

Mutual Learning Programme Database of National Labour Market Practices

Estonia - OSKA skills forecast system – a system of labour market monitoring and future skills forecasting

This database gathers practices in the field of employment submitted by European countries for the purposes of mutual learning. These practices have proven to be successful in the country concerned, according to its national administration. The European Commission does not have a position on the policies or measures mentioned in the database.

Source of national practice	Peer Review on Measuring labour market tightness to improve employment policies and reduce skills mismatches, Paris, October 2018
Title of the policy or measure (Original language)	Töõjõu- ja oskuste vajaduse seire- ja prognoosisüsteem OSKA
Title of the policy or measure (English)	OSKA skills forecast system – a system of labour market monitoring and future skills forecasting
Country	Estonia
Name of the responsible body	The Estonian Qualifications Authority (EQA)
Geographical scope of the responsible body	National
Name(s) of other organisations involved (partners/sub-contractors)	OSKA is governed by OSKA Coordination Council, which includes representatives from 11 organisations (1)
Start year of implementation	2015
End year of implementation	Ongoing
EU policy relevance	The OSKA system was established as a measure to contribute to the objectives of the Estonia 2020 Strategy (to enhance employment and productivity). The aim of OSKA is to contribute to the reduction of skills mismatch, to inform various stakeholders on skills needs and to facilitate cooperation between the education system and labour market. These objectives are in line with European guidelines, especially Guideline 6 Enhancing labour supply, skills and competences, and Guideline 7 Enhancing the functioning of labour markets.

<p>National labour market context</p>	<p>As a result of the economic crisis, employment fell by 13.4% between 2008 and 2010 for 15-74 year olds (2). By 2017, however, total employment surpassed pre-crisis levels standing at 659 000 (compared to 656 000) (3) while in quarter III of 2019 unemployment reached the lowest level experienced in the previous 25 years at 3.9% for 15-74 year olds(4) (5).</p> <p>Estonia has one of the highest employment rates in Europe (79.5% for 20-64 in 2018) despite having a declining working age population. The employment rate in the age group 50-74 is the highest in the EU (58.1% in 2018), especially for women (6). The share of older workers (age 65-74) in the work force is the highest in the EU as well (7). Forecasts foresee a further minor increase in employment due to the rising pension age (8), an increase in the healthy life years and the ongoing work ability reform (9).</p> <p>As changes in sectors are expected to be rather small, overall skills demand is driven mainly by replacement demand. Future growth is forecast in programming, professional, scientific and technical activities, health and social work activities. The decrease in working age population along with a rapid increase in salaries, caused by a scarcity of labour, forces a reassessment of how the work force is used. These factors have also led to positive net migration during the last few years. Nevertheless, both consistently rising wages as well as climate policy may lead to larger structural changes in the economy during the coming decade.</p> <p>(2) The information in this box has been largely excerpted from the following publication: EU (2016a), Peer Country Comments Paper, <i>Estonia Skills Forecasting in Estonia: A shift towards policy driven approach</i>, as part of the Peer Review on 'Methods for forecasting skills needs for the economy' Dublin (Ireland), 13-14 June 2016.</p> <p>(3) Eurostat database, lfsi_emp_a, author's calculations.</p> <p>(4) CEDEFOP (2015), Estonia: skills forecasts up to 2025.</p> <p>(5) Estonian Statistical Office database, TT461, Eurostat database, tesem010.</p> <p>(6) Soosaar, O. & Urke, K. (2018), Tööturu ülevaade 1, Eesti Pank, Tallinn.</p> <p>(7) Eurostat database, lfsa_egan.</p> <p>(8) Lambing, M. (2017) Tööjõuvajaduse ja –pakkumise prognoos aastani 2024, Majandus - ja Kommunikatsiooniministeerium,</p> <p>(9) Unt, M. (2018) PR on 'Way to work – strengthening the links between active labour market policy measures and social support services' Estonian country report. DG EMPL.</p>
<p>Policy area</p>	<p>Skills supply, productivity and lifelong learning</p>

Specific policy or labour market problem being addressed

Estonian entrepreneurs indicate a lack of a qualified labour is the main factor hindering economic growth. It is caused by both an aging society and a decline in the working age population as well as changing skills needs and skills mismatch due to rapid changes in the society over the last 30 years.

The mismatch between labour needs, the skills available in the work force and skills taught at the vocational/college/university level led to the [need to comprehensively and systematically monitor, analyse and forecast skills needs currently and in the future, and to actively engage all sides of the labour market](#) (10). The introduction of the OSKA skills forecasting system seeks to improve the labour market relevance of education and training, to promote bridges between the worlds of education and work and to enhance lifelong learning (11).

In Estonia the overall labour demand and supply forecast was based on a methodology used since 2005 (12). The data tables and short explanation of the overall forecast were published annually by Ministry of Economic Affairs and Communications (MEAC). In the forecast, the labour demand was [assessed in quantitative terms](#), not in terms of skills, which might be needed in the future (13).

In 2014 the Estonian government launched OSKA, a more detailed system of labour market monitoring and future skills forecasting designed to analyse and forecast labour market needs (by sector (14)), both quantitatively (how many employees are needed in key occupations by sector) and qualitatively (expected competency profiles in key occupations), and recommend [necessary adjustments in the education and training offer](#) (15).

The outcome is five sectoral reports a year as well as a general report updated annually based on the following sources:

1. statistical data,
2. surveys (European Health Interview Survey (EHIS), the Labour Force Survey, the Population and Housing Census 2011, sectoral surveys, EKOMAR, etc.),
3. expert interviews,
4. sectoral experts panel seminars,
5. desktop research on future trends, strategies, etc.

By the end of 2019, 21 economic sectors had been examined (16).

<p>Aims and objectives of the policy or measure</p>	<p>The Estonian approach to skills forecasting aims to support policy making with regard to assessing demand for education and training provision, labour market policy and career guidance. The OSKA skills forecasting system analyses the needs of the labour market and skills necessary for Estonia's economic development over the next 10 years (17). It produces projections of the need for labour force and skills in all fields of the Estonian economy and compares these to the education and training offer by higher education institutions, VET institutions and continuing education courses (18). (17) See https://oska.kutsekoda.ee/en/ (18) See OSKA study "Estonian Labour Market Today and Tomorrow 2018"</p>
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**Main activities/actions
underpinning the policy
or measure**

In April 2015 the EQA began monitoring the labour market as well as trends affecting future skills needs and making forecasts as well as implementing the [OSKA system for the coordination and development of skills](#) (19). OSKA's applied studies on sectoral needs for labour and skills are unique. They use a combination of [qualitative and quantitative research methods](#), and analyse professional qualifications across all levels of education (20). Both statistical data and information from interviews with sectoral experts and group discussions are used.

- Every year, labour and skills needs are examined in five economic sectors. The choice of sectors as well as study reports are approved by the OSKA Coordination Council. Recommendations for training requirements are then prepared.
- As part of this annual process, [OSKA sectoral expert groups](#) assess future trends, Estonia's strategic development objectives and their impact on the development of the sector, the number of people and the range of skills the sector requires, and the profile of the available training offer, whether or not and how it needs to be altered (21).
- Quantitative analysis is based on the data from relevant registers and surveys (including EHIS, the Labour Force Survey, the Population and Housing Census 2011, sectoral surveys, EKOMAR etc.) as well as on forecasts of labour requirements prepared by the Ministry of Economic Affairs and Communications (MEAC).
- Qualitative information from interviews with sectoral experts and group discussions about employment skills and qualifications is also collected. These interviews examine future economic trends and the resulting changes in the needs of workers, skills, education and training in each sector, and provide information towards improving qualifications. Sectoral expert panels also assess labour requirements quantitatively as well as training capacities in key professions.
- OSKA publishes an annual general report on changes in labour requirements, labour market developments and the trends influencing them over the next 10 years.
- All economic sectors are surveyed and analysed once every five or six years. In the intervening period, the relevant sectoral expert panels monitor implementation of the recommendations made on the basis of conclusions of the study.

(19) See https://andras.ee/digituur25/en/portfolio_page/14-oska-en/

(20) The following information is excerpted from [OSKA Methodology](#)

	(21) See https://andras.ee/digituur25/en/portfolio_page/14-oska-en/
Geographical scope of policy or measure	National
Target groups	Other
Outputs and outcomes of the policy or measure	<ul style="list-style-type: none"> • In cooperation with MEAC, the OSKA annual report is produced capturing the trends in the economy and in the labour market by sector, and also outlines the state of play in terms of skills demand and supply. Since 2018 the Estonian Unemployment Insurance Fund is also involved in compiling the report, commenting on the short-term labour demand and supply. • Between 2015 and 2019, 21 detailed sectoral studies have been conducted (22). The plan is to include all the fields of economic activity in the surveys by 2021 (23). • Results of the analysis provided by OSKA are available online as well as in printed form and are used in curriculum development, career counselling, and planning of state-funded education. • In addition to the OSKA webpage and study reports, OSKA intelligence is published in an easily understandable manner in a new education portal since May 2019. • The EQA has established very close links to policy-making and the implementation of recommendations in the educational system and active labour market policy based on the future skill forecasts. The key users are the Ministry of Education and Research who mediates the negotiations with schools and the Estonian Unemployment Insurance Fund (EUIF) in planning training and allocating the funds and running the national career guidance network. EUIF has built several labour market policy measures specifically on OSKA intelligence. Also, Ministry of Social Affairs and MEAC have used OSKA intelligence in planning labour and economic policy measures (24). <p>(22) For a list of these 21 sectors, see EU (2018). (23) See https://andras.ee/digituur25/en/portfolio_page/14-oska-en/ (24) EU (2018).</p>

Management and implementation arrangements

The Coordination Council oversees and governs the implementation of the OSKA system. OSKA is implemented by the Estonian Qualification Authority. The Council has [high-level representatives from 11 organisations](#) (25):

- Ministry of Education and Research
- Ministry of Economic Affairs and Communications
- Ministry of Social Affairs
- Ministry of Finance
- Ministry of the Interior
- Bank of Estonia (Festi Pank)
- Estonian Employers' Confederation (ETTK)
- Estonian Chamber of Commerce and Industry
- Estonian Service Unions' Confederation (TALO)
- Estonian Trade Union Confederation (EAKL)
- Estonian Unemployment Insurance Fund

An overview of OSKA results is given to the Estonian Government once a year by Minister of Education and Research.

A **Panel of Advisers** also contributes to the development of the OSKA methodology and discussion on the topics arising from the OSKA general report and sectoral studies. It acts as a partner and adviser to the Estonian Qualifications Authority. Along with the organisations represented in the Coordination Council, the best experts in the labour market and education fields from Estonian universities, research companies and professional associations etc. are included in this panel of around 35 experts.

The OSKA Coordination Council plays a key role in matching labour market needs with training resources. Central to this work are the proposals and suggestions of the OSKA sectoral study reports, elaborated in cooperation with **sectoral expert panels**. Sectoral expert panels were established at the Estonian Qualifications Authority to prepare forecasts of labour requirements and skills in the sectors examined. The panels consist of employees, professional associations, schools and public authorities. Forecasts of workforce and skills' requirements, including proposals for delivering the desired changes, are prepared in cooperation with sectoral expert panels and the OSKA team (analyst and study manager). Proposals can be directed at different stakeholders e.g. training providers, developers of curricula, professional associations, etc.

The implementation of OSKA is [funded by the European Social Fund \(ESF\)](#) (26).

(25) See [OSKA Management](#)

26) See [Estonia Country Report](#)

Key challenges

- Due to the different standpoints of different institutions, the process of formulating the recommendations and their implementation is challenging (27). For that reason extensive attention is placed on networking and explaining study results. A **follow-up system** has been established in OSKA, where each sectoral expert panel meets every 1-3 years to discuss the situation with sectoral skills needs and implementation of the recommendations. OSKA works also actively to get media coverage and makes presentations to various audiences (yearly 60-80 presentations with total audiences of 3 000-4 000 persons). Networking and extensive cooperation with partners and stakeholders is also needed to **manage the extensive expectations** on the OSKA system.
- **Availability of detailed and up-to-date statistical data** has been a challenge especially for occupational data, as the last detailed data comes from the 2011 Census. As a result of joint efforts, occupational data has been collected via the Employment register at the Tax and Customs Board since 2014 (covering all labour force since 2019).
- **Transparency of results** is a frequent issue of forecasting. To address this issue, the OSKA **methodology report** has been published. Also, the full versions of the **OSKA study reports** are of extended length (100-250 pages) to give enough space to fully explain the results.

(27) EU (2016b), Towards mixed methods skills forecasting in Estonia by Prof. Marge Unt, as part of the Peer Review on “Human Capital in Poland – labour market research project for 2016-2023”, Warsaw (Poland), 14-15 November 2016

<p>Key conditions for success</p>	<ul style="list-style-type: none"> • Due to the close involvement of different stakeholders from schools, sectors and ministries it provides in-depth views on skills demand. Due to this clear alignment towards cooperation, OSKA has become a cooperation platform on skills issues between education system, policy makers and employees (28). • OSKA intelligence is widely and equally used by partners, as it was established as a joint project of ministries and institutions. The need for the system was agreed at government level while the preparatory phase was run by the Government Office. • Use of both qualitative and quantitative methods and drawing together available data has enabled the users to gain much deeper and more useful insights into sectoral and country-level developments. • A sectoral follow-up system, monitoring the recommendations and the skills situation with sectoral experts has enabled the government to react more flexibly to changing skills needs as well as to enhance the implementation of recommendations. • As evidence of success, the OSKA system was elected as Best New Project 2016 by the Ministry of Education and Research, Partner of the Year 2017 by Estonian Unemployment Insurance Fund and as a nominee of the Clear Message Prize 2017. In 2019, the Government of Estonia decided to continue and expand OSKA in the next financing period after 2020. <p>(28) EU (2016b). EU (2018).</p>
<p>Method of assessment</p>	<p>External evaluation</p>
<p>Type of assessment</p>	<p>Qualitative assessment</p>
<p>Duration and frequency of the assessment</p>	<p>An assessment of OSKA takes place every 3 years. Last assessment was conducted in 2018 by Praxis research centre.</p> <p>A once-off review of the skills governance system in Estonia was conducted by Cedefop in 2018-2019.</p>

Further information on the assessment

Praxis (2018), Implementation of the labour market monitoring and future skills forecasting system OSKA

The implementation of OSKA recommendations was analysed based on the sector reports published in 2016: accounting, forestry and timber industry, information and communication technology, manufacturing of metal products, machinery and equipment and social work. The evaluation showed OSKA has been successful in creating practical and usable labour market intelligence for its target groups. OSKA's recommendations have paved the way for adjustments in formal education in terms of adapting provision quantitatively and qualitatively (through curricula) and have been a basis for providing relevant (future) career information to learners. Researchers highlight the relevance of OSKA as a comprehensive tool for managing future labour market and skills needs. As sectoral expert panels have a valuable role in the OSKA system, the representativeness of panels needs attention. Maintaining excellent group management skills in the research team also needs special attention.

Cedefop (2020), Strengthening skills anticipation and matching in Estonia: Capitalising on OSKA's potential to realise national ambitions - Thematic country review

The report highlights a consensus that OSKA provides information which is highly valued. Overall, stakeholders were of the view that if OSKA were not to continue, then a vital resource will have been lost. OSKA intelligence is used by more than 90% of career counsellors. OSKA has increased stakeholder involvement in skills anticipation and created a systematic process in which stakeholders can provide input to and shape discussions on future labour market and skill needs. OSKA has several institutional and decision levels for engaging stakeholders from top-level ministry representatives to career counsellors and career coordinators in schools. Having established itself over a short space of time, they also expected OSKA to continue to develop apace, both in coverage, datasets used as well as specific methodological issues. An issue of delivering OSKA intelligence to extended target audiences needs to be solved between partners, as OSKA capacity is already fully employed.

<p>Links to the website, background information and assessment material</p>	<ul style="list-style-type: none"> • SKA website in Estonian and in English • OSKA data in education web portal • Assessment of the implementation of OSKA study results and recommendations. Research Centre Praxis, 2018 in Estonian and in English • Cedefop thematic country review: 'Strengthening skills anticipation and matching in Estonia: Capitalising on OSKA's potential to realise national ambitions' (forthcoming, published in the first half of 2020) <p>Other resources:</p> <p>(1) These organisations include Ministry of Education and Research, Ministry of Economic Affairs and Communications, Ministry of Social Affairs, Ministry of Finance, Ministry of the Interior, Estonian Unemployment Insurance Fund, The Estonian Chamber of Commerce and Industry, The Estonian Employers' Confederation, Estonian Trade Union Confederation, Estonian Employees' Unions' Confederation, Eesti Pank.</p> <p>(10) See CEDEFOP</p> <p>(11) Ibid.</p> <p>(12) EU (2016a), Peer Country Comments Paper, Estonia Skills Forecasting in Estonia: A shift towards policy driven approach, as part of the Peer Review on 'Methods for forecasting skills needs for the economy' Dublin (Ireland), 13-14 June 2016.</p> <p>(13) Lambing, M. (2015) Tööjõuvajaduse ja –pakkumise prognoos aastani 2023, Majandus - ja Kommunikatsiooniministeerium () referred to in EU (2016a).</p> <p>(14) Forecasts by sectors are based on the forecast of MEAC, supplemented by different data sources and qualitative information from the Sectoral Skill Councils. See EU (2018), Peer Country Comments Paper, Separate the sheep from the goats? Towards a new approach in assessing the labour market tightness, by Prof. Dr. Marge Unt as part of the Peer Review on "Measuring labour market tightness to improve employment policies and reduce skills mismatches", France, 15-16 October 2018.</p> <p>(15) See CEDEFOP</p> <p>(16) Between 2015 and 2017 surveys on the needs for labour and skills in 11 sectors have been, or are being carried out, covering about 50% of the Estonian labour market. Results of the analysis provided by OSKA are available online and are used in curriculum development, career counselling, and planning of state-funded education. Source: <i>ibid.</i></p>
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