality of the work, for example: • MLSP or MES, strengthened with specialised personnel • Collaboration of the two ministries • Outsourced to academia or scientific organisation	Decide which (pool of) organisation(s) could take the lead on this activity
Management board and NAVET	Consider contracting missing expertise for the organisation(s) to lead this activity and its financial implications	
Management board and NAVET		Periodically assess the work of the responsible organisation

Source: Cedefop skills governance country review Bulgaria, CBE.

7.4.4. **Monitoring policy relevance of deliverables**

To ensure continued relevance of the outputs and information produced with skills anticipation activities, it is important to assess policy needs regularly. This will help identify shortcomings and establish a basis for further development. The management board and/or NAVET (in its capacity as executing day-to-day implementation) can assign the responsibility to monitor the policy relevance to organisation(s) with this primary expertise for individual activities. The primary stakeholder for VET planning could be the Ministry of Education and Science, while other actors may be identified for other activities. Based on these findings, Table 18 proposes the following short- and medium-term actions.

Table 18. **Suggested actions for stakeholders on monitoring policy relevance in the short and medium term**

Stakeholder	Short term	Medium term
Strengthened NAVET	Discuss and agree with key stakeholders the thematic areas that each will be responsible for to assess the policy relevance of deliverables (e.g. for VET admission the MES, for VET training for the unemployed the MLSP and social partners)	Develop conflict resolution mechanisms to manage any conflicting agendas/priorities among key stakeholders
Management board and NAVET		Periodically assess alignment of policy relevance of deliverables and national strategic priorities

Source: Cedefop skills governance country review Bulgaria, CBE.

Monitoring policy relevance can be perceived as a form of evaluation. It is more relevant to new/planned activities and deliverables. Beyond this, it could be decided to reassess the policy relevance of all existing activities, with the aim of improving them to strengthen skills governance.

7.5. Conclusions

In its recent history, Bulgaria has fought and overcome significant barriers to its economic development, leading to remarkable progress in terms of economic and social achievements. Its historical trajectory underlines the country's agility in adjusting to new circumstances. At the same time, Bulgaria is challenged by stark demographic decline; skill mismatches, particularly in some sectors; a high share of NEETs and low-skilled adults; and very low levels of digital skills.

The actions suggested in the policy roadmap target some of the improvement areas and aid tackling other challenges, such as increasing skills shortages due to the ageing population. In addition to the characteristics of the country identified in this country review, putting the roadmap into gear, should take into consideration the new landscape posed by the Covid-19 pandemic and its impact on the national economy, as well as on particular

sectors and regions. In the context of the digital and green transitions, high-quality skills intelligence that reflects the needs and aspirations of all relevant actors gains even greater prominence. It can be argued that the roadmap calls for tangible and implementable changes in areas that could support the country's economic rebound from the pandemic, as well as supporting its transition to a more digital and greener economy.

Cedefop's review of the Bulgarian skills governance approach has at its core the key improvement areas that were identified by the national steering committee at the outset:

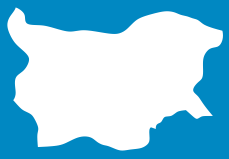
(a) better apply skill anticipation to VET planning (what information needs to be provided to support the effective and efficient planning in VET admission plans, which stakeholders need to be mobilised and how?);
(b) improve the link between career guidance and the information available on future skill needs and supply;
(c) improve the management and coordination of skill anticipation activities (what are the preferred management structures, and who needs to do what to enhance the use of existing tools and develop new mechanisms).

These three areas permeated all key phases of the review: they were frequently mentioned by interviewees, discussed in meetings with the NSC, and, in the end, were included or implied in the policy roadmap.

What the roadmap suggests is built on stronger collaboration between the key stakeholders, as well as widening the pool of stakeholders engaged, to ensure that more voices are heard and taken into consideration in VET planning, guidance provision and, most important, in the way that skills governance is organised and managed. Improvement in stakeholder collaboration and identification of synergies that could also support more efficient use of resources was one of the key lessons of the Cedefop review. Another important lesson was the need to raise awareness further among some policy-makers, stakeholders in education/training and the labour market of the importance of applying good skills governance principles; as well as of further improving the skills intelligence collected. The adverse developments in 2020 linked to the Covid-19 pandemic, could function as a springboard for realising the roadmap's actions, supported by investing more in stakeholder engagement and collaboration.

Figure 29 .

Bulgaria



Strengthening management and coordination of skills governance

Based on stakeholders 'suggestions

KEY SKILLS GOVERNANCE CHALLENGES

Sustainability of current skills anticipation work

Challenges in using current skills anticipation/LMS in different policy areas

Top-down approach and limited sectoral involvement

MONITORING POLICY RELEVANCE OF DELIVERABLES

Depending on specific theme/activity

- ✓ Strengthened NAVET to agree with stakeholders thematic areas pertinent to their expertise
- ✓ Management board and/or strengthened NAVET to periodically assess policy relevance of deliverables

DEFINING SHORT AND MEDIUM-TERM PRIORITIES

Multi-stakeholder body

Government/key ministries to:

- ✓ Decide on organisations to participate
- ✓ Identify knowledge gaps
- ✓ Devise plan to strengthen institutional capacity of the body

ASSESSING TECHNICAL/ SCIENTIFIC QUALITY

Body/bodies to be decided

Multi-stakeholder body and NAVET to:

- ✓ Agree on model/organisations to take up this role
- ✓ Allow for external expertise to be used, if needed
- ✓ Devise periodical/systematic assessment of quality

MONITORING DAY-TO-DAY IMPLEMENTATION

Strengthened NAVET

Reach high-level political agreement to:

- ✓ Change legal framework to expand NAVET´s role
- ✓ Strengthen NAVET with financial and expert resources

Acronyms/Abbreviations

AI	artificial intelligence
ALMP	active labour market policy
BIA	Bulgarian Industrial Association
BSMEPA	Bulgarian Small and Medium Enterprises Promotion Agency
CBE	consensus-building exercise
CITUB	Confederation of Independent Trade Unions in Bulgaria
CL Podkrepa	Confederation of Labour Podkrepa
CoM	Council of Ministers
CSIS	Centre for Strategic and International Studies
CVET	continuing vocational education and training
EIB	European Investment Bank
EPA	Employment Promotion Act
ERDF	European Regional Development Fund
ESF	European Social Fund
ESI	European skill index
ESIF	European Structural and Investment Funds
EU	European Union
GDP	gross domestic product
HEI	higher education institution
HR	human resources
ICT	information and communications technology
IS3	Innovative strategy for smart specialisation
ISCO	international standard classification of occupations
LMSI	labour market and skills intelligence
LODs	labour office directorates
ME	Ministry of Economy
MES	Ministry of Education and Science
MLSP	Ministry of Labour and Social Policy
NAVET	National Agency for Vocational Education and Training
NCOP	national classification of occupations and posts

NEA	National Employment Agency
NEAP	National employment action plan
NEET	not in education, employment or training
NNCA	National Network for Competence Assessment
NRA	National Revenue Agency
NSC	national steering committee
NSI	National Statistics Institute
NSSI	National Social Security Institute
PISA	Programme for international student assessment
RGEs	regional governances of education
SGO	skills governance
SMEs	small and medium-sized enterprises
UN DESA	United Nations Department of Economic and Social Affairs
VET	vocational education and training
VETCC	VET consultative council

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ANNEX 1.

Milestones of Cedefop review in Bulgaria

1st stage	2nd stage	3rd stage
December 2016: Invitation by Minister for Education and Science to Cedefop and mutual signing of 'terms of collaboration' agreement	**June-August 2017:** Customisation of generic analytical skills governance framework to Bulgarian priority areas	**March-June 2018:** Finalisation of first round of face-to-face stakeholder interviews
28 March 2017: First kick-off meeting with NSC	**August-October 2017:** Preparation of Bulgarian background report	**14-15 June 2018:** Cedefop policy learning forum 'Skills anticipation methods'
April 2017: Scoping exercise with NSC – identification of priority areas for review	**November 2017-February 2018:** Development of stakeholder interview questionnaire	**May-August 2018:** Completion of second round of targeted telephone stakeholder interviews
March-September 2017: Development of generic analytical framework for assessing skills governance	**February 2017-March 2018:** Compilation of Cedefop's 'Matching skills' database	**22 October 2018:** 2nd meeting with NSC – key findings of stakeholder consultation
		October 2018-April 2019: Consensus-building exercise
		January-February 2019: Carrying out online survey of local authorities
		3 June 2019: Final meeting with NSC – validation of draft national policy roadmap
		June 2019: Validation of national policy roadmap by NSC
		July 2019-May 2020: Preparation of final report and validation by NSC

Source: Cedefop.

ANNEX 2.

Methodology

A2.1. Key elements of the methodology

In line with its mandate, Cedefop supports the European Union strategy and shared goal of improving skills intelligence and skills policies in Europe by producing regular skill demand and skill supply forecasts at European level and analyses of skill needs and mismatches across EU countries and sectors. The skills governance reviews carried out in Bulgaria, Estonia, Greece and Slovakia between 2017 and 2019, complemented this work and went one step further. They took a close look at what types of skills intelligence are produced nationally and how these are used to inform skills policies (education and training, employment, innovation) and to support the decision-making processes of learners and employers.

The aim of the country reviews was to identify country-specific challenges and provide informed policy support to the government, in close alignment with national policy priorities and interacting with key national bodies and stakeholders. The reviews used a tailor-made methodology and analytical framework to analyse the governance of skills anticipation and matching in the national context and to identify possible development opportunities for the near future. They were not evaluations and did not rely on assessment-focused peer-review methods. Instead, the reviews aimed to promote dialogue among stakeholders and to develop consensus on directions for policy and concrete actions that can help overcome the barriers and challenges to making skills governance stronger.

The national steering committees appointed by national authorities were in the driving seat in all review phases. They set the review priorities, assisted in making information collection possible, engaged with stakeholders, provided support in analysing findings and validated review outcomes. Cedefop's role was to manage and facilitate the process, to stimulate learning from international practices and to provide access to expertise on skills anticipation methods through targeted training.

A2.2. Stakeholder interviews

The stakeholder interview phase followed the development of a generic questionnaire by Cedefop and the project consortium, whose aim was to obtain insight into all the elements that comprise the Cedefop skills governance analytical framework (Table 7 in Chapter 2) (76). The questionnaire used for the stakeholder interviews was subsequently customised in accordance with the identified national priority areas agreed between Cedefop and the NSC, following the completion of a scoping exercise. In Bulgaria, the customised questionnaire was built around seven main sections corresponding to the main skills governance focus areas, with a range of relevant mostly open-ended questions pertaining to each topic (Box 4).

Box 4. **Sections and issues of Cedefop's skills governance questionnaire**

- Section A – regulatory framework: each organisation's role in LMSI according to regulation, the practical implementation and suggested improvements.
- Section B – institutions: stakeholder participation in LMSI, the functioning of bodies of exchange. Relevance of external experts.
- Section C – LMSI management: collection of labour market information (organisations, their role, stakeholder involvement in skills assessment, own experience with stakeholder collaboration and evaluation, involvement in the interpretation of results, involvement in policy actions, stakeholders that were difficult to engage, practical collaborations of agencies, conflict resolution.
- Section D – LMSI tools/methods: methods used in LMSI, suitability of data and methods, output of tools sufficient with sufficient detail, suggestions for better alignment.
- Section E – LMSI dissemination: obtaining LMSI information, targeting LMSI information, presentation and dissemination of LMSI output.
- Section F – sustainability and reputation: confidence in the existing anticipation system, principal limitations of the existing system, view of necessary future development, planned developments.
- Section G – use in policy-making: instruments with clear policy bearing, types of policies that are influenced by LMSI.

Source: Cedefop.

(76) The generic skills governance questionnaire and all other relevant research materials, used as part of the country review, are available on the Cedefop project website: www.cedefop.europa.eu/el/events-and-projects/projects/assisting-eu-countries-skills-matching [accessed 12.10.2020].

In total, 30 semi-structured face-to-face interviews were conducted, following a multi-step research design and process (Box 5) once all supporting survey guidance and information materials were prepared and translated to the respective language. The interviews were carried out by two native researchers with extensive experience in carrying out qualitative research. To facilitate survey response and avoid fatigue (given that each interview lasted between 45 and 60 minutes), the respondents were offered an option to focus on two of the seven main themes of the survey questionnaire, selecting the ones where they considered they had the most significant expertise. Even though such a strategy posed a risk of fragmentation and lack of coverage of some sections, the final distribution of responses across the different research topics and type of stakeholders was satisfactory.

Box 5. **Stakeholder interview protocol**

- Finalisation of list of potential invitees/stakeholders following coordination between Cedefop-NSC project team.
- Preparation of invitation letter and information sheet signed by Cedefop-NSC; personalised invitation via email.
- Booking of appointment for interview by phone or email held at the stakeholders premises.
- Pilot implementation of interview at ministerial representative and updating of survey questionnaire.
- Conducting interviews (45 to 60 minutes per interview).
- Sending of interview summary to each participant (in Bulgarian), receipt of comments and validation.
- Translation to English and saving of final summary template.
- Monitoring of progress; updating list of invitees (whenever necessary).
- Codification and analysis of responses.
- Validation by Cedefop and NSC.

Source: Cedefop.

Following the completion of each interview, the responses were codified and summarised by the lead researcher and each summary template was sent back to the interviewee for validation. Confidentiality of individual responses and links to interviewee specific organisations/institutions were respected. In order to obtain a minimum degree of generalisability among the findings, the analysis sought first to aggregate the interviews by type of

stakeholder and subsequently scrutinise the representativeness of a given issue by confirming that it was widely supported (or at least not refuted) by the sample universe or a critical subgroup of the most relevant stakeholders.

The results obtained were based on a relatively small number of interviews, with respondents who had divergent prior information and knowledge of the underlying process of the mechanism; they should be regarded as indicative.

Nevertheless, a wide array of key institutional stakeholders at national level were selected and consulted for this exercise. The list of invited stakeholders was identified, following extensive scanning of the available landscape by Cedefop and the NSC and careful reflection of each institution's relevance and prior experience with skills anticipation and matching in Bulgaria. For this reason, it is believed that the stakeholder interviews provided a good first basis for understanding the relative strengths and weaknesses of Bulgarian skills anticipations arrangements.

After conducting the face-to-face interviews, the collected information was categorised and reported. Based on an assessment of where additional information could be collected, additional phone interviews were conducted with 20 more stakeholders in the autumn of 2018. This also allowed to reach out to local stakeholders, in an attempt to test the issues developed for the online survey (Section A2.4).

A2.3. Consensus-building exercise

Following the completion of the stakeholder interview stage (results are reported in Chapter 4), Cedefop organised an interim validation meeting to present the main outcomes and receive further feedback via another round of deliberation from the NSC members. A key aim of this project step was to narrow down the rich set of issues identified by the wider group of stakeholders and to aggregate it into specific CBE themes of priority for the NSC. The CBE was constructed in such a way that each of the three rounds (Table 20) sought to constrain the range of issues to be considered, by focusing on those where there was a relatively high degree of consensus in the previous round.

Table 19. **CBE process: rounds and key issues addressed**

Round 1: prioritisation
An online questionnaire was developed, outlining a number of potential areas of interest related to the main CBE focus areas. Respondents were asked to prioritise these and clarify their main positions on them (why was an issue selected; main challenge to be resolved; suggestions for improvement). For example: management and coordination of skill anticipation and matching; increase the utility of existing skills anticipation tools; better link skills intelligence to education and training.
Round 2: deepening stakeholders' positions
This round focused on the priority issues of stage one and sought to work towards a shared problem analysis. Possibilities were explored on agreeing on a number of feasible solutions and steps for resolving or improving the problem areas, and on how different institutional players can contribute to common solutions. For example: better linking skills intelligence to education and training through making better use of skills intelligence; improving management and coordination through exploring practical improvements and/or reconsider allocation of responsibilities among stakeholders.
Round 3: achieving consensus
The final round sought to define follow-up steps and a concrete timetable for the actions stakeholders have suggested as a common approach. For example: consensus on suggested arrangement for management and coordination; agreement on how to improve the use of skills intelligence for VET planning; agreement on how to improve the use of skills intelligence for career guidance.

Source: Cedefop skills governance country reviews.

An online Delphi method was applied to the CBE, making use of online questionnaires developed by Cedefop and the project team with a number of open and closed questions (in English). Following their rigorous translation into Bulgarian, they were distributed by the project partner to the invited participants, who were requested to fill them in, in three separate and sequential rounds. Participants received an extensive explanatory note and guidelines, and were asked to complete the questionnaires on their behalf and the institution they represented.

Each round lasted between two and three weeks (with two reminders sent midway and before expiration of the deadline). The whole CBE process ran for about nine months, starting in October 2018 and ending in April 2019. The collection and analysis of the findings of each CBE round was administered by the project partner and validated by Cedefop. Confidentiality and anonymity regarding participants' inputs was guaranteed. All answers were analysed

by the project partner and presented as a summary and anonymously to participants as inputs before the start of each subsequent round.

The CBE secured the involvement of all main national organisations involved in Bulgarian skill anticipation efforts: the key Ministries of Education and Science and Ministry of Labour and Social Policy, Ministry of Economy (and associated directorates within them), as well as NAVET, the National Statistics Institute, the confederation of independent trade unions, Bulgarian Industrial Association, industry watch group, Bulgarian academy of sciences, Balkan Institute for Labour and Social Policy, Institute for Market Economics, AdminSoft and Global Metrics. Table 21 provides information on participation in the CBE, which proved to be highly satisfactory, both in terms of participation rates of individuals (over 60%) and organisational representativeness (between 69% and 85%).

Table 20. **Participation in the CBE by round**

CBE round	Number of people invited to take part	Number of people participating (% participating)	Number of organisations participating (% out of 13 invited)
1	18	15 (83%)	11 (85%)
2	18	11 (61%)	9 (69%)
3	18	12 (67%)	10 (77%)

Source: Cedefop skills governance country review.

A2.4. Online survey

An online survey was organised among municipalities to explore further the potential of these regional and local actors to be involved in skills governance. The survey aims to add a regional/local dimension by soliciting the municipalities' view on various aspects of the skills governance process in Bulgaria. The online survey targets are municipalities, specifically the persons responsible for local labour market development. The questionnaire was developed in collaboration between national and international experts of the consortium with Cedefop's experts. The survey instrument was programmed on the Limesurvey environment ([77]), hosted on servers owned

([77]) LimeSurvey, an open source survey tool: www.limesurvey.org [accessed 12.10.2020].

by the project team. The online survey used an open invitation send out to the mayor's office of the municipalities. The field work was done between the end of February and the middle of March 2019. The initial invitation to 265 municipalities was sent out on 7 and 8 February 2019. A follow-up was sent 10 days afterwards. To boost responses, 100 mayor's offices in the regions with low responses were called in early March, reminding them to participate: the raw number of responses was 286. From these raw responses, 69 observations were excluded, as they only contained missing information in all items, and an additional 34 were excluded as they contained insufficient information beyond the identification of region and size of the municipality. As a result, the net response uses 183 answers from municipalities that answered a substantial part of the questions. The response rate by region should be seen as indicative. As municipalities were not invited by personalised links, the response rate could only be estimated by comparing the total population of municipalities in the region with the respondents indicating that their municipality is located within a region. A total of 14% of the respondents represent large municipalities with more than 40 000 inhabitants, 43% are from medium-sized municipalities with 10 000 to 40 000 inhabitants, while another 43% are from small municipalities. Results of the survey are presented in more detail in Chapter 5. As the survey ran in parallel to the second round of the CBE, its results were incorporated in the third and final round of the CBE.

ANNEX 3.

Organisations participating in the national steering committee

Organisation	
Ministry of Education and Science (Maria Todorova, Vanya Tividosheva, Zhulian Gochev)	**Balkan Institute for Labour and Social Policy**
Ministry of Labour and Social Policy	**NAVET** (Penka Nikolova, Lyuba Krasteva)
Confederation of Independent Trade Unions in Bulgaria	**Institute for Market Economics**
Industry Watch Group Ltd	**Institute of Philosophy and Sociology, Bulgarian Academy of Sciences** (Pepka Boyadzhieva)
Global Metrics Ltd (Radostina Angelova)	**AdminSoft**
Bulgarian Industrial Association (Tomcho Tomov, Antoaneta Katzarova)	

NB: Individual representatives' names are included following their consent

ANNEX 4.

Glossary

Term	Definition
Apprenticeship	Systematic, long-term training alternating periods at the workplace and in an education institution or training centre. The apprentice is contractually linked to the employer who assumes responsibility for providing training leading to a specific occupation.
Cedefop skills forecasts	Econometrically derived projections of future employment by occupation and qualification as well as the supply by qualification for each EU Member State.
Consensus building	The process of establishing those issues on which participants have agreement. Often conducted over a series of rounds to establish those issues on which there is common ground with respect to future actions.
Continuous vocational education and training	Education or training after initial education and training or after entry into working life, aimed at improving/updating skills, acquiring new skills, or continuing personal or professional development.
Delphi exercise	An iterative process that collects information from individuals or groups in a number of rounds. After each round, responses are summarised and used as input into the next round. The approach has been used in the CBE of the Cedefop country review.
European skills and jobs survey	Cedefop's first EU survey of skill mismatch identifying the extent to which adult workers' skills are matched to jobs and if they face skills obsolescence due to technological or organisational changes.
European skills index	Cedefop's composite indicator measuring the performance of EU skills systems.
High-tech employment	Employment in those sectors/occupations which are considered to have a high technological intensity.
Initial vocational education and training	General or vocational education and training carried out in the initial education system, usually before entering working life.
NEET	Measure of persons not in employment, education or training.
Overqualified	Situation where an individual has a higher qualification than the current job requires.
Overskilling	Situation where an individual has skills which are not required in the current job: sometimes the skills are relevant to the job but not used.
PIAAC	OECD's programme for the international assessment of adult competences measures adult proficiency in literacy, numeracy and problem solving and how these are used (not all EU countries participate in it).

Term	Definition
PISA	OECD's programme for international student assessment. Every three years it tests 15-year-old students from all over the world in reading, mathematics and science, including all EU countries.
Roadmap	Plan that identifies the outcomes to be achieved over the short to medium term with the major steps or milestones needed to reach it. The CBE is a key input into the roadmap.
Skills anticipation	Process of identifying changing or emerging skill needs and the extent to which skills supply is likely to meet future skills demand and the reasons underlying any skill mismatch.
Skills governance	Process through which skills anticipation is implemented, with reference to the key institutions and stakeholders which have responsibility for overseeing and carrying out skills anticipation exercises as well as using their outcomes and associated operational processes. In some countries, skills governance is regulated by law.
Skill mismatch	Gap between the skills demanded by the labour market and those held by individual workers. It can manifest as both skill shortages and/or skill surpluses.
Skills obsolescence	Situation in which the knowledge and (formal, non-formal and informal) skills of individuals are out of date or out of use due to changing technologies and work organisation (economic), ageing/wear-and-tear (technical) or outdated labour market perspectives (perspectivistic).
Skills shortage	Situation where skills supply (quantitative and qualitative) is not sufficient to meet labour market demand, taking into account the vacancy wage offer, working conditions, accessibility of location and jobseekers' reference wage.
Stakeholders	Key individuals, organisations and institutions that have responsibility for the design and implementation of skills anticipation activities and the development of appropriate skills matching initiatives.
Vocational education and training	Education and training which aims to equip people with knowledge, know-how, skills and/or competences required in particular occupations or more broadly on the labour market.

EN

STRENGTHENING SKILLS ANTICIPATION AND MATCHING IN BULGARIA

Bridging education and the world of work through better coordination and skills intelligence

Ensuring that EU countries develop robust skills anticipation to inform responsive VET systems, is a key aim of the skills agenda for Europe. To be impactful, skills intelligence requires good skills governance, feeding into VET and employment policies with wide outreach to diverse potential users.

In 2015, Cedefop initiated a country support scheme to assist the EU strategy of improving skills governance in its Member States. Cedefop has recently concluded four skills governance country reviews in Bulgaria, Estonia, Greece and Slovakia, following pilots in Iceland and Malta. This report summarises key insights and lessons of the review of skills governance in Bulgaria. The review analyses stakeholder perspectives on current bottlenecks and challenges, identifies development opportunities, and offers a policy roadmap with several specific actions. The roadmap focuses on concrete activities that can be undertaken over the next few years and identifies specific stakeholders responsible for each action. Implementing it could improve the practical use of skills intelligence, better satisfy stakeholder expectations and strengthen skills governance in the country.

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