

STRENGTHENING SKILLS ANTICIPATION AND MATCHING IN GREECE

Labour market diagnosis mechanism:
a compass for skills policies and growth

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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.

Cedefop was originally established in 1975 by Council Regulation (EEC) No 337/75. This decision was repealed in 2019 by Regulation (EU) 2019/128 establishing Cedefop as a Union Agency with a renewed mandate.

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Foreword

In a rapidly changing world of work, reliable information on current and future labour market trends and skill needs is critical. 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 key feature of successful skills governance is consensual dialogue among key stakeholders to bridge the worlds of education and work and to overcome coordination failures, information gaps and administrative complexities that often result in policy-makers and social partners working in silos.

As part of its support to the EU skills agenda and strategy, Cedefop started in 2016 to provide direct support to Member States to strengthen their skills intelligence policies and systems. A first round of *Skills governance country reviews* has recently been concluded in four countries: Greece, Slovakia, Bulgaria and Estonia.

These reviews have sought 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 have adopted 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.

This report summarises the key insights and lessons of the first review of the Greek skills anticipation and matching system. At the time of our review, Greece was facing a difficult economic situation that has led to significant economic reforms, including in its VET and labour market policies. One of these was setting up a national mechanism for labour market diagnosis. In a remarkably short time period, Greece managed to make significant progress in developing a rich and innovative labour market diagnosis tool. We bore witness and provided input to these substantial advancements, but our report also provides additional direction on areas in need of further improvement.

The national policy roadmap drafted in close consultation and agreement with national stakeholders provides meaningful direction as to actions that

could be pursued to strengthen skills anticipation capacity in Greece. It seeks to ensure that the mechanism will become a systematic input, shaping continuous feedback loops between VET and changing labour market needs. The roadmap also advocates steps for ensuring robust skills intelligence as a strategic reference point for the design of skills policies that can support Greece's recovery to sustainable economic growth and competitiveness.

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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 Greek review was initiated following a letter sent to Cedefop by the alternate Minister for Labour, Social Security and Social Solidarity, Ms Rania Antonopoulou, dated 22.9.2016 Protocol No 42842/786, formally requesting support in assessing and strengthening the skills anticipation and matching system in Greece.

The programme was governed by a 'Terms of collaboration' agreement signed by both parties on 20 March 2017; this stipulated that all programme outputs and processes were subject to the scrutiny of an appointed national steering committee (Decision of 21.2.2017 Protocol No 7808/157) and all implementing actions suggested as part of the review are the responsibility of the national government.

Executive summary

The need for skills anticipation in Greece

The economic crisis had an unprecedented effect on Greece's economy with impacts that still loom large. Despite slow economic improvements, unemployment remains exceptionally high and places Greece at the bottom of the European Union (EU). Boosting the economy and employment levels is a policy priority. Apart from stimulating skills demand, there is increasing recognition of the need to improve skills supply and, at the same time, ensure that it is matched to current and future labour market needs. Moving forward, Greece faces the double challenge of tackling one of the highest overeducation rates among advanced economies, while ensuring that emerging growth will not be constrained by skill shortages.

While levels of educational attainment in Greece have increased over time, there are concerns that the education and training system is not sufficiently aligned with labour market needs. Vocational education and training (VET) has a relatively low status and participation in the VET pathway of upper secondary education is relatively low by EU standards. Young people prefer general education that will grant them entry to university and the high social status associated with it. University education is frequently criticised for not conferring upon its graduates the cutting-edge skills that the labour market needs.

Greece is hardly unique in facing these skills-matching challenges but the difficult economic situation in the country makes the need for a coherent policy response particularly acute. To pave the way for more evidence-informed policies, a comprehensive skills anticipation system – the Mechanism for diagnosis of labour market needs – was developed in 2015. While it has achieved notable success and progress in a relatively short time span, more work is needed to transition towards a mature and holistic skills anticipation and matching system; one that can incorporate and meet diverse stakeholder needs and effectively influence the design of skills, employment and economic growth policies.

Aims of study

The Mechanism for diagnosis of labour market needs (hereafter ‘the mechanism’) was established in Greece in May 2015 under the supervision of Ministry of Labour and Social Affairs and the scientific guidance of the National Institute of Labour and Human Resources (NILHR) ⁽¹⁾. The main aim of the mechanism is to provide a comprehensive assessment of the evolution of demand for occupations and economic sectors and to facilitate matching skill supply and demand at national, regional and local levels. The mechanism’s scope has widened over the years to include investigation of issues related to entrepreneurship, active labour market policies (ALMPs) and skill mismatches.

In 2016 the Greek Ministry of Labour requested Cedefop’s support in developing the mechanism, as part of the centre’s project *Governance of skills anticipation and matching in EU countries: in-depth country reviews* ⁽²⁾. Following a scoping exercise, the national steering committee (NSC), ⁽³⁾ identified four key issues the review should focus on:

- (a) the need to consider more fully the role of skills anticipation processes – with particular reference to the mechanism – for the purposes of strategic policy-making;
- (b) the need for skills anticipation (particularly the mechanism) to align more closely with the overall national strategic framework for VET reform;
- (c) the need to focus skills anticipation activities, as part of the mechanism on emerging skill needs, that are relevant for the productive transformation of the economy – i.e. those generated by economic development goals – especially since the economic crisis left a marked impact on the country’s economic and social fabric; associated with this is the need to adopt ‘futures building/foresight’ methodologies and rely less on long-term skills forecasting exercises, given that the latter rely on historical

⁽¹⁾ In this report, the term Ministry of Labour is used. At the time the review started, the ministry was referred to as Ministry of Labour, Social Security and Social Solidarity.

⁽²⁾ Project page on Cedefop website: www.cedefop.europa.eu/en/events-and-projects/projects/assisting-eu-countries-skills-matching; Pouliakas (2017).

⁽³⁾ The NSC comprised representatives of the Greek Ministries of Labour and Education, the NILHR, the Greek Public Employment Service (OAED) and the main social partners. Its remit was to assume ownership of all review proceedings and outputs. It operated in close coordination with a dedicated team of Cedefop experts and has actively engaged in all steps and project activities to facilitate, validate and disseminate the project outcomes (list of NSC experts and organisations in Annex 3).

projections and the country was confronted with a major structural break during the depression, generating high uncertainty about future economic developments;

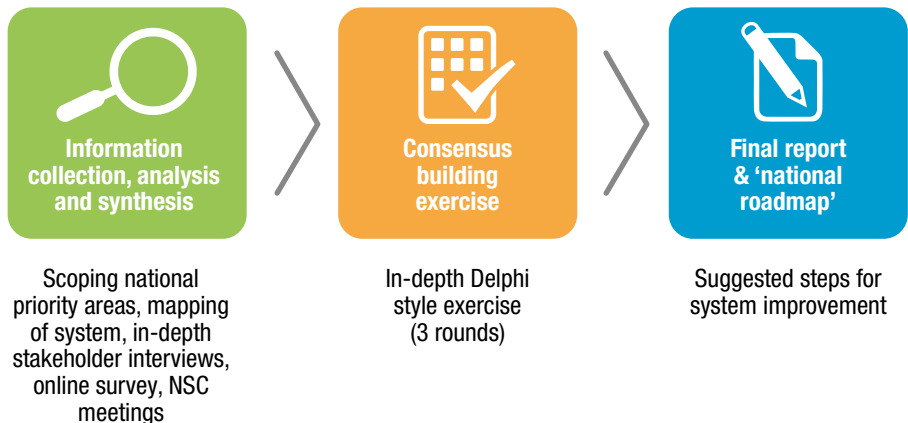
- (d) the need to consider reforming the regulatory and institutional framework of the mechanism, particularly the management and operational processes underpinning stakeholders' expected contributions and role in the system.

These priorities shaped the set-up of the review, informed the information collection that was part of it, and were a basis for identifying future development opportunities.

Reviewing skills governance in Greece

A multifaceted research design was used to identify possible ways to strengthen the governance of skills anticipation and matching – also referred to as skills governance – in Greece (Figure 1).

Figure 1. **Methodological steps of Cedefop's country review**



Source: Cedefop skills governance country reviews.

Review priorities were in particular mapped to Cedefop’s skills governance analytical framework (Cedefop 2017a) to identify key issues that need to be considered and to establish a basis for designing the interview fieldwork. An elaborated – customised – analytical framework was derived for Greece by focusing primarily on the shaded cells in the framework (Table 1).

In-depth interviews helped map key stakeholder perspectives on the value of, and main bottlenecks in using, information about skill needs and to identify the potential of the mechanism for improving skills matching and supporting the country’s recently reformed VET and apprenticeship system.

Table 1. Customising Cedefop’s skills governance framework for Greece

| | Organisation | Resources | Stakeholders | Use of information |
|----------------|-----------------------------------|-----------------------------|----------------------------------|---------------------------------|
| Foundations | Legal and institutional framework | Funding and human resources | Cooperation arrangements | Feedback mechanisms |
| Processes | Management and control | Data, methods and expertise | Feedback and validation | Customisation and dissemination |
| Sustainability | Vision and strategy | Stability | Integration of stakeholder needs | Reputation |

Source: Cedefop skills governance country reviews.

The interviews helped identify the issues to be addressed in a consensus-building exercise (CBE) with main national stakeholders. The CBE sought, in three rounds, to build consensus around a limited number of actions which need to be addressed over the short to medium term and on their implementation. This made it possible to develop a national policy roadmap to guide the future development of skills governance in Greece and the improvement of the mechanism.

To grasp the perspective of skills intelligence users, an online survey among (potential) users of the mechanism’s newly developed online web portal was carried out jointly with the NILHR early 2019. The survey aimed to provide insight into the value for users of the information the mechanism currently provides and to explore possibilities for improving dissemination to diverse audiences.

Need for change

The stakeholder interviews and the CBE helped identify a range of issues regarding the current operation of the mechanism. Some of the main issues and possible ways forward are summarised below.

System foundations

Legal and institutional framework

Recent legislation setting up a mechanism for diagnosis of labour market needs (Law 4336/2015, Law 4368/2016) reflect the commitment towards developing a comprehensive skills anticipation system at national, regional, and sectoral/occupational levels. The newly established mechanism, with its operational components (coordination committee, scientific committee, and operational network), has already delivered high-quality and policy-relevant outputs. Over time, it has the potential to deliver much more, provided there is support from a wider circle of stakeholders, management is improved, skills anticipation methodologies used are expanded and findings are disseminated to a wide range of end-users.

Critical first steps of an updated regulatory framework ⁽⁴⁾ could include revising the mechanism's mandate, clarifying that additional main aims of the system are to:

- (a) provide reliable and trustworthy information that can contribute to the design of policies for upskilling and reskilling available human resources;
- (b) inform, support and customise the delivery of its outputs to the needs of those in charge of designing ALMPs;
- (c) provide regular inputs for updating occupational standards and educational learning outcomes;
- (d) extract information on skill needs in the labour market (e.g. demand for apprentices, emerging occupational specialties) to inform VET programme design;
- (e) tailor its outputs for the purposes of career guidance and counselling to benefit young people making the school-to-work transition and adults engaging in labour market transitions;

⁽⁴⁾ Such an update is necessary only to the extent that extended tasks as part of the mechanism are not already (de facto) carried out, or may be secured via bilateral or other multi-stakeholder agreements between members of the mechanism's network.

- (f) consider the institution of new governance arrangements (e.g. a tripartite executive body, a research task force) to better manage the system;
- (g) set up a skills foresight stakeholder network;
- (h) stipulate more clearly the roles and responsibilities of different actors in the system.

Stakeholder cooperation

Cooperation between various stakeholders has already been secured, but there is a range of bodies and stakeholders with whom ties could be further established or strengthened if the mechanism is to meet its wider ambitions in the future:

- (a) further securing the participation and integration of the needs of education stakeholders (e.g. Ministry of Education and Religious Affairs – from now on Ministry of Education – General Secretariat of Lifelong Learning, National Organisation for Certification of Qualifications and Vocational Guidance [EOPPEP], Institute of Educational Policy) into the mechanism’s proceedings ⁽⁵⁾;
- (b) improving communication with the Ministries of Finance, Development and Investment, Tourism and Agriculture, to ensure that the country’s human capital development plans are informed by and inform the mechanism;
- (c) involving the Ministry of Migration and the third sector in general (NGOs) as providers and users of information relevant for linking the system with migration policy;
- (d) fuller incorporation of the main scientific institutes of the social partners as part of the mechanism to strengthen the system’s capacity to carry out periodic sectoral and occupational skill foresight exercises;
- (e) the development and coordination of the regional element of the mechanism, as foreseen in the original legal blueprint, is still in its infancy. It remains to be seen how effective the set-up of regional mechanisms of labour market diagnoses will be (in cooperation with the regional prefectures and local authorities and their associated representative bodies, the Association of Greek Regions (ENPE) and the Central Union of Municipalities of Greece (KEDE), or the regional directorates of the Greek

⁽⁵⁾ Inputs from the Union of Hellenic Chambers (KEEE), a key actor in the new apprenticeship system, could also be taken on board, given the high policy interest in apprenticeships as a particularly effective means of matching skills supply to its demand.

public employment system (OAED)) and how the anticipated governance challenges of linking them to the national mechanism will be addressed.

In summary the mechanism could become more inclusive. But a key challenge is also to ensure that the mechanism retains an ‘operational core’ and does not become fragmented and ‘ungovernable’ in a vain effort to include and meet the diverse needs of a wide array of stakeholders.

Resources

To safeguard the mechanism’s continued operation and effectiveness, stakeholders unanimously agree that stable funding should be secured (such as via the regular government budget) and that efforts should be made to augment existing financial and human resources. While it is acknowledged that the Ministry of Labour should assume the largest share of funding, expanded contributions could be expected on behalf of the Ministry of Education, EU Social Funds as well as via monetary and in-kind contributions by the social partners and regional/local authorities.

Feedback mechanisms

To validate the system’s results and impacts, the mechanism could benefit from the following new or improved feedback channels, subject to the provision of necessary funding:

- (a) a new, small-scale research taskforce could assume greater responsibility for customising and monitoring the extent to which the mechanism outputs meet user needs, while the wider research and academic community could be more actively involved in the scientific peer-review process;
- (b) the VET directorates of the Ministry of Education and the EOPPEP could scrutinise the relevance of the mechanism’s findings for their relevance for updating VET qualifications, programmes and learning outcomes ⁽⁶⁾;
- (c) a dedicated working group or an augmented scientific committee of the mechanism could assume responsibility for evaluating its operational proceedings, methodology and outputs, in accordance with international and EU best practices;
- (d) a specialised communication group could be instituted, under the supervision and management of the NILHR, whose mandate will be

⁽⁶⁾ Such efforts could build on the recent cooperation between the NILHR and EOPPEP that engaged in an applied research initiative focused on tracking VET graduates (ReferNet Greece, 2019).

- to promote and communicate effectively the mechanism's outputs (employing a variety of communication and media outlets) to a wide spectrum of potential users, seeking for their feedback, using a systematic medium-term communication plan;
- (e) social partners, who have actively participated in the development of the mechanism since its inception, conducting qualitative skill needs surveys at the professional/occupational level in 2015, could be more systematically involved in validating and shaping the mechanism's findings in the future;
 - (f) in the medium term, the possibility of the authorities setting up formal sectoral or regional skills councils, which include representatives from the public sector, academia and industry, may also be considered.

System processes

Management and coordination

One of the most important weaknesses of the mechanism so far, as identified by stakeholders, has been the lack of systematic and clear procedures in management. This may be due to lack of clarity of the initial regulatory and institutional framework but may also reflect inertia typical of any newly created system.

To date, the Ministry of Labour has assumed the lead role in supervising the system and is accountable to the main inter-institutional body, the NCC. The NILHR is at the centre of the system; the planning, executive, monitoring and evaluation functions of the system have almost exclusively rested on the NILHR's competence, cutting across all layers of the mechanism's overall management. Some stakeholders consider this concentration of functions disproportionate, highlighting a need for considering alternative governance arrangements based on the principle of 'shared responsibility and ownership' among key stakeholders (such as a small and flexible tripartite executive body, other formal and non-formal arrangements binding stakeholders), in addition to augmenting human and financial resources directed towards the NILHR and the mechanism.

Data and methods

In the space of just three years, collating existing data and development of a wide array of methodological tools for assessing labour market trends and occupational 'dynamism', sectoral input-output linkages and projected skill

needs, has provided Greece with a wealth of almost ‘real time’ information that can inform priority areas for employment, educational and social policy. However, in an era of growing uncertainty regarding technological and other social developments affecting the economy – such as Industry 4.0 and new digital, artificial intelligence (AI) technologies – significant efforts need to be made to collect in-depth information on changing skill needs using participatory and ‘future-based’ methods of skills anticipation. The existing toolkit of the mechanism, which relies primarily on the labour force survey (LFS) and administrative job turnover/unemployment data, has placed constraints on the system’s ability to obtain in-depth insight into detailed technologies, skill needs and mismatches. Therefore, the mechanism needs to systematise the development and operation of technological and skills foresight methods; to set out the necessary operational network for ensuring that they can be carried out periodically and meaningfully, has been strongly advocated throughout the Cedefop review.

Additional efforts are also required to ensure that the methodologies and outputs of the mechanism continually and transparently meet the high standards of state-of-the-art research and peer-reviewing, which can be achieved by further ‘opening up’ the mechanism to the scrutiny of academia and research (7).

Feedback and validation

Feedback and validation need to become more systematic. Although regular consultation and communication opportunities exist among the main operational actors of the mechanism, there is a need to make the planning of meetings, forums and structure of interaction among them (coordination committee, scientific committee, working groups) more systematic and regular. Facilitating internal and continuous communication (such as by setting up an extranet system), could also ensure that the voice of all different stakeholders is heard. Social partners may also set up regular ‘focus groups’, comprised of representatives from their constituents (employees, small and medium-sized enterprises, large businesses) to participate in and validate the mechanism’s technological and skills foresight procedures.

(7) See for instance Kotsios et al. (2019), who use the mechanism’s data to explore the role of the social and solidarity economy in Greece.

Customisation and dissemination

The mechanism has a long road ahead in terms of customising and disseminating its findings to the wide needs of diverse stakeholders. Dissemination has not been a strong point of the system to date.

As the mandate of the mechanism has steadily expanded, a wider group of beneficiaries (such as public employment service (PES) counsellors) has emerged ⁽⁸⁾, placing new demands on the system in terms of usability and user-friendliness. Existing outputs have mostly served the purposes of informing policy research, providing in-depth information relevant to the design of (national, regional and local) economic development plans, entrepreneurship and active labour market/employment policies. However, in the medium term the mechanism could also aim at providing relevant information to assist (young) people in finding jobs and studying for fields in high demand in the economy. This could include more data on emerging/future skill needs in the economy and in jobs; skills needed by local employers as well as better information on job vacancies ⁽⁹⁾.

Efforts have been made by the NILHR to develop a new and more attractive web portal that presents labour market indicators to different target groups (policy-makers, career counsellors, micro-agents). Nevertheless, even though (potential) users of this web portal are satisfied with the content and layout of the information presented, significant efforts need to be made to increase awareness of its existence, engage in dynamic web design improvements, customise the information to diverse target groups more effectively, and enhance its attractiveness ⁽¹⁰⁾.

⁽⁸⁾ Significant efforts have been made, for instance, to develop and offer a customised application of the mechanism tailored to their needs of PES (OAED) counsellors and updated regularly www.opengov.gr/minlab/?p=3657

⁽⁹⁾ As revealed by the online survey carried out as part of the Cedefop review.

⁽¹⁰⁾ Significant progress is continuously being made and the 2019 annual report on the mechanism, released in parallel to preparation of this report, included several new additions and novelties in the online portal (<https://lmd.eiead.gr/>): a user manual, information provided in English, a user-friendly entry point (developed around 'key questions' of potential relevance for users of labour market and skills intelligence) and additional detailed information on occupational skills profiles, attained by linking the mechanism to the European skills, competences and occupations (ESCO) taxonomy.

System sustainability

Vision and strategy

If the mechanism is to be a tool/resource designed to inform policy, it may need to be more closely tied to the policy process. How the mechanism's outputs are relevant to the policy discourse and policy formation – ultimately informing the development of strategic human capital development plans – needs to become apparent. This will require establishing a comprehensive action plan that clarifies how the outputs of the system can be effectively communicated to the higher corridors of power and satisfy a range of higher level policy-maker needs.

Another identified driver of trust in the mechanism's proceedings and outputs is transparency. This includes a need for greater understanding of the underlying priority-setting and decision-making processes, the development of commonly agreed methodological protocols and clarity in the operation and conduct of the various committees involved in the system's governance (coordination and scientific committees).

Stability and integration of stakeholder needs

Sustainability and stability of the system are also dependent, at least in part, on being able to include all relevant stakeholders in the system and to allocate and manage, in a transparent and well-planned manner, their individual roles, functions and responsibilities, including clarification of essential commitments in terms of financial and human resources. In addition to securing a stable funding based, primarily on national budgetary resources and other in-kind contributions from system actors, the continuous development of domestic human capacity and technical expertise is critical in safeguarding the mechanism's future methodological robustness ⁽¹⁾.

Information reputation

Although, according to the mechanism action plan, a permanent group with the exclusive objective of evaluating the system outputs will operate within the NILHR project team, no specific provisions have yet been made. Requesting

⁽¹⁾ Cedefop also organised a dedicated workshop on developing and implementing skills foresight and anticipation methods, with key national experts and policy officials on 20 and 21 June 2019 in Athens, Greece. www.cedefop.europa.eu/en/events-and-projects/events/country-review-skills-anticipation-and-matching-system-greece-0

impact assessment and evaluation of the first wave of the mechanism's proceedings and outputs, based on international/EU standards and good practice and a transparent list of evaluation criteria, is a key priority for the short term. But it is also necessary to establish soon the basis for continuous and periodic (such as every five years) follow-up evaluation of the system, possibly carried out by an independent (external) body of experts ⁽¹²⁾.

Another key aspect necessary for preserving and strengthening trust in the mechanism's information sources is the creation of an accessible national skills database and digital platform, which effectively integrates and merges the contributions of all relevant parties of the system. Of critical importance is the preservation of the intellectual property rights of the methodology and tools developed as part of the mechanism.

Sustainability will also be ultimately dependent on the dissemination of information and effective outreach to a broad range of end-users of the mechanism outputs.

Building consensus

CBE steps and focus areas

The CBE focused on four 'bottleneck areas': overarching challenges of the mechanism and Greek skills governance requiring priority attention and improvement. These were narrowed down by the NSC after scrutinising the main findings of the stakeholder interview phase (Figure 2).

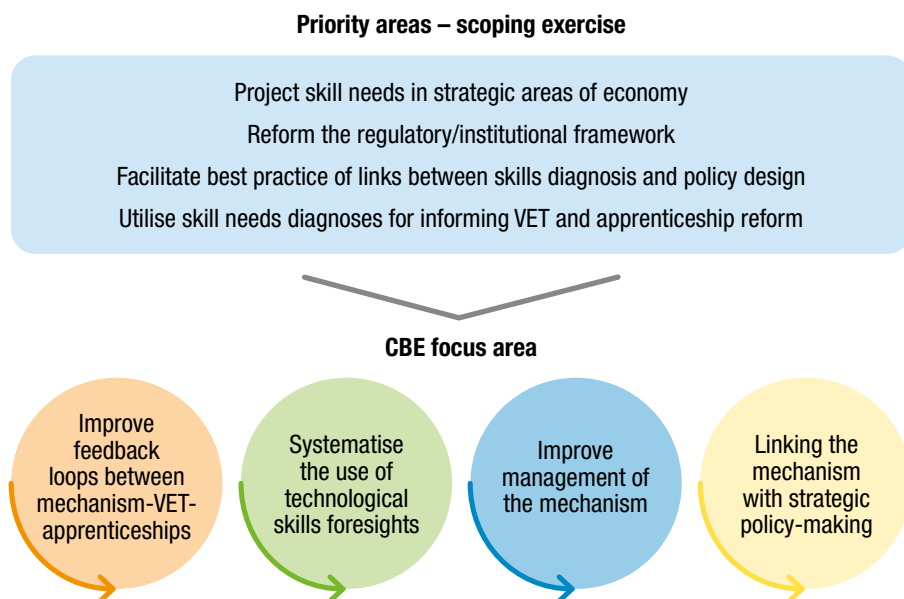
In the first round of the CBE attention was given to prioritising issues of concern from a long set of potential areas relevant for strengthening different facets of skills governance. Strong views emerged relating to the need for further clarification of stakeholder roles in the management of the mechanism, but also for wider stakeholder involvement to ensure that the mechanism met expectations. The need to broaden the focus of the mechanism towards the design of active labour market and VET policies was also highlighted, including widening the scope of data collection methodologies to obtain more detailed insights on skill needs in the economy (such as via skill foresight exercises).

⁽¹²⁾ Members of the scientific committee could assume this role, with additional contributions by experts from the social partners and academic community.

In the second round, the desired priorities and potential stakeholder roles as part of the mechanism (including defining information needs, providing information, analysis, validating and disseminating outputs) were explored in more detail. The need for better coordination of the mechanism by a smaller, multi-stakeholder body was stressed. Consensus was sought with regards to how to prioritise, given the wide set of potential objectives ⁽¹³⁾.

The third round emphasised striking consensus on how to overcome obstacles to the attainment of desired priorities, clarifying who should do what under alternative governance arrangements and agreeing on necessary operational requirements (leading authority, membership composition, main responsibility for strategic orientation/monitoring implementation/meeting user needs, timeline). This third round provided the basis for developing a national roadmap for improving the system in the short and medium term.

Figure 2. **Identifying priority areas for CBE**



Source: Cedefop's skills governance review for Greece.

⁽¹³⁾ For example, should the mechanism prioritise the support service provision by PES, influence career choices, inform the development and content of VET and apprenticeship programmes, inform local economic development plans?

CBE main conclusions

The CBE revealed stakeholders wanted to see significant improvements in the management of the mechanism. Although the need for major institutional changes (such as setting up a new ‘skills agency’) was refuted, there was considerable support for defining more clearly the roles, responsibilities and expected inputs of key stakeholders. For instance, there was support for considering the formation of a small executive management team to guide the strategic development of the mechanism, or of a small research task force to convert the strategy into specific research activities. Respondents also sought greater cooperation between the Ministries of Education and Labour and other relevant ministries and stakeholders.

There was consensus on the need to reform the way in which specific labour market and skill needs and mismatches are identified and may be utilised in designing active labour market and VET policy.

There was also a desire to widen the information collected and processed in the mechanism so that it could be used to support reform of the VET and apprenticeship systems as well as the development of updated occupational monographs.

Skills foresight analysis, to help understanding of future skill needs due to emerging technologies, skills and jobs, was seen as an important piece of the national skills governance puzzle that needed to be further developed. Respondents to the CBE highlighted that the objectives and processes of such an exercise, and associated governance arrangements, should be clearly stated in regulation, and that the social partners’ scientific institutes could assume a leading role in its implementation.

Stakeholders agreed on the mechanism’s potential to assume an expanded role, especially in providing information relevant to the following:

- (a) supporting the PES in developing ALMPs and assisting unemployed people;
- (b) providing information to guide young people’s and adults’ career decisions;
- (c) supporting the development of the apprenticeship programme;
- (d) influencing local development plans.

In meeting such an expanded role, the need for changes in the overall coordination of the mechanism was acknowledged. There was recognition that there needed to be broader stakeholder involvement, but the role of individual stakeholders could be determined with respect to the particular expertise they brought to the table.

There was consensus among CBE participants on ensuring that the mechanism can meet the needs of various groups and produce robust analyses to support policy-making. But it was clarified that the mechanism's role is one of informing policy; its success cannot be evaluated on the basis of whether economic or employment policies stemming from it are effective or not. Nevertheless, it was widely acknowledged that there needs to be a systematic and periodic evaluation of the mechanism's operation, methodology and outputs and general value-added.

A roadmap for change

Based on the key points and consensual views emerging from the interviews with stakeholders and the outcomes of the CBE, a policy roadmap was developed by Cedefop. This suggested tangible and commonly agreed improvements to the mechanism and Greek skills governance system in general. This roadmap – presented in Table 2 and the infographic (Figure 3) – was validated by all NSC members in the final project meeting and following revisions in two subsequent rounds of consultation with them. Although Cedefop will continue to follow developments in the country's skills governance, responsibility for implementation of the target areas and actions described in the roadmap will ultimately lie with the main national stakeholders.

Table 2. **Policy roadmap for Greece**

| | Improvement areas/actions | Timeline |
|----------|--|--------------------|
| 1 | Revising the institutional and operational framework of the mechanism | Medium term |
| | <ul style="list-style-type: none"> • Map and demarcate the role and contributions of relevant operational stakeholders, with a stronger role for those formulating economic and development policy • Map all inputs-outputs of the mechanism, clearly allocating responsibilities across national, sectoral and regional levels • Formalise stakeholder cooperation in binding agreements and streamline communication channels • Potentially institute a research taskforce • Potentially institute a tripartite executive coordination body | |

| | Improvement areas/actions | Timeline |
|----------|--|--------------------|
| 2 | Supporting ALMP and career guidance <ul style="list-style-type: none"> • Set the support of ALMPs as one of the main objectives of the mechanism and set up an 'action plan' building on ongoing pilot programmes • Adjust the mechanism's outputs to be suitable for career guidance and vocational counselling • Evaluate existing CVET programmes offered by social partners inspired by the mechanism | Short term |
| 3 | Enhancing technological and skills foresight capability <ul style="list-style-type: none"> • Pilot and set up systematic skills foresight exercises as an integral component of the mechanism to detect emerging skill needs within occupations • Facilitate standardisation of a common methodology, concepts and taxonomies (a 'user manual') | Short term |
| 4 | Linking and improving feedback loops between the mechanism and VET policy, specifically apprenticeship reform <ul style="list-style-type: none"> • Formalise the process of exchange between the Ministry of Education intelligence requirements for designing new VET and apprenticeship programmes and the mechanism • Carry out data collection focused on employer demand for apprentices • Standardise the use of terminology (based on a learning outcomes approach) and data taxonomies to aid interoperability of information systems between education and labour market stakeholders • Institute a new occupational skills and tasks survey aimed at the regular updating of occupational skills profiles as a common reference point and linkage between the mechanism and VET | Medium term |
| 5 | Expanding information access and outreach <ul style="list-style-type: none"> • Set up a specialised communication working group for promoting outputs to potential target audiences. • Ensure accessibility to an open-source 'national skills database' • Enrich with additional regular and real-time information on wages, self-employment and entrepreneurship | Short term |
| 6 | Facilitating links with strategic policy-making <ul style="list-style-type: none"> • Better align the mechanism and the national growth strategy | Medium term |
| 7 | Facilitating system stability and reputation <ul style="list-style-type: none"> • Secure the intellectual property rights of the mechanism • Ensure transparency of proceedings and a 'code of conduct' • Carry out regular system evaluation • Ensure a continuous and diversified funding stream | Medium term |

NB: The full roadmap with more detailed descriptions is presented in Chapter 7.

Source: Cedefop and Greek NSC.

Figure 3.

A policy roadmap for improving skills governance in Greece

Labour market and skills challenges



Brain drain and rapid population ageing squeezing skills supply



Very high automation risk (> 50%) and low participation in lifelong learning (11%)



Low foundation skills among both students and adults (> 20%)



Return to 'sustainable' growth and competitiveness following crisis



High overeducation (34%), but for 47% of firms skill gaps inhibit investments



Low skill demand and low high-tech employment (3%)

Key skills governance challenges

Stakeholder views



Challenges in institutional set-up

- Clarify institutional roles and responsibilities on basis of 'shared ownership and competency' principle
- Enhance coordination possibility via tripartite executive body
- Build strategic vision & higher-level policy links
- Foster inter-ministerial cooperation
- Enhance transparency and evaluation of proceedings & outputs



Challenges in skills governance processes

- Set up (in)formal MoUs among key stakeholders
- Strike national-sectoral-regional representation
- Facilitate operational communication channels
- Standardise taxonomies and methodologies
- Strengthen links of outputs with ALMPs & VET
- Ensure a continuous and diversified funding stream



Challenges related to data and methods

- Data accessibility and 'open data culture'
- Mitigate data gap on employers' apprenticeship needs
- Development of (pilot) technology foresights
- Data availability at regional level
- Development of occupational skills survey feeding timely occupational profiles
- Enhance attractiveness of mechanism online portal

CHAPTER 1.

Matching skills in a changing world

1.1. The need for labour market and skills intelligence

As the European and Greek economy is grappling with the challenges posed by digitalisation, particularly the fourth industrial revolution and AI, globalisation, ageing societies, migration, climate change and overall low productivity, their jobs markets appear to be gripped by uncertainty. Technological change 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, 2017b). Old certainties such as globalisation are also beginning to feel a little more tentative as some countries are reverting to protectionist trade policy. Although 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), even piecemeal change can accumulate over time; 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 all this implies 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.

To date, most EU Member States, including Greece, have responded to the challenges posed by different drivers of skill demand by seeking to increase skill supply, notably through raising educational attainment. This has been, for most, a reasonable response to projections of future skill demand shifting towards more highly skilled economic activities (Cedefop, 2018a). At the same time, concerns have mounted about the extent to which this strategy is sufficiently meeting Europe's skill needs. A wide range of evidence suggests many workers' skills are mismatched to their jobs (Cedefop, 2010; Pouliakas, 2014; Lessaer et al., 2015).

While some skill mismatch may be temporary (Sicherman, 1991), evidence has mounted that skill mismatch exhibits a high degree of persistence (Mavromaras and McGuinness, 2012; Meroni and Vera-Toscano, 2017). The rush to widen significantly access to higher education, without accompanying investment in the productive capacity of economies, can come at a cost of qualifications inflation (Delaney et al., 2020). Individuals who become stuck in jobs for which they are manifestly overeducated face hefty economic and social costs – they are paid less and gain less satisfaction from their work – compared with their counterparts who were able to find a job matching their skills (McGuinness et al., 2018; Cedefop, 2018b). Aggregating workforce mismatches in Europe shows skill mismatch has a significant macroeconomic cost. Cedefop’s European skills and jobs survey (ESJS) suggests skill mismatch translates to an EU-wide annual productivity loss of about 2.14% – around EUR 0.8 for every hour worked (EESC, 2018).

In many respects the root cause of mismatch is that too much of Europe’s education and training is supply-driven. VET providers deliver what they have the capacity to deliver or face perverse incentives, and the consumers of that education and training – learners (and families) – are not sufficiently informed about which programmes and skills have a favourable return in the labour market. Education and training systems need to anticipate labour market developments better and, where necessary, consider reforms such as amending existing curricula and learning outcomes or designing new programmes. International evidence suggests this is not straightforward. The ETF, Cedefop and the ILO (2016), the ILO (McGuinness et al., 2017) and the OECD (2016a) have pointed towards the problems that ineffective skills anticipation and skill mismatch pose to many western economies.

For many Member States the challenge is to devise skills governance structures and practices that encompass labour market and skills information and intelligence (LMSI), to balance skills supply with current and emerging skill demand ⁽¹⁴⁾. There is long-held recognition in the economics and policy discourse that the efficacy of matching people to jobs – both now and in the future – is dependent upon the availability and use of LMSI (European Commission, New Skills Agenda, 2016).

⁽¹⁴⁾ Labour market and skills intelligence is concerned with those activities that yield information about the current and future demand for, and supply of, skills, and the extent to which they are in likely to be in equilibrium.

Strengthening skills governance has a range of positive economic and social benefits. The purpose of the Cedefop project *Governance of skills anticipation and matching in EU countries*, is to collate evidence about effective examples of governance of skills anticipation and matching and to support EU countries in developing their own systems of labour market assessment and skills anticipation.

Greece, the first country to participate in Cedefop's project, is unique in many respects, given that the demand for employment and skills is relatively low following years of economic contraction due to the economic crisis. The country also suffers simultaneously from significant skill mismatches and a misalignment between students' preferences for specific academic courses and their wage returns in the labour market (Livanos and Pouliakas, 2010; Pouliakas, 2014). The VET sector has traditionally been weak and unattractive (Pouliakas and Psifidou, 2015; Mavris, 2018) and recent public investment in human capital has largely been appropriated by other countries following marked brain drain that severely reduced the country's well-educated population. In anticipation that the economy will continue its recent path of economic recovery, and to ensure that current human capital investments are diverted towards activities of higher value-added and comparative advantage, there is a pressing need to anticipate current and emerging skill needs better, so that future growth is not derailed by skill shortages. With the development of the mechanism for labour market diagnosis ⁽¹⁵⁾ in 2015, Greece has made great strides in this direction.

Before describing the research undertaken in Greece as part of Cedefop's country review, the remainder of this chapter provides key indicators about the economy and the labour market. Offering context and examining current supply and demand for skills and skill mismatches, it demonstrates the need for reliable skills intelligence, such as the mechanism, to shed light on the economy's current and anticipated skill needs.

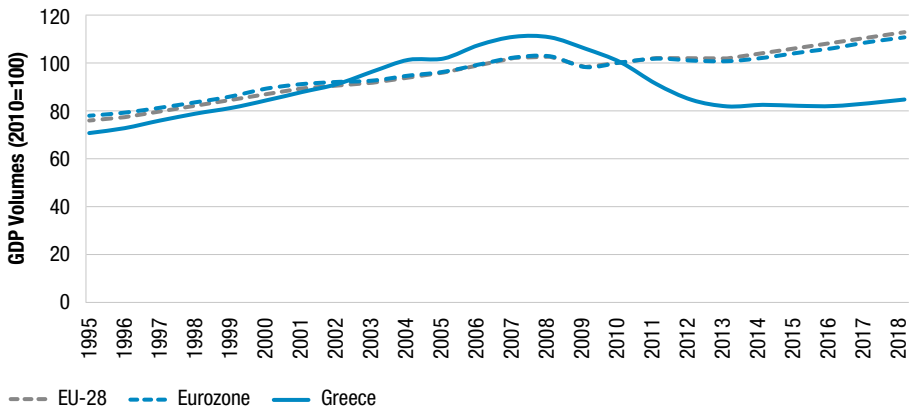
1.2. Economy and employment

Greece's recent economic history is one of recession (Figure 4). Between 2007 and 2016 the economy contracted each year, so that by 2016 the economy was nearly 30% smaller, in real terms, than in 2007. The EU economy over the same period was able to recover from the financial crisis

⁽¹⁵⁾ <https://lmd.eiead.gr/>

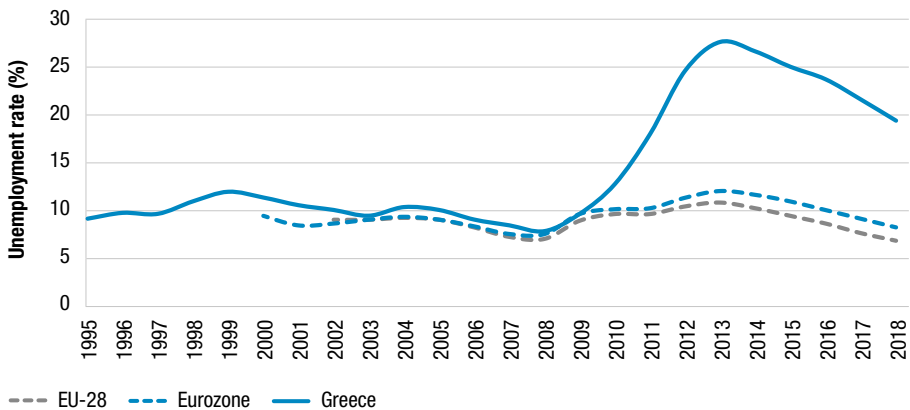
much more quickly and grew by around 6% over the same period. The rapid and steep contraction of the Greek economy markedly weakened the labour market. While the unemployment rate was just above the EU average before the economic crisis, it soon accelerated and reached a peak of 27% in 2013 (Figure 5). Although unemployment has fallen since then, it was 19.3% in 2018, much higher than the EU average of 6.8%.

Figure 4. **Real GDP growth 1995-2018: Greece and Europe**



Source: Eurostat GDP and main components [nama_10_gdp].

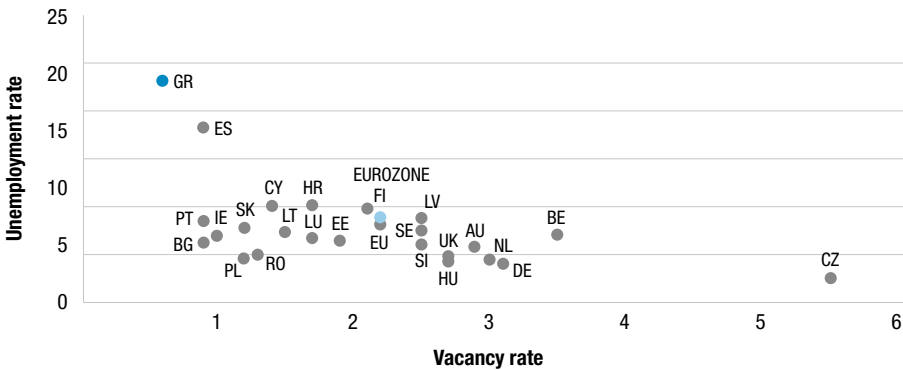
Figure 5. **Unemployment rates 1995-2018: Greece and Europe**



Source: Unemployment rates [ifsa_organ].

This suggests that the principal problem in Greece, which it continues to face, is that of stimulating aggregate demand to absorb a surplus skill supply. The country has the unenviable position of having the lowest rate of vacancies and the highest rate of unemployment in the EU (Figure 6). But skill mismatches are emerging or prevalent, with some studies pointing towards a high share of employers not being able to fill their vacancies – especially those in growth sectors – or expressing concerns about skill shortages constraining economic recovery (European Commission, 2015). Others highlight that Greece has some of the highest rates of overqualification (Pouliakas, 2014) and overskilling (OECD, 2016b) among advanced economies. So, even in a depressed labour market, ensuring higher quality of skills supply and responsiveness to skill demand remains of high policy importance.

Figure 6. **Unemployment and vacancy rates in the EU, 2018**



Source: Eurostat vacancy and unemployment data [jvs_a_rate_r2 and lfsq_urgan].

1.3. Skill mismatch in Greece

1.3.1. Skill supply

The distribution of educational attainment in the Greek working age population is an indication of skills supply in the country ⁽¹⁶⁾. The overall skill supply trend

⁽¹⁶⁾ The discussion focuses on the working age population in Greece and does not consider the ‘brain drain’ that has taken place during the post-crisis years. By some estimates, between

in the country is an increasingly higher level of educational attainment mostly at tertiary level (Table 3). In 2006 18.7% of the working age population had attained tertiary level education and this share had risen to 27.7% by 2018. The percentage of tertiary educated people in 2018 is just below the EU-average. Another skills supply indicator is the percentage of people aged 30 to 34 who have attained tertiary level education (ISCED levels 5-8). The percentage of recent graduates in Greece is higher than the EU average and it has grown substantially over the 2006 to 2018 period (Figure 7).

The relatively low participation in initial vocational education and training (IVET) in Greece compared to the EU average is indicative of the quality of skill supply. Learners in upper secondary education are less likely to take the vocational as opposed to the general education pathway, compared with other Europeans. Relatively few students in upper secondary education engage in programmes with work-based learning, which means that this increasingly important form of VET – which can play a substantial role in bridging the skills gap – is underutilised (Cedefop, 2018c).

Contrary to what high education attainment rates would lead to expect, one of the key problems facing the Greek labour market is the relatively large share of the population with low skills. The most recent results from the Organisation for Economic Cooperation and Development (OECD) PISA surveys reveal that Greece performs relatively poorly in terms of skills development in reading, mathematics and science among 15-year-olds. The skills of Greek adults in problem solving and numeracy (and less so in literacy) are also ranked lower than most advanced economies, as confirmed by the results of the PIAAC survey (Figure 8).

Greece also performs relatively poorly in lifelong learning and the continuing updating of adults' skills, and lags significantly behind the EU average. And the participation and contribution of enterprises in continuing vocational education and training (CVET) in Greece is minimal compared with the situation in the rest of the EU. This may be partly attributed to the fact that the cost of training tends to fall disproportionately on public sector programmes and individuals, as opposed to being shared with the private sector (Cedefop, 2015a). Even though individuals' disposition towards continuing learning is healthy, structural barriers prevail: these include lack of welfare state provisions, like child care, and information gaps regarding

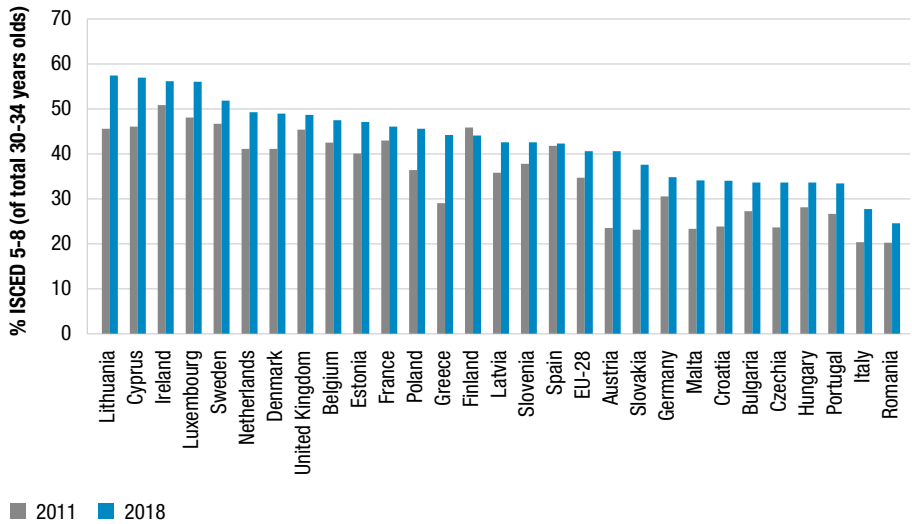
available training opportunities (Karalis, 2017). A significant share of Greek workers is also in involuntary non-standard employment (Livanos and Pouliakas, 2019) and much employment is concentrated in SMEs, both of which are factors correlated with low access to training (Cedefop, 2019b).

Table 3. **Skill supply indicators in Greece and EU**

| | Greece | EU |
|--|--------------------|-------------|
| Educational attainment | 2018 (2006) | 2018 |
| % with tertiary level attainment | 27.7 (18.7) | 28.5 |
| % with upper secondary or tertiary | 71.3 (58.6) | 74.0 |
| % with upper secondary education | 43.6 (39.9) | 45.6 |
| Participation in vocational education | | |
| IVET students as a % of upper secondary students (2017) | 28.8 | 47.8 |
| IVET students in work-based learning as % of upper secondary education (2014) | 10.5 | 29.6 |
| Low achievement (PISA, 2015) | | |
| Percentage of low achieving pupils shows the proportion of the 15 year-olds with attainment below level 2 in science, maths and reading combined | 20.7 | 12.4 |
| Participation in lifelong learning and continuous VET | | |
| People in receipt of training in last four weeks | 10.9 | 16.9 |
| % of enterprises providing CVET (2015) | 21.7 | 72.6 |

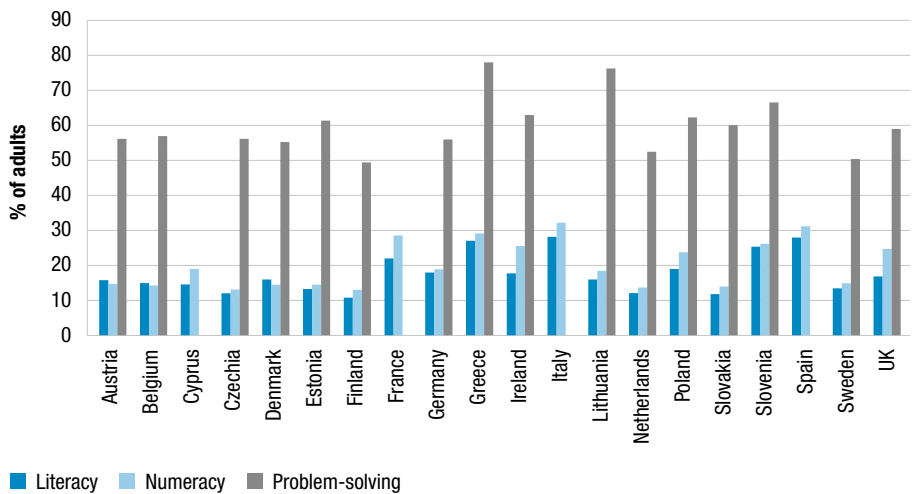
Source: Eurostat [ifs_edat_03]; Cedefop (2017c); Cedefop (2019b); PISA from OECD
www.oecd-ilibrary.org/education/pisa-2015-results-volume-i_9789264266490-en

Figure 7. **Tertiary level educational attainment of 30 to 34 year-olds, EU, 2011 and 2018**



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

Figure 8. **Percentage of adults with low proficiency in literacy, numeracy and problem solving**



Source: OECD PIAAC www.oecd.org/skills/piaac/data/

Other evidence indicates that the Greek skills system is generally ill-equipped and struggles to meet with even modest levels of skills demand. Cedefop's European skills index (ESI) ⁽¹⁷⁾ – a composite indicator providing insights into the comparative performance of national skills systems across EU Member States – provides an overall assessment and also looks into the three pillars of a skills system:

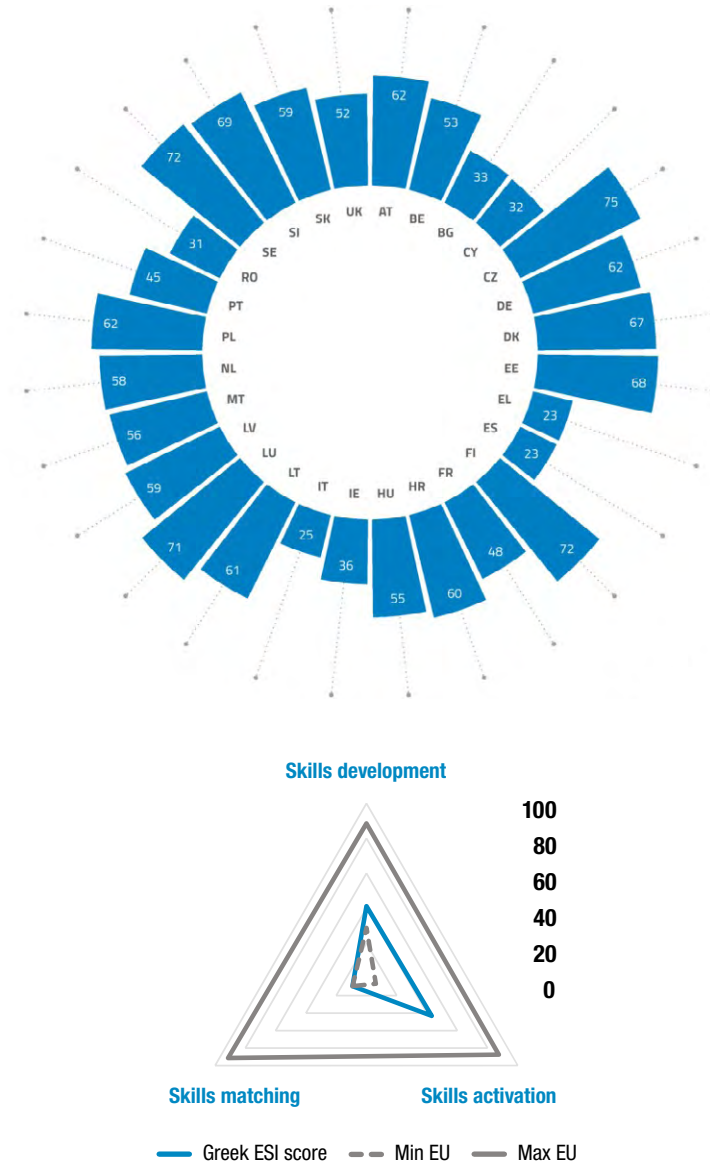
- (a) skills development, the training and education activities of the country and the immediate outputs of that system in terms of the skills developed and attained;
- (b) skills activation, the extent to which the potential workforce and skill supply of a country is being activated and used in the labour market;
- (c) skills matching, the degree of successful utilisation of the skills of the workforce 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 – scored at 100 – and each country is given a score which corresponds to its deviation from that. In Greece's case the total score of 23% indicates that it is 23% of the way to achieving the ideal. Greece has the lowest overall ESI score among EU countries, shared with Spain. This can be attributed to low scores in each of three ESI pillars (Figure 9). Greece scores at 43% in skills activation and 41% in skills development but is the worst performing country in the EU in the area of skills matching (9%). The ESI, therefore, points to a relatively weak skills system in Greece on multiple fronts.

A group of senior stakeholders (Friedrich Ebert Foundation, 2018) analysed Greece's ESI scores to develop proposals for policy intervention. The following draws on their expert analysis. Within skills activation, a good score was achieved in not leaving education and training early; while this may be partly linked to the situation in the labour market, it reveals people's firm belief in the gains from education. Modernising some aspects of the education system can be expected to benefit weaker areas. An area that needs work is investing in developing skills in reading, maths and science, which was revealed as the weakest link in the country's compulsory education performance. To address its primary causes, the group considered the following actions essential: reshaping curricula to embrace critical thinking, knowledge application and the use of new technologies; focusing

⁽¹⁷⁾ www.cedefop.europa.eu/el/publications-and-resources/data-visualisations/european-skills-index

Figure 9. Performance of Greece's skills system, ESI score for 2018



Source: Cedefop European skills index.

more on the quality of study materials; increasing teacher autonomy and introducing frequent assessments of teacher quality. The country performs comparatively well in high-level computer skills. This good result is attributed to post-secondary/tertiary level programmes. Several proposals were made to address low VET participation: stronger focus on anticipating skill needs; involving employers in VET governance; revising VET offers; and strengthening information and guidance provision.

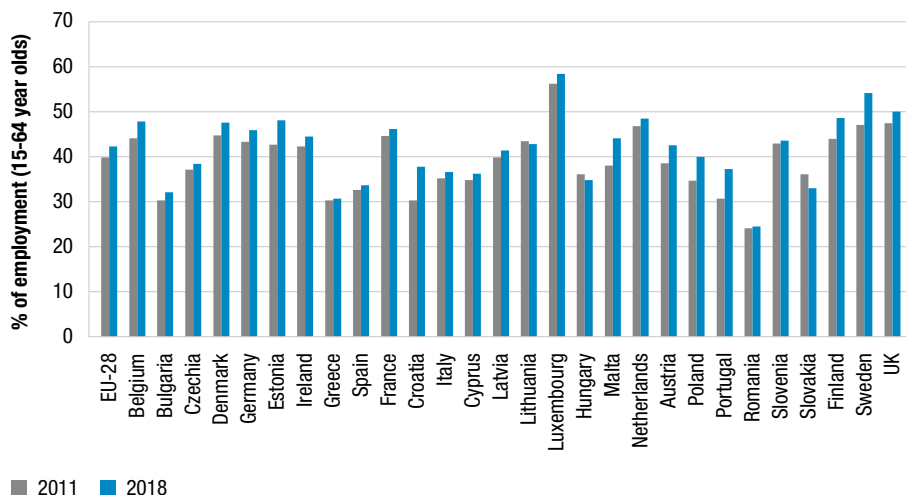
1.3.2. Skill demand

While the volume of skills supply, certainly at higher levels, has improved over recent years in Greece, a question arises as to whether the labour market has been able to make effective use of these skills. The economy's historical reliance on economic activities of low value-added has been exacerbated by growing employment in services and market sales occupations during the years of the crisis. As a result, the demand for people in high-skilled jobs, where a university education is typically a prerequisite, is relatively low (Figure 10). The percentage of people employed in high-level occupations (managers, professionals, or associate professionals) in Greece is the second lowest in the EU-28 and has remained stable over 2011 to 2018. Employment in relatively high-tech industries and services and in jobs requiring an elevated level of digital competence is also slightly lower than in the EU (Table 4).

The weak employment demand in Greece particularly affects younger people, specifically the cohort that has invested the most in elevating their educational credentials; this implies a waste of their human capital potential and potential for social exclusion (Table 4). In addition to having the highest youth unemployment rate, the NEET rate is higher in Greece compared with the EU-28 average. The employment rate of recent graduates aged 30 to 34 is also significantly lower, illustrating the substantial barriers young Greek graduates face in entering the labour market.

Looking to the future (Figure 11), people who are highly qualified will comprise about 40% of total employment by 2030 (the same as forecast for the EU), with particularly strong projected demand for high-skilled professionals and technicians (Cedefop skills forecast 2030). While expected trends for Greece are close to what is expected for the EU on average, there are notable exceptions. The lower degree of expected job polarisation compared to other countries reflects the continued high demand for workers in some medium-skilled occupations (services and market sales, plant and machine operators and assemblers) and declining employment prospects

Figure 10. **Percentage of people employed in high-level occupations (ISCO 1, 2 and 3) in the EU, 2011 and 2018**



Source: Population by educational attainment level, sex and age (%): main indicators [edat_ifse_03].

for (small-shop) managerial posts. Employment is also anticipated to grow more robustly in the wholesale and retail trade, accommodation and food service activities, and education, while it is likely to continue to decline in agriculture sector and in some segments of the secondary sector (such as mining and quarrying). Despite declining job creation in some primary and secondary economic activities, high replacement demand in some sectors and occupations due to workforce ageing, such as agriculture, forestry and fishing and crafts and related trades, will continue to sustain a potential flow of new job openings.

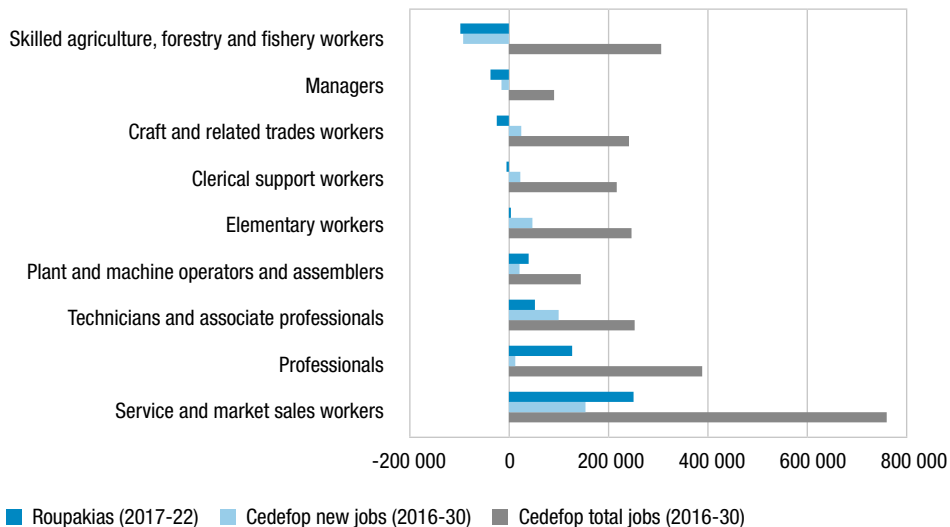
These sectoral restructuring trends, combined with a return to positive economic growth, are likely to lead to increasing employment for medium- and highly educated individuals. According to the econometric projections of European Commission (2019), only the very low-skilled (those with below primary education) segment of the working age population may see declining job prospects in the medium term, while the largest gains will likely accrue to upper secondary vocational and post-secondary (non-tertiary) educated graduates.

Table 4. Additional indicators of skill demand in Greece and EU, 2018

| | Greece – 2018 | EU – 2018 |
|--|---------------|-----------|
| Demand for young people | | |
| NEET rate (18-24 year-olds) (%) | 20.0 | 13.7 |
| % employment rate of recent graduates (20-34 year-olds) | 55.3 | 81.6 |
| Hi-tech skill demand | | |
| % employment in high-tech industry and knowledge-intensive economic activities | 2.8 | 4.1 |
| % adult employees whose jobs require basic or moderate ICT skills (2014) | 63 | 71 |
| Future demand | | |
| Share of total job openings for high qualifications, 2016-30 (%) | 39 | 43 |

Source: Eurostat [yth_empl_150]; Eurostat [htec_empl_nat2]; Cedefop 2018a; Cedefop ESJS.

Figure 11. Projected new and total job opportunities in Greece



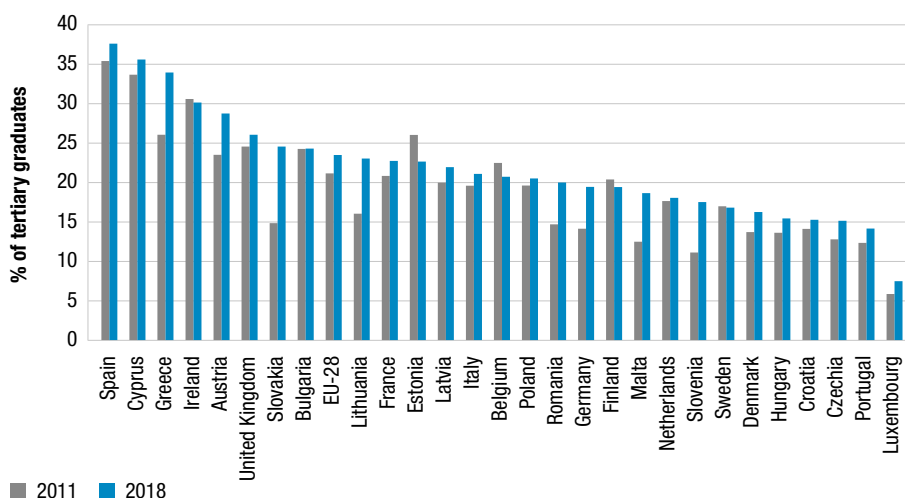
Source: Cedefop European skill forecasts (2018a); Roupakias (2018).

1.3.3. Skill mismatch

Given the low aggregate skill demand in Greece, it is not surprising that many people educated to tertiary level are often employed in jobs for which they are overqualified. About one in three are employed in jobs that typically do not need this level of education (Figure 12). Overqualification has increased between 2011 and 2018 as it has, on average, in the EU-28. Livanos and Pouliakas (2019) have further shown that much of the rising employment in Greece in recent years is masking an upward trend of underemployment, specifically a rise in the involuntary take-up of part-time and precarious work.

Cedefop's ESJS also revealed that Greece is the country with the highest share of overskilled and demotivated adult workers among all EU Member States (Cedefop, 2015a). But Greek workers are not only concerned about the relevance of their skills to the demands of their current jobs: many are also concerned about the currency and durability of their acquired skillsets in the context of ongoing and future labour market changes. The percentage of employees who believe it is likely that their skills will become outdated in the next five years is significantly higher in Greece, at 57%, compared to an EU average of 46%.

Figure 12. **Percentage of tertiary graduates employed in occupations other than managerial, professional and associate professional in the EU, 2011 and 2018**



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

Despite evidence pointing towards excess skill supply in the Greek labour market, there are skill shortages and gaps in specific occupations and skills clusters. Using data from the European Investment Bank investment survey, Pouliakas and Wruuck (forthcoming) highlight that even though the lack of staff with the right skills is a much smaller impediment to the investment activities of Greek firms relative to other EU countries, there has been a steady upward trend in post-crisis years, with about 47% of Greek enterprises reporting that skills deficits are a major obstacle to investment by 2017.

According to a representative employer survey carried out as part of the mechanism in 2015 by the social partners, even though Greek workers have no gaps in their basic skills (basic literacy and numeracy, knowledge and use of Greek and foreign languages, basic ICT skills), some evidence of mismatches between their skills and those wanted by employers is evident for soft skills (communication, flexibility, learning to learn, team working, taking initiative, organisation and planning, creativity, complex problem solving) and technical/job-specific skills (ETAM, 2015). While about six in 10 Greek firms with open job vacancies wanted tertiary education graduates, a similar share (63%) stated that the difficulties in filling those posts could be attributed to an absence of applicants with the right qualifications and skills (ibid., 2015).

Analyses of shortages for specific occupations and skills based on trends of a range of labour market indicators (employment and wage growth, hours constraints, occupational slack) have revealed some evidence of hard-to-find professionals in the health, education, science and engineering and business and management fields ⁽¹⁸⁾.

1.4. Conclusion

The massive contraction in the Greek economy has significantly dampened skill demand in Greece. Observed and persistent skill mismatches in the country partly reflect continued investment by individuals in education and training even though the opportunities to enter into high-skilled jobs

⁽¹⁸⁾ See the OECD Skills for jobs data visualisation www.oecd.org/els/emp/skills-for-jobs-dataviz.htm and Cedefop's study *Mismatch priority occupations in Europe* http://skillspanorama.cedefop.europa.eu/en/analytical_highlights/greece-mismatch-priority-occupations

are scarce. But there is another side to the coin. The Greek skills formation system, as described by its capacity to develop, activate and match the skills of its population, ranks among the weakest of all advanced countries, raising concerns about the overall quality and resilience of the stock of skills in the economy and its capacity to foster innovation and future growth.

There is also *prima facie* evidence of a missing skills anticipation system in Greece to date, which contributes to inefficiencies and labour market mismatches. This assertion is backed by evidence from the 2011 adult education survey (AES), which revealed that only 9% of adults in Greece had access to information on learning opportunities, compared with 27.0% in the EU. It is evident that strengthening the quality of labour market information and skills intelligence in Greece, as to guide the education and training decisions of citizens better, is crucial.

The development of the mechanism for labour market diagnosis in the country may well improve the situation and is a positive step in that direction. How this mechanism can improve skills anticipation and the responsiveness of employment, education and training policies to labour market changes forms the focus of the remainder of this document. Before considering how the mechanism can more effectively provide such intelligence, Chapter 2 provides a summary of the methodology employed as part of the Cedefop country review.

CHAPTER 2.

Reviewing skills governance

2.1. Conceptualising skills governance

The Cedefop project *Governance of skills anticipation and matching in EU: in-depth country reviews* ⁽¹⁹⁾ is concerned with understanding how skills anticipation and matching in EU countries might be improved. In the Greek country review, the focus is on the operation of the mechanism of labour market diagnosis. How that assessment is made is described in detail in this chapter.

Building on the definition of the European Commission (2015) and OECD (2016a), Cedefop focuses the reviews on analysing skills governance: ‘the process of involving stakeholders from the public, private and third sector, from different economic sectors and geographic units, in generating, disseminating and using labour market and skills intelligence to steer a wide array of policies for the purposes of balancing skill supply and demand and providing an informed basis for further economic development via targeted skills investments’.

Box 1. Cedefop's reviews on the governance of skills anticipation and matching

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 Greece, Slovakia, Bulgaria and Estonia between 2017 and 2019 complement this work and go one step further. They take 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 is to identify country-specific challenges and provide informed policy support to the government, in close alignment with national policy

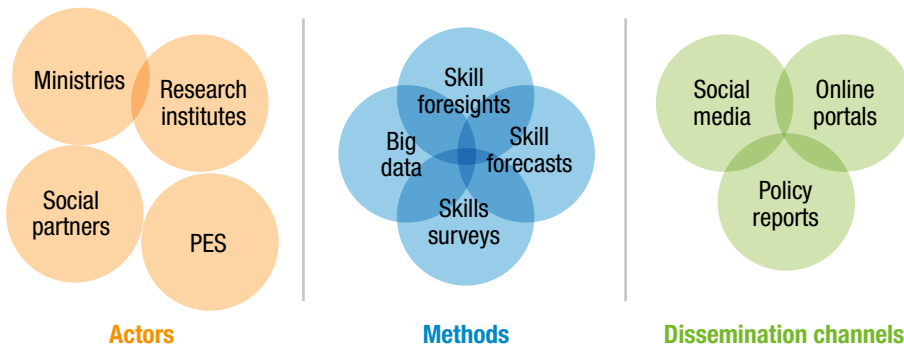
⁽¹⁹⁾ More information on the project: www.cedefop.europa.eu/en/events-and-projects/projects/assisting-eu-countries-skills-matching; Pouliakas (2017).

priorities and interacting with key national bodies and stakeholders. The reviews use 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 are not evaluations and do not rely on assessment-focused peer-review methods. Instead, the reviews aim 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 committee (NSC) appointed by national authorities was in the driving seat in all review phases. The NSC 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.

The above process comprises a negotiation perspective, which represents the needs of the education system and of the labour market from short-, medium- and long-term perspectives. Skills governance includes a wide range of issues related to skills anticipation and matching: skill needs at the entry point into the labour market; the utilisation of workers' skills in the labour market; and 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 in the first instance, its analysis, dissemination of results and their use in steering the design of policies (education and training, employment, active labour market, migration, environmental policies) and ensuring that the skills system is responsive to findings. What constitutes effective skills governance will largely be dependent, on 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 on their results, can be seen as the lubricant that keeps different parts of the skills formation system running smoothly in a coordinated manner and – as such – determines the effectiveness of skills governance in a country.

Figure 13. **Cedefop’s classification of a skills anticipation system**

Source: Cedefop skills governance country reviews.

As Figure 13 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 of critical importance (ETF; Cedefop; ILO, 2016). Skills anticipation can be based on skill assessments/surveys (employers/employees/sectoral bodies) that review the current state of skills demand and supply based on 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 proxied by occupations and/or qualifications. Skill forecasts are projections of future skill supply and demand that assume that things will continue to progress 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 relates to 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 in Greece

In 2016 the Greek authorities requested Cedefop to review its newly developed mechanism for diagnosis of labour market needs and to support its further development, within the context of the centre's project *Governance of skills anticipation and matching in EU countries: in-depth country reviews*. The mechanism was established in May 2015 under the supervision of the Ministry of Labour and the scientific guidance of the NILHR. The main purpose of the mechanism is to provide a comprehensive assessment of the evolution of demand for occupations and economic sectors, as well as the supply and demand for skills in the labour market at national, regional and local levels; however, its mandate has widened over the years to include issues related to entrepreneurship, ALMPs and skill mismatches. It aims to provide policy-makers with the necessary evidence to ensure that the skills supply is aligned with the needs of the economy.

One of the first steps of the Cedefop review included the appointment of a NSC, comprised of representatives of the Greek Ministries of Labour and Education, the NILHR, the OAED and the main social partners ⁽²⁰⁾. NSC members took part in a scoping exercise to identify the priority issues the review should address (Cedefop, 2017d). The following four issues were identified:

- (a) the need to consider more fully the role of skills anticipation processes – with particular reference to the mechanism – for the purposes of strategic policy-making;
- (b) the need for skills anticipation (particularly the mechanism) to align more closely with the overall national strategic framework for VET reform;
- (c) the need to focus skills anticipation activities as part of the mechanism on emerging skill needs that are relevant for the productive transformation of the economy – those generated by economic development goals – especially

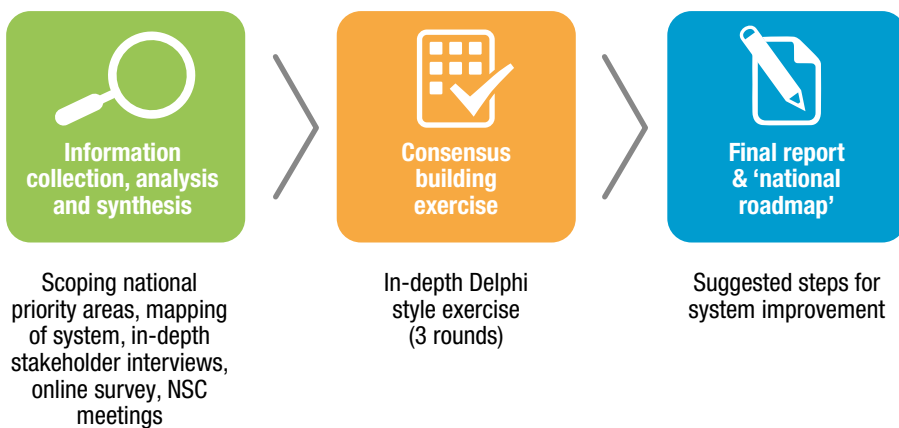
⁽²⁰⁾ The remit of the NSC is to assume ownership of all of the review's proceedings and outputs. It operates in close coordination with a dedicated team of Cedefop experts and has actively engaged in all steps and project activities to facilitate, validate and disseminate the project outcomes (list of experts and organisations comprising the NSC in Annex 3).

since the economic crisis left a marked impact on the country’s economic and social fabric; associated with this is the need to adopt ‘futures building/ foresight’ methodologies and rely less on long-term skills forecasting exercises, given that the latter rely on historical projections and the country was confronted with a major structural break during the great depression, generating high uncertainty about future economic developments;

(d) the need to consider reforming the regulatory and institutional framework of the mechanism, particularly the management and operational processes underpinning stakeholders’ expected contributions and role in the system.

To address how skills governance in Greece might be improved, a multifaceted research design was employed (Figure 14) ⁽²¹⁾. Following the scoping exercise, which identified the priority areas on which the study should focus, a background report was drafted which summarised the situation with respect to the mismatch between the demand for, and supply of, skills. The background report also presented a first stock-taking of the main challenges faced, the institutional arena (key actors involved in the skills anticipation and matching system) and prior studies and evidence that had used various types of skills anticipation methodologies in the country.

Figure 14. **Methodological steps of Cedefop’s country review**



Source: Cedefop skills governance country reviews.

⁽²¹⁾ More information on the methodological steps undertaken during the Greek review in Annex 2.

The issues identified through the scoping exercise were subsequently mapped to Cedefop’s generic skills governance analytical framework (Table 5) (Cedefop, 2017a). The framework is a key transversal activity of the Cedefop project that supported 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 addressed in a particular national context, some elements may be more important or pressing than others. But, for the most part, Table 5 summarises the interlinked parts common to any system of skills governance. It is this framework that has guided the assessment of skills governance in Greece.

Table 5. **Cedefop’s skills governance framework for Greece**

| | 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.

Based on the priorities identified in the scoping exercise, a set of key issues that need to be considered was identified for each cell in the framework. This formed the basis for designing a questionnaire used for the main interview/fieldwork stage of the study. The analytical framework was customised for Greece to focus on priorities. While many aspects were considered in the review, the shaded areas in Table 5 indicate what aspects received most attention.

A semi-structured interview schedule was developed for carrying out face-to-face interviews with a range of actors and stakeholders. This included policy-makers, labour market actors, representatives of education and training and social partners. The focus was to identify and understand their perspectives on the value and main bottlenecks in using information about skill needs in Greece and the potential of the mechanism for improving

the country's links between skill supply and demand. Additional telephone interviews with actors in the education and training sector focused on uncovering their views on how the mechanism could better meet their needs, especially with reference to how the newly reformed VET and apprenticeship system in the country (Ministry of Education, Research, and Religion, 2016) could benefit from the mechanism's insights on skills demand.

The interviews were used to refine and elaborate on the issues to be addressed in a CBE. Participants in the CBE were those charged with responsibility for skills anticipation in ministries, agencies and social partners, mainly members of the NSC and the mechanism's NCC. The CBE sought, in three rounds, to concentrate thinking and reflection on those issues and actions which needed to be addressed to progress over the short to medium term and on which consensus could be found among participants. The CBE findings were used to develop a national policy roadmap to guide the future development of skills governance, with particular reference to the improvement of the mechanism.

To include the perspective of skills intelligence users, the review included an online survey among a wide population of (potential) users of the mechanism's newly developed online web portal; this was carried out jointly with the NILHR. The survey was developed by Cedefop and fieldwork took place early 2019. It aimed to provide more insight into the value that users of the portal could derive from the information the mechanism currently provides online and on possibilities for improvement in the dissemination of its findings to diverse audiences in the future.

The following chapters summarise the findings of Cedefop's skills governance review for Greece. This will support understanding of how the roadmap was developed and demonstrate the rationale for the actions it prioritises to improve the mechanism and skills governance in the country over the short to medium term.

CHAPTER 3.

Skills governance in Greece: current situation

3.1. Introduction

The Greek education and training system and labour market face several skills governance challenges. Over time, educational attainment has increased but there are concerns that the education and training system, in comparison with many other countries, is not sufficiently aligned with labour market needs (OECD, 2018). Higher education is typically criticised for its lack of responsiveness to labour market needs and the VET sector has been fraught with weaknesses such as low attractiveness to learners and employers and lagging quality (Pouliakas and Psifidou, 2015; Mavris, 2018). The economic crisis accentuated skills matching problems in the country (Pouliakas, 2014). This is apparent from employers not being able to locate the right talent (Arpaia et al., 2014; Cedefop, 2015b) and job seekers not managing to find jobs to match their qualifications and skills (World Economic Forum, 2014; Cedefop, 2015a). In order to address this situation, steps have been taken for better anticipation of future demand for skills and improved dissemination of the results within the VET system. However, any review of state-of-the-art skills anticipation and matching practices requires a good understanding of the institutional structure and developments in a country.

This chapter seeks to identify the structural constraints of the present state of skills governance in Greece at economic, political and cultural levels. The recent economic crisis is typically viewed as a determining factor that hampered the accumulation of the social and political capital needed to bring about the strategic design and implementation of a skills strategy at national, regional and sectoral levels. Austerity has certainly affected the development and quality of the Greek skills governance system. But, as this chapter will demonstrate, there are also other deep-rooted factors and past pathogeneses that predate the crisis and which should be taken into account when looking at how the current Greek skills governance system has developed over time.

3.2. Historical context

There is no long tradition of skills anticipation in Greece. The difficulties in establishing consensus-building mechanisms in skills and employment policies among trade unions, employer organisations and government bodies are closely related both to the structure of the Greek labour market and the historical legacy of a fragmented system of industrial relations.

The Greek labour market is characterised by a number of idiosyncratic features relative to other EU countries. In 2018, almost 30% of workers were self-employed, representing both the low-skill segment of the labour force – domestic services, shopkeepers, small traders – and also some high-skilled professions, such as lawyers, engineers and other professionals. This high prevalence of SMEs and associated self-employment is linked to a large and persistent informal economy.

It has also been noted in literature that the Greek job market suffers from two-tier segmentation (Tsakloglou and Cholezas, 2005; Cholezas et al., 2010), with a significant share of relatively well-paid and secure public sector jobs, on the one hand, and low-paid, low-skilled and precarious private sector jobs, on the other (Pouliakas and Theodossiou, 2005). The segmentation of the labour market seems to have become accentuated as a result of the economic crisis, as involuntary non-standard forms of employment have become more widespread (Livanos and Pouliakas, 2019).

The labour market has also been impacted in recent years by an overall weakening of institutions of workplace representation (OECD, 2018; ILO, 2015), combined with low levels of trust and social capital (Paraskevopoulos, 2007; Jones et al., 2008) ⁽²²⁾. These labour market deficiencies have exerted a negative impact on the development of demand-led skills policy.

On the skill supply front, Greece also stands out in terms of experiencing one of the highest rates of population ageing, which, along with significant brain drain in the years of the crisis, led to a shrinking supply of available talent. Further, the Greek education system, as shaped by past institutional

⁽²²⁾ Following the implementation of the structural economic adjustment programmes in Greece, collective bargaining, which predominantly took place at central or cross-industry level with binding norms for lower level agreements, shifted towards a system of intermediate, or alternating between sector and company, bargaining. According to the OECD, there was a decline in protection against individual and collective dismissals (from a score of 2.80 in 2008 to 2.12 in 2013). The percentage of employees with a right to bargaining fell from 82% to 40% during the period 2006-13, compared to around 58% in Germany; a similar fall took place in trade union density.

reforms, has been oriented towards the provision of general academic qualifications, giving particular emphasis to some study fields (natural sciences and mathematics, arts and humanities), despite evidence of diminishing returns from education within them (Livanos and Pouliakas, 2010; Cholezas et al., 2010). This orientation contributed to the much-needed growth in educational attainment during the 1980s and 1990s, but issues remain that have not been systematically addressed. According to the *Education and training monitor* (European Commission, 2018) and OECD (2018), Greece's performance is suboptimal in several respects:

- (a) the basic skills proficiency of both young people and adults is relatively low;
- (b) VET participation rates are low;
- (c) lifelong learning rates are very low, especially employer engagement in continuing vocational training.

The Greek education and training system is also characterised by several structural weaknesses:

- (a) there is a fragmented post-secondary and tertiary education system (29 tertiary education institutions with 429 departments in 54 ⁽²³⁾ cities/towns) stemming in part from local political pressures, rather than student demand or adherence to long-term strategic priorities (OECD, 2011). This has been partly addressed with the most recent reform in the higher education sector, which introduced changes affecting the academic map of the country mainly through the merger of TEIs and universities. But there is concern that public debate on the recent reform was poorly connected to a wider discussion about how such mergers are linked to efforts to adapt provision to future trends in skill needs;
- (b) although the impact of the crisis on the capacity of graduates to gain labour market access has been particularly pronounced, underemployment and skill mismatches also prevailed in pre-crisis times. For example, the employment rates of young graduates were generally lower than in other EU countries even at times of relatively healthy aggregate demand ⁽²⁴⁾. Greece also had one of the highest overeducation rates among EU

⁽²³⁾ Analysis of data provided to Cedefop by the Ministry of Education and Religious Affairs on 21/10/2019.

⁽²⁴⁾ Under half (47%) of recent tertiary graduates were employed in 2014, in comparison with an EU average of 81%. But in 2006, only three EU Member States – Bulgaria, Greece and Italy – had employment rates for recent graduates that were below 70.0%, while the remaining Member States each reported rates of at least 71.2% (European Commission, 2015; Eurostat, 2017).

Member States in the 1990s (Patrinos, 1997) and the highest rate of unemployment among those aged 15 to 29 with a college or university degree out of 34 OECD countries. The strong orientation of education towards the demands of the once dominant public sector in Greece should not be overlooked as a factor in understanding the rigidities that have prevented the education and training system from meeting skill needs (Kanellopoulos et al., 2003);

- (c) the Greek VET system is characterised by low attractiveness and remains relatively poorly placed to meet current (and future) labour market challenges. VET has held little appeal for young people and is generally associated with 'laborious' and 'inferior' manual labour. General education is associated with expectations of improved social standing and has proved more attractive to younger people and their families.

According to a recent opinion survey on VET, carried out by Cedefop (Mavris, 2018) ⁽²⁵⁾, VET is of high quality: nine in 10 Greek upper secondary VET participants responding to the survey said they were totally satisfied with the quality of teaching they received, while around 64% of respondents who studied VET in Greece found their first long-term job within a year, compared to 49% of those who studied general education. However, only around 29% of 16 to 18 year-olds in Greece participate in upper secondary VET, much lower than the EU average of 49%. Low participation is partly explained by the survey finding that 87% of respondents in Greece think that general education has a more positive image than VET. Over eight in 10 respondents also consider that VET is for students with low grades and think that upper secondary VET qualifications are easier to obtain (Mavris, 2018).

Underlying such lack of attractiveness is the fact that the Greek post-secondary system is generally fragmented by the presence of public and private VET providers of all sizes, capacity and quality. VET providers may receive accreditation mostly based on infrastructure, as the system has been characterised by a weak quality assurance framework. A recent upgrade of qualifications awarded at EQF level 5 has also raised concerns about the quality of the studies provided, when benchmarked in a European context. Competing interests and agendas have also affected coherence of VET reform.

⁽²⁵⁾ See also: www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/opinion-survey-on-vet

Despite the above pathogeneses, recent years show signs of positive change. Strategies in higher education and vocational education and lifelong learning have been reformed to better orient skills supply to demand and raise participation in apprenticeships and VET. A coherent legal and institutional framework for VET – the national strategic framework – and lifelong learning, incorporating a commonly agreed perception of skills, qualifications and education-to-work transitions, has been established (Law 3191/2003, Law 3369/2005, Law 3879/2010, Law 4186/2013). The establishment and fast development of the mechanism for labour market diagnosis is another important step towards balancing skill supply and demand in the country. Today the government, the social partners and the majority of political actors have reached a consensus on the need to tackle skill mismatches through improved skill development and skill utilisation policies; and a series of additional initiatives, such as the institution and development of the national qualifications framework, are all stepping stones towards developing a new institutional context in the Greek skill system ⁽²⁶⁾.

3.3. Skills governance in Greece today: the mechanism

Several LMI and skills anticipation initiatives have been carried out in the past. These includes studies on skills demand and employment forecasts by occupation and sector, carried out by the social partners, various national agencies, education institutions, and consultancy firms. Ad hoc employer surveys aimed at gathering information from companies about their skill needs are also conducted.

A renewed consensual outlook shared by the Greek national and regional authorities and the social partners regarding the need to tackle skills mismatch in the country, together with external pressure from the European Commission's agenda for modernisation of labour market institutions and

⁽²⁶⁾ The role of the EU in promoting the further development of a Greek LMSI system also needs to be acknowledged, especially the emphasis it has placed on skills anticipation in various policies such as the *Agenda for new skills and jobs* and, more recently, the *New skills agenda for Europe*. This has contributed to shaping the debate in Greece and facilitating recognition of the importance of skills anticipation in making better and more strategically placed policy decisions.

improvements in skills matching as an ex ante conditionality ⁽²⁷⁾, led to setting up a permanent process to provide a diagnosis of labour market needs in Greece ⁽²⁸⁾. The mechanism was established in May 2015 (Box 2) under the supervision of the Ministry of Labour and the scientific guidance of the NILHR. The aim of the mechanism (NILHR, 2016) is to provide – at regular intervals – reliable information on the supply of, and demand for, labour at sectoral, occupational and regional level to the organisations involved in the development of labour market policies and other stakeholders. The provision of reliable data on employment trends and occupational dynamism is aimed at assisting with the design of policies related to employment, (national and sub-national) economic development and education and training.

Box 2. **Legal and regulatory framework for the establishment of the mechanism**

The mandatory development of processes to identify skills needs has been provided by Law 4336/2015, after a long period of deliberation. A specific Action Plan (Ministry of Labour-NILHR, 2016) – approved by the European Commission in May 2015 and revised in January 2016 – described the development of the mechanism as a series of three phases: first, processing and analysing secondary data related to the professional, sectoral and educational structure of employment and skill mismatch at national and regional levels; second, conducting field surveys by the social partners and the regions on the basis of an agreed methodology and research framework; and third, proceeding to the full development of the mechanism by building up of its ability to provide robust and relevant information for employment, entrepreneurship, economic development and VET policy.

Law 4368/2016 entitled Measures aiming at the acceleration of governmental work and other provisions, and Clause 85 (Mechanism for the diagnosis of labour market needs in skills) established the mechanism and conferred responsibility for it to the Ministry of Labour in cooperation with the NILHR.

The mechanism's mandate was set to be 'the diagnosis of labour market needs aimed at determining the supply of and demand for skills, specifically the compe-

⁽²⁷⁾ Decision 8110 of the Special Secretary of Administration of the Sectoral OPs www.edulll.gr/wp-content/uploads/2016/06/Apofasi-Entaxis_5001339_TB05_ada.pdf

⁽²⁸⁾ According to Law 4368/2016, 'the expenditure incurred from the operation of the labour market needs analysis mechanism and the respective information system will be covered by resources from the Public Investment Programme of the Ministry of Labour, Social Security and Social Solidarity and the EU'. What is less clear is how the funding and allocation of resources as part of the sectoral and regional components of the mechanism will be sustained.

tences and knowledge required in professions/occupations at national, regional and sectoral levels both at the present time and in the future. The system is expected to make it possible to identify possible mismatches between the supply and demand for labour. The purpose of the mechanism is to provide reliable data for designing employment policies, combating unemployment, supporting VET and human resource development policies in general’.

The governance of the mechanism comprises the following institutional set up (Figure 15):

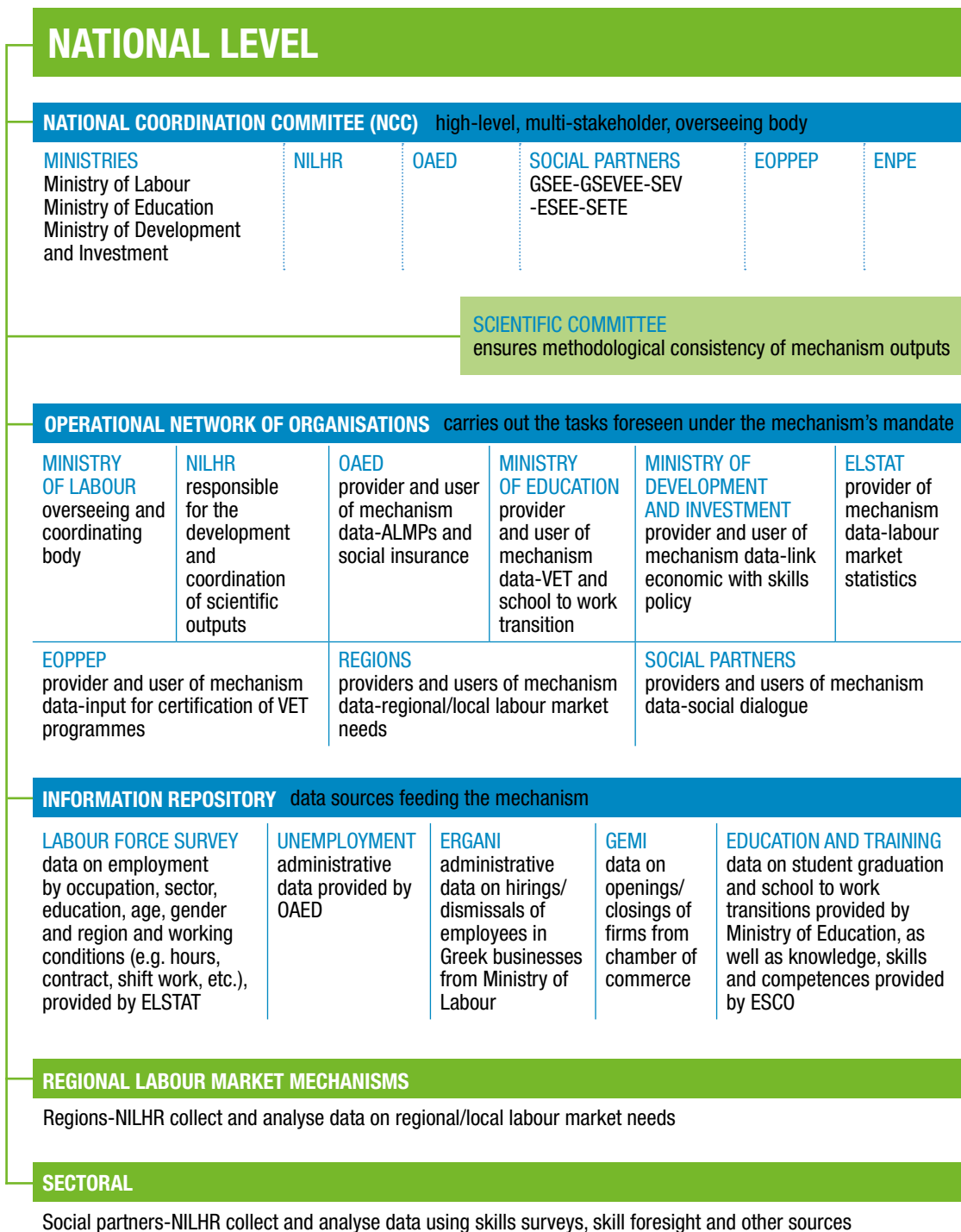
- (a) the NCC, including the main ministries (Ministry of Labour, Ministry of Education, Ministry of Economy, Development and Tourism – from now on Ministry of Economy), the NILHR, the EOPPEP, the ENPE, the OAED, and the key social partners (the Hellenic Confederation of Professionals, Craftsmen & Merchants (GSEVEE), the General Confederation of Greek Workers (GSEE), SEV, the Hellenic Confederation of Commerce and Entrepreneurship (ESEE), the Association of Greek Tourism Enterprises (SETE));
- (b) the operational network of organisations involved in carrying out the tasks foreseen under the mechanism’s mandate, such as feeding information into the mechanism’s information repository, carrying out and analysing surveys and studies, and using the outputs for the purposes of policy-making;
- (c) the Scientific Committee, instituted in October 2016, with main responsibility for ensuring methodological consistency and scrutiny of project outputs.

The Ministry of Labour coordinates the administrative and financing actions in the context of the mechanism and defines its inputs and outputs according to the decisions of the NCC, a multi-stakeholder high-level body comprising key policy institutions. The NILHR is the public body with dominant responsibility for coordinating the mechanism’s methodological development, research and operational activities; it plays a pivotal role in steering the mechanism.

Crucial to the overall operation of the mechanism is the Operational Network of Bodies and Organisations, coordinated by the NILHR, which has responsibility for implementation of the actions necessary for collecting data

Figure 15.

Schematic overview of the governance structure of the Greek mechanism for labour market diagnosis



related on labour market needs ⁽²⁹⁾. The entities participating in the network are required to send inputs needed for the operation of the mechanism on a regular basis to the NILHR based on an agreed methodology. The collection, processing and sending of data are carried out on the basis of programme agreements concluded between the above network operators and the NILHR.

Much of the original work on the mechanism was based on drawing together and synthesising multiple sources of (survey and administrative) data to provide an almost real-time assessment of skills needs in the Greek labour market. To achieve such a synthesis, the NILHR had to overcome, in addition to a lack of open data culture, significant methodological issues of data access, confidentiality and incomparability at first instance ⁽³⁰⁾. The social partners and some regions have also been engaged in a variety of own, mostly qualitative, skills anticipation exercises as part of the mechanism, focused on sector- or locality-specific information needs of their target groups; however, such activities have been ad hoc and unsystematic ⁽³¹⁾. They have also regularly sought to use information from skills anticipation exercises in the various training programmes and career guidance services they provide.

In the early stages of the development of the mechanism an approach based on secondary data collection was adopted; this used the measurement of employment trends in occupations and sectors drawing on data from the ELSTAT LFS data, as well as inflows obtained from the Ergani system regarding salaried employment. In the next development stage a broader

⁽²⁹⁾ This operational network consists of: Ministry of Labour, NILHR, Ministry of Education, Ministry of Economy, ELSTAT, OAED, EOPPEP, Regional authorities, the social partners signing the General collective labour agreement (GSEE, GSEVEE, ESEE, SEV, SETE), and other bodies whose activities may contribute to the operation of the mechanism, in particular research centres and universities.

⁽³⁰⁾ For instance, the OAED sends its deliverables, such as the composition of registered unemployment and job vacancies, twice a year. ELSTAT contributes with time-series data from the LFS, while the Ministry of Labour has provided the mechanism with access to Ergani, its administrative database of hiring and firings of paid employees by Greek firms. Moreover, continued data inputs on entrepreneurship and firm-level data, have been provided by the KEEE's Gemi database, a general registry of Greek businesses. The law also clarifies that the Ministry of Education should feed the mechanism with relevant skill supply data, such as school enrolments and graduations.

⁽³¹⁾ For instance, the Small Enterprises' Institute of the Hellenic Confederation of Professionals, Craftsmen & Merchants (IME GSEVEE) led and implemented the project Actions of the social partners on the identification and forecasting of skills needs within the framework of the national system for the diagnosis of labour market needs, in cooperation with INE GSEE, ESEE, SEV, INSETE. The project was built on a joint call from the social partners within the framework of the EPANAD funding mechanism.

definition and composite indicator of occupational 'dynamism' was adopted to take into account several labour market statistics and indicators, such as employment and unemployment rates, wages, educational and age structure of occupations, entrepreneurial activity trends, as well as qualitative characteristics of employment (NILHR, 2015). More recently, the mechanism has also engaged in dedicated studies of future skill needs in the Greek labour market, employing a formal quantitative macroeconomic modelling approach (Roupakias, 2018) as well as an input-output approach to estimating cross-sectoral employment multipliers (Markaki, 2018).

Following the analysis and processing of primary and secondary data inputs, the NILHR is responsible for compiling and producing results from the mechanism to identify labour market needs in skills and occupations at sectoral, national and local levels; it also publishes an annual report. The NILHR annual report ⁽³²⁾ is submitted by the NCC through the Minister of Labour to the National Employment Committee. The aim is to form a broader strategy for the development of human resources in Greece, particularly the design and implementation of training programmes.

Another integral part of the mechanism is the information repository/system which connects the members of the network, processes data-inputs and ensures the output of key indicators. The NILHR has the responsibility for supervising and managing the system. Following the integration of multiple and disparate data sources, the mechanism provides data at the four-digit occupational level for the whole country. It provides an interactive database allowing the user to see the employment prospects and other job characteristics (including wages and share of higher education graduates) associated with each occupation. There are also specific analyses available in the database relating to changes at the sectoral and regional levels, as well as information on the demand for qualifications and skills.

The intended target groups for skills anticipation exercises and, most important, for the mechanism, include policy-makers in the various ministries and government agencies, the PES, local and regional authorities, the social partners, education and training providers, and career and vocational guidance providers. However, formal feedback mechanisms that will ensure the responsiveness of the skills system to changing labour market needs, as identified in the mechanism, are not yet fully operational. To be more precise,

⁽³²⁾ Although the law states that NILHR submits an annual report, the Institute decided to produce two reports a year.

a system of financial and non-financial incentives to sustain stakeholder participation in the system has yet to be enacted. Feedback channels from sectoral, regional/local actors, such as those typically sustained via regional skills forums (as in Sweden and Ireland), regional or local training committees or agencies (Denmark, Croatia) or advisory boards (Austria) in other EU countries (Pouliakas and Ranieri, 2018), remain underdeveloped.

Until recently, the dissemination of the mechanism's outputs and findings has not been a priority and there was no clear dissemination policy. The NILHR website has tended to be the basic dissemination channel for the mechanism and reports have tended to be lengthy and not reader-friendly. However, important steps have been taken towards improving dissemination as the mechanism has further developed, most notably in the development by the NILHR of a dedicated online platform (see Chapter 6 for information on users' views of the online platform). Employers and trade unions have also been improving online access to the skills information they generate, informing jobseekers, employers and VET providers.

Insufficient and limited action has taken place in recent years to secure the continued operation and sustainability of the mechanism beyond the policy cycle foreseen by the original technical and policy framework. According to the mechanism's action plan a permanent group within the NILHR's project team will have the exclusive objective of evaluating the system and validating its results. The group, which works in collaboration with the Ministry of Labour and the OAED, should gather the evaluation reports on employment and VET programmes designed based on findings from the mechanism's outputs. At present, though, the planning, monitoring and evaluation actions have almost exclusively rested with the NILHR. It is also still not clear how the use of labour market intelligence will guide VET investment decisions and how feedback will be obtained from key actors and users.

3.4. Attaining maturity

Recent institutional developments and initiatives focused on strengthening skills governance in Greece – as exemplified in the national mechanism for labour market diagnosis – have signalled a shift not merely in terms of policy, but also in terms of consensus-building and a common value-system among stakeholders in a field that has been, for decades, an arena of conflicting interests. The original set-up of the mechanism has been positive, despite

any hindrances and shortcomings that one would expect in a system that is still, compared to some other EU countries, in its early years of development. However, as described in the remaining sections of this report, such progress may prove fragile and there is still a long way to go until the mechanism reaches a maturity phase, whereby it will provide a continuous and regular stream of inputs and constitute a cornerstone of Greece's strategic human capital agenda.

CHAPTER 4.

Exploring options for change

4.1. Introduction

The previous chapter described the key building blocks and infrastructure of the recently developed mechanism for labour market diagnosis in Greece and the underlying labour market and skills context which preceded it. Some first key challenges encountered during its formative years were touched upon. Following the request by the Greek authorities to Cedefop to support the country in identifying possible future directions for the mechanism in alignment with EU best practice, Cedefop engaged in an extensive consultation phase of interviews with key stakeholders. This chapter summarises stakeholder views about what they perceived as notable bottlenecks in the mechanism's first years of operation and how they think it ought to develop in the future to satisfy a wide range of user needs. The views provided by these stakeholders were of vital importance in specifying the content of the three rounds of CBE, that took place at the last and most critical phase of the study (Chapter 5).

4.2. The stakeholder interview process

A key ambition of the semi-structured interviews with stakeholders was to gauge insights from their experience with the mechanism's operation and outputs in its early years, aiming to identify strengths and weaknesses. The population from which the respondents were drawn included a wide spectrum of stakeholders representing the country's skill governance arena at the governance, implementation and policy levels. 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 following a multi-step research design and process. The broad profile of the respondents was as follows ⁽³³⁾:

- (a) education actors (10 interviews): three ministerial representatives, four universities, two education institutes (supervised by the Ministry of Education), and one labour market intelligence provider (research institute);
- (a) labour market actors (20 interviews): two ministerial representatives, seven employer associations, one employees' association, three labour market intelligence providers, four labour market intelligence users, and three international organisation representatives

Four interviews were conducted with representatives from the NSC, given that its members represent key stakeholders in skills anticipation and matching for the country. The balanced presence of both labour market information providers and users in the sample, as well as the participation both of education and labour market institutions, is a critical factor that enables a thorough understanding of different aspects of the existing national skills governance processes and practices.

The main interview stage revealed major challenges in relation to how the mechanism may be able to link and customise its outputs with the needs of the education sector in Greece, in particular those of actors involved in recent VET and apprenticeship system reforms. Subsequently, a second round of interviews was carried out. This entailed 19 'lighter' semi-structured telephone interviews with representatives of the education/VET sector, such as high-ranked officials of the Ministry of Education (two respondents), a representative from a higher education institution delivering CVET courses (one), an education trade unionist (one) and teachers/administrators/counsellors from VET centres and professional upper-secondary schools responsible for delivering apprenticeships (nine). This second round also followed up with interviews with higher-level officials at the Ministry of Labour (two), social partners (four) and the public employment service (one) to seek further clarification on a number of issues related to the regulatory

⁽³³⁾ 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 GDPR directive and own institutional data protection policies. Therefore, it is not possible to provide in this report detailed information regarding the profile and institutions of the survey respondents.

framework and the potential linkage of the mechanism's outputs with higher-level policy-making.

4.3. Foundations of skills governance

4.3.1. Legal and institutional framework

Stakeholders agreed upon the need to tackle skill mismatches in Greece through both skill development and skill utilisation policies. Initiatives such as the mechanism were generally perceived positively, and it was considered to be the first coherent and systematic effort to deliver a comprehensive system of labour market assessment and skills anticipation in the country. But there was also widespread concern about the fact that the introduction of the mechanism was spurred by external force, specifically as ex-ante conditionality for receipt of ESF funds by the European Commission, rather than it being something initiated by the country itself. There were mixed feelings about the potential lack of ownership of the system and preparedness on behalf of the Greek authorities.

The legal basis for introducing the mechanism – provided by Laws 4336/2015 and 4368/2016 – was welcomed by the stakeholders. Where there was some criticism, mainly from the social partners, it related to the legislation lacking sufficient detail with respect to specifying tasks and allocation of roles and responsibilities in the system, although the fact that the regulatory framework foresaw representation of a wide group of stakeholders is held in high regard. Similarly, there was a call for more specific provisions to be made regarding the main objectives of the mechanism, desired level of stakeholder participation and user feedback, clearly defining who should be the primary beneficiaries of the system and procedures for evaluating the methodological tools and workflows.

Some stakeholders (especially Ministerial representatives) tended to argue that the top-down approach adopted by the mechanism's legal infrastructure ensured that obstacles at lower administrative levels could be effectively removed; others highlighted that the sustainability of the mechanism will be dependent on reformulation of the legal and regulatory framework so that the system operates from the bottom up in the future, with less need for Ministerial supervision.

Representatives from ministerial bodies also held the view that the need to scrutinise the workflows of the mechanism should be disassociated from the regulatory architecture of the system, since the details of the execution, monitoring and evaluation of skills anticipation activities could be assured through formal and informal arrangements initiated by the stakeholders themselves. A widely shared view was that relationship building between actors was of utmost importance for the mechanism.

Establishing such trust is dependent on the development from the outset of a common understanding of the mechanism's purpose and operation, concepts and terms. The institution of the mechanism's coordination and scientific committees was also well-received and served to elevate levels of confidence in the system, but some stakeholders highlighted the need for greater transparency in their formal procedures (such as producing minutes of the meetings that were accessible to all) ⁽³⁴⁾. Mention was made of there being no regulatory requirements for the mechanism proceedings and outputs to be evaluated. This was considered a missed opportunity to demonstrate the credibility of the mechanism and thereby contribute to its sustainability.

Another key issue highlighted concerned the imbalance between the weight that the original legislative framework attached to employment matters compared with IVET and CVET, which was seen as a consequence of the relatively strong influence of the Ministry of Labour in the mechanism in comparison to that of the Ministry of Education.

4.3.2. Stakeholder cooperation arrangements

While the original architecture of the mechanism was not challenged per se by stakeholders, a few concerns were raised about its centralised and top-down nature. The competence and expertise of the NILHR as the scientific coordinator of the system was also widely acknowledged, but so was the belief that the institute tended to overstretch its role in the mechanism, exclusively taking up most activities as opposed to orchestrating coordination among relevant network parties. Accordingly, there was some confusion among stakeholders about what they were expected to deliver and some disquiet

⁽³⁴⁾ The scientific committee was initially characterised by a bumpy start, with some lack of clarity on its role and interaction with the NILHR, and absence of a systematic process of operation: how the committee reviews deliverables, periodicity, and follow up on how and if the NILHR should address (partially or fully, binding or non-binding) the committee's comments. The committee members are participating on a voluntary basis with no pay so this has raised concerns about eroded involvement and commitment, with frequent changes in its composition.

that the process of consulting more widely with stakeholders had not taken place as envisaged. There was also a generally accepted sense that the NILHR lacked available financial and human resources; the mechanism could be further supported both directly – by pooling resources from all relevant parties in the network – and indirectly through closer collaboration with universities and research institutes that have developed specific skills anticipation expertise predating the mechanism ⁽³⁵⁾.

Greek academia and research institutes, it was reported, had the potential to contribute as data providers (e.g. information gathered on skill demand by the Distance Learning Unit of the University of Athens), offering methodological expertise. They could also be institutional users of the mechanism's results, particularly since university careers services could use and give valuable feedback on the mechanism's outputs. The general view, however, was that this expertise remained an unexploited resource and is not sufficiently integrated into the mechanism's blueprint.

Though there was general recognition of the need for stakeholders to be more actively engaged in the mechanism through both formal and informal cooperation arrangements and agreements, this should not overlook divergent standpoints. There was a degree of mutual institutional mistrust among interviewees who represented, respectively, the education sector and the labour market. Almost all stakeholders observed that there has been a deep-rooted division between the interests and priorities of the Ministry of Education and the Ministry of Labour, which has only recently eased. It was expected that the newly established mechanism would, over time, resolve this by supporting communication between both sides and/or data-sharing initiatives. But the degree of inter-Ministerial cooperation was reported to be less than ideal.

It was also noted that the relatively weak participation of the Ministry of Economy, in terms of institutional presence and information exchange, deprives the mechanism of a crucial input and feedback channel related to the strategic development of the Greek economy.

⁽³⁵⁾ The National Centre for Social Research (EKKE) was mentioned as a research institute that, according to the mechanism action plan, would be a member of the operational network. Apart from the scientific and research expertise that EKKE could offer, the institute conducts the Greek programme for the international assessment of adult competencies (PIAAC), as part of the international comparative OECD project. Despite this, it is still not clear to what extent EKKE is to be incorporated into the mechanism or how it could specifically contribute to it.

Other notable bodies mentioned – but not currently effectively included as providers or users in the deliberations of the mechanism – were the IEP, especially given its role in determining the content of apprenticeship training in upper secondary education (Cedefop, 2018c). Further, despite the vital role envisaged for regional authorities in establishing regional labour market mechanisms, how they will function (especially in relation to overcoming capacity constraints) and effectively interact with the operational network of the national mechanism was also not clear to respondents.

4.4. Process of skills governance

4.4.1. Management

Some stakeholders (mostly social partners) raised concerns about the operational functioning of the mechanism, highlighting the need for greater clarity of roles and allocation of responsibility among the network members under the principle of ‘shared responsibility and ownership’. At an operational level, some complained that while they were formally foreseen to be part of the mechanism, their engagement to date had been, at best, limited. Despite a willingness to be part of the methodological development and operation of the enterprise, there had been a limited number of meetings and appropriate forums for information exchange, which constrained their capacity to offer their expertise and resources in support of the mechanism. There was also little methodological guidance and clarity to facilitate common understanding of concepts, taxonomies, workflows and research protocols when carrying out data collection processes as part of the mechanism. The key management issue here relates to a sense that stakeholders felt that they did not have sufficient opportunities to shape the mechanism’s *raison d’être*.

4.4.2. Data, methods and expertise

Stakeholders reported that there were many opportunities for data sharing and knowledge exchange that had either failed to take place at that time or did so inefficiently, while a wide range of relevant data was not yet sufficiently exploited by the mechanism to provide essential labour market skills intelligence. For instance, the administrative data collected by the Social Security Agency (EFKA), which could provide information on wages, or the insights into self-employment made available via the Taxis database,

could be better integrated in the information repository. Available information on job vacancies as collected by OAED (administratively) and ELSTAT (via its job vacancies survey) could also be better merged and utilised as part of the mechanism's information repository. Similarly, information on apprenticeship demand, skills formation and training was available via other periodic surveys carried out by ELSTAT (AES, LFS) and also collected administratively by the Ministry of Education (as with myschool) but was not yet integrated into the mechanism's database. Overall, the limited data-sharing culture that characterises the Greek public agencies was reported as being a significant obstacle that needed to be tackled.

Strong views were expressed regarding the mechanism's methodological approach. Some felt that too much weight was given to employer survey data (the robustness of which was questioned by some), others that inadequate weight was given to 'dynamic' sectors of the economy, while many respondents supported the value of collecting more detailed qualitative data and inputs. A view widely shared by stakeholders, however, was that the mechanism should provide inputs at a more detailed level of skill needs (such as skills required by specific specialities and minor occupational groups, as opposed to using proxies such as broad groups of occupations and qualifications), especially if the tool were to serve the goal of informing occupational standards and education and training planning and provision. An area of consensus was the potential use of the mechanism outputs for updating the existing – and the development of new – occupational monographs⁽³⁶⁾. These were highly valued by respondents but subject to concern that they were out of date.

4.4.3. Feedback mechanisms

There was a view that feedback mechanisms have not been properly recognised in legislation, though in practice the NILHR receives feedback from stakeholders but only with respect to the content of its annual report

⁽³⁶⁾ An occupational monograph includes a description of a profession, the qualification(s) allied to the occupation and the respective educational pathways which will deliver the skills, knowledge and competences needed in the occupation (i.e. learning outcomes). EOPPEP is the competent body for the development and updating of the occupational monographs, in cooperation with sectoral organisations, such as GSEVEE and GSEE. The mechanism's outputs, especially information collected on skill needs, could be an input for the determination of learning outcomes, which are matched with qualifications and translated into educational curricula. This then contributes to establishing the framework of the professional rights (regulations, licences) of a given occupation.

and assessment. The NCC has a supervisory role that is described by law, but some limitations were reported in that not all NCC members have actively engaged in providing feedback and contributing to the strategic orientation of skills policies. It was also noted that the NCC meetings lack regularity; they particularly lack the systematic procedures that would enable the joint determination and validation of mechanism's results to take place.

4.4.4. Customisation and dissemination

Nearly all respondents said a more effective and efficient dissemination strategy was required. This would demand changes in the mechanism's website ⁽³⁷⁾, in accordance with international and EU best practice (e.g. Eurostat website, the Skills Panorama online platform, KarriereKompass Austria, LMIforAll UK, CareerOneStop US) and implementation of dissemination campaigns based on participative workshops and other activities aimed at stakeholder interaction. More consideration was required to determine how the results of the mechanism should be disseminated and how they could be readily interpreted by a wide range of users. For some, the current purpose of the mechanism was primarily to serve policy-making needs in the Ministries of Labour and Education, but it needed to go further than this; consideration should be given to how key pieces of data should be communicated to different user groups. The continuing development of the mechanism has led to expansion of the deliverables produced and deepening of the treatment of specific issues. A notable mention to that effect was the initiative of the NILHR in building an information tool targeted to the needs of the OAED job counsellors. While active steps have been taken by the NILHR to improve the mechanism's website architecture (such as integrating the primary data in Tableau business intelligence software that enables interactive analysis at detailed sectoral, occupational and geographical level), this is still far from reaching out to various potential target groups. The communication campaign has also been limited to a few key stakeholders, while many respondents felt that more participative workshops with a wider range of beneficiaries (trainers, VET providers, career counsellors) was an option.

⁽³⁷⁾ At the time of the stakeholder interview phase the new online portal of the mechanism had not yet been developed.

4.5. Sustainability

4.5.1. The integration of stakeholder needs

The sustainability of the mechanism hinges upon being able to meet key stakeholder needs for LMSI. To some extent this is dependent upon the ability to:

- (a) coordinate skills anticipation activities already undertaken by the social partners and add value in doing so;
- (b) provide data at the local/regional labour market level where many people look for jobs (via the development of regional mechanisms).

The social partners are involved or run ad hoc skills anticipation exercises, often to address sector-specific labour market needs at local and regional levels. They also use information from skills anticipation exercises in the various training programmes and career guidance services they provide. The social partners interviewed agreed that these ad hoc skills anticipation exercises, however useful for the sector organisations, should be better coordinated and systematised as part of a periodic and comprehensive skills foresight exercise; the mechanism provided the grounds for its development.

Several stakeholders emphasised the importance of the regions as a key part of any skills anticipation system, if only because it is at the regional or local level that the matching between skills demand and supply takes place. This has been anticipated in the legislative framework with the development of dedicated regional mechanisms. In the interviews with stakeholders the aim to diagnose local and regional labour market skill needs, and potentially align them with skill supply (especially apprenticeship outflows), was deemed of utmost importance. But current achievements in mapping regional skill needs in professions, for instance those carried out by OAED's long-standing local interventions, were also acknowledged, so it was argued that OAED's regional directorates could contribute more to the regional dimension of the mechanism. Drawing inspiration from other good practices, such as the recent European globalisation fund programme Supermarket Larissa ⁽³⁸⁾, which was a first effort to use the mechanism to identify and integrate local labour market needs into the design of vocational training and guidance, was also advocated.

⁽³⁸⁾ <https://egf-greece.gr/egf-2015-011-gr-supermarket-larissa-periptosi-tis-etaireias-soypermarket-larisa-avee/?lang=en>

According to the initial legal blueprint, the NILHR will scientifically supervise the operation of the regional mechanisms, while implementation activities related to labour market diagnosis will be assigned to the regions. But, in practice, some regions proceeded to develop regional skills anticipation activities without consultation with the national mechanism actors or any consideration of linking them coherently to the national database. An issue of wider concern among stakeholders was variation in preparedness, resources and expertise characterising the regional prefectures and their overall lack of capacity for developing effective regional mechanisms. Even though a new regulation foresees that regions will be given resources to hire or subcontract expertise (such as with local universities), and that there should also be collaboration with the local OAED offices that already engage in local LMI activities, stakeholders continued to express doubts about whether regional mechanisms are likely to stretch the system's capacities.

4.5.2. Reputation

The stakeholder interviews revealed a general sense of discomfort with the fact that the mechanism's reports, tools, workflows and user feedback had not yet been evaluated; nor had there been a rigorous cost-benefit evaluation exercise to identify the value added of the mechanism for the country and point to needed reforms. This was considered a missed opportunity to demonstrate the credibility of the mechanism.

Data available from the semi-structured telephone surveys conducted with vocational schools also provided insight into the extent to which the mechanism is trusted as a source of labour market information and whether it might be able to reach out effectively beyond its typical pool of users. The interviews with teachers suggested that knowledge of the mechanism was mixed at best; even the few teachers that were aware of it accepted that there is not much use made at present. For teachers in vocational schools, it was the occupational Monographs which were most often mentioned as a source of labour market influence for them, but views were mixed about their usefulness. Some found them to be too long or insufficiently up to date, while others reported that they used them in developing curricula. Schools were mostly dependent on sources of LMSI other than the mechanism for selecting which courses/apprenticeships to deliver. One case mentioned that there is a formal system in place for determining labour demand in the local/regional labour market (for ICT skills). But the general impression is that

informal processes tend to prevail, with signals of labour demand gleaned from the contacts schools had with (local) employers.

A key issue is how to build the reputation of the mechanism beyond the groups of stakeholders who are currently engaged with it, especially to build trust with the representatives of the education community, so that it can have more influence over the decisions people make on their investments in skills.

4.6. Meeting VET and apprenticeship needs

Stakeholders view the development of apprenticeships in Greece as instrumental to achieving a better match between skills supply and demand. There was a general feeling among stakeholders that LMSI should be used in developing and updating VET programmes, especially those of the recently reformed apprenticeship system, but also continuing VET courses (for which stakeholders from the education sector were also more inclined that they should be demand-led). The utilisation of credible LMSI has been sufficiently understood as a precondition for the successful implementation of the new apprenticeship scheme, as also highlighted in Cedefop's earlier review of the Greek apprenticeship system (Cedefop, 2018c).

Nonetheless, several respondents pointed to the education system being overly supply-led: schools and colleges delivered the curricula/specialisation that they had the capacity to deliver rather than those which the labour market needed. Interviewees acknowledged, however, new legal initiatives that have sought to improve the situation, including the institution by law in August 2017 (Law 4485/2017) of a National VET Committee – consisting of representatives of the Ministry of Education, Ministry of Labour, OAED and Ministry of Economy – and a VET Technical Committee. The VET Technical Committee will support the National VET Committee in implementing and monitoring the national strategic framework and will also suggest new qualifications and corresponding professional profiles, taking into account the mechanism's outputs. It will coordinate all policy actions on apprenticeship development and continuing VET. It is important to stress that the NILHR and the Ministry of Education have already signed an agreement regarding the exchange of information on the establishment of apprenticeships in vocational upper secondary schools (EPAL). A pilot survey showing which of the EPAL specialties are more responsive to labour market needs has

already been conducted by NILHR and this was a practice that, according to stakeholders, should be particularly highlighted and promoted.

Despite these positive developments, respondents acknowledged that there was much room for improvement with respect to the contribution of the social partners and other stakeholders in the development of apprenticeships. The IEP for instance, cooperates with the social partners in drafting the didactic material for EPAL apprentices. The learning outcomes (skills, knowledge, and competences) that are expected from the practical learning at the workplace are to be jointly determined with the participation of the social partners, who are expected to contribute with the evidence obtained from their own skills foresight studies. This workflow, it was said, could be readily linked with the mechanism and its outputs regarding specific professions.

To date, however, collaboration between the IEP and the social partners is still in need of improvement. The IEP has delivered VET curricula for apprenticeships in EPAL that describe what the apprentices should learn as part of the theory-based component of learning (the 25% of the apprenticeship programme that concerns theoretical learning). But content is underdeveloped for the workplace-based learning part of the programmes. It was suggested, therefore, that the social partners' engagement should be more active in this area and that the long tradition and accumulated experience of OAED in developing apprenticeships (EPAL schools), particularly in relation to the responsiveness of curricula to labour market needs, should not be ignored.

A key message of the stakeholder interviews was that the nature of cooperation between the mechanism's stakeholders and the new institutional set-up of the Greek VET and apprenticeship system should be clarified and facilitated, if the expectations for a better connection between the mechanism and the VET system are to be met.

4.7. Stakeholder views on improving the mechanism

4.7.1. Making the system more inclusive

Stakeholders made explicit that the most important weakness of the skills governance system so far – as manifested most prominently in the form of

the mechanism – has to do with the lack of systematic procedures in its management. These have been attributed to three main causes:

- (a) omissions in the original regulatory framework;
- (b) lack of formal and informal regulatory arrangements that would bind the stakeholders more clearly towards more active participation;
- (c) lack of feedback mechanisms that would ensure the voices of different stakeholders and target groups can be heard.

These shortcomings not only hinder the active involvement of current stakeholders, but also undermine the potential to integrate new ones, although the latter aspect is considered by most of the existing stakeholders a matter of secondary importance. Stakeholders acknowledged that further inclusivity is desired to ensure that available expertise is not wasted, useful feedback obtained and that additional resources can be pooled to support the mechanism; but, at the same time, the existing operational network is sufficient and there is a danger of rendering the system ‘ungovernable’ if additional organisations and actors are involved.

The potential contribution of universities, research units and chambers and, more specifically, the role of the KEEE, was mentioned on several occasions. Given the institutional role of KEEE in the new apprenticeship system and the good collaboration that has already been established with key stakeholders such as OAED (for example the joint programme Re-engineering of OAED’s business model ⁽³⁹⁾) and, above all, its role in providing the NILHR with GEMI’s data, more active engagement of this institution in the mechanism was seen as useful.

4.7.2. Learning from experience

Considering that some social partners (GSEVEE, GSEE) and public agencies such as OAED had, or were about to launch, new initiatives in skills anticipation, relatively autonomous to the mechanism and the NILHR, it was noted that the system could be enriched by supporting decentralised efforts by its network members. For example, many stakeholders acknowledged the prior experience of SEV in collecting and disseminating LMSI: the establishment of a method for forecasting the needs of enterprises in occupations and skills, an earlier attempt at developing a skills anticipation system jointly financed by the ESF and SEV.

⁽³⁹⁾ www.oaed.gr/reengineering

Stakeholders highlighted further the need to make systematic use of LMSI a precondition of evidence-based policy-making in VET and ALMPs. To date, few cases were reported or known to have employed labour market information for designing policy in Greece, although the continuous vocational training programme Actions related to redundancies by the company under the name Supermarket Larissa ABEE (European Globalisation Adjustment Fund) is a notable exception. The learning outcomes of this programme were informed by local and regional labour market needs. The Ministry of Labour's Training voucher programme for the unemployed aged 29 to 64 in eight cutting-edge sectors, was also reported as a good example of taking LMSI analysis into account when designing ALMP (Cedefop, 2018d) ⁽⁴⁰⁾. In general, a roadmap that would better link the assessment of the impact of ALMP measures (training vouchers, Youth guarantee initiatives, EGF programmes, Koinofeli programme ⁽⁴¹⁾) with information on skill demand was said to be missing.

4.7.3. Developing 'forward-looking' methodologies

Given the methodological approach adopted by the mechanism at the time the stakeholder interviews were conducted, doubts were expressed regarding its ability to yield information relevant for considering changes to formal and non-formal education and VET policy, including curriculum design and decisions on the supply and funding of training. The use of occupations and qualifications as proxies of skill needs and the absence of systematic qualitative skill foresight exercises inhibited the mechanism's ability to link effectively to educational design.

Some respondents espoused the view that the methodological set up does little more than provide a snapshot of current demand in the labour market. While for some this is not a problem, as it adheres to the original mandate of the mechanism to describe labour market trends and imbalances, others stressed that policy formation is dependent on the ability to make mid- or long-term assessments of skill needs. They encouraged the use of skills forecasts and foresight methodologies, or extending the use of data to consider investment plans and cross-sectoral multiplier effects to

⁽⁴⁰⁾ See a description of the programme at Cedefop's matching skills database: www.cedefop.europa.eu/en/tools/matching-skills/all-instruments/training-voucher-programme-unemployed-aged-29-64-8-cutting-edge-sectors

⁽⁴¹⁾ www.oaed.gr/programmata-koinophelous-charaktera

obtain insights on likely future economic growth and derived skills demand. A fundamental issue that needs to be resolved is how the mechanism can provide information that will ensure that skill supply better meets demand not only for the current labour market but also in the future.

4.7.4. Facilitating information outreach

Another crucial aspect regarding the future operation of the current skills governance system is the dissemination of LMSI, both centrally (by the mechanism) and by other stakeholders, ensuring that results are used by a wide range of users. Nearly all respondents said that a more effective and efficient dissemination strategy was required, requiring changes in the mechanism's portal and implementation of targeted dissemination campaigns. Shortcomings with respect to teacher and counsellor knowledge, understanding and ability to interpret labour market intelligence were also mentioned as an area that needed to be tackled by facilitating their training.

4.7.5. Shielding system sustainability

The future of the mechanism also hinges on continued financial support, which can only be secured – according to the general view of the respondents – if the mechanism's outputs start feeding labour market information users in a consistent way and the system's reputation justifies the establishment of a permanent national budget line.

Table 6 below summarises all important insights and suggestions for improvements made by respondents during the stakeholder interview phase of the project.

Table 6. Summary of key issues relating to what works well and what needs to be improved in the mechanism, based on stakeholder interviews

| What works well? | Key challenges | How it can be improved? |
|--|---|---|
| <p>System foundations</p> <ul style="list-style-type: none"> • top-down approach removed obstacles at the lower administrative levels • representativeness of the National Coordinating Committee • the Scientific Committee improved stakeholders' confidence • overall involvement and good-spirited cooperation among ministries, social partners and relevant bodies • initial attempts to set up a comprehensive regulatory framework by Ministry of Labour | <ul style="list-style-type: none"> • further specification and allocation of stakeholders' tasks and responsibilities through regulation • limited role for EOPPEP, IEP, Chambers, EKKE and other research bodies • low participation levels of key stakeholders (regions) • no clear responsibilities for the supply-side (education actors) • improvement in cooperation between public agencies and ministerial bodies • moving from a top-down to a more inclusive approach | <ul style="list-style-type: none"> • more active role of the Ministry of Economy (investment priorities) • introduction of formal and informal cooperation agreements between stakeholders • update regulatory framework to become more inclusive and transparent in relation to stakeholder roles and feedback • updating overall mission and goals of mechanism in regulation e.g. to expand from a snapshot of labour market dynamism to skills anticipation that can inform active labour market and VET policy • further involvement and stronger ties with institutions with expertise (chambers, research institutes, universities) |

| What works well? | Key challenges | How it can be improved? |
|--|--|---|
| <p>System processes</p> <ul style="list-style-type: none"> • NILHR as clear scientific leader and coordinator • complementarity of qualitative information with quantitative outputs • some attempts to share a common methodological framework | <ul style="list-style-type: none"> • limited connectedness of the mechanism with policy areas such as VET and apprenticeships • use of data that fit better into the mechanism's skills anticipation objectives • use of common methodologies, understanding of concepts • blending divergent stakeholder viewpoints on the mechanism's overarching aim, methodology and interpretation of results • poor performance in communication of the mechanism's results and meeting diverse user needs • delays in full operation of regional mechanisms | <ul style="list-style-type: none"> • systematic use of LMSI as a precondition for evidence-based policy-making in VET and ALMPs • more regular meetings of the NCC with concrete agenda and procedures (minutes, follow-up actions) • continuous deliberation and consultation among stakeholders • augmentation of information database with skills information from various sources • redesign of mechanism portal |
| <p>System sustainability</p> <ul style="list-style-type: none"> • collaboration with international bodies with expertise in labour market analysis and skills anticipation • existing examples of collaboration between stakeholders in relevant policy areas of utmost importance (e.g. social partner initiatives to update occupational monographs, redesigning OAEED business mode) | <ul style="list-style-type: none"> • expectations for a more demand-oriented education and training system • establishing an open data sharing culture • development of credible skills forecasting/foresight approach • building expertise among system actors, particularly in regions • insufficient resources (financial and HR) in NILHR and mechanism | <ul style="list-style-type: none"> • updating occupational monographs based on mechanism outputs • formalising the periodic evaluation of the system • diversifying financial resources supporting the mechanism • ensuring capacity and coordination of regional mechanisms • participatory workshops with the active engagement of stakeholders and broader audiences |

Source: Stakeholder interviews carried out as part of Cedefop's skills governance review for Greece.

4.8. Conclusion

A key message emerging from the stakeholder interviews is the need for the mechanism to become more inclusive by more effectively engaging existing partners and co-opting others. Bringing about a shared mission in relation to what it is feasible for the mechanism to achieve in the medium term and what its ambition should be over the longer term is also important.

At the moment, for some stakeholders there is a sense that fundamental issues still need to be resolved, such as how the mechanism can be better calibrated to provide information that will ensure the alignment of skills supply to demand both now and in the future. It is also apparent that there are high expectations of what the mechanism can deliver to bring about a more demand-oriented education and training system, notably by contributing to the updating of VET programmes and occupational monographs.

Despite some scepticism as to whether the mechanism is just another chapter in the country's long-standing attempts to develop an effective skills anticipation system, for the most part there is recognition of what it has already produced in a short timeframe and there are high hopes and expectations of what it might deliver in the future.

It might be difficult to attain full agreement on the desired orientation and governance of the system but, without an attempt to bring together the various groups and try to shape an agenda, progress is unlikely to be made. The next section, therefore, looks in more detail at the review's dedicated exercise carried out to explore the degree of consensus and disagreement among key stakeholders that could shape the future direction of the mechanism.

CHAPTER 5.

Building consensus

5.1. Preparing the consensus-building exercise

The previous review phases (scoping exercise, background report, stakeholder interviews) provided the context and brought to the fore key issues and bottlenecks that needed to be addressed to bring about improvements in the mechanism's operation. These issues formed the basis for the subsequent CBE, an intensive Delphi-type exercise aimed at striking agreement among the main stakeholders on the type of system change that could be introduced to improve operation both in the short and long term.

The aim of the CBE, the last and most crucial stage of the Cedefop programme, was to seek consensus: common understanding and agreement among key national stakeholders on a range of issues that could be used as suggestions for strategic policy action. These suggestions fed into a 'national policy roadmap', the cornerstone of Cedefop's country review, which can be used as inspiration for improving skills anticipation and matching in the country and to guide the future development of the mechanism (Chapter 7).

Following the completion of the stakeholder interviews and further consultation with the NSC, a significant degree of consensus already existed among national stakeholders; but there remained several 'grey' areas that were valid candidates for being included in the CBE (Table 7).

Table 7. **Issues informing the consensus-building exercise in Greece**

| Existing areas of consensus | Areas in need of greater consensus |
|---|---|
| Skill mismatch is an important phenomenon affecting the Greek economy; setting up a mechanism for labour market diagnosis is a much-needed action | <ul style="list-style-type: none">How much weight should be given to skill shortages as opposed to overskilling caused by deficient demand, lack of investment and competitiveness? |

| | |
|---|---|
| <p>Relatively good initial ‘architecture’ of the mechanism, as laid out by the original legislative framework: no need for setting up new national ‘skills’ organisations</p> | <ul style="list-style-type: none"> • Should the mechanism’s operational network be expanded to include other potentially relevant actors? • If yes, which are these and at what stages of governance should they be included? • Should new coordination structures be set up among existing actors? |
| <p>Need for significant improvement in the mechanism’s operational management (specifying roles and responsibilities of main actors, aligning methodologies, ensuring appropriate resource allocation)</p> | <ul style="list-style-type: none"> • Who should do what, how and when? • Is operational improvement better achieved via formal regulatory action or informal stakeholder agreements, or both? |
| <p>Need for augmentation of resources diverted towards the mechanism’s operation</p> | <ul style="list-style-type: none"> • Who should assume the financial burden? How to ensure a stable and diversified budget line? |
| <p>Strengthening the link between mechanism outputs and design of strategic policy priorities (human capital development, strategic investment plans, economic competitiveness)</p> | <ul style="list-style-type: none"> • How best to ensure communication of mechanism findings and action by higher-level policy-making actors? • How to facilitate engagement and ownership by key strategic ministries and policy units? |
| <p>Need to link and utilise the mechanism better with different policy objectives (ALMPs, VET and employment policy, entrepreneurship)</p> | <ul style="list-style-type: none"> • Which policy objectives should be prioritised? |
| <p>Mechanism outputs need to feed into the design of VET policy</p> | <ul style="list-style-type: none"> • How to establish efficient governance between education and labour market actors? • Who should do what, when and how to ensure feedback loops between VET and LMI? • Which VET objectives should be areas of primary attention for the mechanism? |
| <p>Need to consider expanding the methodological toolkit of the mechanism to be able to provide more information about emerging technologies and skills needs (e.g. via the use of technological and skills foresights)</p> | <ul style="list-style-type: none"> • How much weight should be given to quantitative/qualitative skills anticipation methods? • Who should assume primary responsibility for carrying out skill foresight exercises? Who should coordinate? • What are key requirements for making skill foresight exercises systematic? • How to implement them? |
| <p>Importance of improving (access to) the mechanism’s information repository and ensuring interoperability</p> | <ul style="list-style-type: none"> • Agreement in making the information repository open-source and widely accessible as a national skills database? |

| | |
|--|--|
| Need for regular evaluation of the mechanism's value-added and further validation of its scientific prowess | <ul style="list-style-type: none"> • Who should assume responsibility of evaluation? • How to improve transparency of decision-making? • How to ensure validation of the mechanism's methodological accuracy and scientific peer-reviewing? |
| Widening the set of data sources feeding into the mechanism's information repository | <ul style="list-style-type: none"> • Which data sources are best (e.g. providing a regular time series) for informing the mechanism's mandate? • Should new surveys be introduced to inform the mechanism's future objectives? |
| Importance of improving dissemination of mechanism outputs by better customising its presentation to diverse user groups | <ul style="list-style-type: none"> • Which are primary target users? • How to prioritise and monitor their needs? |

Source: Cedefop's skills governance review for Greece.

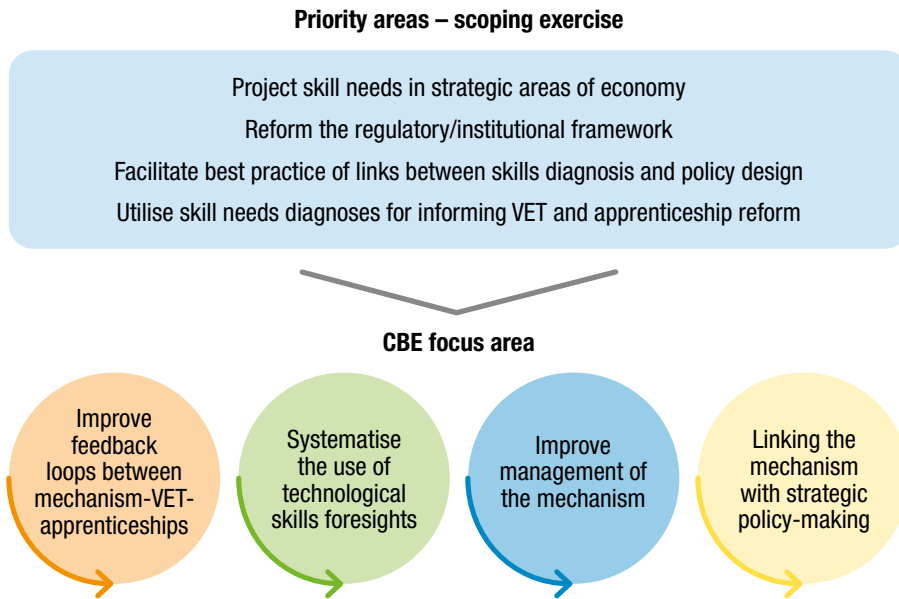
Given the rich set of issues identified, and in close consultation with the NSC, four main areas of improvement and challenges to the mechanism were selected to provide the rough framework for the CBE (Figure 16). These four main 'bottleneck' areas identified to be included in the CBE related to the:

- (a) governance of the mechanism, particularly management of inputs, outputs and stakeholder involvement;
- (b) operational processes to feed labour market diagnoses into the reform of Greece's VET and apprenticeship system;
- (c) expansion of the use of qualitative approaches to skills diagnoses/anticipation, via the use of technological and skills foresight analyses;
- (d) clarification of how the mechanism outputs can feed into strategic policy decisions.

The CBE aimed to limit further the scope of potential policy/operational improvements for each of the four focus areas. It sought to do so by engaging stakeholders in a process of identifying key follow-up actions and defining commonly agreed concrete steps and milestones that could feed into the 'national policy roadmap'. To ensure maximum value added from the CBE, a list of participants was drawn up, in collaboration with the Ministry of Labour and the NSC, which included key stakeholders who met the following two requirements:

- (a) they possessed a high degree of awareness and prior engagement with the mechanism's development;

Figure 16. **Identifying priority areas for CBE**



Source: Cedefop's skills governance review for Greece.

(b) they were stationed in high-level policy posts with potential to ensure that any recommendations from the CBE could eventually be streamlined into policy actions.

The final list of CBE participants comprised NSC members as well as representatives from the wider group of people associated with the NCC.

An online Delphi method was used to carry out the CBE, making use of online surveys that were prepared and completed in three sequential CBE rounds (Box 3), running from September 2018 to April 2019. More detailed information on the methodology followed in the CBE is provided in Annex 2.

Box 3. The CBE steps

The CBE was constructed in such a way that each round sought to narrow 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 7). In the first round of the CBE – common identification of priority actions – attention was given to prioritising a long set of potential actions judged as important for strengthening different facets of skills governance in the country. In the second round – shared problem analysis – the desired priorities and potential stakeholder roles as part of the mechanism (e.g. defining information needs, providing information, analysis, validating and disseminating outputs) were explored in more detail. In the third and final round – common actions – a degree of consensus was obtained on those issues where action could be taken – and not resisted – over the short to medium term. This third round provided the basis for developing the national roadmap for improving the system in the short to medium term.

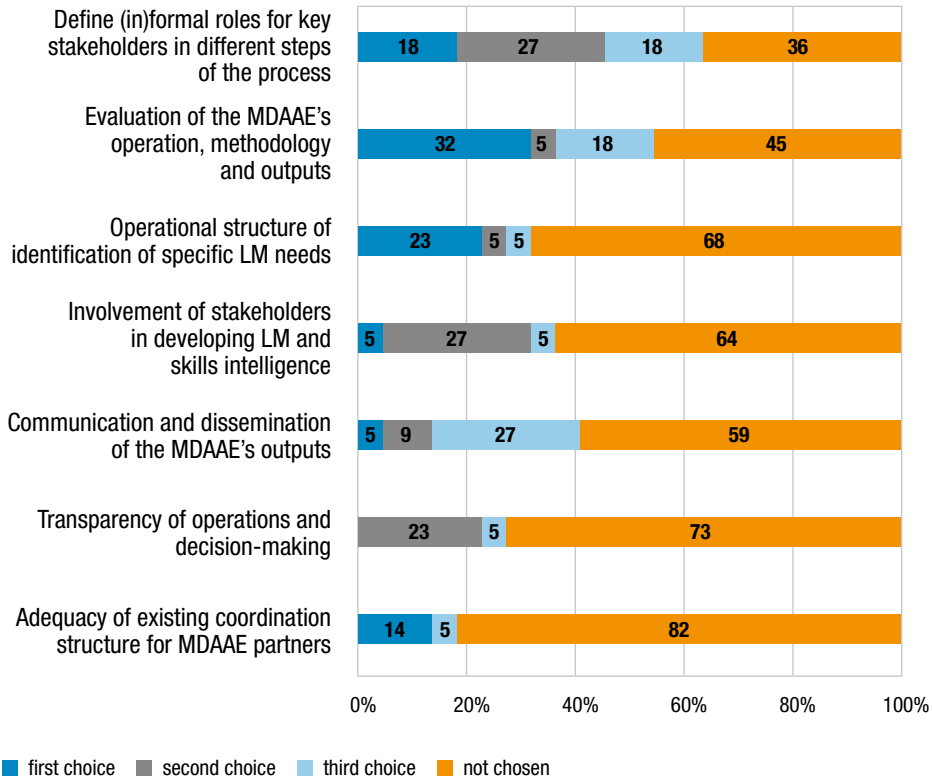
5.2. CBE findings

5.2.1. Improving governance of the mechanism

The first round of the CBE commenced with an attempt to identify stakeholder views on what should be priorities in relation to improving the overall management of the mechanism. Stakeholders had a variety of views regarding the purpose of the mechanism and perceived a lack of clarity in relation to the expected role and contributions of some organisations. Figure 17 illustrates the diverse range of management issues to be tackled in the mechanism that were presented to the CBE participants, who were asked to rank their top three in terms of priority. They were also asked to justify their selection and describe what, in their view, constituted the main challenge per priority and what suggestions they had to overcome it.

With all three priorities added together, the issue mentioned most was the need to define more clearly the roles for key stakeholders in different steps of the process, clarifying the legislative framework and stakeholders' expectations regarding their potential involvement in the mechanism. The comments further underlined the importance of transparency in the role of stakeholders and the need for joint decision-making by all stakeholders with an interest in the mechanism. As first suggested actions for improving

Figure 17. **Key management issues to be addressed in the mechanism**



Source: CBE of Cedefop's skills governance review for Greece.

system management, the CBE participants mentioned the need to map the current state of involvement of the different members of the mechanism's operational network. This should be challenged against the desired managerial steps (data provision, coordination, analysis, feedback and validation, dissemination, evaluation) and scientific activities (quantitative, qualitative) of the management, as well as its level of operation (national, sectoral, regional/local), clearly identifying 'who should do what'.

Clarification of stakeholder involvement in the system should also be determined by the resources and expertise available among different network members; some respondents advocated that the NILHR requires additional resources to carry out its challenging task of being the main coordinating body. Respondents also noted that further methodological

direction and standardisation of taxonomies/concepts/tools/workflows and timelines adopted as part of the mechanism is necessary and could serve to foster better stakeholder coordination, as could the adoption of an extranet system for regular stakeholder exchange. It was mentioned that the current operational network could be expanded to include some important ‘missing players’ from the education sector, notably ministerial directorates responsible for VET and lifelong learning and the IEP, while the involvement of the OAED and Regions should be strengthened. Following identification of the parties that should form the mechanism’s operational network and their desired roles, the Ministry of Labour should engage in the initiation of formal agreements or memoranda of understanding with them to clarify each party’s rights and responsibilities.

The second most important issue identified was that of evaluating/monitoring the mechanism’s operation, methodology and outputs. Respondents saw this issue as having high consensus potential and as one that could further clarify existing deficiencies in coordination and management of the system, elevating the mechanism’s reputation. It was noted that inadequate attention has been paid to the issue of system evaluation, despite the high importance placed on it in the mechanism action plan. Therefore, it was seen as imperative that stakeholders agree soon on transparent evaluation criteria and the periodicity of the exercise, as well as engage in mapping of the mechanism potential target groups to seek their inputs on whether their needs are being effectively met. A robust methodology inspired by existing EU and international good practices should be adopted and, potentially, a working group, comprising government officials and representatives of the research community (such as members of the scientific committee) and social partners, could assume the evaluation task.

A number of important comments regarding system governance were also received in relation to the remaining lower-ranked priorities of the first CBE round. Participants highlighted the need to fill in the missing institutional gaps with regards to the system’s ability to detect sectoral and regional labour market and skill needs. Relying more on the long-standing expertise of the regional directorates of OAED was seen as one potential course of action for expediting the operation of the regional pillar of the mechanism. Inspired by EU and international good practice, some respondents also mentioned the need to consider setting-up sectoral skills councils, with the involvement of representatives from government, industry and the research community, aiming at identifying emerging skill needs in specific sectors and

occupations. Nevertheless, concerns were raised about the sufficiency of existing resources and expertise to sustain the aforementioned institutional structures and whether their governance could be centrally managed by the existing mechanism network or ought to be further decentralised.

The system management and reputation were seen by CBE participants as being dependent on improving the transparency of its decision-making processes, notably the operation and deliberations of the relevant mechanism committees. The institution and circulation of a 'code of operational conduct' for network and committee members was embraced, while some respondents highlighted the need to secure continuity of proceedings via the long-standing engagement of permanent institutional officials within the mechanism.

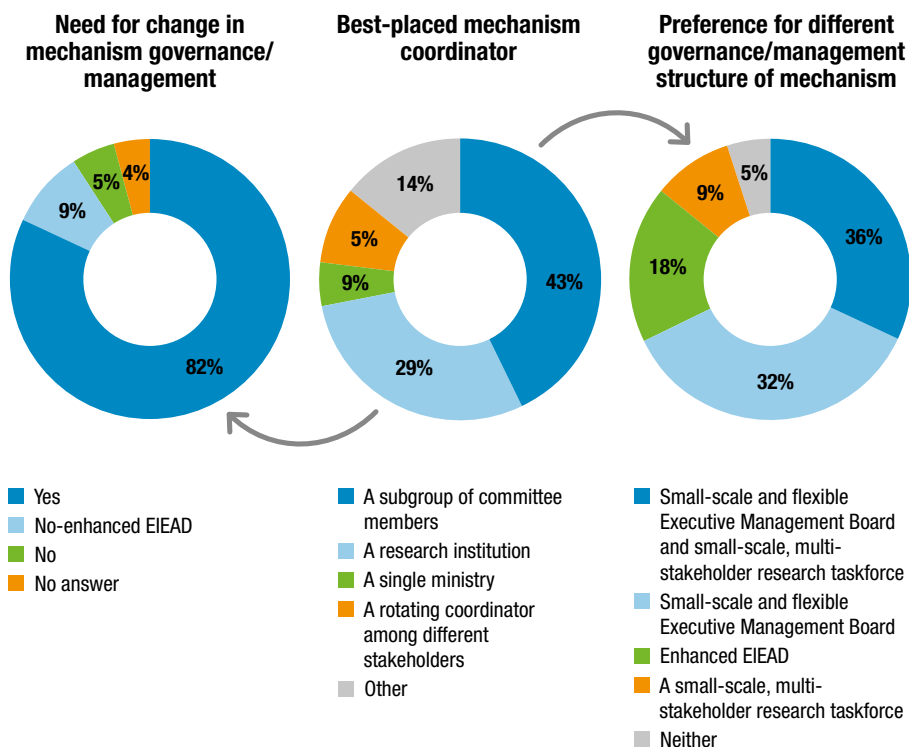
To strengthen what is currently perceived as poor dissemination and penetration of mechanism outputs to diverse target users, CBE respondents suggested that the institutional structure be enhanced with the inclusion of a specialised communication body. This body would be endowed with the responsibility of implementing a focused communication action plan (in coordination with the Ministry of Labour and NILHR) and facilitating widespread dissemination and customisation of the mechanism's main findings, using a variety of different media outlets (policy flyers, social media, user friendly leaflets, newsletters), to a wide range of potential users. The body could be also charged with the responsibility of organising conferences, workshops and relevant capacity building seminars for potential users.

The second and third rounds of the CBE sought further agreement on the change that might need to be introduced to strengthen the management and coordination capacity of the system. As seen in Figure 18, a strikingly high share of respondents (82%) agreed that there is a need for change in the mechanism's governance structure from that currently in place. The greatest share (43%) also thought that the system may be best managed by some independent subgroup of committee members (with equal representation), as opposed to one research institution exclusively assuming the coordinating function; such an arrangement could secure wider representativeness of opinion, building of mutual trust, a forum of conflict resolution and partial independence from discontinuity that the electoral cycle can cause.

Inspired by skills governance models adopted in other countries (ILO-Cedefop-ETF-OECD, 2017), CBE participants were presented with a menu of alternative governance arrangements that could potentially improve system management. One option entailed the preservation and augmentation of the current coordinating function of the NILHR. Two alternative options

were also foreseen: a newly instituted small multi-stakeholder (tri-partite) executive management board, which could manage and monitor the system’s proceedings in accordance with the strategic directions provided by the relevant ministries and NCC; and/or a new research taskforce that could more effectively steer the divergent scientific activities carried out by the NILHR as well as other network members, synthesise and communicate the findings to policy-makers and monitor user needs.

Figure 18. Preferred governance structure for the mechanism



Source: CBE of Cedefop’s skills governance review for Greece.

Stakeholders expressed some agreement with the suggestion to revise the mechanism governance structure by considering the institution of new multi-stakeholder bodies. Relevant members that could be part of a new tripartite executive management board included the Ministry of Labour, NILHR and the social partners. As possible members of a new research taskforce, the CBE participants mentioned the NILHR, OAED, ELSTAT, EOPPEP, joined by experts from the social partners' scientific institutes and academia.

The preferred type of management structure differed by type of stakeholder, with Ministerial and social partner representatives being more willing to endorse such change in contrast to respondents from research institutions or agencies. Implementation of the above change in the mechanism's governance structure may not achieve the full consensus of its associate parties. Similarly, subsequent questions in the third CBE round did not reach clear consensus regarding who should set the strategic direction for the mechanism, with broadly equal support expressed in favour of the Ministry of Labour, NILHR, the current NCC and the proposed smaller scale Executive Management board.

The CBE did, nevertheless, reach consensus in that the NCC should be the body mostly responsible for monitoring implementation of system proceedings and outputs, while a newly instituted research taskforce or the scientific committee could also play a greater role in this respect. The existing governance arrangements for validation of the scientific results of the mechanism were also seen as generally sufficient, although additional validation of the mechanism's scientific ability by an independent international body was seen as desirable.

During the CBE, participants reiterated some of the concerns raised in the preceding stakeholder interview phase: the difficulties encountered in sharing data between organisations and lack of clarity in relation to requirements and expectations for feeding inputs into the system's information repository. For this reason, CBE participants were asked their views on the feasibility of developing a freely accessible – open source – national skills database that could bridge together different data sources of skill supply and demand, collected under the umbrella of the mechanism. Most respondents considered this feasible (48%) or somewhat feasible (35%), but saw a range of obstacles that would need to be overcome in achieving this goal: the bureaucracy and protection issues associated with gaining access and sharing data; the lack of a data disclosure culture; divergent understandings of concepts and definitions; differences in taxonomies and survey regularity and divergent organisational interests.

Alongside the changes stakeholders advocated in the strategic and day-to-day management of the mechanism there was general agreement (about 59% of CBE respondents) that more resources and funding were required if it was to meet everyone's expectations and become sustainable over the long term. Here stakeholders generally looked to the Ministries of Labour (73%) and Education (55%), respectively, as the provider of additional human and financial resources, but also acknowledged that the social partners could augment their in-kind contributions to the system (50%).

5.2.2. Expanding objectives: linking with ALMP

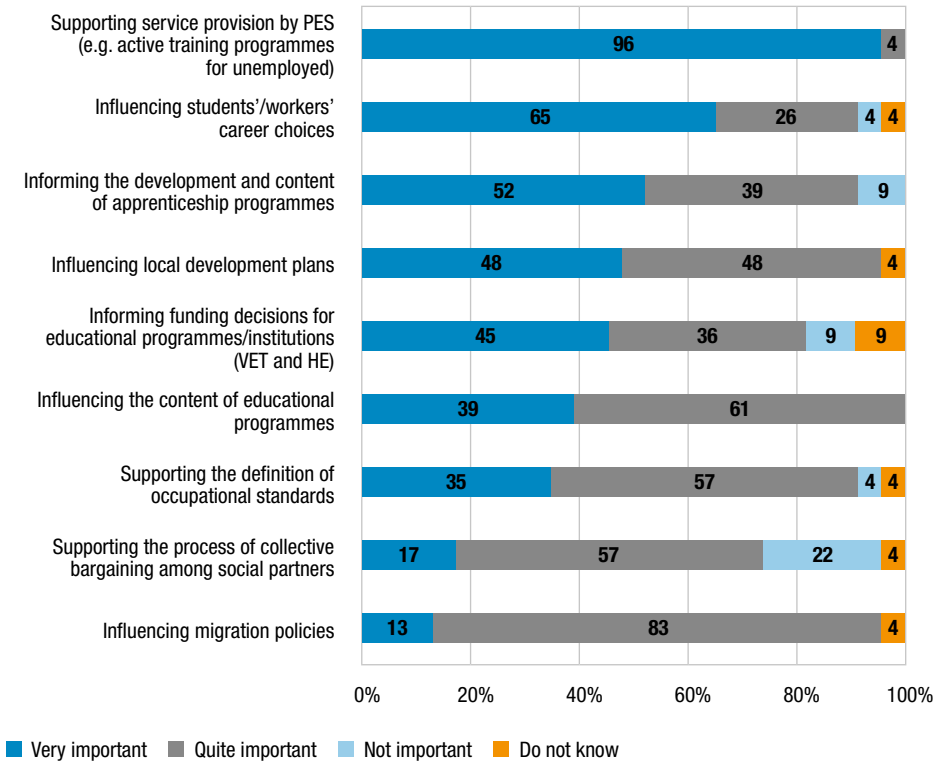
Thinking more about the management of the mechanism and who should be involved in it, and the roles they should fulfil, inevitably raises questions about what the mechanism should be doing (Figure 19). Being able to identify what stakeholders want the mechanism principally to achieve, offers a better means of identifying who should be involved and the roles they might fulfil. Supporting the public employment service by providing information relevant for ALMPs was identified as the most important goal by far that the mechanism should meet. However, it is also apparent from Figure 19 that stakeholders want to see the mechanism fulfil a wide range of additional needs, such as informing students/adults in making career choices, assisting with the development of the apprenticeship system, and influencing local development plans.

Given that CBE respondents view supporting the PES as the principal purpose of the mechanism, they were asked in the final round how it might be more tightly linked to ALMP (Figure 20). The principal means of achieving this relates to ALMPs being required to use outputs of the mechanism in their design (via the legislative route or non-formally), along with more tightly linking and customising the its outputs to those working in the PES (such as counsellors).

5.2.3. Expanding objectives: supporting VET and apprenticeship reform

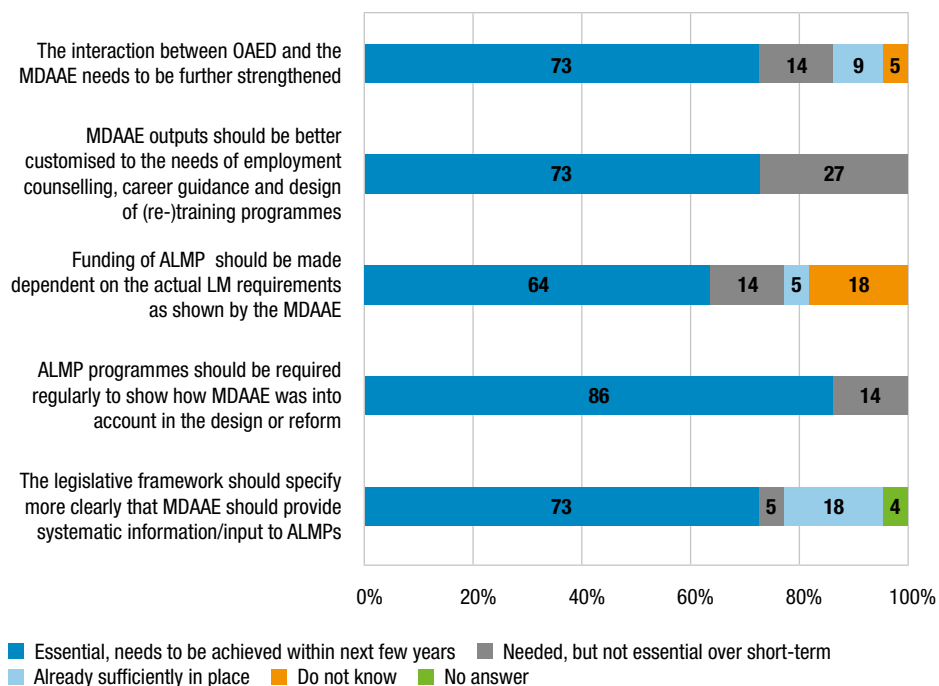
Stakeholders also saw as a priority the need to expand the activities of the mechanism so that it is able to support the 2016 reform of the National strategic framework for VET that emphasised the promotion of apprenticeship training across Greece (Figure 21). More than two-thirds of CBE respondents prioritised the fact that the LMSI collected by the mechanism should be broadened so that it can contribute to VET/apprenticeship reform (50% selected it as their highest priority).

Figure 19. **Importance of (new) objectives for the mechanism**



Source: CBE of Cedefop's skills governance review for Greece.

CBE stakeholders generally noted that the success of the recent VET reforms, particularly the institution of a post-upper secondary year of apprenticeship training at EPAL, is dependent on them being fed timely and accurately information about (new) demand for different professions and labour market specialties. Nevertheless, there remain a number of open questions related to the technical specificities of the process and its application (which existing mechanism outputs are relevant for VET; which methodology is to be used by the mechanism to collect relevant LMSI for VET; how mechanism actors should be informed about VET needs; how to manage feedback loops?). Stakeholders generally acknowledged that to support VET reform, the mechanism needed to collect detailed information on apprenticeship demand by employers and the skills required in minor occupational groups,

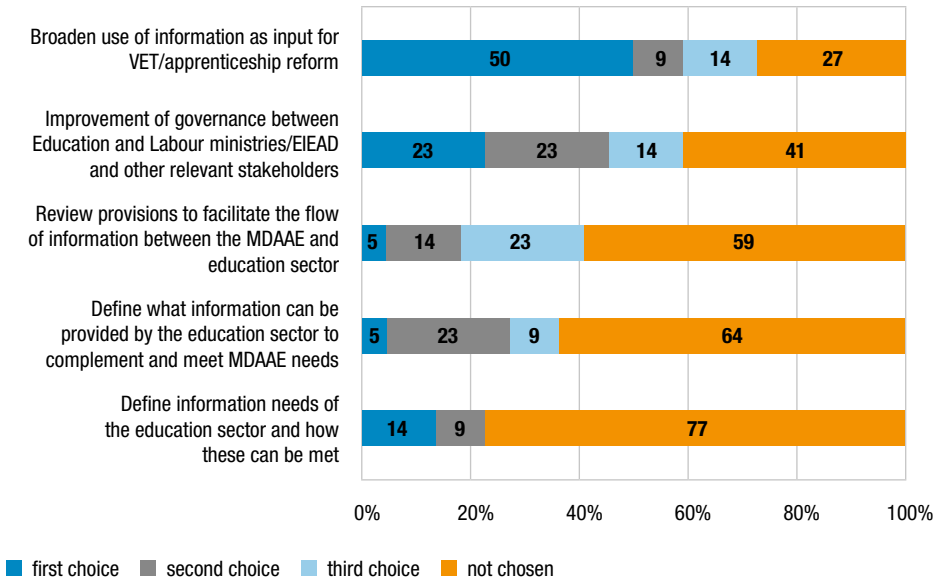
Figure 20. **Linking the outputs of the mechanism to ALMPs**

Source: CBE of Cedefop's skills governance review for Greece.

which could inform occupational monographs and contribute to the updating of learning outcomes in the national qualifications framework.

Bringing about improvement in governance between the education and labour market ministries and other relevant stakeholders was seen as an inevitable consequence of the need to link the mechanism better to VET reform, as well as a critical prerequisite for promoting the mechanism's overall value-added for the country. Some 53% of CBE stakeholders noted that further regulatory action is needed to clarify the interaction between the two key ministries and make the design of VET programmes explicitly tied to LMSI, but it was emphasised that this goal ultimately requires strong political will and higher-level decisions. Social partners noted that they can play an important intermediation role in supporting this connection between the education sector and labour market, most notably via their own actions in detecting skill needs, updating of occupational monographs and providing continuing vocational courses within their institutes.

Figure 21. **How the mechanism might support VET reform**



Source: CBE of Cedefop’s skills governance review for Greece.

Facilitating stronger feedback loops between education and the labour market may require revision to the existing mechanism governance structure. Although the existing coordination channels, most notably the NCC, could sustain such loops, it would perhaps be best if a new tripartite body was promoted with the following membership: Ministry of Labour and EIEAD; Ministry of Education (VET policy and planning) and EOPPEP (accreditation of qualifications and apprenticeship programmes); OAED (provider of apprenticeships via EPAL and facilitator of labour market placements); public and private post-secondary VET schools (IEK); and social partners. Another suggestion was to promote the signing of a joint ministerial decree specifying the nature of desired interaction (an action plan) between the Ministry of Education and the Ministry of Labour/NILHR. For some, the integration of the NILHR in the process of planning and compiling the lists of VET courses and apprenticeships could ensure that the mechanism outputs are properly customised to the needs of the Ministry of Education.

The second round of the CBE followed up the issue by placing emphasis on the type of actions needed to support VET/apprenticeship reform and the extent to which stakeholder consensus could be achieved (Figure 22).

Defining and standardising the outputs needed to support reform, using a commonly adopted 'language' and terminology, were seen as areas in need of short-term attention that would also enjoy broad agreement among relevant parties; 64% of CBE respondents strongly agreed that such outputs should aim to inform the design and content of VET/apprenticeship programmes and 59% that they should inform quality assurance indicators for VET.

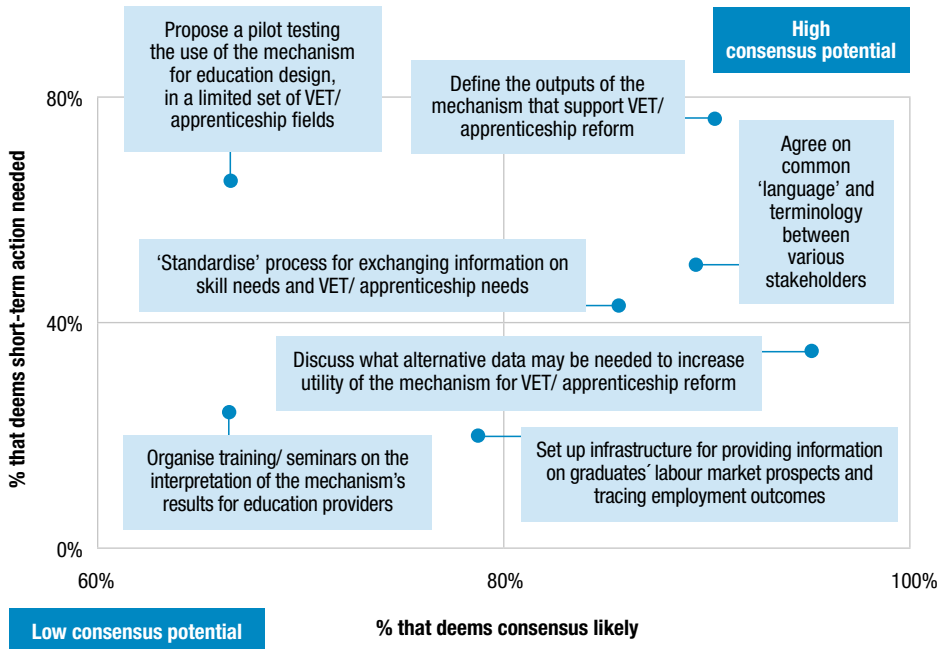
Doing this requires a methodological leap and changes to the mechanism data collection process. CBE participants mentioned, for instance, the need to integrate specific questions on employer demand for apprentices (by type of enterprise, location, sector and specialty) either directly into the main administrative databases Ergani and Gemi or indirectly via a specific employer survey. Designing and conducting a specific national occupational skills survey in the medium term, inspired by international good practice (such as US O*NET, Italian Professioni, Occupazione e Fabbisogni), was also supported. Extending skills forecasting/foresight exercises to the level of (clusters of) field specialties, as opposed to broad sector and occupation, was acknowledged as a necessary requirement for the mechanism to provide relevant information for the education sector.

Stakeholders mentioned the need for mapping and evaluation of the association between, on the one hand, the list of dynamic occupations and skills produced by the mechanism's methodology and, on the other hand, the list of apprenticeship specialties and courses adopted by the VET system. It was highlighted that the VET system typically requires information that exceeds the demand for qualifications and skills, such as insights into the labour market placements of VET graduates as well as alternative educational/occupational pathways. But equally important is channelling of information by the Ministry of Education on enrolment and graduation rates at different education levels to the mechanism. CBE respondents mentioned the challenges related to the poor quality of data collected by the education sector, the need to merge diverse and fragmented data sources, incoherence with labour market statistics and the lack of interoperability between the different web portals of the Ministry of Education (e.g. myschool), EOPPEP (NQFs) and that of the mechanism sustained by the NILHR.

Stakeholders agreed that developing a small-scale pilot to see how the mechanism can improve the design of courses in a limited number of VET fields or apprenticeships was an advisable strategy.

In the final round of the CBE, attention was focused in even more detail on where efforts should concentrate over the short term (Figure 23). There

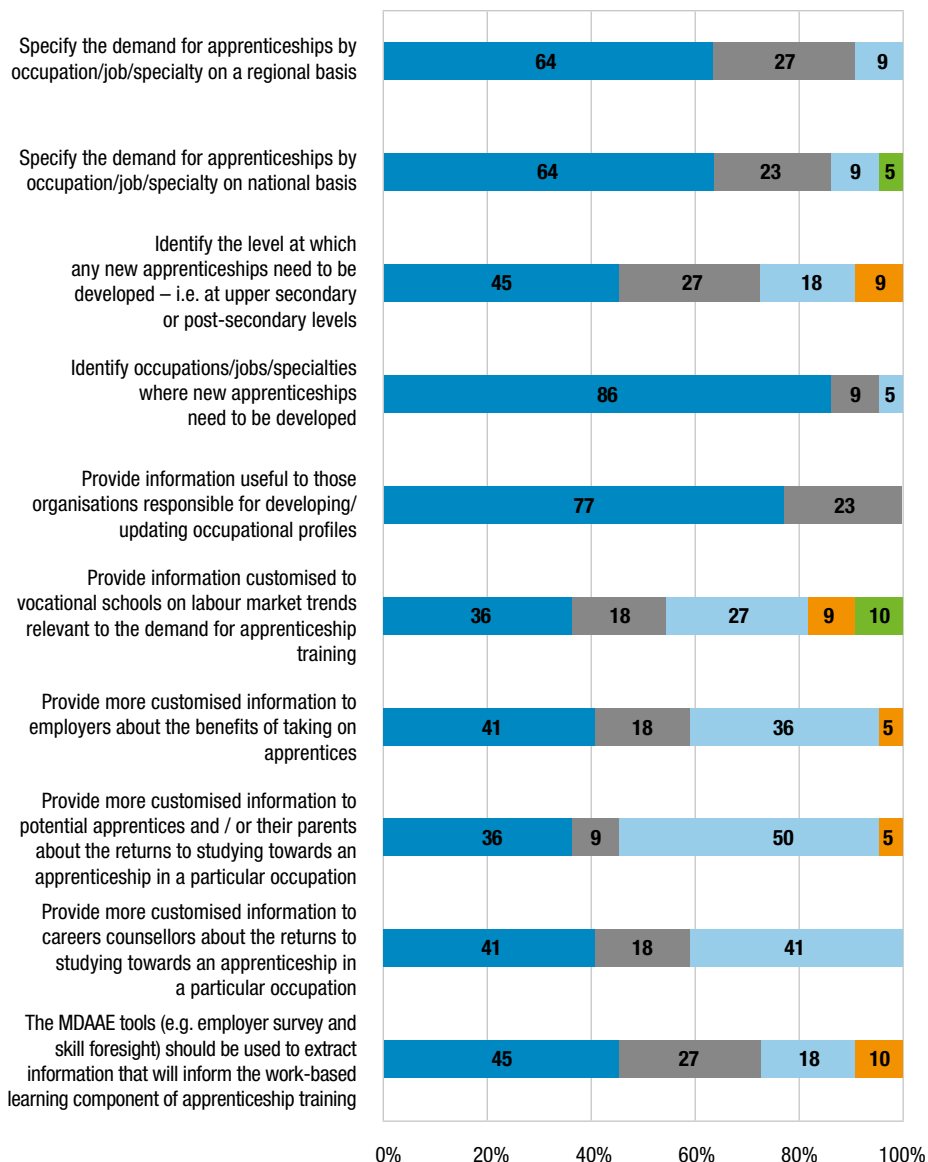
Figure 22. **Need for (short-term) actions and likelihood of consensus to improve the mechanism’s capacity to contribute to VET/ apprenticeship reform**



Source: CBE of Cedefop's skills governance review for Greece.

are expectations of the mechanism providing a wide range of information on the demand for apprenticeships, most notably by pointing to the direction of occupations/specialties where new apprenticeships need to be developed and providing reference information for developing/updating occupational profiles. The LMSI developed as part of the mechanism should, according to 45% of CBE respondents, aim at supplementing the work-based learning component of apprenticeship programmes, but it could also provide useful direction for counsellors and employers wishing to stress the benefits of participation in apprenticeship training.

Figure 23. **Focus of mechanism to support apprenticeship development**



Source: CBE of Cedefop’s skills governance review for Greece.

Several obstacles stand in the way of the goals set out above, as indicated by CBE participants:

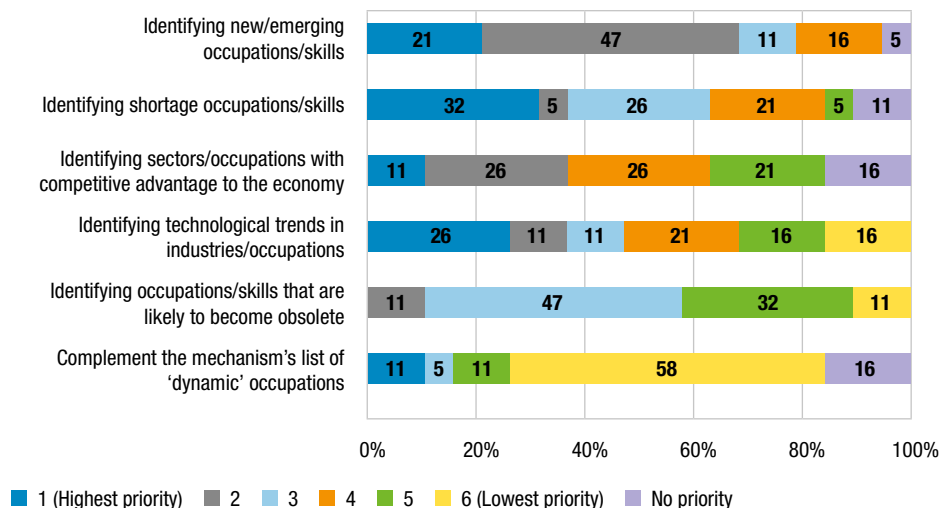
- (a) difficulties collecting the data necessary for drawing conclusions at the level of VET programmes and apprenticeships (64% of CBE respondents identified this as a major obstacle);
- (b) lack of clarity over what mechanism outputs are required by the apprenticeship system (59%);
- (c) inadequate coordination and poor governance between the actors involved in the apprenticeship and labour market diagnosis systems (59%);
- (d) absence of regulation that allows data collection and data sharing on apprenticeship demand (50%).

5.2.4. Expanding methods: technology and skill foresight

Respondents overwhelmingly agree (83%) that further formalisation and systematisation of the qualitative component of the mechanism, relative to the initial ad hoc efforts made in 2015, would be a significant improvement. Stakeholders were of the view that qualitative foresight allows better opportunity to incorporate dynamic changes (such as new technological breakthroughs) and overall restructuring in the labour market within the mechanism, as well as obtain detailed insights into emerging skill needs within sectors and occupations. In Greece there is a high degree of uncertainty attached to macroeconomic quantitative forecasts which rely on historical employment projections; given the precarious state of the economy these may not apply.

If foresight exercises were to be systematically included in the mechanism, it would be necessary as a first step to set clear objectives (as acknowledged by 63% of the CBE respondents in the first round); after this the institutional framework for conducting such exercises, along with the processes to be used (coordinating body, task allocation, resources), could be defined. Stakeholders generally saw the main objectives of technology and skills foresights to be identifying new skills and jobs, indicating where shortages are likely to emerge, and offering an insight into what are Greece's most competitive sectors (Figure 24).

During the final round of the CBE, stakeholders agreed that a pilot foresight exercise could be implemented soon after any reforms in the organisational structure of the mechanism are adopted (52%) or immediately (38%). The greatest risk to implementing the pilot related to the coordination of activities across different stakeholders (36%), followed by a lack of political will and

Figure 24. **Priorities for technology/skill foresight exercises**

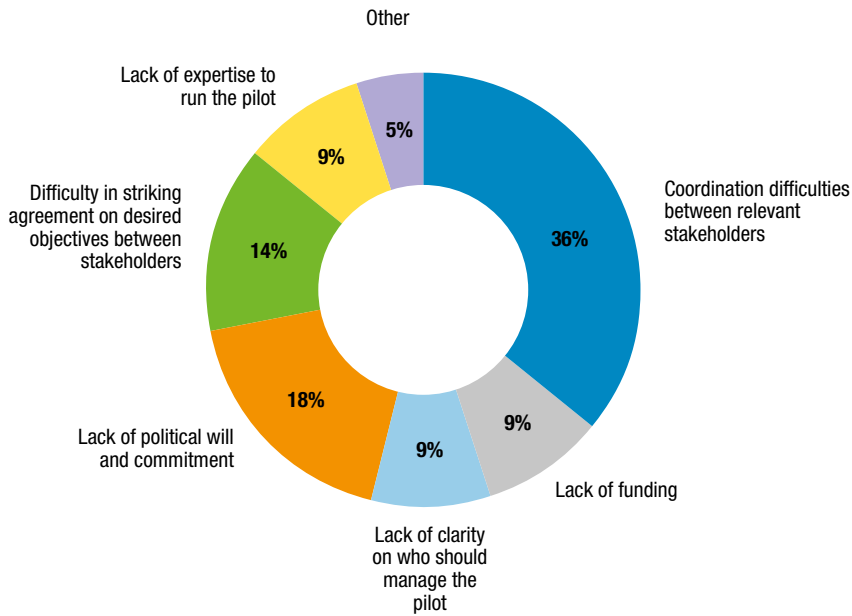
Source: CBE of Cedefop's skills governance review for Greece.

commitment (18%) (Figure 25). There was also some divergence of opinion regarding who should assume responsibility for implementing the pilot, though the NILHR was seen by half of the CBE respondents as the main body for making necessary arrangements (or potentially a new research taskforce). Although most respondents (41%) highlighted that the exact focus of the pilot and subsequent skill foresight exercises should be the identification of skills needs in (a cluster of) occupational groups, Ministry representatives placed greater emphasis on understanding transversal skill needs, while social partners noted the need for extracting in-depth information on technical, sector- or job-specific skills (Figure 26).

CBE participants recognised the importance of their strong commitment to the exercise, possibly formalised via the signing of bilateral/multilateral programming agreements between all relevant actors, but also noted the need for further training and learning on the value-added, methodologies and practices underpinning the implementation of technology and skill foresights⁽⁴²⁾.

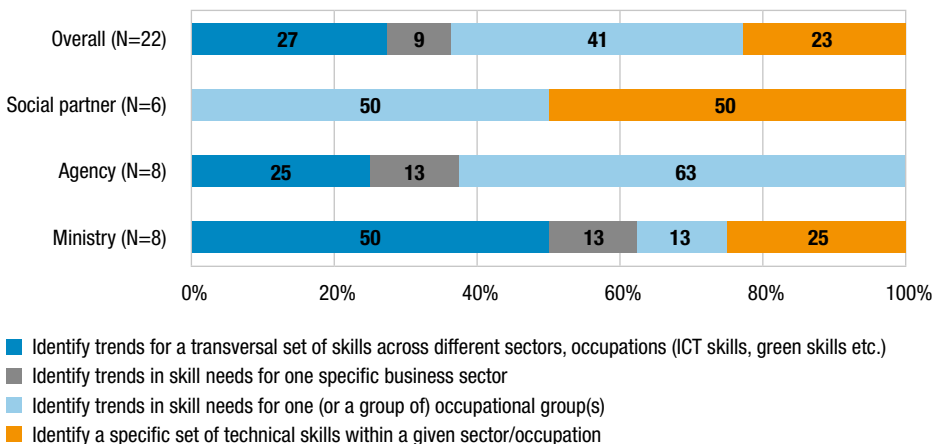
⁽⁴²⁾ Cedefop's contribution to national stakeholders' capacity building was recognised, building also on the centre's series of skills anticipation guides (www.cedefop.europa.eu/files/anticipation_guides.zip). As part of the project, Cedefop also organised a dedicated

Figure 25. **Main obstacles to setting up a skills foresight pilot**



Source: CBE of Cedefop’s skills governance review for Greece.

Figure 26. **Possible focus of a skills foresight pilot**



Source: CBE of Cedefop’s skills governance review for Greece.

5.2.5. Ensuring impact: strategic policy-making

The need to align the mechanism with the national growth strategy was seen as an important objective and a key determinant of its sustainability. Stakeholders agreed that the mechanism should become a key tool for informing the country's growth potential on the basis of consensual social dialogue. However, at present there is a missing link between the national competitiveness strategy and the country's human capital investment planning.

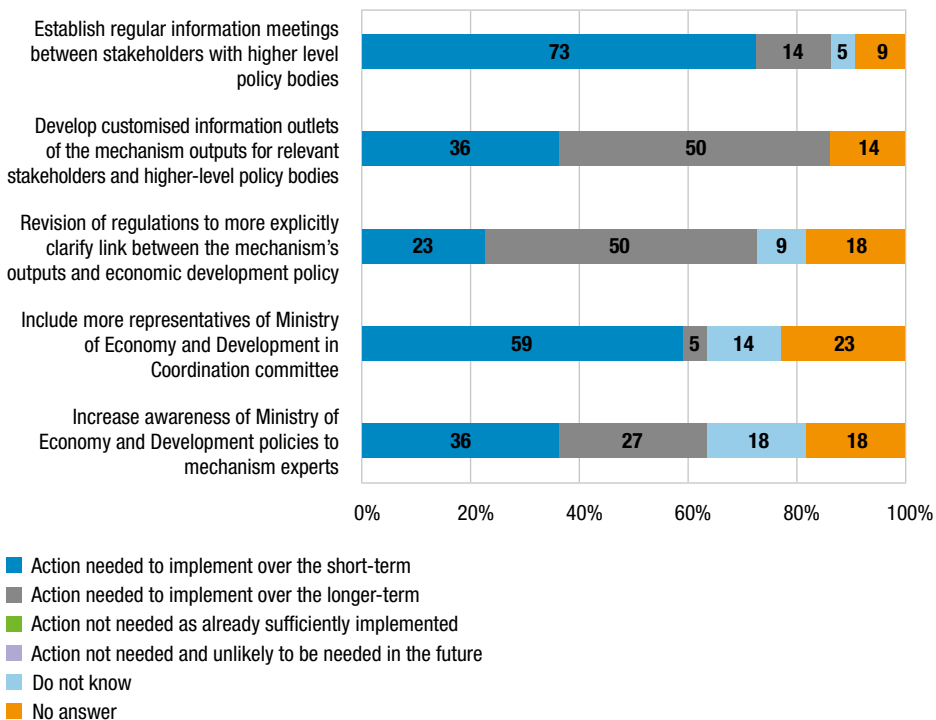
The short-term goal is essentially that of establishing dialogue between relevant bodies so that, over the longer term, there will be customised information from the mechanism that feeds directly into high-level policy-making (Figure 27). This potentially requires, as CBE stakeholders reported, including representatives from the Ministry of Economy on the mechanism's NCC. Strengthening the communication pathway between the NCC and higher ranks of policy-making (Prime Minister's coordination office, Ministerial cabinet) is also an important tactic. Over the longer term it might require a regulation that clarifies the role of the mechanism in economic development policy, potentially starting from sectors and occupations that may provide the Greek economy with a competitive advantage and spearhead its future economic transformation (such as in the maritime, tourism, agricultural and ICT sectors).

If the mechanism is to be used to guide national strategic policy-making it suggests the need to provide detailed information that allows the assessment and use of its outputs in qualified policy decisions. A strong element here is the need for an action plan that clearly defines roles, methodology and data, accessibility and expected policy outcomes of results, as well as practical steps for translating the mechanism's outputs into different policy instruments or programmes. But stakeholders also mentioned the need to establish a good financial and non-financial incentives structure to bring the motives and actions of the mechanism's actors into closer alignment.

Stakeholders recognised that a key prerequisite for ensuring an effective link between the mechanism and the national economic strategy is the quality of data and methods used. Careful mapping of the outputs and key findings of the mechanism should be undertaken first, followed by rigorous

discussion, possibly by a higher-level policy working group, of their potential utility and practical steps required for translation into strategic policy-making. Evaluation of the mechanism’s overall value-added to date by a dedicated scientific council could also serve to elevate trust in its potential usefulness at all levels of public administration.

Figure 27. **Actions to link mechanism outputs with national growth strategy**



Source: CBE of Cedefop’s skills governance review for Greece.

5.3. Conclusion: priorities emerging from the CBE

Stakeholder responses to the CBE stressed their high expectations for the future development of the mechanism. In many respects, the CBE was designed to address how such high expectations might be effectively met. Some of the general conclusions to emerge from the CBE were the following.

Management/coordination of the mechanism

- (a) Improvements in the management of the mechanism are desired, particularly clearer definition of the roles of key stakeholders:
 - (i) meeting this goal may require an update in the existing regulatory framework and a revised governance structure, potentially involving the institution of new coordinating bodies for steering the mechanism's planning and scientific activities and/or new institutional structures (such as sectoral and regional skills councils) for reforming the way specific labour market needs are identified. But there may be a need for further consensus among the main actors before proceeding with the setting up of these new coordination bodies.
- (b) There is a need for more cooperation between the Ministries of Labour and Education as well as other key Ministries, with emphasis on:
 - (i) the Ministry of Education assuming further ownership of the mechanism's proceedings;
 - (ii) key line ministries (finance, development and investment, tourism, agriculture) securing a stronger presence in the NCC;
 - (iii) better system management, with shared responsibility and ownership, obtained via clarification of the expected contributions of existing and potential additional key actors (VET and lifelong learning directorates, social partners' scientific institutes, EOPPEP, IEP) to the mechanism's operational network and information repository.
- (c) Even though the mechanism needs to become more inclusive by securing broader stakeholder involvement, the role of individual stakeholders should be determined with respect to their particular expertise and potential contributions to the different stages of the process: defining information needs, data provision, analysis, validation, use, and evaluation. It is not necessary everyone to be involved in everything.

Linking the mechanism closer to labour market and VET policy

- (a) Formalising the evolving and wider mandate of the mechanism is advised, to update the regulatory framework to make it clearer that a key objective is to inform actors involved in the design of active labour market and VET policies, aimed at the upskilling/reskilling of the working age population engaged in labour market transitions.
- (b) The mechanism should assume an expanded role, especially in providing information relevant to:
 - (i) supporting the public employment service in developing ALMPs and assisting the unemployed;
 - (ii) providing information to guide young people's and adults' career decisions;
 - (iii) supporting the development of the apprenticeship programme, via the provision of data that may allow the content of apprenticeships and other VET programmes to be determined and their quality assured;
 - (iv) influencing local development plans.
- (c) Information collected and processed in the mechanism should be broadened and used to support the recent reforms of the Greek VET and apprenticeship systems.
- (d) Collecting information that may feed into the updates of occupational monographs is essential, as they may become a possible reference point for guiding the future methodological development of the mechanism and its linkage with VET.

Methodological improvements

- (a) Continuous methodological improvements to the mechanism's research toolkit are needed, particularly in relation to its ability to identify emerging technologies, jobs and skill needs within (clusters of) occupations.
- (b) A more systematic role for technology and skills foresight analysis, to gauge an understanding of future skill needs, should be foreseen and included as a mechanism component.

Dissemination, feedback and validation

- (a) The mechanism's 'reach' – both among higher-level policy-makers and micro agents – needs to be expanded. A key challenge is to meet the diverse needs of various user groups by producing robust and customised labour market and skills analyses.

- (b) A dedicated communication strategy is necessary to promote the mechanism's outputs to potential users.
- (c) The mechanism's information repository should become an open-source national database, accessible by all interested parties, which can be fed with high quality data and merge diverse data structures, under clearly defined methodological and interoperability protocols.

Reputation and sustainability

- (a) The mechanism's operation, methodology and value-added of its outputs should be subject to periodic evaluation.
- (b) Greater transparency of the mechanism's decision-making processes and relevant committee proceedings is required.
- (c) A commensurate increase in the mechanism's resources (both human and financial) is necessary to serve its broader role, but marshalling existing resources and expertise from research organisations, both in Greece and those with an international remit, should be first explored.

CHAPTER 6.

Extending the mechanism's reach

6.1. Aim of survey and target population

The discussion in the previous chapters has explored the views of those who might be considered insiders of the skills governance system. Many of those consulted were engaged in the development of and/or were part of the mechanism network in one way or another. There is also interest in having the views of those whose principal engagement with the mechanism is that of a user. To this end, and in cooperation with the NILHR, an online survey was prepared and undertaken as part of the Cedefop review, targeted at (potential) users of the mechanism's newly developed online portal.

The online survey was intended to collect views on the usage, value-added and attractiveness of the mechanism's online portal. It explored the following themes: awareness of the online mechanism and frequency of usage; satisfaction with the portal and with individual aspects of it (e.g. type of information provided, quality of data, visual layout); type of information sought for by the user during the first contact with the online portal but also in general; reasons for using the online mechanism; alternative online LMI sources for Greece; and improvements seen as necessary for future use.

The target population of the online survey were users (and potential users) of the mechanism portal. As the population is not necessarily well defined, it was decided to approach members of two, potentially overlapping, networks: (a) registered users of the mechanism through a list held by the NILHR; (b) members of Greek networks and contacts maintained by Cedefop's contact reference database: labour market experts, policy-makers, counsellors and stakeholders with an interest in education, training and general labour market issues, and representatives of the media and VET providers.

This approach ensured the inclusion of all major national participants in the country review and the many users within their organisations, as well as more general, registered, users of the mechanism.

The respondents can be divided into two equally sized groups: those who had not yet used the online information portal of the mechanism and those that had used it already. Each comprised 130 respondents. For the group that had not used the online mechanism, either because it was unaware of it (one third of this group), or because it had not yet used it (two thirds of this group), little information can be presented. The group of non-users comprises a relatively large share of career counsellors. The largest shares of respondents were accounted for by researchers (24%), careers and guidance counsellors (21%) and policy-makers (16%). A total of 7% were stakeholders from either trade unions or employer organisations. A remainder category 'other' collected the residual one third of all respondents.

6.2. Satisfaction with the online mechanism

The online survey revealed that half of the respondents were aware of the online portal and what it had to offer.

The online usage can be further roughly divided into three groups:

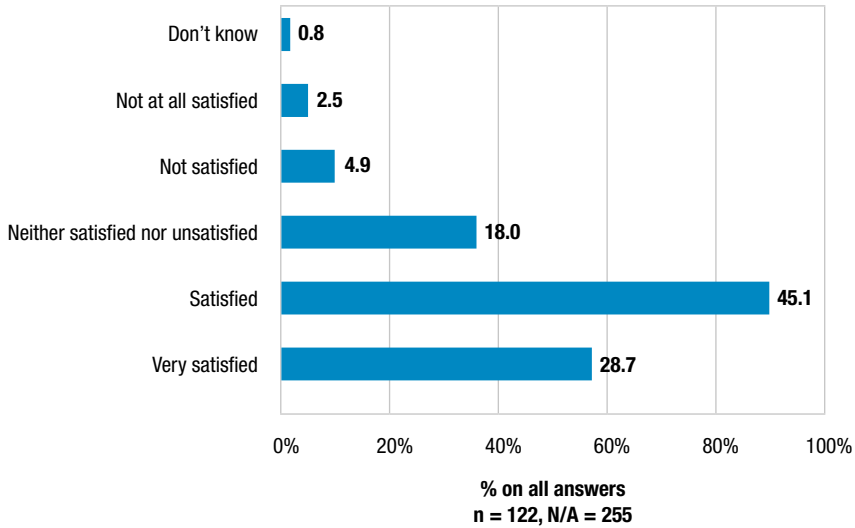
- (a) occasional users: those who used the online tool less than once a week (11%);
- (b) regular users: who used the tool once or twice a week (60%);
- (c) heavy users: those who used it more than twice a week (28%).

Overall satisfaction with the online mechanism is high, as 45% of the respondents answered that they were satisfied with the tool while an additional 29% reported high satisfaction (Figure 28). A total of 18% gave a neutral answer, while 6% were not (not at all) satisfied. Overall, researchers and guidance counsellors seemed to be slightly more positive about the portal than other users; all other types of user were somewhat more nuanced in their overall rating.

6.3. Reasons for using the online mechanism portal

Most people using the online portal were looking for information on employment trends by sector/occupation/region, followed by information about growing and/or future occupations and skills (Figure 29). In this, the mechanism is serving its original purpose, at least for the first part (trends and

Figure 28. **Satisfaction with the online mechanism**



Source: Cedefop-NILHR online user experience survey of the mechanism.

growing occupations). So it is readily apparent that users want information about both current and future labour market trends.

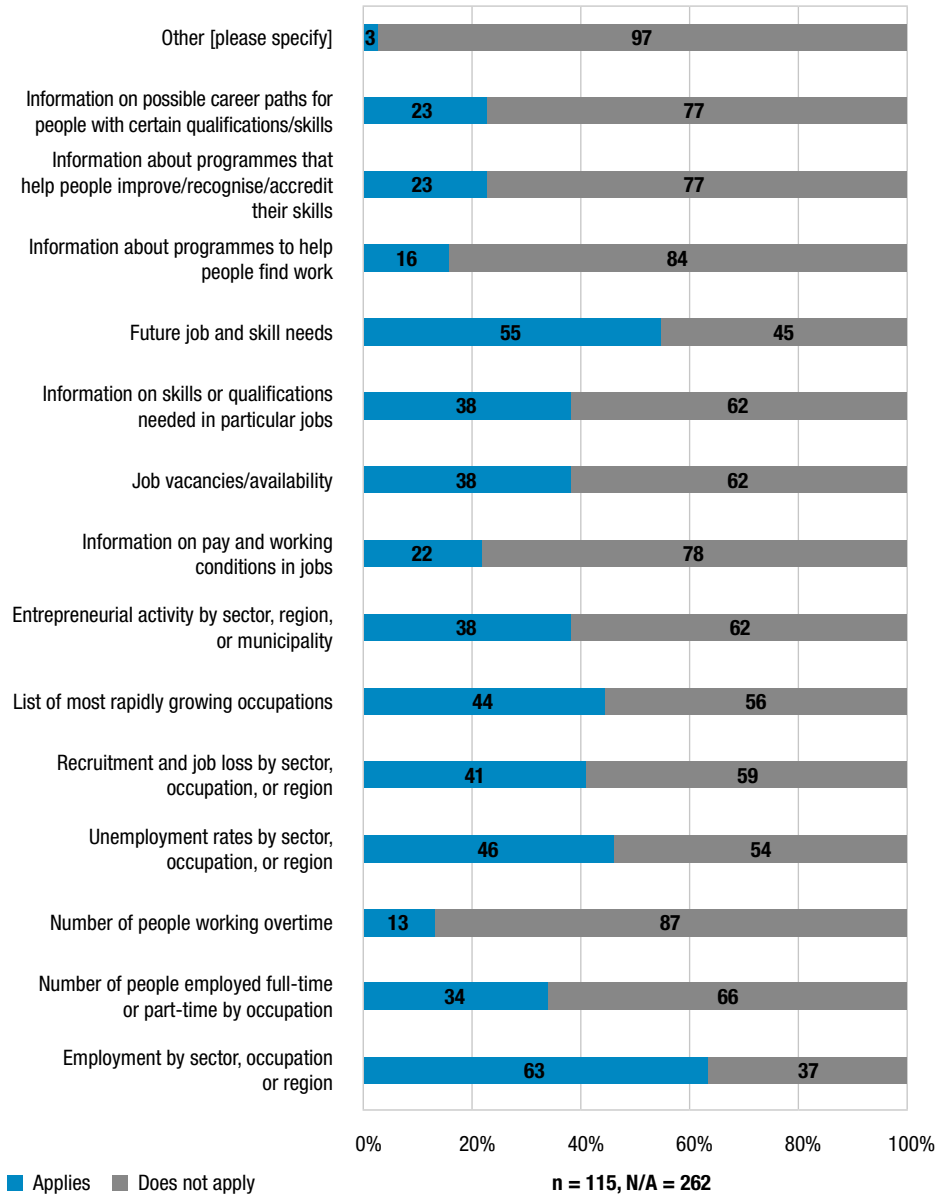
The purpose of usage varied widely, with research and economic development the most commonly mentioned options. ALMP was mentioned by 31% of the respondents; policy-makers were especially interested in this given that two thirds of them identified this as a reason for using the portal. Careers and guidance counsellors reported assisting young people and adults to find jobs as the most common reason for their usage, while informing themselves through ‘research’ followed closely behind (providing them with important background context).

6.4. User experience

Respondents were presented with a series of statements regarding their experience of using the online mechanism (Figure 30). Around eight in 10 found it to be a one-stop solution for their labour market information needs: 13% strongly agreed with the statement that it provided a one-stop shop, while 66% agreed. Only 16% disagreed, of which 3% did so strongly.

Figure 29. **Information sought in the online mechanism**

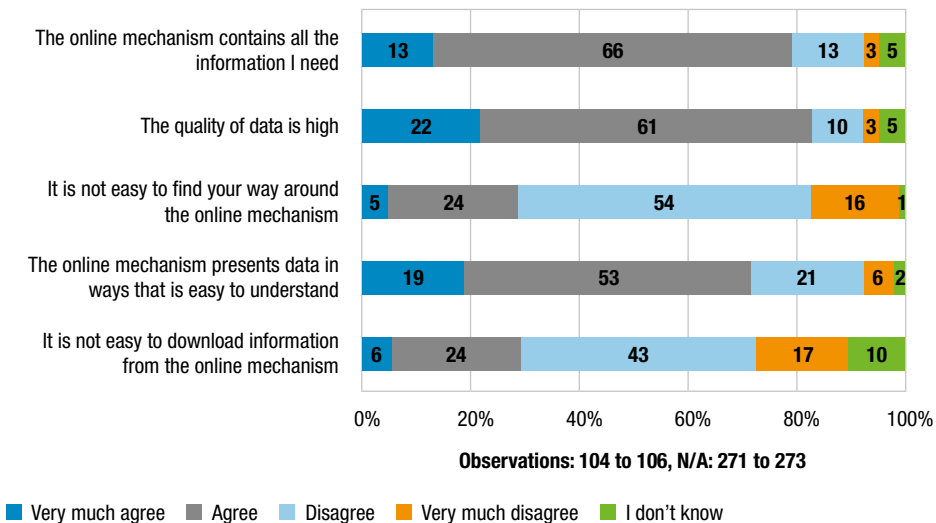
And thinking about when you now use the online mechanism, what information are you usually looking for?



Source: Cedefop-NILHR online user experience survey of the mechanism.

Users were also convinced about the quality of the data: 83% agreed that the quality of data was high, compared with 13% who had some doubts about data quality. Seven out of 10 respondents agreed that navigating the mechanism's online portal was easy and most agreed that the data was presented in a way that was understandable. Six out of 10 respondents agreed that downloading information was easy. All of the above underpin the high level of satisfaction reported by users.

Figure 30. **User evaluation of the online mechanism**



Source: Cedefop-NILHR online user experience survey of the mechanism.

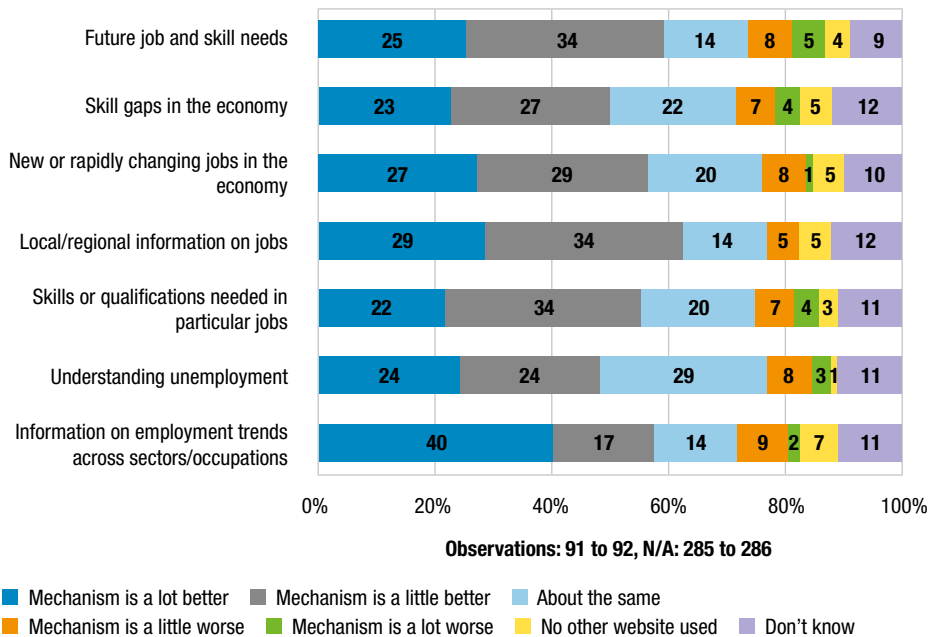
6.5. Comparing the online mechanism to other sites

Asked about other sites that users tend to rely on to get access to labour market information, the one most mentioned was the Greek statistical office (40 times), followed by OAED (39) and EOPEPP (14). International organisations were also often mentioned. Cedefop was mentioned 38 times, as were the OECD (21), Eurostat (20), the ILO (12), while other sites of the European Commission received 11 mentions. There seems to be, next to the three Greek sources, a high degree of reliance on international or European institutions for obtaining background LMI in Greece.

The online mechanism portal scored well in all categories relative to other sites; about half or more of the respondents regarded it as better than other sites (Figure 31). Only around 10% said that the it was somewhat or a lot worse than available alternatives.

Figure 31. **The online mechanism and similar web portals**

How would you rate the online mechanism with other online websites in Greece with respect to the following?



Source: Cedefop-NILHR online user experience survey of the mechanism.

The online mechanism website scores best on information on employment trends across sectors and/or regions, where 40% of respondents rated it as a lot better than other sites, with a further 17% saying it was somewhat better. Other areas on which the website was favourably evaluated were on local or regional information, future job and skill needs, and in understanding unemployment.

6.6. Possible improvements to the online mechanism portal

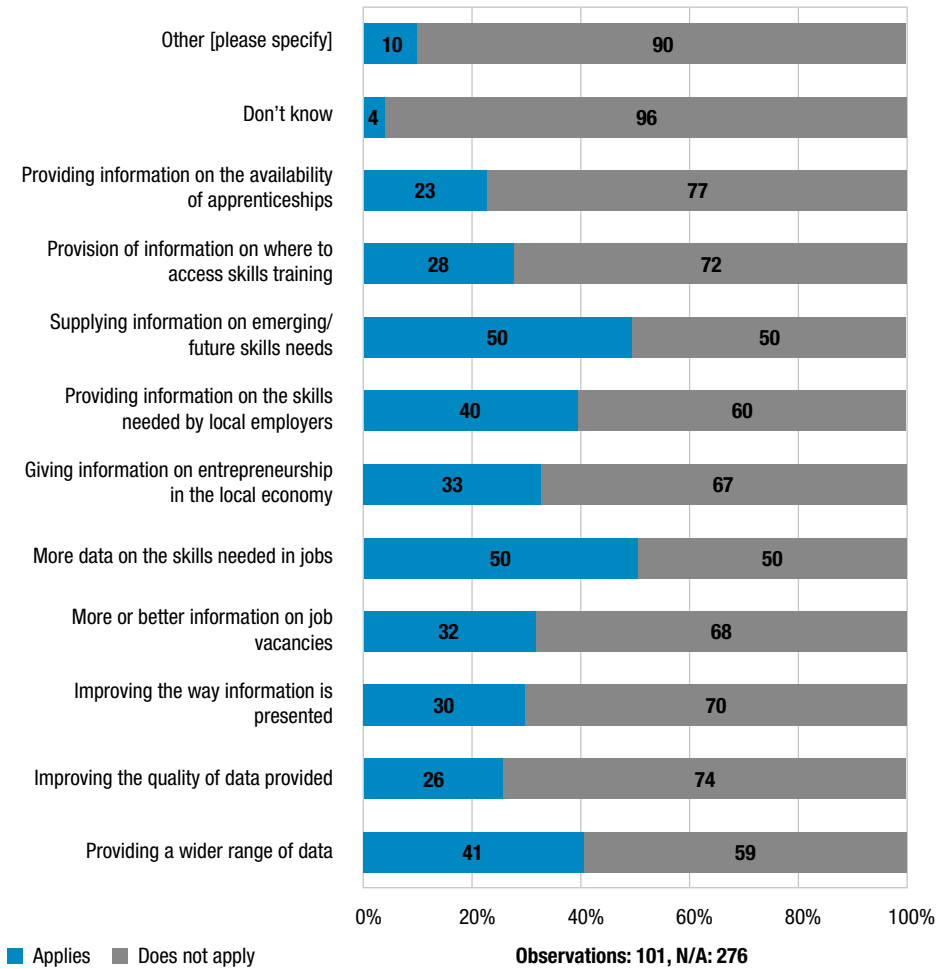
When asked about the most important improvements that could be made to the online portal of the mechanism, respondents identified more information on emerging or future skill needs, and/or skill needs in jobs as areas for attention (Figure 32). While this is certainly an understandable wish, providing this information in more detail will also entail data challenges. There were additional suggestions and wishes from the users. More data on skill needs in jobs is mentioned the most, along with supplying information on emerging or future skill needs. This complements the request to provide a wider range of data, or to localise information. All this points to users who like to interact and analyse the data already provided on the online portal, wishing to get their hands on more detailed information. Some respondents also made a proposal to make the data more accessible through the use of databases that could be queried/interrogated.

6.7. Conclusions

Current users of the mechanism's online portal are largely satisfied with using it. The information it provides is generally regarded as being of high quality and accessible. Where respondents accessed the portal, it was principally to find information about employment broken down by sector, occupation and/or region. Additionally, information about unemployment and vacancies – the dynamics of the labour market – were also sought, as was information relating to emerging skills and the skill content of occupations. In general, users of the online portal are content with the information they were able to find. This is important given that they are people who are accustomed to using other sites, such as those of the OAED, ELSTAT, EOPPEP in Greece, as well as international sites (Cedefop, OECD, Eurostat, and the ILO).

Given that the online mechanism portal has been up and running for a relatively short period of time, it holds high promise for the future. But there are several key issues that need to be addressed and potential improvements to be made. Building up the base of users so that it becomes a one-stop shop of information for all those with an interest in skills anticipation is one such target area. Expanding the information provided to include more detailed information relevant for young and adult job seekers, including information

Figure 32. **Suggestions to improve the online mechanism**



Source: Cedefop-NILHR online user experience survey of the mechanism.

on emerging/future skill needs within occupations and demanded by local employers, is another. Making the database underlying the portal more easily accessible for download by interested users is a further area for attention. A challenge for the mechanism is to raise awareness of the online portal and expand its user base, further ensuring multiplier dissemination effects.

CHAPTER 7.

A roadmap for change

7.1. The roadmap: priority improvement areas

Taking into account all key points and consensual views emerging from the interviews with stakeholders, online survey and outcomes of the three CBE rounds, a roadmap was developed by Cedefop suggesting tangible and commonly agreed improvements to the mechanism and to Greek skills governance in general. The ‘national policy roadmap’ reflects a mapping of commonly identified priority areas and concrete follow-up actions for improving the country’s skills governance under a reasonable timeframe. This roadmap – summarised in Table 2 and the infographic (Figure 3) in the executive summary – was validated by all NSC members.

Based on the main findings emerging from the project’s prior rounds, necessary improvements to the mechanism are sought in relation to:

- (a) improving system management and coordination by revising its institutional and operational governance;
- (b) expanding its mandate, clearly stating that a key objective includes supporting active labour market and VET policy aimed at the upskilling/reskilling of the working age population;
- (c) fostering methodological improvements by augmenting its capacity to engage in technology and skill foresight analyses;
- (d) facilitating information access and outreach;
- (e) strengthening links with higher-order strategic policy-making;
- (f) elevating its reputation and sustainability.

The above ‘improvement areas’ provide the basis for developing a roadmap which will bring about advances in the operation of the mechanism over the next five years or so. The roadmap starts from the recognition that the mechanism has achieved a great deal in a short-space of time; something which was recognised widely by stakeholders and supported by the positive views elicited in the various survey stages of the project. Therefore, the roadmap does not suggest root and branch reform of the mechanism; rather, it proposes change at the margin which will allow it to satisfy better the high

expectations of stakeholders and set fertile ground for securing its long-term effectiveness and sustainability.

The roadmap is structured around each of the priority areas identified by national stakeholders above and suggests a number of commonly agreed and feasible actions within them. Although the actions are grouped according to the above improvement areas, there is a high degree of inter-dependency between them, with the necessity of improving the system's management, coordination and institutional arena permeating them.

7.2. Improving system governance and coordination

There is a general consensus that the management of the mechanism needs to be streamlined to facilitate decision-making and strategic orientation in the medium term. In addition to more formal and informal programming agreements being signed bilaterally or multilaterally between relevant system actors, mapping existing and desired system inputs and outputs and strengthening communication channels among key actors of the mechanism's operational network, it is suggested that the current governance structure of the mechanism is reformed so that new executive coordination bodies are convened. The roadmap proposes the institution of two small-scale, multi-stakeholder, bodies with executive responsibility for strategic decision-making and coordination of the mechanism's scientific activities. The intention of this action is to support stakeholder ownership under the principle of shared responsibility and ownership, and lay the ground for meeting their high expectations by restructuring the system.

A small-scale executive management board could have responsibility for setting the overall strategic goals and programming priorities of the mechanism in the medium term, seeking to maximise its impact on policy-making. It will be independent and tripartite, comprising members representing the Ministry of Labour (or jointly the Ministry of Labour and Education), the NILHR and social partners (employees and employers).

A dedicated research taskforce, coordinated and steered by the NILHR, indicatively comprising scientists from the NILHR, relevant Ministries, IEP, OAED, ELSTAT, EOPPEP and social partners' research institutes, could be given the task of ensuring appropriate research direction and drafting the scientific agenda that will ensure the strategic goals of the executive management

board are met. A particular responsibility of the research taskforce will be further developing and harmonising data inputs to produce an open source national skills database. The research taskforce will be given responsibility for scientifically validating the methodology and outputs of the mechanism.

The principal risk is a lack of consensus regarding who should be represented on the executive management board and research taskforce. These bodies have been deliberately proposed to be small-scale so that they can readily make executive decisions but it requires key stakeholder groups to cede some of their interest to make them work. This is why it is important that discussions on the way forward commence as soon as possible so that consensus about representation among stakeholders can be established as soon as possible.

7.3. Improving links to active labour market and VET policy

Another key action of the roadmap is to specify that the mechanism's outputs ought to be of direct relevance to the needs of the public employment service and those of career guidance and counsellors. Outputs should form a key input for the design of VET and apprenticeship programmes. The regulatory framework should clearly mandate that the skills intelligence produced by the mechanism should be used as an information input into the design of active labour market and VET policy, although the evaluation of the mechanism's effectiveness should be delinked from any ex-post evaluations of the effectiveness of the proposed policy measures.

This will be an issue that the proposed research taskforce/NILHR can lead on, with weight given to the requirements set out by those involved in the design and delivery of active labour market and VET policy. Inspiration and lessons from some first successful domestic initiatives (the pilot programme Supermarket Larissa ABEE and OAED's reformed ALMP pilot programme at KPA Eleusina) as well as EU best practices⁽⁴³⁾ should be obtained. It will specify the data to be collected, the indicators to be produced and the way outputs may need to be customised and disseminated to target audiences (career counsellors, VET providers, job seekers).

⁽⁴³⁾ See Cedefop's matching skills database developed as part of the project: www.cedefop.europa.eu/en/tools/matching-skills

Particularly in relation to improving links between the mechanism and apprenticeship reform, the roadmap suggests that the data collection infrastructure and information repository should be augmented: suggestions are insights on apprenticeship demand and, ultimately, a dedicated occupational skills survey collecting key data for informing occupational profiles. An action plan, jointly agreed by the Ministry of Education and the NILHR, should aim to stipulate the necessary feedback loops, standardise the ‘language’ and process that can support the mechanism’s potential as an input in the design of new apprenticeship programmes or the updating of existing ones. In the longer term, a careful mapping of the relationship between the mechanism’s list of dynamic occupations and those for which new apprenticeship programmes are rolled out should be drafted and their correlation carefully explored and evaluated.

There is a risk that the data and indicators the mechanism develops are not properly customised and used in practice and that the mechanism may be called upon to serve a large number of stakeholders requiring the collation and analysis of a large amount of diverse information. This draws attention to the need for the NILHR/research taskforce to work closely with the public employment service and relevant Ministerial units in specifying indicators and how they can be best communicated to those involved in the design and delivery of ALMP. It requires careful monitoring of the use of the mechanism’s outputs by the OAED and Ministry of Labour, in particular, and overall the NCC. The research task force/NILHR should also seek to identify and marshal the core information required to support the roll-out of apprenticeships (and how it should be disseminated), then liaise with those educational stakeholders who have a responsibility for apprenticeships to refine data collection, analysis and dissemination plans.

7.4. Enhancing technological and skills foresight capability

There is a need for methodological enhancements to the mechanism that will provide a better indication of emerging/future skill demand at a detailed sectoral/occupational level, ensuring that its data outputs can be of more direct relevance to the needs of policy-making. Skills foresight provides a means of identifying future skill needs using a range of methodologies (potentially including elements of or inputs from forecasting) but, crucially,

relies on a highly consensual and multi-stakeholder approach of skills anticipation (ETF; Cedefop; ILO, 2016). Strengthening and systematising the country's capacity for engaging in technology and skill foresights is seen as critical by stakeholders and is a key element of the roadmap.

The roadmap, therefore, advises that appropriate regulatory action should be taken to acknowledge that skill foresight offers an equivalent methodological approach within the mechanism's scientific tools. This framework should clearly define the main stakeholder network, action plan (methodology, aims, timeline, periodicity) and necessary resources for carrying out the skills foresight exercise/studies. Based on the stakeholder inputs to the country review, and evidence of prior experience and capacity in carrying out such skills foresight studies in the past, the roadmap recommends that the scientific institutes of the social partners should assume main responsibility for designing, implementing, supervising and validating the exercises, under the scientific coordination and custody of the NILHR, the guardian of the mechanism's scientific value. The NILHR should aspire, together with the social partners, to draft a commonly accepted methodological 'users guide' for carrying out the skill foresight exercises.

The roadmap suggests that a skills foresight pilot should be first implemented for an occupation (one that is key to the future of the Greek economy and/or is subject to a range of external challenges such as technological change), jointly identified by relevant stakeholders. The pilot needs to be a precursor to rolling out a national skills foresight exercise across a number of sectors/occupations in the near future, so it must aim to develop a clear prototype (selection criteria, periodicity, stakeholder roles and responsibilities, methodological requirements, resources) that could be adopted soon after. There is merit to be gained from understanding how skills foresight activities at the sectoral or occupation level are undertaken in other countries (as in the forthcoming Cedefop review for Estonia).

The principal risk is that the skill foresight pilot fails to satisfy various expectations. It is important, therefore, that the mechanism relies on state-of-the-art expertise, available domestically and internationally, that can advise on the proposed design of the skills foresight pilot and comment on the generalisability of the results. It is important that sufficient time is set aside for designing and undertaking the pilot. There should also be concerted efforts to build the capacity of actors, both internal and external to the mechanism's operational network, in the execution and understanding of the workings of skills foresight methodologies.

7.5. Expanding information access and outreach

The roadmap places emphasis on ensuring that various stakeholders' information needs can be met, that the mechanism results are effectively communicated and disseminated and that timely feedback regarding the validity and relevance of its results is received. During the project's data collection phases, it was widely recognised that findings from the mechanism need to reach a wider range of potential users. It is suggested by the roadmap that a new communication unit is foreseen and formed as an integral part of the mechanism. This communication unit will have responsibility for implementing a coherent and comprehensive communication plan jointly agreed with the Ministry of Labour/NILHR. Working in close coordination with the research taskforce/NILHR, it should aim to promote and enhance the attractiveness of the mechanism's outputs by monitoring user needs and preparing a diverse set of communication products (reports, newsletters, policy leaflets, social media postings) for a wide spectrum of potential target audiences.

An additional action promoted by the roadmap is to improve access by stakeholders to the mechanism's information repository, potentially leading to the publication of an open source national skills database (inspired by the good practice of Ireland). If such a database is created this is expected to increase transparency and further raise stakeholder confidence in the mechanism, as it may allow other labour market analysts to gauge how data are used to produce various outputs. Confidence will also be built if the information system is enriched and linked with relevant additional administrative data sources (EFKA, ENFIA, TAXIS) that can allow the mechanism to cover the labour market universe, as opposed to certain segments of it.

The principal risk is that of managing expectations of a wide spectrum of potential users. Any critique regarding the mechanism's shortcomings in meeting user needs can be mitigated by clearly communicating, regularly, the limitations of what can be achieved given available data, and requesting those who critique the mechanism's methodology to produce credible alternative approaches. The mechanism also provides a genuine opportunity for the country to adopt an open data culture that can foster positive multiplier effects in the future.

7.6. Facilitating links with strategic policy-making

The roadmap supports the development of a comprehensive and practical plan of action that will aim to utilise and integrate the outputs of the mechanism within the decision-making process leading to the development of a national human capital and growth strategy. Setting up regular consultation channels between the NCC and higher-level policy-making authorities (Ministerial offices, Cabinet, Prime Minister's office) is supported.

There is a risk that political decisions made will be subject to the vagaries of the electoral cycle. Particular attention should therefore be given to strengthening commitment and incentives of NCC members, who should possess adequate expertise and tenure to carry out their tasks effectively over the medium term. Decisions taken should be supported with a stable budget line that extends beyond the years of an electoral cycle.

7.7. Securing system stability and reputation

To support the mechanism's reputation and stability, the roadmap proposes that swift action should be taken to secure the intellectual property rights of the methodological tools, outputs and information repository produced by it to date and in the future. A key requirement for elevating confidence in the system is also to ensure transparency in its decision-making proceedings and in the selection procedures and operation of its committees (NCC, scientific), possibly via the development of a code of conduct to be circulated and adhered to by all actors of the network.

Setting up the process for carrying out a regular (perhaps every three to five years) and carefully drafted evaluation of the system's operation, methodology and outputs that adheres with international/EU good practice, undertaken by a dedicated scientific group/an augmented scientific committee, is also seen by the roadmap as a key pillar of the system's sustainability.

There was general acceptance among stakeholders that additional human and financial resources are required if the mechanism is to satisfy the ambitious goals stakeholders have in mind for it. Therefore, the roadmap highlights the need to streamline additional resources to the mechanism but, most important, it stresses the need to ensure a continuous (via a regular government budget) and diversified (with direct and in-kind contributions by

the Ministry of Labour, Ministry of Education, regional authorities and social partners) funding stream.

There is an important risk that the mechanism's future existence is strongly tied to the existing cycle of originally foreseen technical activities and that inadequate actions will be taken to secure its viability once those are completed. All necessary steps need to be initiated as soon as possible by the Ministry of Labour, strongly supported by the Ministry of Education, to ensure the mechanism's smooth and continuous operation beyond its originally foreseen mandate and well into the future.

7.8. Establishing an ambition for continuing improvement: the roadmap

The set of actions outlined above are considered by Cedefop and the NSC to be essential if the shared ambition for the mechanism is to be realised. The actions have been specified in such a way that they can be implemented over the short to medium term. Implementing these actions is not necessarily the end of the story, nor are they exclusive to other supportive actions taking place in parallel. The CBE of the Cedefop country review was designed in such a manner to hone in on those issues on which a consensus could be obtained: the actions in the roadmap reflect this. But it was also apparent over the course of the study that various stakeholders had wider ambitions for the mechanism. Implementing further improvements relative to those contained in the roadmap should be an aim of the system, with priority given to those actions identified from any monitoring and evaluation of the mechanism.

Outlined in Table 8 is the national policy roadmap developed as part of the Cedefop skills governance country review, and endorsed by the NSC; it has indications of the desired improvement areas and associated facilitating actions, along with an indicative timescale over which changes could be feasibly undertaken. It is foreseen that the entire roadmap could be implemented within a time period of about five to seven years. Although Cedefop will continue to follow developments in the country's skills governance, responsibility for implementation of the target areas and actions described in the roadmap will ultimately lie with the main national stakeholders.

Table 8. Policy roadmap for Greece agreed with national stakeholders

| | Improvement areas/actions | Timeline |
|----------|--|-------------|
| 1 | Revising the institutional and operational framework of the mechanism | |
| 1.1 | Map and record the role and contributions of relevant stakeholders to date | Short term |
| 1.2 | Map all types of inputs-outputs of the mechanism (e.g. quantitative or qualitative, national/sectoral/regional/local level), and its different operational stages (e.g. defining information needs, data provision, analysis, validation, evaluation), with a view to clarifying the potential contributions of different stakeholders of the mechanism's operational network | Short term |
| 1.3 | Formalise cooperation between the main actors of the operational network of the mechanism via the initiation of binding (formal or informal) institutional or programming agreements, which clearly outline individual responsibilities, rights and required resources among all relevant parties | Short term |
| 1.4 | Potentially institute, under the supervision and scientific direction of the NILHR, a multi-stakeholder technical research taskforce, with proposed participation of scientific personnel from the Ministries of Labour and Education and experts from the NILHR, OAED, Hellenic Statistical Authority (ELSTAT), EOPPEP and the scientific institutes of social partners | Short term |
| 1.5 | Systematise a timeline of meetings between all main stakeholders of the mechanism's operational network, to strengthen communication lines and secure coordination of any planned overlapping actions | Short term |
| 1.6 | Create an internal information exchange system (e.g. extranet) allowing access to all external organisations who are members of the mechanism's network | Short term |
| 1.7 | Potentially institute a tripartite (Ministry of Labour, NILHR, social partners) executive coordination body, to assume main responsibility for (i) planning the short- and medium-term strategic goals of the mechanism and submitting them for validation by the NCC; (ii) monitoring the mechanism's operational procedures and actions; (iii) coordinating cooperation between all mechanism network actors | Medium term |
| 1.8 | Strengthen representativeness, coordination and operation of the mechanism's network by securing the equal participation of representatives from the Ministries of Finance, Development and Investment, Tourism and Agricultural development into the mechanism's NCC | Medium term |
| 1.9 | Facilitate sharing of the operational responsibility and actions of the mechanism between national, sectoral and regional levels. The main responsibility for the national component of the mechanism should remain fully under the aegis of the Ministry of Labour and NILHR (and potentially a tripartite executive body in the medium term). Social partners are to assume responsibility for the operation of the sectoral component of the mechanism, while the regional authorities and/or regional directorates of OAED should assume the main coordination duties of the regional mechanisms. All actions are to be monitored and jointly determined by the tripartite executive body, if established. | Medium term |

| | Improvement areas/actions | Timeline |
|----------|--|-------------|
| 2 | Supporting ALMP and career guidance | |
| 2.1 | Update the legal/regulatory framework setting the support of ALMPs, via the provision of trustworthy and reliable data, customised to the needs of relevant beneficiaries (e.g. Ministry of Labour, PES guidance counsellors), as one of the main objectives of the mechanism (Noting that such a link cannot be confused with any evaluation of the effectiveness and implementation of the ALMPs themselves) | Short term |
| 2.2 | Initiate a legal process and a focused action plan that can ensure proper linkage between the design and reform of ALMPs and the mechanism's outputs, also inspired by relevant good EU practices (Cedefop's Matching skills database ⁽⁴⁴⁾) | Short term |
| 2.3 | Evaluate the usefulness of the methodology, actions and toolkit adopted by the NILHR, in cooperation with the social partners and other local actors, as part of the pilot programme Supermarket Larissa ABEE, with an aim to systematise the link between the mechanism outputs and programmes of active vocational readjustment and social inclusion | Short term |
| 2.4 | Define and adjust the mechanism's outputs to ensure that they can become an information source for the purposes of career guidance and vocational counselling | Medium term |
| 2.5 | Strengthen cooperation and interaction between the NILHR and the PES (OAED), with particular emphasis on evaluating and expanding on the utility of the methodology and actions adopted by the PES as part of the reformed ALMP pilot programme at KPA Eleusina ⁽⁴⁵⁾ | Medium term |
| 2.6 | Pilot the implementation of the methodology that was adopted as part of the reformed ALMP pilot programme at KPA Eleusina to a small number of additional regional prefectures | Medium term |
| 2.7 | Evaluate the effectiveness of the continuous VET programmes offered by the VET institutes of the social partners, which may have been designed and influenced by the mechanism's outputs | Medium term |
| 3 | Enhancing technological and skills foresight capability | |
| 3.1 | Institute the systematic execution of skills foresight exercises as an integral component and methodological tool of the mechanism | Short term |
| 3.2 | Enact as a key aim of skill foresight exercises the investigation and imprinting of skill needs (job-specific and transversal) within occupations (or a group of occupations) | Short term |
| 3.3 | Update the legal/regulatory framework to define the main stakeholder network, action plan (methodology, aims, timeline, periodicity) and necessary resources for carrying out the skills foresight exercise/studies. The scientific institutes of the social partners are to be preferred for the purposes of designing, implementing, supervising and validating the exercise, under the scientific coordination and custody of the NILHR | Short term |

⁽⁴⁴⁾ www.cedefop.europa.eu/en/tools/matching-skills/

⁽⁴⁵⁾ www.oaed.gr/-/pilotiko-programma-apascholeses-anergon-elikias-45-eton-kai-ano-engegrammenon-sto-metroo-anergon-tou-kpa-eleusinas

| | Improvement areas/actions | Timeline |
|----------|---|-----------------|
| 3.4 | Ensure the provision of training courses and vocational seminars that aim to strengthen the existing capacity and expertise of the members of the mechanism's network in the execution of skills foresight studies (supported by, among others, Cedefop) | Short term |
| 3.5 | Support standardisation of a common methodology, concepts and technical terms via the preparation of a user manual for use by appropriate mechanism stakeholders, under the scientific direction and responsibility of the NILHR and in close cooperation with the scientific institutes of the social partners | Medium term |
| 3.6 | Conduct a pilot test of the commonly agreed skills foresight methodology for one occupation, under the scientific direction and supervision of a working group comprised of experts from the NILHR (which also has the main coordinating responsibility) and the scientific institutes of the social partners | Medium term |
| 3.7 | Validate the methodology and results of the mechanism's skills foresight exercises by independent scientific stakeholders/foreign body | Medium term |
| 3.8 | Institute regular focus groups and/or in-depth stakeholder interviews, under the supervision and management of the social partners addressing their respective target groups (e.g. employees, small and medium-sized businesses, large corporations) and/or on the basis of the economic sector/area, whose aim will be to inform and validate the outputs of skills foresight exercises | Medium term |
| 4 | Linking and improving feedback loops between the mechanism and VET policy, specifically apprenticeship reform | |
| 4.1 | Designate a formal process via which the Ministry of Education will clarify the desired inputs and deliverables of the mechanism that can provide valuable intelligence for designing new VET and apprenticeship programmes | Short term |
| 4.2 | Update the legal/regulatory framework to clarify that key objectives of the mechanism's action plan are the identification of new VET or apprenticeship programmes and the extraction of information relevant for defining the work-based learning component of VET/apprenticeship programmes. The action plan should state that the above objectives could be met with the collection of data focused on employer demand for apprentices, obtained via dedicated employer surveys as part of the mechanism and/or via the insertion of relevant questions in existing administrative databases (e.g. Ergani, Gemi) | Short term |
| 4.3 | Strike agreement between the NILHR and education stakeholders (Ministry of Education, EOPPEP, Institute for education policy [IEP]) on the use of a standardised terminology (based on a learning outcomes approach and its individual components – knowledge, skills and competences) and data taxonomies, which will guide the provision of inputs into the information repository of the mechanism and guarantee the interoperability of databases and information systems of different educational and labour market stakeholders | Short term |
| 4.4 | Initiate the signing of a programming agreement between the Ministry of Education and NILHR (which could form the basis for a joint Ministerial decision) | Short term |
| 4.5 | Map the correlation between the list of 'dynamic occupations' as extracted by the mechanism's methodological approach and the new VET and apprenticeship programmes as adopted by the Ministry of Education | Medium term |

| | Improvement areas/actions | Timeline |
|----------|---|-----------------|
| 4.6 | Pilot at a small-scale (e.g. two or three apprenticeship programmes) the implementation process of bilateral exchange between the outputs/deliverables required by the Ministry of Education and the inputs provided by the latter to the coordinating body of the mechanism, with an aim to facilitate informed decision-making regarding the development of new apprenticeship programmes | Medium term |
| 4.7 | Institute a new occupational skills and tasks survey, inspired by the good practice of other countries (e.g. US O*NET, Italian Professioni, Occupazione e Fabbisogni), whose aim will be the regular updating of occupational skills profiles as a common reference point and linkage between the mechanism and VET | Medium term |
| 5 | Expanding information access and outreach | |
| 5.1 | Compose, under the supervision and aegis of the NILHR, a specialised working group with exclusive mandate to promote and enhance the attractiveness of mechanism outputs, by preparing a diverse set of communication products (e.g. reports, newsletters, policy leaflets, social media postings), to a wider spectrum of potential target audiences. The working group will assume all relevant actions as stated in a systematic communication plan, prepared in agreement with the Ministry of Labour and NILHR | Short term |
| 5.2 | Secure the accessibility and interoperability of appropriate stakeholders of the mechanism's network to an open-source informational repository or a national skills database | Medium term |
| 5.3 | Standardise the inputs-outputs of the information repository by adopting commonly agreed terminology and taxonomies. Enrich the database with additional regular and real-time datasets that capture skill demand and supply (e.g. my school, Cedefop Skills, OVATE) and provide more comprehensive coverage of labour market needs (e.g. wage information via EFKA, self-employment via ENFIA, entrepreneurship via TAXIS) | Medium term |
| 6 | Facilitating links with strategic policy-making | |
| 6.1 | Better align the practical and institutional links between the mechanism and the national growth strategy, by developing a comprehensive action plan for integrating mechanism outputs into the design of national human capital policies. Ensure regular communication channels between the NCC and higher-level policy-making units | Medium term |
| 7 | Facilitating system stability and reputation | |
| 7.1 | Secure the intellectual property rights of the methodological tools, outputs and information repository produced by it to date and in the future | Short term |
| 7.2 | Ensure transparency in the mechanism's decision-making proceedings and in the selection procedures and operation of its committees (NCC, scientific), via the development of a code of conduct to be circulated and adhered to by all network actors | Short term |

| | Improvement areas/actions | Timeline |
|-----|---|-------------|
| 7.3 | Set up a plan for carrying out a regular (e.g. every three to five years) and carefully drafted evaluation of the system's operation, methodology and outputs, adhering with international/EU good practice and possibly validated by an independent (international) authority. The evaluation may be carried out by a dedicated scientific group/an augmented scientific committee, who will have responsibility for clarifying and monitoring the parameters of the evaluation (e.g. regularity, criteria, user groups and needs) and for impact assessment | Medium term |
| 7.4 | Streamline additional resources to the mechanism but, most important, ensure a continuous (e.g. via the regular government budget) and diversified funding stream (e.g. direct and in-kind contributions by the Ministry of Labour, Ministry of Education, regional authorities, social partners and ESF) | Medium term |

Source: Cedefop and Greek NSC.

Abbreviations/Acronyms

| | |
|-----------------------|--|
| AES | adult education survey |
| AI | artificial intelligence |
| ALMP | active labour market policy |
| Cedefop | European Centre for the Development of Vocational Training |
| CBE | consensus-building exercise |
| CVET | continuing vocational education and training |
| EFKA | Social Security Agency |
| EKKE | National Centre for Social Research |
| ELSTAT | Hellenic Statistical Authority |
| ENPE | Association of Greek Regions |
| EOPPEP | National Organisation for Certification of Qualifications and Vocational Guidance |
| EPAL | vocational upper secondary schools |
| EQF | European qualifications framework |
| ESCO | European skills, competences and occupations |
| ESEE | Hellenic Confederation of Commerce and Entrepreneurship |
| ESI | European skills index |
| ESJS | European skills and jobs survey |
| EU | European Union |
| GDPR | general data protection regulation |
| GSEVEE | Hellenic Confederation of Professionals, Craftsmen & Merchants |
| GSEE | General Confederation of Greek Workers |
| ICT | information and communications technology |
| IEK | post-secondary VET schools |
| IEP | Institute for Education Policy |
| IME GSEVEE | Small Enterprises' Institute of the Hellenic Confederation of Professionals, Craftsmen & Merchants |
| INE GSEE | Institute of Labour of the Greek General Confederation of Labour |
| INSETE | Institute of Greek Tourism Confederation |
| IVET | initial vocational education and training |
| KEDE | Central Union of Municipalities of Greece |

| | |
|--------------|--|
| KEEE | Union of Hellenic Chambers |
| LFS | labour force survey |
| LMSI | labour market and skills information and intelligence |
| NCC | National Coordination Committee |
| NGO | non-governmental organisation |
| NILHR | National Institute of Labour and Human Resources |
| NSC | national steering committee |
| OAED | Greek public employment service |
| OECD | Organisation for Economic Cooperation and Development |
| PIAAC | programme for the international assessment of adult competencies |
| SETE | Association of Greek Tourism Enterprises |
| SEV | Hellenic Federation of Enterprises |
| SMEs | small and medium-sized enterprises |
| TEI | technological educational institution |
| VET | vocational education and training |

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ANNEX 1.

Milestones of Cedefop review in Greece

| 1st stage | 2nd stage | 3rd stage |
|--|--|--|
| Feb 2017: Invitation by Greek Ministry of Labour to Cedefop and mutual signing of 'terms of collaboration' agreement | July-Sep 2017: Customisation of generic analytical skills governance framework to Greek priority areas | Feb-June 2018: Finalisation of first round of face-to-face stakeholder interviews |
| March 2017: First kick-off meeting with NSC | Sep-Nov 2017: Preparation of Greek 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 | Nov 2017: Information workshop with wider group of national stakeholders – invitation and commitment of participation to stakeholder interview phase | 19 June 2018: 2nd meeting with NSC – key findings of stakeholder interviews |
| March-Sep 2017: Development of generic analytical framework for assessing skills governance | Sep 2017-Feb 2018: Development of stakeholder interview questionnaire | May-Sep 2018: Completion of second round of targeted telephone stakeholder interviews |
| | Feb 2017-March 2018: Compilation of Cedefop's Matching skills database | Sep 2018-April 2019: consensus-building exercise |
| | Feb-March 2018: Development of online questionnaire for user testing of mechanism's online portal | Jan-March 2019: Carrying out online survey of potential user groups of the mechanism's online portal |
| | | 11 April 2019: Final meeting with NSC – validation of draft national policy roadmap |
| | | April-July 2019: Validation of national policy roadmap by NSC |
| | | July-September 2019: Preparation of final report and validation by NSC; conclusion of Greek review |

ANNEX 2.

Methodology

A2.1 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 across the full Cedefop skills governance analytical framework (Table A 1) ⁽⁴⁶⁾. 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 Greece, the customised questionnaire was built around six main sections corresponding to the main skills governance focus areas, with a range of mostly open-ended questions pertaining to each topic (Box A 1).

Box A 1. **Sections and issues of Cedefop's skills governance questionnaire**

Section A – regulatory framework: the role of organisations in LMSI according to regulation, its practical implementation and suggested improvements.

Section B – institutions: stakeholder participation in LMSI, the functioning of bodies of exchange and relevance of external experts.

Section C – LMSI management: collection of labour market information (organisations, organisation role, stakeholder involvement), own experience with stakeholder collaboration and evaluation, involvement in the interpretation of results, involvement in policy actions, difficult stakeholders to engage with, practical collaborations of agencies, conflict resolution.

Section D – LMSI tools/methods: methods used in LMSI, suitability of data and methods, sufficiency of detail collected, suggestions for improvement.

Section E – LMSI dissemination: obtaining LMSI information, targeting LMSI information, presentation and dissemination of LMSI output.

⁽⁴⁶⁾ 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

Section F – sustainability and reputation: confidence in the existing anticipation system, principal limitations of existing system, view on necessary future development, planned developments.

In total, 30 semi-structured face-to-face interviews were conducted following a multi-step research design and process (Box A 2) and once all supporting survey guidance and information materials were prepared and translated to the respective language. The interviews were carried out by a native researcher 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 six main themes of the survey questionnaire, choosing those on which 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 A 2. **Stakeholder interview protocol**

- Finalisation of list of potential invitees/stakeholders following coordination between Cedefop-Ministry of Labour project team.
- Preparation of invitation letter and information sheet signed by Cedefop-Ministry of Labour; personalised invitation via email.
- Booking of appointment for interview by phone or e-mail held at the stakeholders' premises.
- Pilot implementation of interview at ministerial representative and updating of survey questionnaire.
- Conducting interviews (45'-60' per interview).
- Sending of interview summary to each participant (in Greek), 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.

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. 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. It is also acknowledged that the survey population, comprised of relevant actors of the Greek skills governance arena, was not (could not be) generated using a random probabilistic statistical design.

Nevertheless, a wide array of key institutional stakeholders at national level were selected and consulted for this exercise; specifically, the list of invited stakeholders was identified following extensive scanning of the available landscape by Cedefop and the Ministry of Labour and careful reflection on each body's relevance and prior experience with skills anticipation and matching in Greece. For this reason, it is believed that the stakeholder interviews provided a good first basis for understanding the relative strengths and weaknesses of the mechanism and Greece's skills anticipation and matching system.

A2.2 Consensus-building exercise

Following the completion of the stakeholder interview stage (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 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 hence constructed in such a way that each of three rounds (Table A 1) sought to constrain the range of issues to be considered, focusing on those where there was a relatively high degree of consensus in the previous round.

Table A 1. **CBE process and issues**

| Round 1: Prioritisation |
|--|
| <p>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).</p> <p>E.g. Improve management → defining (in)formal roles of stakeholders; improving coordination structure; clarifying stakeholder roles in LMI; transparency of operations and decision-making; dissemination of outputs; evaluation of proceedings, methodology and outputs.</p> |
| Round 2: Deepening of stakeholder positions |
| <p>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 possible 'feasible' solutions and steps for resolving or improving the problem areas and on how different institutional players can contribute towards common solutions.</p> <p>E.g. importance of potential objectives (supporting ALMPs, providing inputs for migration policy, informing career guidance); optimal managerial arrangement; optimal role and capabilities of stakeholders in different facets of the skills governance process (e.g. defining information needs, providing data, validation); necessary steps to improve mechanism links with VET reform, desired focus and value of technological/skill foresights, etc.</p> |
| Round 3: Achieving consensus |
| <p>The final round sought to define further follow-up steps and a concrete timetable for the actions stakeholders have suggested as a common approach.</p> <p>E.g. Consensus on suggested governance arrangements; agreement on allocation of different bodies to main governance functions (strategic orientation, monitoring, evaluation); agreed ways to support link of mechanism with VET policies; prerequisites for running a pilot skills foresight exercise.</p> |

Source: Cedefop skills governance country reviews.

To carry out the CBE an online Delphi method was applied, making use of online questionnaires developed by Cedefop and the project team with a number of open and closed questions (in English). Following their translation into Greek, they were distributed by the project partner to the invited participants, who were requested to fill them in during 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 mid-way and before the deadline). The whole CBE process ran for about nine months, starting in September 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 participant 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 Greek skills governance: the key Ministries of Labour and Education (and associated directorates within them such as the directorate designing ALMPs with use of ESF funds, VET directorate of vocational education, general secretariat of lifelong learning), Ministries of Development and Investment/Tourism, NILHR, OAED, EOPPEP, IEP, ELSTAT, ENPE and major social partners (GSEE, GSEVEE, SEV, SETE, ESEE). Table A 2 below provides information on participation in the CBE, which proved to be highly satisfactory both in terms of participation rates by individuals (over 50%) and organisational representativeness (over 60%).

Table A 2. **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 19 invited) |
|-----------|---------------------------------------|--|---|
| One | 44 | 23 (52) | 12 (63) |
| Two | 40 | 23 (58) | 13 (68) |
| Three | 38 | 22 (58) | 13 (68) |

Source: Cedefop skills governance country review.

A2.3 Online survey

The target population of the Cedefop-NILHR online user's experience survey was approached separately by e-mails sent to mechanism (potential) users registered at the NILHR contact database and to Greek stakeholders within Cedefop's contact reference database. Approximately 1 850 individuals were invited to participate in the online survey. The initial invitation was sent out on Monday, 4 February and Tuesday 5 February, plus a smaller group on Friday 8 February. Two reminders were sent to follow-up on invitees who had not yet responded. The online survey could be answered up to 11 March 11, allowing for more than four weeks of field time. The survey instrument

used was Limesurvey ⁽⁴⁷⁾, hosted on servers owned by the project team. The survey lasted on average about 10 minutes per respondent.

The raw number of responses obtained was 377. From these raw responses, 117 observations had to be excluded as they exclusively had no information beyond administrative detail. These respondents had opened the link to the survey, potentially browsing through it, without answering the questions. As a result, the net response comprises 260 answers that have at least answered some part of the substantial questions (about 14% of the total invited population). This item-response rate can vary per question, accounting for the fact that the final number of respondents per question may vary.

⁽⁴⁷⁾ Limesurvey GmbH/LimeSurvey: an open source survey tool. LimeSurvey GmbH, Hamburg, Germany. www.limesurvey.org

ANNEX 3.

Members of the national steering committee

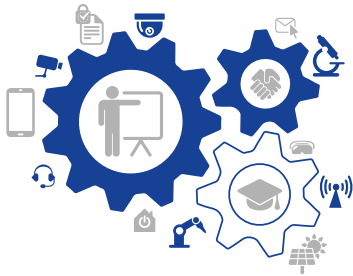
| Organisation | Member |
|--|---|
| Υπουργείο Εργασίας & Κοινωνικών Υποθέσεων [Ministry of Labour and Social Affairs] | Eirini Kalavrou, Giorgos Nerantzis, Dimitrios Panopoulos, Aggeliki Kazani |
| Υπουργείο Παιδείας και Θρησκευμάτων [Ministry of Education and Religious Affairs]: | Ioannis Kapoutsis, Olga Kafetzopoulou |
| ΕΙΕΑΔ – Εθνικό Ινστιτούτο Εργασίας και Ανθρώπινου Δυναμικού [EIEAD – National Institute of Labour and Human Resources]: | Olympia Kaminioti, Katerina Baskozou, Stavros Giavroglou, Vaios Kotsios |
| ΙΝΕ ΓΣΕΕ – Ινστιτούτο Εργασίας Γενικής Συνομοσπονδίας Εργατών Ελλάδος (ΓΣΕΕ) [INE GSEE – Institute of Labour of the Greek General Confederation of Labour (GSEE)]: | Christos Goulas, Dimitris Paitaridis |
| ΙΜΕ ΓΣΕΒΕΕ – Ινστιτούτο Μικρών Επιχειρήσεων Γενικής Συνομοσπονδίας Επαγγελματιών Βιοτεχνών Εμπόρων Ελλάδας (ΓΣΕΒΕΕ) [IME GSEVEE – Small Enterprises' Institute Hellenic Confederation of Professionals, Craftsmen & Merchants (GSEVEE)]: | Paraskevas Lintzeris |
| ΟΑΕΔ – Οργανισμός Απασχόλησης Εργατικού Δυναμικού [OAED – Greek Public Employment Service]: | Athina Lazou, Kondilia Hatziyianni |
| ΣΕΒ – Σύνδεσμος Επιχειρήσεων και Βιομηχανιών [SEV – Hellenic Federation of Enterprises]: | Nikolaos Gavalakis |

ANNEX 4.

Glossary

| Term | Definition |
|--|--|
| Apprenticeship | Systematic, long-term training alternating periods at the workplace and in an educational 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 competencies 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 as well as 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. |



STRENGTHENING SKILLS ANTICIPATION AND MATCHING IN GREECE

Labour market diagnosis mechanism:
a compass for skills policies and growth

Ensuring that EU countries develop robust skills anticipation to inform responsive VET systems is a key pillar of the *Skills agenda for Europe*. But to have an impact, 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 Greece, Slovakia, Bulgaria and Estonia, following pilots in Malta and Iceland. This report summarises key insights of the skills governance review in Greece. In recent years Greece has developed an innovative mechanism for labour market diagnosis, to design informed skills and employment policies. This report, and the consensus-based policy roadmap developed, provides further direction so that timely skills intelligence can strategically support Greece's recovery to sustainable economic growth and competitiveness.



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