6 Using the results of skills assessment and anticipation for evidence-based policy making

Even if there is available evidence on skill shortages linked to the greening of the economy, it is often unclear whether and how this information is used in policy making. This chapter reviews ways in which general insights from skills assessments and anticipation exercises have been applied directly or indirectly to steer policies in a range of areas such as adult training, formal education, career guidance, employment policies, industrial policies, and migration policies.

Introduction

For the output of SAA exercises to support the green transition, it is crucial that the results feed into actual policies and actions to improve the country's responsiveness and resilience. Unfortunately, the use of SAA results to support the green transition is currently limited to very few examples. This could be because policy makers have only recently devoted attention to SAA as a tool to plan for the green transition. Another potential explanation is that the green transition is cross-disciplinary and requires collaboration between many stakeholders, which can slow down the negotiations on how to use the final outputs. Nevertheless, the potential value of SAA exercises in green policy making remains largely untapped.

Before investigating why there are limited policies that are founded on green SAA exercises – which will be the focus of the next Chapter – it is important to understand what the relationship between SAA and policies is. To provide examples of good practice for adoption and adapting policies based on green SAA results, this chapter presents an overview of how general SAA exercises are being used by different actors in a broad range of policy areas. The goal is to showcase as many policy uses as possible, in order to underscore the potential of SAA exercises to support evidence-based policy making. In a first instance, six policy areas with direct and straightforward uses of SAA results are identified – namely adult training, formal education, career guidance, employment policies, industrial policies and migration policies. Second, for each of these, examples of existing case studies are presented to show how systems can be set in place to translate results into action. This will provide the basis for understanding how SAA exercises can influence policies, which will launch the discussion in Chapter 6 on how green SAA exercises are and should be utilised.

The policy taxonomy

The policy taxonomy presented in Figure 6.1 provides a conceptual overview of potential uses of SAA results in different policy areas. In the area of adult learning, the results of skills assessment and anticipation exercises may be used to update the content of training courses for adults, guide public funding decisions about training, guide the design of financial incentives for employers and individuals, and plan the professional development of trainers. These adjustments may help to reduce skills mismatches in the labour market, facilitate the job placement of unemployed adults, and build capacity for training on skills that are in-demand in the labour market.

In formal education, SAA exercises provide valuable information that is used to update qualifications and curricula, to determine student numbers, and to develop apprenticeship programmes. Robust evidence on emerging occupations and skills can help education systems to revise their offer to better prepare students and apprentices for future labour market and skills demands. Determining study places based on information from SAA is particularly important to prevent large field-of-study mismatches in the labour market, while at the same time supporting the labour supply for occupations in high demand. In the field of apprenticeships, policy makers have an interest in relying on SAA exercises to design high-quality vocational programmes that meet the changing requirements of occupations.

In many countries, the results of SAA exercises are also used to update career guidance services and provide labour market information to individuals needing career orientation or training opportunities. Public employment services, for instance, often use the insights of SAA to support job counsellors with updated labour market and skill needs information. Combining this information with a personalised mapping of skills is particularly useful to identify suitable career pathways or training opportunities for individuals. Labour market information systems, which make the results of SAA exercises accessible through brochures, websites or online tools also support individuals in making well-informed choices about their careers.

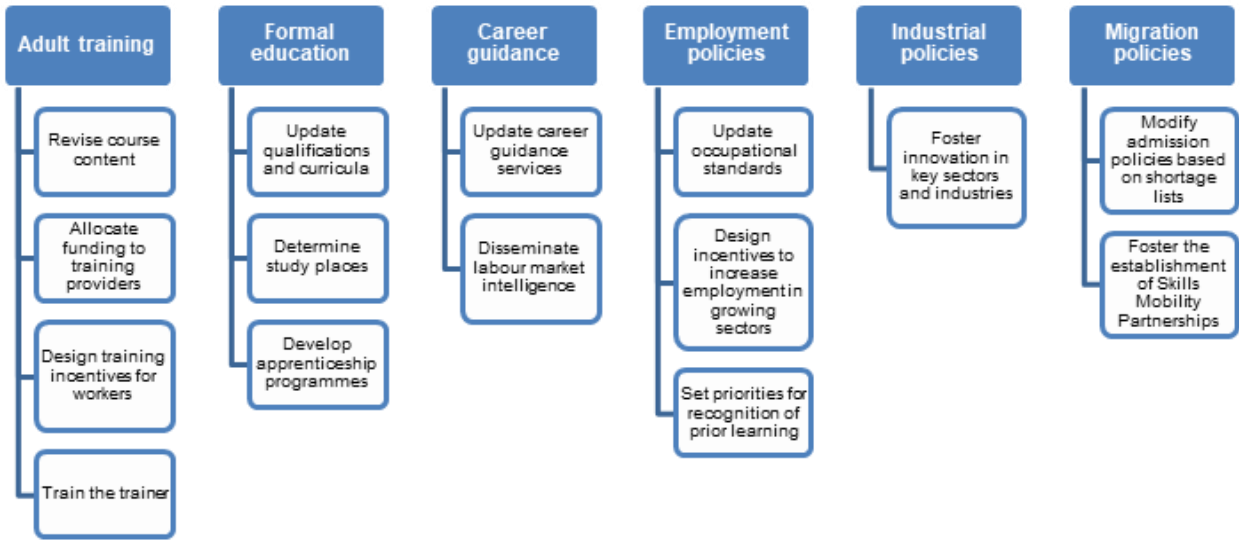
In the domain of employment policies, skills assessment and anticipation exercises are particularly useful for governments to update occupational standards, inform structural adjustment policies about skills needs

in growing and declining sectors, and guide adjustments in programmes for recognition of prior learning. The update of occupational standards is often connected to changes in qualification frameworks and education or training curricula, taking emerging occupations and changing skills requirements into consideration. SAA results can also inform the design of financial incentives to foster employment in growing sectors. For instance, information on the demand for and supply of skills in different sectors can aid policy makers in designing support systems in of the context of industrial restructuring or mass layoffs where re-training to transition to growing sectors and occupations may be needed. Finally, findings from approaches to assess and anticipate skills can be used in the context of the recognition of prior learning, to set priorities for skills validation and update existing programmes.

SAA exercises can also be a useful reference in industrial policies aiming to support firms' innovation and productivity growth through tax and financial incentive for businesses. Information on changes in the demand and supply of skills and occupations, can help policy makers and firms to effectively select areas that require intensive R&D investment. Given that recent industrial policy emphasises the importance of training to foster innovation and technology development, SAA is expected to play an increasingly important role in industrial policy.

Finally, skills intelligence also plays an important role in the design of migration policies. In some OECD countries, SAA exercises are the basis of occupational shortage lists which determine the entry requirements for migrant workers. This way, countries facilitate the inflow of workers with the skills to work in occupations in shortage. Some countries have established Skills Mobility Partnerships – typically bilateral or multilateral agreements concluded between states that foster skills development and workforce mobility – and can be informed by SAA to target priority skills and sectors in the destination country.

Figure 6.1. The use of SAA in different policy areas



Source: Authors' elaboration.

Adult training

In many countries, the results of SAA exercises are used to update the content of training courses for adults, to guide funding decisions about adult training, to update the professional development of trainers, and to design financial incentives for training. In some cases, the findings of SAA exercises are used directly to identify training areas for skills in shortage and then adjust the existing training offer, or to target subsidies available for training providers. Such a targeting of training could concern publicly adult training offered public employment services or public training institutions, but also employer-sponsored learning in firms. If SAA exercises identify a particular area of skills shortages, such as IT skills, targeted government support programmes may be put in place to support skills development in this area. Policy makers can also choose to target financial incentives such as subsidies for training that are available to individuals, employers or training providers to skills in demand and shortage occupations. Other mechanisms are more indirect, for instance, when SAA exercises feed into established governance bodies in the area of labour market and adult learning, to inform the formulation of priority areas for training and the funding schemes linked to it. Overall, these mechanisms may help to reduce skill mismatch in the labour market, facilitate the job placement of unemployed adults, and build the capacity of the adult learning system to provide training in high-demand skills.

Revise course content

Skills assessment and anticipation can produce valuable information on labour demand and supply and help forecast areas where skills shortages are likely to emerge in the future. Many countries exploit these key insights of SAA exercises to guide the content of training programmes for jobseekers and workers. For instance, the results of SAA exercise can be used by training providers to adjust their course offer and target skills where shortages are emerging, thereby helping workers or jobseekers to improve their labour market prospects in the future or transition to a different occupation. Evidence generated through SAA exercises may also inform policies on the up- and re-skilling of workers in employment.

Belgium has a tradition of using the results of SAA exercises to adapt the training offer to labour market needs. Both in Flanders and Wallonia, SAA exercises are used by public employment services to actively guide the training of the unemployed towards occupations in shortage. In Wallonia, the public employment service (Forem) run SAA exercises on skills shortages and mismatches to inform the provision of specific training programmes and sessions. This adaptation of training areas happens through several channels, notably through changing the eligibility and use of financing instruments (e.g. "*cheques formation*"), or by issuing call for tenders in emerging training fields. In Flanders, the mechanism through which training areas are adjusted according to the findings of SAA exercises is not direct but based on established channels of social dialogue and collaboration between labour market analysis and policy making for evidence-based training policies (OECD, 2017[1]).

In France, the *Réseau Emplois Compétences* (Network Employment Skills) brings together different stakeholders to produce analyses on skills trends, regional employment, and training in enterprises. Led by France Stratégie, it brings together sectoral and regional observatories, stakeholders in the field of employment, training and vocational guidance, and other experts. The studies and forecasts produced by the *Réseau Emplois Compétences* are useful tools for employment services, guidance and training providers, and aim to ultimately support companies and workers in adapting to changing skill demand. Its workshops and events provide fora for exchange among experts and practitioners to put insight into action and develop tailor-made, co-ordinated solutions to training. Summary reports produced by working groups within the Network are intended to contribute to the rethinking of practices in the area of employment, training and career guidance and may be used by intermediary bodies in these policy fields to provide information to individuals and the public (France Stratégie, 2022[2]).

The public employment service in Estonia runs the programme 'Work and Study' for adults in employment. The programme targets adults that are at risk of unemployment due to a low level of qualifications, a lack

of Estonian language skills, or with low income. Employers can apply for a training grant to upskill their employees in certain identified shortage occupations. The design of training programmes is limited to fields that are growing and experiencing skills shortages, as determined by sectoral analyses conducted by the Estonian Qualifications Authority (European Commission; Directorate-General for Employment, Social Affairs and Inclusion; Sienkiewicz, Ł, 2022[3]; Eesti Töötukassa, 2023[4]).

In Austria, the Standing Committee on New Skills by the Public Employment Service (PES) was established in 2009 to identify changes in skills and qualification needs. Based on SAA exercises produced by working groups that consist of experts from the public and private sector, the Committee suggests and develops continuing education and training programmes that make it easier for jobseekers to re-enter the world of work. Each working group formulates a list of current and future sector-specific requirements for employees and jobseekers in their respective sector. The output by the Committee is then used by the Austrian PES to develop call for tenders for certain active labour market programmes and also serves as a guide to continuing training in companies and specific occupations. In this way, the results of SAA exercises effectively influence the content of adult training and decisions on the allocation of PES funding (Cedefop, 2022[5]).

Allocate funding to training providers

The results of SAA exercises may guide funding decisions about adult training, particularly when it is publicly financed. In principle, governments can adjust training policies according to skills shortages and mismatches by changing eligibility criteria for subsidised training (e.g. for adults working in a particular sector, or training provided in a particular field), setting requirements for certain funding instruments (e.g. training grants for certain in-demand skills), or the designing of tenders for private training providers. Decision makers may also decide to dedicate funding to finance targeted training programmes in sectors or occupations with strong skill shortages.

The provision of public vocational training in Japan is built on a strong system of skills assessment and anticipation to ensure that the training provided is relevant (OECD, 2021[6]). The exercises generally involve a range of stakeholders and influence both the content of publicly funded vocational education and training, as well as the allocation of training funding. At the national level, the Ministry of Health, Labour and Welfare leads the work of a Central Training Council, which assesses priority areas and the scale of the public vocational training offer on an annual basis in order to contribute to its effective development based on the skills needs of industries. The Council undertakes a number of skills assessments relying on an analysis of the employment rate by field of vocational training and additional data from the Public Employment Service on job openings and job seekers by industry and occupation. Moreover, on an ad hoc basis, more specific SAA exercises are carried out to better understand the skill needs in certain industries or occupations. In 2016, for instance, a special council was convened for the promotion of skills development for the fourth industrial revolution, with a particular focus on IT skills. This ultimately contributed to the Growth Strategy 2017 in the form of an Intensified Emergency Plan on Enhancement of IT Capacity. Overall, the results of the SAA exercises conducted by the Central Training Council and its local branches converge in training plans, which are used by all providers of publicly funded vocational training as a guideline to determine their public vocational training offer (OECD, 2021[6]).

The Federal Government of the United States launched the TechHire programme in 2015 as a dedicated training programme to respond to the acute skills shortage in the IT sector identified through SAA. In essence, the programme consists of grants provided by the Department of Labor to support public-private partnerships across the United States, which provide training through universities, community colleges and “coding camps”. Its goal is to offer alternative training pathways that allow workers without a college degree to upskill and reskill (Opportunity@Work, 2023[7]).

Design training incentives for workers

Subsidies for adults to participate in training compliment subsidies for training providers, and act in a more direct way to incentivise training participation. Notably, these subsidies are crucial when training options are available but not used. In this context, subsidies that either promote the participation in training courses or employer-provided and on-the-job training can help address skill gaps in particular areas by addressing financial barriers to participation and provision more directly. SAA exercises can help design targeted vouchers and stipends for individuals, and financial and administrative support for employers. SAA helps identify which sectors and occupations face large skills mismatches and compare those to data on training, to identify skills and occupations that face a high labour-market demand but low participation or provision of training courses. If an SAA exercise intends to target such initiatives it often has to rely on data from a wide range of sources, as well as collaboration between different ministries, government bodies and key stakeholders, including employers themselves.

In Canada, information from skills assessment and anticipation exercises are used to generate economic incentives for employers to upskill or reskill workers or new hires through the Canada Job Grant (OECD, 2016[8]). The Canada Job Grant provides direct financial support to individual employers or employer consortia who wish to purchase short-term training to existing and new employees in sectors and industries facing important skill shortages. Employers can get up to CAD 10 000 support per person for training costs. Employers with 100 or more employees need to contribute half of the training cost, while small employers with less than 100 employees need to contribute to 1/6 of training costs. For small employers (less than 100 employees) who are training and hiring unemployed individuals may be eligible for 100% funding and up to CAD 15 000 per trainee. Employer groups can also apply for support through the Consortium Stream, which allows two or more employers to pool their resources to support common training objectives. The programme is delivered on a provincial level and is available in five out of ten Canadian provinces.

In Estonia, the Ministry of Education and Research manages the Labour Market Monitoring and Future Skills Forecasting OSKA exercise, which is used to analyse skills needs and identify training courses that adults can access through training vouchers. Training vouchers are offered through the Estonian Unemployment Insurance Fund managed by the Ministry of Social Affairs. The aim of the voucher scheme is to provide free upskilling and reskilling opportunities for people whose skills and qualifications do not meet the demand of the labour market, because either their skills are becoming obsolete due to technological changes or they initially trained in a sector facing decline. Initially only available for unemployed adults, since 2017 the scheme has been extended to employed adults as a measure for preventing unemployment through job-related training (OECD, 2020[9]). To be eligible for training vouchers, those in employment must meet certain criteria, such as the inability to continue their current position due to health issues; being above 50 years of age; low income; lacking professional or vocational education and/or having insufficient language skills for further occupational development. The vouchers can cover training up to EUR 2 500, for training that lasts up to 2 years for unemployed adults and 3 years for employed adults.

Train the trainer

Where the results of SAA exercises are used to adjust the course content and financing of adult training, or even to update qualification frameworks, curricula and apprenticeship programmes (see section on formal education), they may also influence the professional development of teachers or trainers. This is one aspect that helps keeping education and training programmes up-to-date and responsive to skills needs.

In England, for instance, the results of skills analyses are used to identify training gaps and professional development needs of teachers in vocational education and training institutions. Based on the results of SAA, teachers involved in delivering training for young people or adults are given a tailored plan for training

and professional development, including subject-specific training that focuses on practical skills development (OECD, 2021[10]; Education and Training Foundation, 2018[11]).

Formal education

Robust evidence produced by skills assessment and anticipation exercises can enhance the effectiveness of education policy by helping to make the content of school, vocational education and higher education more responsive to labour market demand. Strengthening skills anticipation capacity can also help education systems to better navigate the high degree of uncertainty surrounding changes to future labour markets and skills demands. In most countries, information from SAA exercises is used to design new qualifications, reform curricula, decide which courses to fund, or set targets for higher education including universities, polytechnics and adult learning provided by education institutions.

Update qualifications and curricula

The curricula of primary and higher education programmes, as well as their qualification standards, need to be continuously updated to ensure that they keep focusing on those skills most requested in the current and future labour markets. In this perspective, the systematic assessment and anticipation of skills needs is particularly important to design and plan the necessary courses sufficiently in advance, since it takes several years to implement them (ILO, 2015[12]). SAA results could also influence the design of new types of modular qualifications, such as micro-credentials, that provide a more flexible and learner-centred approach.

In Finland, the National Forum of Skill Anticipation – composed of employer and employee representatives, VET providers, higher education institutions, and teaching staff – conducts quantitative and qualitative SAA exercises to inform education and training design. Results feed in the drawing up of national qualification requirements and planning of educational curricula by the Finnish National Agency for Education (Ministry of Education and Culture, 2022[13]). The Ministry of Education and Culture also used the results of the National Project on Anticipation of Competences and Skills Needs that provided anticipation of the occupational structures changes in different industries for the establishment of the Development Plan for Education and Research for 2011-16. The Plan decided on the targets for provision of education and drew an overview of the types and amounts of provision that would be required in the future in initial and adult education (Hanhijoki et al., 2012[14]).

In Estonia, OSKA focuses on the skills assessment and anticipation for five or six sectors, thereby managing to cover all key professions over a five-year period. The Estonian Qualification Authority (EQA) uses OSKA to update the Estonian Qualifications Framework and to ensure consistency and quality in the process of referencing Estonian qualifications to the European Qualification Framework levels (Kutsekoda, 2022[15]).

In the Netherlands, the Education and Labour Market Project initiated by the Research Centre for Education and the Labour Market produces a general labour market forecast mainly including warning indicators of possible imbalances between supply and demand in the labour market every other year. The information is especially influential in shaping educational policy, where many programmes and curricula are adapted or created with the intent of satisfying future skills needs (Cedefop, 2017[16]) (Fouarge, 2015[17]). The Higher Education Efficiency Committee, which is responsible for the accreditation of new study programmes in higher education, uses the forecasts of the Education and Labour Market Project in their evaluations to avoid that fields that are in excess supply open new education programmes (Higher Education Efficiency Committee (CDHO), 2022[18]).

Determine study places available

In order to minimise mismatches in the labour market, supplying enough graduates for those sectors and occupations most in need is crucial, especially in fields where labour shortages are intensified due to the digital and green transitions. Currently, study places often remain low in high-demand fields. For example, across the OECD, only 6% and 14% of new entrants to tertiary education in 2020 were enrolled in information communications technology (ICT)-related programmes and in health and welfare, respectively, despite these being high-demand sectors (OECD, 2022[19]). Exploiting SAA results could prove key to adjust the places available for students by field of study and support education institutions in mitigating skills mismatches.

The Swedish National Agency for Higher Vocational Education uses long- and medium-term skills anticipation results produced by Statistics Sweden to plan the number of places available in their higher vocational education programmes (OECD, 2016[8]). Local education providers have also routinely utilised these SAA results to decide which education programmes to offer and the extent of scale. For example, three regions (Skåne, Västra Götalandsregionen and Östergötland) conducted an in-depth analysis of the local labour situation of engineers and nurses for educational programme planning and funding based on the skills anticipation (Cedefop, 2017[20]). Similarly, in Austria, Universities of Applied Sciences (*Fachhochschulen*) need to motivate the modification of available study places with the results of skills forecasting exercises.

Assessing and anticipating skills can provide a particularly suitable sources of information to determine the number of students that are accepted for enrolment in health education programmes. The Advisory Committee on Medical Manpower Planning (ACMMP) in the Netherlands provides health education institutions with a recommended intake size for each programme based on their quantitative forecast scenarios. The “Allocation Decree” of the Dutch Ministry of Health, Welfare and Sport also refer to ACMMP’s recommendations to set the student quota for health education programmes each year (OECD/ILO, 2022[21]).

Develop apprenticeship programmes

Depending on the design of their labour market and education systems, in many countries apprenticeships can play an important role in addressing growing skills shortages by fostering high-quality programmes that meet employers’ skill needs. However, to make sure that they focus on those sectors, occupations and skills most in demand, apprenticeship programmes could make better use of the results of skills assessment and anticipation exercises (Department of Education, 2017[22]).

In Portugal, the Qualification Needs Anticipation System (SANQ) has been established by the National Agency for Qualification and Vocational Education and Training to evaluate which qualifications are needed in the labour market to plan the supply of professional and apprenticeship courses. SANQ ranks qualifications from one to ten according to priority levels, using a variety of data sources and indicators, such as statistical data on recent employment dynamics, a survey to identify skills needs of employers, and job vacancies at regional and occupational level. The Institute for Employment and Vocational Training combines the SANQ results with their own labour market anticipation system to determine which fields should be prioritised when developing apprenticeship courses and, more widely, compulsory formal education programmes (OECD, 2019[23]; Cedefop, 2021[24]).

The Expert Group on Future Skills Needs (EGFSN) in Ireland carries out analyses and research on future skills requirements at thematic and sectoral levels. Its skills anticipation exercise is used to create apprenticeship programmes and assess their effectiveness. For example, consortia of labour market actors submit their proposal on new sectors/occupations for which a new apprenticeship programme may be developed and offered referring to the EGFSN’s skill assessment report (EGFSN, 2021[25]).

Career guidance

Some career guidance services provide a mapping of skills that an individual has (OECD, 2021[26]). Combining such a skills mapping with insights from SAA exercises about the labour market prospects in different sectors is particularly useful in determining suitable upskilling and reskilling pathways for adults who are seeking a change in their career. The results of skills assessment and anticipation exercises may be used in career guidance policy in two main ways: informing career guidance professionals of developments in skill needs; and updating online platforms that provide information on the labour market prospects of certain occupations and upskilling opportunities for in-demand skills. Career guidance services and information that is regularly updated with the findings of SAA exercises supports adults and young people in making well-informed choices about potential career pathways and upskilling or reskilling opportunities.

Update career guidance services

The use of up-to-date information generated through SAA is crucial to provide tailored career guidance and employment counselling services with a strong evidence basis. In many OECD countries, the insights of SAA exercises are actively used by public employment services to support career guidance professionals with updated labour market information (European Commission; Directorate-General for Employment, Social Affairs and Inclusion; Sienkiewicz, Ł, 2022[3]). SAA may also influence a change in career guidance policy itself.

The German public employment service is continuously updating the information provided to jobseekers and adults looking for advice by incorporating newly emerging skills and occupations in green and digital sectors into career guidance services. Moreover, updated information from SAA exercises is also used to further develop IT procedures, for instance, self-exploration tools, occupational orientation and online career guidance (European Commission; Directorate-General for Employment, Social Affairs and Inclusion; Sienkiewicz, Ł, 2022[3]). Another, more indirect impact of SAA exercises in Germany concerns the extension of eligibility for public career guidance services. As a consequence of the shortage in skilled labour and low participation rates in adult learning, since 2019 public employment services in Germany are obliged to offer career guidance to all adults regardless of their age and work situation. This means an expansion of their mandate, and a widening of eligibility to career guidance services in response to demographic and structural changes in the economy (National Guidance Forum in Education, Career and Employment, 2022[27]).

The Canadian Future Skills Centre provides analysis on career transitions in Canada, relying on a skill-based assessment of viable and attractive career pathways workers could choose. A section of this analysis focuses on workers in tourism and hospitality in Ontario, for instance, where employment has been shrinking since the outbreak of the COVID-19 pandemic. The analyses by the Future Skills Centre are freely available online and disseminated in workshops and events, to inform the work of career guidance practitioners (Future Skills Centre, 2021[28]).

Disseminate labour market intelligence

The results of SAA exercises may feed into online platforms that provide orientation and guidance on the labour market prospects of different occupations as well as linking labour demand to upskilling and reskilling opportunities. In many countries, public employment services or adult learning institutions run informative websites, or offer online tools, that rely on evidence from SAA exercises. If sufficiently accessible, these types of information platforms help individuals find targeted orientation about career choices and adult learning opportunities, based on up-to-date future skills needs.

The dissemination of SAA results to a wider public is perhaps most exemplary in Finland, where the public employment service runs a web-based system called ForeAmmatti. It provides comprehensive and

up-to-date labour market information that can be used to better understand regional labour markets, available training, competences required for different jobs, and labour market forecasts.[1] Individuals can register to unlock services, map their competences and receive suggestions for jobs or upskilling and reskilling opportunities The system provides the average number of job openings for a specific occupation in a particular region (e.g. pharmacists in Pohjois-Karjala), based on both historical and projected data. It also shows the regions where the specific occupation is in greatest demand and the degree to which competition for jobs in these occupations is likely to change in the coming years. This information is based on data from public employment services, analyses of job postings and different forecasts (OECD, 2016[8]). ForeAmmatti also targets experts in employment services, coaching, vocational rehabilitation, and educational institutions, who can access skills forecasting for the purposes of planning and designing their services. Based on the ForeAmmatti portal, career guidance professionals can share information with clients, provide online tools and resources (e.g. a competence mapping), and suggest individualised steps towards employment, education, or training. Different modules on ForeAmmatti provide support for coaching, labour market information, and solutions to improve skill mismatch (ForeAmmatti, 2022[29]).

The Austrian Public Employment Service (PES) also runs an online information system on labour market prospects, called the Skills Barometer, which is fed with the data of a comprehensive skills anticipation and assessment exercise. Conducted twice a year, the Skills Barometer provides information on general labour market trends, and skills supply and demand. It compiles information from quantitative analysis, job advertisements, studies on skills demand, and expert surveys. In essence, the barometer compiles and organises information on skills trends and makes it publicly available through an online tool, which is openly available. The main target groups are young people or jobseekers, but also career guidance professionals, employment counsellors, educational institutions, or policy makers (Eurofound, 2022[30]). In practice, the Skills Barometer is used by counsellors in the Austrian PES' career information centres and by those in charge of planning training programmes in the provincial PES offices (Cedefop, 2023[31])

Employment policies

Assessment and anticipation exercises can be particularly informative, as they provide timely insights into how labour markets function and what policies can better promote high-quality jobs. Through a focus on skills (rather than jobs), policy makers can zoom in on more detailed units of labour-market measurements and shape employment policies that are highly targeted towards labour-market mismatches. Indeed, performing SAA enables policies to be designed based on: (1) the skills and competences that workers possess, and (2) the skills and competences that the labour market requires.

Update occupational standards

Occupational standards are documents that describe the knowledge, skills and abilities an individual needs to be competent for a job, and they are often used as a common lexicon of occupations and skills in the economy. They are typically managed centrally through a ministry or governmental body and are connected to qualification frameworks – where a clear link is established between formal education and occupational competence. Not only do occupational standards ensure professional competence at work, they also provide a reference point for policy makers to measure developments in the labour market. Indeed, these standards interact with the labour market and wider economy in numerous ways. For example, educational institutions and training providers can use them to create qualifications and training programmes for specific jobs and industries. Definitions of occupational standards and the corresponding qualifications can then in turn feed into apprenticeship programmes for students in formal education. Through defining occupational standards, countries can identify shortages in skills and competences that can feed into migration policies. Occupational standards can also be used by private actors such as employers and industry bodies to create job descriptions to recruit new staff or training plans to develop skills in their own workforce.

Given the potential wide reach of occupational standards in the labour market, it is crucial that these are updated regularly using timely, precise, and relevant data. Skills assessment and anticipation exercises can feed into occupational standards by proving more up-to-date information about the skills required in an occupation. SAA exercises are at the forefront of identifying these new skill or qualification needs triggered by advances in technology or extensive changes in how tasks are carried out.

In Australia, the skills assessment and forecasting activities of Jobs and Skills Australia influences the updates to the Australian and New Zealand Standard Classification of Occupations (ANZSCO) maintained by the Australian Bureau of Statistics (ABS) (Australian Bureau of Statistics, 2022[32]). ANZSCO is a skills-based classification that was first published in 2006 using the (then) contemporary overview of skills. Recently the ABS has received feedback that the recognition of skills needed to change to reflect the contemporary Australian labour market. The ABS has throughout 2022 conducted a review of skills in ANZSCO and drafted six proposals to address the main concerns, due to be implemented by 2024. In its revision of occupational standards, the ABS completed a targeted review of four areas, one of which are occupations identified by Jobs and Skills Australia in their SAA exercise 'Emerging Occupations'.

Design incentives to foster employment in growing sectors

SAA information could be used to smooth transitions in the context of structural change. SAA exercises generally allow comparing skill needs between sectors and this information can be exploited design transition and training programmes.

Some countries are already using SAA results to provide services for workers in declining sectors (OECD, 2019[33]). In Australia, Structural Adjustment Programmes (SAPs) can be developed in exceptional circumstances to respond to changes in the economy that involve large-scale retrenchments. SAPs are sector-specific programmes that provide assistance to employees in areas with declining industries or where large-scale plant closures are planned. Targeted employment assistance under SAPs can involve skills and training components for adult learners, including pre-retrenchment measures for those who have not yet lost their job but need assistance with (among other things) comprehensive skills assessments, training, industry experience and digital literacy.

Such mechanisms can be used not only in declining industries, but also in cases where there are sudden and unexpected labour shocks, like in the event of a natural disaster. Following the 2010 Canterbury earthquake in New Zealand, demand for workers increased exponentially as part of the initiatives to rebuild the region. The now dismissed Canterbury Skills and Employment Hub had well-established practices in using information from SAA exercises to enable labour market matching for semi-skilled and unskilled occupations prior to the earthquake. These mechanisms were leveraged to implement initiatives such as relocation assistance for the unemployed to relocate to Canterbury to participate in the rebuilding initiatives. Candidates could receive NZD 3 000 when they took up full-time positions (OECD, 2016[34]).

Financial incentives could also be geared towards increasing employment by providing employers with financial incentives to hire workers. Financial tools for employment can come in the form of tax incentives for employers that hire workers with certain characteristics, within certain sectors, or geographic locations. In spite of limited adoption of such practices, SAA exercises could feed into such policy practices by identifying sectors or skills that are growing and in-demand and fostering employment.

Set priorities for recognition of prior learning

Through recognition of prior learning (RPL), skills and competences that are acquired through labour market or personal experience are validated and certified. Adults can use this certification on the labour market to gain higher-quality employment or enter new industries and sectors, and, as such, the recognition of prior learning is a key instrument to improve the employability of adults. Recruiting employers stand to

gain from this process as well, as RPL leads to more concrete information on the skills and abilities of the hiring candidate, allowing for more transparency and better matching of skills to jobs.

To be responsive to labour market developments, RPL requires regular updates on the skill needs of each occupation. Indeed, with technological progress, the tasks associated with certain occupations are changing. For example, digitalisation is pushing workers to acquire digital skills in occupations that have not previously required such skills. In order to ensure the labour market accepts certifications issued through validation programmes, it is crucial that these validation programmes keep up to date with the changing skills needs within occupations. While this is often done directly through updating occupational standards, in those contexts where such standards have not been developed, SAA can take the shape of a "refreshment" exercise to take stock of how skills composition in occupations have changed. This can provide vital information for updating the validation programmes to maintain their relevance to the labour market, particularly as qualification standards are updated less frequently.

For countries that do not yet have an extensive system for the recognition of prior learning, SAA exercises can pinpoint priorities for development of validation programmes. Through analysis of occupational and skills-level data, they can inform policy makers of which sectors, industries or occupations could benefit from validation programmes the most, and which skills are in-demand in these occupations. This allows for more efficient and tailored design of validation programmes, including more targeted and modular upskilling opportunities. In Wallonia (Belgium), the public employment service has recently adapted their validation programmes according to analysis on skills shortages (OECD, 2016[34]).

Industrial policies

Foster innovation in key sectors and industries

Industrial policy aims to structurally improve the performance of the private business sector. Although traditional objectives of industrial strategies cover innovation, productivity, and economic growth, more and more they tend to extend their priorities to social inclusiveness and quality jobs, and recently, to the green transition and resilience against external shock such as the COVID-19 crisis (OECD, 2022[35]). In particular, the failure of industrial policy to translate economic development into inclusive growth over the past decades has emphasised the importance of creating high-quality jobs (ILO, 2014[36]), and therefore, the role of SAA, which can predict changes in job and skill demand, is also expanding.

Industrial policy instruments can be categorised according to their scope. While horizontal industrial policies are available to all firms, irrespective of their activity, technology, or location, targeted (or "vertical") industrial policies are applied only to limited areas, such as specific sectors, regions, and missions where economies of scale and knowledge externality can occur, or where learning-by-doing is important (OECD, 2022[35]). Insights from SAA exercises can be a useful reference when selecting target areas that require intensive investment support for innovation and productivity improvement. Indeed, firms can use information from SAA exercises to strategically determine technology and skill areas that require investment.

For example, in 2017 the Italian Ministry of Economic Development launched the *Industria 4.0* national plan, which aims at supporting industrial change through a series of combined measures, including strong tax incentives and financial access support for firms that invest in their technological and digital transformation processes, as well as support for skills development through institutions such as 'Digital Innovation Hubs' and 'Competence Centres'. SAA exercises – such as the Excelsior survey conducted by the Italian Chambers of Commerce every year to identify the skills required to respond to technological advances – have been used to understand which sectors and skill area needed more investment (European Commission, 2017[37]).

SAA exercises are expected to create synergies when combined with R&D investment incentives such as tax expenditures and grants. In fact, R&D investment incentives rarely lead to substantial productivity improvement within firms without being accompanied by upskilling policies that support workers in acquiring new innovative skills. As a result, when facing a lack of training opportunities, industries keep declaring skills shortages and skill mismatches despite of expanding R&D investment (Foy, 2013[38]).

Migration policies

Skills assessments and anticipation exercises can also play an important role in countries with selected migration policies. In particular, approaches to SAA can be the foundation for the lists of occupations in shortages used to allow easier entry to migrant workers. The establishment of Skills Mobility Partnerships should also be informed by SAA results for the skills and fields considered high priority by the destination country.

Modify admission policies based on shortage lists

Labour migration management aims to address the skills needs of a country by attracting and selecting foreign workers capable of making a positive contribution to the receiving economy (OECD, 2019[39]). A number of labour migration policies exist across OECD countries, each with its own set of admission requirements and conditions. In particular, a few countries – including some of the so-called settlement countries, i.e. those countries, such as Australia, Canada and New Zealand, established through migration from other continents over the past few centuries – have temporary labour migration regimes to satisfy immediate labour needs based on special lists of in-demand occupations. The results from skills assessment and anticipation exercises clearly play a key role in informing policy makers about the sectors facing the most serious skills shortages and the occupations that are in high demand to be at the centre of admission policies. Skills intelligence can also be an important tool to anticipate future labour market trends and make sure that migration policies are proactive (OECD, 2022[40]).

For example, the Skilled Occupation List (SOL), which is one of the eligibility criteria for Australia's skill migration programmes (including the Temporary Skill Shortage and Employer Nomination Scheme visas), are informed by the results of SAA exercises. Future updates to the SOL or targeting of migration to skilled workforce needs will be informed by SAA results and stakeholder engagements by Jobs and Skills Australia.[2] In addition, during the COVID-19 crisis between 2020 and 2022, the former National Skills Commission was responsible for the labour market analysis which informed the composition of the Priority Migration Skilled Occupations List (PMSOL), now discontinued. Created in the aftermath of the COVID-19 pandemic, this list allowed employer-sponsored skilled workers to enter Australia to work in occupations in sectors critical to Australia's economic recovery from the pandemic. More recently, the Australian Government has also committed to invest AUD 19.7 million in skills assessments until 2023-24 to support migrants into priority jobs. In particular, the Department of Employment and Workplace Relations (DEWR) is currently running three Skills Assessment Pilots, offering free and fast-tracked skills assessments, free employability assessments and subsidised training to onshore migrants in order to supplement Australia's domestic workforce in key occupations, including nurses, childcarers, engineers and electricians.[3] The Faster Migrant Skills Assessments pilot concluded in June 2022, with the Skills Assessment Opportunities for Migrants, and Employability Assessments pilots currently scheduled to finish in June 2023.

Foster the establishment of Skills Mobility Partnerships

In the past few years, an innovative tool has emerged – especially in the context of the discussions around the United Nation's Global Compact for Migration – with the potential to associate skills development and migration policies: the so-called Skills Mobility Partnerships (SMPs).[4] SMPs are multifaceted, structurally elaborate agreements through which governments and possibly other stakeholders from both origin and

destination countries co-ordinate to share the benefits and costs linked to talent migration. A number of different cost-sharing models exist (OECD, 2018[41]). A typical SMP may, for example, involve an agreement by which individuals take up training courses in their origin country, entirely funded by the destination country through Official Development Aid (ODA), with an option of employment in the destination country upon completion of the programme. This can be a triple-win process, since through the SMP origin countries increase their overall skilled workforce, the destination countries might receive talented migrants, and migrants themselves have the possibility to improve their labour market outcomes. Numerous other forms of SMPs exist, including those where training is financed directly by employers or the migrants themselves, and those where skills development takes place in the destination country.

Only a few countries in Europe have active SMPs (European Commission, 2022[42]). Among these, Austria has implemented six SMPs within its framework for International Higher Education Co-operation, mostly focusing on allowing temporary stay in Austria and subsistence allowances to researchers and university students from Africa (Africa-UniNet),[5] Asia (ASEA-UniNet)[6] and Eastern Europe (CEEPUS Programme).[7] In Belgium, the Belgian Development Agency (ENABEL) in collaboration with IOM and ILO established the THAMM programme, whose goal is to provide training to 350 young people in Morocco and Tunisia during 2021-23 with the possibility for one fourth of them to get a job in Belgium.[8] Since 2013, the German Agency for International Co-operation (GIZ) directs the "Triple Win" initiative, where nurses from Bosnia and Herzegovina, Philippines, Tunisia, Indonesia, Jordan, and Kerala (India) receive supports to be hired by German employers. In particular, migrants receive free training in German language, professional preparation for the placement, and help with the recognition process for the qualifications acquired abroad.[9]

SPM initiatives are rare even outside Europe, although some well-established examples exist. For instance, since 2006 the Australian Government has supported the Australia Pacific Training Coalition (APTC).[10] The goal of APTC is to promote economic growth across the Pacific region through skills training and employment. In practice, it provides Australian qualifications in various vocational fields to graduates from ten countries: Fiji, Kiribati, Nauru, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu and Vanuatu. While not initially designed to facilitate emigration, APTC now includes a 'Labour Mobility Track', which prepares participants for working overseas – including additional training in financial management, health, well-being and international expectations – despite not guaranteeing employment in Australia upon completion of the programme.

Although increasingly recognised as a policy tool to promote a sustainable approach to skilled migration and mobility, most empirical examples of SMPs have never moved beyond the piloting phase (Sauer and Volarević, 2021[43]). A number of challenges exist, including large costs and scarce involvement of employers (see OECD (2018[41]) and EMN/OECD (2022[42]) for a thorough discussion of the challenges and opportunities for SMPs). One of the key design elements that is likely to influence the success of a SMP is also the type of skills that are at the centre of the agreement. For instance, Clemens (2015[44]) argues that "a Global Skill Partnership cannot function as intended unless it creates skills that employers proactively demand". This aspect is crucial since SMP participants need to train on those precise skills that are sought after in the destination labour market in order to have the chance to be hired abroad. In this perspective, skills assessment and anticipation exercises, such as the ones under study in this report, have the great potential to inform the design of SMPs and improve the matching of the training provided with the labour market needs across countries.

Fostering talent in the workplace: The role of employers and social partners

While it is true that many implications of the results of skills assessment and anticipation exercises pertain to governments and public bodies, the private sector also has a key, active role to play. Job-related training is a key component in ensuring that people have the skills that are needed in the labour market. Employee

training is also essential to the success of businesses worldwide thanks to enhanced labour productivity and improved company culture. To make sure that employees keep their skills and knowledge up to date with the global megatrends, employers and social partners can make use of SAA estimates to understand which new skills should be at the centre of their training programmes. For example, since 2011 the Chilean Mining Council – a sectoral organisation gathering a group of large employers in the mining sector in Chile – conducts ten-year skills forecasts to identify training content, as well as to update curricula in upper secondary schools in collaboration with VET providers in the region (OECD, 2016[8]). Similarly, in the United Kingdom, Sector Skills Councils, jointly managed by both employers and workers' representatives, make long-term projections for their industry to anticipate future skill needs and adapt consequently their training, occupational standards and apprenticeship programmes (OECD, 2019[45]).

In Finland there is a long tradition of using skill forecasting exercises as discussion points in skills councils. Two key forecasting tools – VATTAGE and MITENNA – are used to steer education in accordance with sectoral developments and vocational education needs, and results are used for educational design (ILO, 2017[46]). The results are discussed by councils to make adjustments to training provision according to stakeholder views, comprising of sector-specific education and training committees and tripartite bodies in occupation fields. The outcomes of the discussions are training and education proposals for occupations. The main trade unions contribute to the dialogue process, and different regions are obliged to take into account SAA forecasts in their future strategies and activities.

In France, the French Occupation and Skills Observatories (*Observatoires Prospectifs des Métiers et des Qualifications*, OPMQ) are privately led skill councils organised by sectors, and are funded by employers' organisations and trade unions. The OPMQ councils conduct mappings of occupations, surveys and analysis on skills management, training and recruitment needs, and create certification schemes. The OPMQ skill councils create recommendations and develop actions and tools for use by firms and workers to address current and future skills needs (Center for Studies and Research on Qualifications (Céreq), 2012[47]). In a similar vein, in Australia Jobs and Skills Councils (JSC) are being established to provide industry with a stronger, more strategic voice in ensuring Australia's VET sector delivers better outcomes for learners and employers. The Energy, Gas and Renewables JSC is one of ten JSCs that were announced in December 2022. It will support industry to effectively address workforce challenges and prepare for emerging skills needs. In addition, it will have responsibility for working with industry to ensure that qualifications for energy sector jobs are up to date and provide relevant, contemporary training.

Collective bargaining is also a tool that can be used by workers' representatives and trade unions to fund skills assessments and provide training for workers. In the Netherlands, the Training and Development Fund (*Opleidings- en Ontwikkelingsfonds*) is financed through a compulsory payroll levy fixed by collective agreement. The Fund, through constant exchange with social partners, is able to anticipate skills needs and provide lifelong learning to workers to keep them "up-to-date" and ready to find new jobs (OECD, 2019[45]).

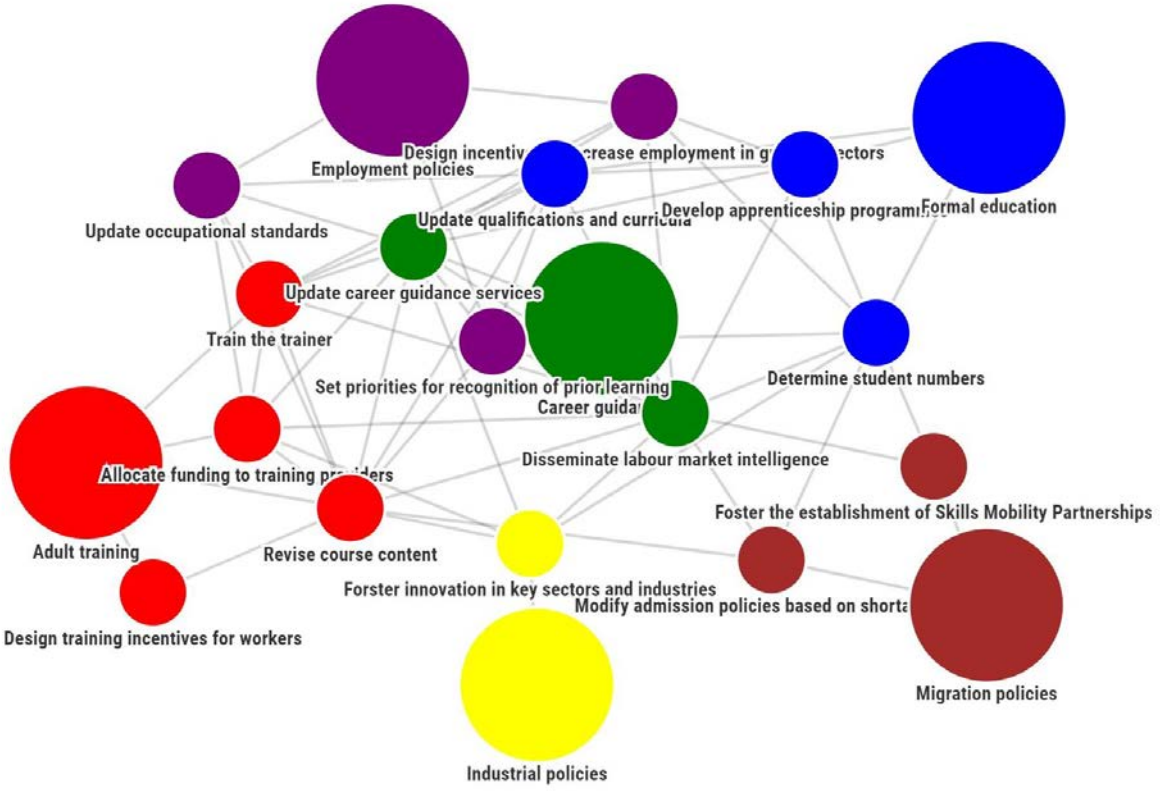
The interconnectedness of SAA-based policies

As outlined in this chapter, the potential use of SAA as a tool in evidence-based policy making is vast and oftentimes untapped. The policy implications of skill intelligence are not confined to just adult training and formal education, but can help strengthen areas such as career guidance, migration, employment, and industrial policies. Skills permeate almost every aspect of society; therefore, it is not surprising that SAA results can be used in a multitude of ways and for different policy issues. As policy makers and stakeholders alike move away from the idea that only formal qualifications matter, skills are increasingly becoming the primary unit of measurement and area of policy execution. Therefore, it is not surprising that the policy areas outlined in this chapter are fundamentally interconnected (Figure 6.2).

For instance, if curricula in formal education are changed following SAA findings, course content in non-formal training will adjust to either cover the gap between formal education and labour market realities or provide upskilling opportunities to adults in employment, so that their skills and knowledge match new graduates. In the case of industrial policies, if the government fosters innovation in key sectors and industries, it is likely that the occupational standards within those sectors will need to be updated. Further, increased innovation might lead to a greater demand of workers within those sectors, leading to a modification of admission policies for migration. The establishment of accessible labour market information systems (often used in the context of career guidance) can have ripple effects throughout several policy areas, as it is able to provide timely and up-to-date information about skills composition in the economy, and may be used to develop apprenticeship programmes, assist workers in declining sectors, determine student numbers and allocate training funding.

It is of utmost necessity for governments and key stakeholders to map out how specific SAA results can be used in policy planning, in order to reap the full benefits of such extensive analysis' and create harmonisation across policy fields for the creation of more resilient labour markets.

Figure 6.2. Policy areas are connected across policy streams



Note: Colours denote different policy streams. Lines illustrate interconnectedness across policy areas in different policy streams.
Source: Author's elaboration.

References

Australian Bureau of Statistics (2022), *Position on skills in ANZCO*, https://abs.gov.au/articles/position-skills-anzsco (accessed on 14 November 2022). [32]

Cedefop (2023), *PES Skills Barometer (AMS Qualifikations-Barometer)*, https://cedefop.europa.eu/en/tools/matching-skills/all-instruments/pes-skills-barometer (accessed on 2023). [31]

Cedefop (2022), *AMS Standing Committee on New Skills*, https://cedefop.europa.eu/en/tools/matching-skills/all-instruments/ams-standing-committee-new-skills (accessed on 15 December 2022). [5]

Cedefop (2021), *Vocational education and training in Portugal*, https://doi.org/10.2801/251891TI-08-21-003-EN-N. [24]

Cedefop (2017), *Skills anticipation in Sweden*, https://cedefop.europa.eu/en/data-insights/skills-anticipation-sweden. [20]

Cedefop (2017), *Skills anticipation in the Netherlands*, https://cedefop.europa.eu/en/data-insights/skills-anticipation-netherlands. [16]

Center for Studies and Research on Qualifications (Céreq) (2012), *Les observatoires prospectif des métiers et des qualifications: des outils pour agir*, Céreq Bref, https://cereq.fr/les-observatoires-prospectifs-des-metiers-et-des-qualifications-des-outils-pour-agir (accessed on 17 January 2023). [47]

Clemens, M. (2015), "Global Skill Partnerships: A proposal for technical training in a mobile world", *IZA Journal of Labor Policy*, Vol. 4/2, https://doi.org/10.1186/s40173-014-0028-z. [44]

Department of Education (2017), *Apprenticeship Reform Programme*, https://www.gov.uk/government/publications/apprenticeship-reform-programme-benefits-realisation-strategy (accessed on 31 March 2023). [22]

Education and Training Foundation (2018), *Training Needs in the Further Education Sector*, https://et-foundation.co.uk/wp-content/uploads/2018/04/1331_Training-Needs-Analysis-Final-.pdf. [11]

Eesti Töötukassa (2023), *Training for Employees - Work and Study*, https://www.tootukassa.ee/en/services/career-and-training/training-employees-work-and-study (accessed on 4 January 2023). [4]

EGFSN (2021), *The Expert Group on Future Skills Needs Statment Activity 2020*, https://www.skillsireland.ie/all-publications/2021/egfsn-annual-activity-report-2020-final.pdf. [25]

Eurofound (2022), *Qualification Barometer*, https://www.eurofound.europa.eu/observatories/emcc/erm/support-instrument/qualification-barometer (accessed on 15 December 2022). [30]

European Commission (2022), *Skills Mobility Partnerships: Exploring Innovative Approaches to Labour Migration. EMN-OECD Inform.*, https://emn.ie/wp-content/uploads/2022/03/2022_3_3-Joint-EMN-OECD_Skills_Mobility_Partnerships_inform.pdf. [42]

European Commission (2017), *Digital Transformation Monitor, Italy: "Industria 4.0"*, https://ati.ec.europa.eu/sites/default/files/2020-06/DTM_Industria4.0_IT%20v2wm.pdf. [37]

European Commission; Directorate-General for Employment, Social Affairs and Inclusion; Sienkiewicz, Ł (2022), *Future skills, career guidance and lifelong learning in PES : thematic paper*, https://data.europa.eu/doi/10.2767/640074 (accessed on 4 January 2023). [3]

ForeAmmatti (2022), *ForeAmmatti*, https://www.foreammatti.fi/ (accessed on 14 December 2022). [29]

Fouarge, D. (2015), *Project Education-Labour Market: Use of labour market*, https://www.cedefop.europa.eu/files/working_paper_4.1_education_and_labour_market_outcomes_for_vet_graduates_in_different_types_of_vet_systems_in_europe.pdf. [17]

Foy, F. (2013), "Global policy developments towards industrial policy and skills: skills for competitiveness and growth", *Oxford Review of Economic Policy*, Vol. 29/2, https://doi.org/10.1093/oxrep/grt020. [38]

France Stratégie (2022), *Le Réseau Emplois Compétences*, https://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/20210708_rec_-_presentation.pdf. [2]

Future Skills Centre (2021), *A Path Forward - Job Transitions in Canada*, https://fsc-ccf.ca/research/job-transitions-in-canada/ (accessed on 14 December 2022). [28]

Hanhijoki, I. et al. (2012), *Education, training and demand for labour in Finland by 2025*, https://oph.fi/en/statistics-and-publications/publications/education-training-and-demand-labour-finland-2025 (accessed on 12 February 2023). [14]

Higher Education Efficiency Committee (CDHO) (2022), *De Commissie Doelmatigheid Hoger Onderwijs*, https://www.cdho.nl/ (accessed on 10 November 2022). [18]

ILO (2017), *Skill needs anticipation: Systems and approaches. Analysis of stakeholder survey on skill needs assessment and anticipation*, https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_616207.pdf (accessed on 31 August 2022). [46]

ILO (2015), *Anticipating and matching skills*, https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_534307.pdf. [12]

ILO (2014), *Industrial policy, productive transformation and jobs: Theory, history and practice*, https://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_315664.pdf. [36]

Kutsekoda (2022), *OSKA*, https://oska.kutsekoda.ee/en/ (accessed on 11 February 2023). [15]

Ministry of Education and Culture (2022), *Anticipation of skills and education needs in Finland*, https://okm.fi/documents/1410845/4150027/Anticipation+of+skills+and+education+needs/d1a00302-8773-bbe0-39a0-46e0d688d350/Anticipation+of+skills+and+education+needs.pdf?t=1570103093000. [13]

National Guidance Forum in Education, Career and Employment (2022), *Lifelong Career Guidance and Counselling. Structures and Services in Germany*, https://www.euroguidance-deutschland.de/SharedDocs/Downloads/DE/LBB-in-DE_en.pdf?__blob=publicationFile&v=2 (accessed on 4 January 2023). [27]

OECD (2022), *An Industrial Policy Framewok for OECD Countires; Old debates, New perspectives*, https://doi.org/10.1787/23074957. [35]

OECD (2022), *Education Policy Outlook 2022: Transforming Pathways for Lifelong Learners*, OECD Publishing, Paris, https://doi.org/10.1787/c77c7a97-en. [19]

OECD (2022), *Feasibility Study on the Development of an EU Talent Pool*, OECD, Paris, https://doi.org/10.1787/6ea982a0-en (accessed on 14 December 2022). [40]

OECD (2021), *Career Guidance for Adults in a Changing World of Work*, OECD Publishing, Paris, https://doi.org/10.1787/9a94bfad-en. [26]

OECD (2021), *Creating Responsive Adult Learning Opportunities in Japan*, OECD Publishing, Paris, https://doi.org/10.1787/cfe1ccd2-en. [6]

OECD (2021), *Teachers and Leaders in Vocational Education and Training*, OECD Reviews of Vocational Education and Training, https://doi.org/10.1787/59d4fbb1-en. [10]

OECD (2020), *Increasing Adult Learning Participation: Learning from Successful Reforms*, OECD Pubishing, Paris, https://doi.org/10.1787/cf5d9c21-en. [9]

OECD (2019), *Building an EU Talent Pool : A New Approach to Migration Management for Europe*, https://doi.org/10.1787/6ea982a0-en. [39]

OECD (2019), *Getting Skills Right: Future-Ready Adult Learning Systems*, OECD Publishing, Paris, https://doi.org/10.1787/9789264311756-en. [33]

OECD (2019), *Negotiating Our Way Up: Collective Bargaining in a Changing World of Work*, OECD Publishing, Paris, https://doi.org/10.1787/1fd2da34-en. [45]

OECD (2019), "Strengthening the governance of skills systems", in *OECD Skills Strategy 2019: Skills to Shape a Better Future*, OECD Publishing, Paris, https://doi.org/10.1787/2a40e30e-en. [23]

OECD (2018), "What would make Global Skills Partnerships work in practice?", *Migration Policy Debates*, Vol. 15, https://www.oecd.org/els/mig/migration-policy-debate-15.pdf (accessed on 13 December 2022). [41]

OECD (2017), *Skills assessment and anticipation system*, https://doi.org/10.1787/9789264278639-5-en. [1]

OECD (2016), *Getting Skills Right: Assessing and Anticipating Changing Skill Needs*, OECD Publishing, Paris, https://doi.org/10.1787/9789264252073-en. [8]

OECD (2016), *Getting Skills Right: Assessing and Anticipating Changing Skills Needs*, OECD Publishing, Paris, https://doi.org/10.1787/9789264252073-en. [34]

OECD/ILO (2022), *Equipping Health Workers with the Right Skills: Skills Anticipation in the Health Workforce*, Getting Skills Right, OECD Publishing, Paris, https://doi.org/10.1787/9b83282e-en. [21]

Opportunity@Work (2023), *TechHire*, http://techhire.org/ (accessed on 2023 03). [7]

Sauer, M. and J. Volarević (2021), *Transnational Skills and Mobility Partnerships (TSMP): Contextual factors, conceptual design and application*, Bertelsmann Stiftung, https://www.bertelsmann-stiftung.de/fileadmin/files/Projekte/Migration_fair_gestalten/IB_Studie_tQMP_Sauer_Volarevic_2021_en.pdf (accessed on 13 December 2022). [43]

Notes

[1] Available in Finnish on www.foreammatti.fi (accessed 13 December 2022).

[2] The full Skilled Occupation List, as well as all the visa schemes using the SOL are available here: https://immi.homeaffairs.gov.au/visas/working-in-australia/skill-occupation-list (accessed on 25 April 2023).

[3] More information about the Skills Assessment Pilots is available here: https://www.dewr.gov.au/skills-assessment-pilots (accessed on 25 April 2023).

[4] The concept of Skills Mobility Partnerships is linked to other similar and often interchangeable concepts, such as Global Skills Partnerships, Talent Partnerships and Transnational Skills and Mobility Partnerships. In this report, only the use of the term SMPs is adopted for simplicity.

[5] For more information, visit: https://africa-uninet.at/ (accessed on 25 April 2023).

[6] For more information, visit: https://asea-uninet.org/ (accessed on 25 April 2023).

[7] For more information, visit: https://www.ceepus.info/ (accessed on 25 April 2023).

[8] For more information, please visit the website: https://open.enabel.be/nl/MAR/2460/updates/towards-a-holistic-approach-to-labour-migration-governance-and-labour-mobility-in-north-africa.html (accessed on 25 April 2023).

[9] More information is available here: https://www.giz.de/en/worldwide/41533.html (accessed on 25 April 2023).

[10] For more information, visit: https://www.aptc.edu.au/home (accessed on 25 April 2023).