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Methodology for OSKA labour and skills needs forecast

Brief overview

Version 4.0

Tallinn 2024

Estonian Qualifications Authority

Compiler: Estonian Qualifications Authority

OSKA is a labour and skills need monitoring and forecasting system for matching labour market needs with education and training provision. The OSKA activities are governed by the Coordination Council. The OSKA activities are organised and implemented by the Estonian Qualifications Authority (EQA). The development of OSKA is financed from the European Social Fund programme since April 2015.

The main objective of OSKA is to predict how employment, labour and skills needs in Estonia will change over the forthcoming ten years as a result of economic and migration policies, digital development and other processes, and whether the current education and training system is in line with the labour and skills needs of the state, both in the field of formal education and continuous training. To achieve this OSKA is conducting three types of studies:

- Sectoral studies of labour and skills demand and supply,
- Cross-sectoral (general) forecasts of labour and skills demand and supply,
- Thematic studies.

The broader aim of OSKA studies is to provide a knowledge-based input for education and training, labour market and migration policy-making and for informed career choices so that a sufficient number of employees with up-to-date skills can reach the Estonian labour market. The EQA shall carry out OSKA sectoral and thematic studies and prepare general (cross-sectoral) forecasts of labour needs and supply.

The purpose of OSKA sectoral study is to analyse and predict how labour and skills need will change in the main occupations of the field over the forthcoming ten years and what changes would be necessary in the labour supply (including measures to support labour availability). Labour and skills needs forecasts are mainly conducted by economic sector. Sectoral breakdown follows cluster logic by grouping industries that are closely related in terms of skills, content or supply chain. The breakdown is also based on the definition of OSKA sectors carried out in the period 2015-2020. The OSKA Coordination Council, governing OSKA implementation, shall decide on the sequence of sectoral studies on the basis of prioritised or more rapidly changing sectors and occupations crucial for the development of society. The OSKA reports are approved by the Coordination Council.

The general OSKA forecast provides comprehensive and holistic information on labour and skills needs across sectors, and labour demand and supply in Estonia. The objective of the general forecast is to assess the balance of labour and skills demand and supply, both as a whole and by OSKA sectors, occupational groups and curriculum groups, and by labour demand and supply components.

OSKA thematic studies support OSKA objectives by complementing sectoral studies and the general forecast. The thematic study may focus on the recurrent bottlenecks described in sectoral studies, new labour market patterns, other developments related to labour and skills needs and supply, and identifying problems or other bottlenecks for which the OSKA sectoral studies methodology or target groups are not suitable.

The development of the OSKA methodology started in 2014 and the methodology is constantly updated. The OSKA data model, the development of which started in 2020, is a key interlinking the various studies. The data model is an instrument for calculating labour forecasts based on register data (the Estonian Education Information System, the Tax and Customs Board registers, etc.), data collected for national statistics and OSKA sectoral studies, which is also the basis for various OSKA studies. The OSKA data model also enables cross-sectoral monitoring of labour market and formal education developments and the compilation of a OSKA general forecast for on the basis of past trends enriched with expert knowledge.

OSKA sectoral studies

OSKA sectoral studies predict how the employment, labour and skills demand of key occupations in the sector will change over the forthcoming ten years and analyse whether the current new labour supply from education and training system is in line with the labour and skills future needs in the sector. The study assesses whether the current sector's new labour supply from education and training system is in line with the labour and skills needs of the sector, and whether the changes in the sector over the last five years have met the forecasts made in previous OSKA study.

A sectoral study is conducted in cooperation of two groups:

- OSKA study team;
- Sectoral Expert Panel or Sectoral Study Steering Group.

The **OSKA study team** consists of two EQA specialist – a study leader and an analyst appointed by the EQA. The task of the team is to coordinate project activities and assure that the OSKA methodology is implemented consistently.

A **Sectoral Expert Panel** (hereinafter SEP) shall be formed by the EQA to conduct a sectoral study. The panel consists of 20-30 members, 50% are representatives of employers/employees, 25% are representatives of the public sector, and 25% are representatives of the education and training system. The SEP shall support the OSKA study team in assessing the impact of future trends and development strategies on the development of the sector, validating the conclusions of the study, identifying bottlenecks related to labour and skills needs and proposing solutions. The panel shall also support the dissemination of the results of the study.

The **Sectoral Study Steering Group** (hereinafter SSSG) is made up of two to five key experts (mainly employers/professionals). The SSSG involves experts competent in the sector or focus topic of the study. The SSSG provide input in defining the aim of the study, advise on the selection of interviewees and participants of focus groups, participate in discussing the interim results of the study, and help interpret the results. The SSSG shall discuss the issues arising from the analysis. The group will also validate the findings of the study and present the findings to the public, ensuring the success and effectiveness of the study. Depending on the focus of the study, it is recommended that the SSSG be involved in the analysis process.

The sectoral study sets a specific focus on the need for labour and/or skills critical to the sector or other critical issues related to the sector. The choice of focus may be due to developments affecting the sector, new opportunities or obstacles to the development of the sector.

The research will focus on the following research questions:

1. How will the development of the sector be seen in the forthcoming ten years and what impact will it have on the sector labour and skills needs?
2. What is the employment in the sector now and what has been its dynamics during the last five years?
3. How much labour is needed in the main occupations of the field in ten years prospective?
4. What skills are needed in the sector in ten years prospective?
5. What is the current labour supply in the sector?
6. How does the projected labour demand correspond to labour supply?
7. What can the social partners do to better meet the labour and skills needs?

Based on OSKA study objectives, both qualitative and quantitative methods of analysis are relevant. Combining both approaches allows to answer the research questions.

The study is conducted using relevant existing data sources (national statistics, different registers (Tax and Customs Board, Estonian Education information System, etc.), data included in the OSKA data Model, international databases, etc.) as well as collecting new data (mainly from expert interviews, focus group discussions, SEP and SSSG discussions). The selection of interviewees and participants in the focus group is aiming at involving the existing knowledge and experience on the need for labour and skills in the sector from the employers' perspective (including from different sub-branches, regions and size classes of enterprises), education and training provision in the sector, as well as the general economic and educational policy context.

The study seeks to include as many relevant for the sector data sources, so that the forecasts and conclusions to be drawn are based on their interaction. The data sources of the studies will be updated on an ongoing basis to benefit from developments in registers and the results of new studies. Analysis of global, national and sectoral trends in the labour market, reports of previous studies, strategic development documents, legislation affecting the labour market, media materials in the sector, etc. are used as additional sources of information.

The study is conducted in three phases:

1. **Preparatory activities, incl. acquisition of primary and secondary data.** The results of earlier OSKA sectoral studies will be analysed to provide input for determining the focus of the study. The SSSG and SEP will be set up and interviews and/or focus group discussions with employers, alumni and educational institutions offering study programmes in the sector, and other target groups will be held to define the focus of the study, and to formulate the prerequisites for drawing up a labour and skills forecast. Background statistics of the sector will be collected.
2. **Analysis and interpretation of data.** Based on the research question, the impact of trends on employment and skills needs as well as background statistics in the sector will be analysed. Data is analysed and interpreted in order to produce the sectoral forecast of changes in employment, labour supply and skills needs.
3. **Development of conclusions and recommendations, preparation of the study report.** including the identification of bottlenecks, development of recommendations and observations affecting labour and skills anticipation in the sector. The priority of problems and possible solutions will be discussed with SEP.

The **implementation of the recommendations** formulated in the sectoral studies will be monitored concentrating on significant changes in the sector, receiving feedback on the obstacles to the implementation of the proposals, etc. The monitoring process may also provide information on the need for thematic studies. Monitoring will start approximately two years after the publication of the study. The feedback is provided by the organisations implementing the recommendations. The OSKA study team will analyse the feedback with the sectoral expert panel and assess whether the implemented activities have alleviated the bottlenecks identified.

General forecasts

The objective of the general forecast is to assess the balance of labour and skills demand and supply in Estonia across OSKA sectors, occupational groups, curriculum groups, and by labour demand and supply components. The OSKA general report outlines the labour and skills forecast, labour demand-supply balance and related bottlenecks, outlines opportunities and recommendations to alleviate labour demand and supply mismatches.

The general forecast is based on the OSKA Data Model. The general forecast shall be drawn up in a ten-year perspective, taking into account the change in the number of foreseeable jobs, the need to replace retirees and the labour needs arising from labour turnover, temporary exit from the labour market and migration. The estimated change in the number of jobs and the additional qualitative information comes from OSKA sectoral studies. The remaining components of the forecast are calculated on the basis of data from different registers.

The results of the general forecast are presented in two forms: **indicator sheets** and **OSKA general report**. Indicator sheets and other web materials are updated annually. The information from the sectoral studies is incorporated in the **indicator sheets** after completion of the study. The general forecast report shall be compiled every three years.

The indicator sheets include indicators related to the labour, wage level, demand and supply of new labour and skills by occupational group, field of study or sector. The general forecast indicator table gives an overall view of the labour forecast, and labour demand and supply. The skill block establishes links with the **Skills Register**, including skills that need to be developed, skills that are in higher demand, skills that pass through, etc.

Thematic studies

The OSKA thematic study may focus on the recurrent bottlenecks identified in OSKA sectoral studies, new labour market patterns, other developments in labour and skills needs and supply, and mapping of problems for which the OSKA sectoral survey methodology or target groups are not suitable. The need for a thematic study and the objective of the study shall be confirmed by the OSKA Coordination Council on the basis of a project proposal prepared by the EQA. The project proposal shall describe the objective, research questions, target group(s), object and methodology of research, expected outcomes and timeline of the thematic study.

The thematic studies will be built around research questions specific for the topic. The methodology of the study depends on the research questions and the objectives of the study. In many cases, OSKA data model and OSKA methodological framework can be used. Where appropriate, relevant cooperation partners (Ministries, educational institutions, employers, Unemployment Insurance Fund, etc.) shall be involved in the conduct of the study.