

SUMMARY

ETF Skills Lab Network of Experts Online Peer Learning Session

PREDICTING SKILL NEEDS: THE OSKA SYSTEM IN ESTONIA
16 September 2024, 10.00 – 12.00 CET

The peer learning session was hosted by OSKA, the jobs and skills forecasting systems of the Estonian labour force. The session addressed how skills anticipation data has been developed to ensure that the scale of any skill mismatches which might occur as a consequence of the green and digital transitions are minimised. The main focus of the session was the OSKA forecasting system, but participants had the chance to also hear about the roles of other actors engaged, such as the Ministry of Economic Affairs, the Estonian Qualification Authority and the Eesti Töötukassa (Estonian public employment service).

Francesca Rosso (ETF) opened the meeting by highlighting the significance of the ETF Skills Lab Network of Experts in fostering collaboration and knowledge exchange on skills anticipation and labour market needs. She emphasised Estonia's pioneering efforts in skills forecasting as an inspiration for other countries and provided updates on upcoming network events, including a major live event in October focusing on the “colours of the economy” as an innovative way to refer to evolving economic and labour market categories. Additionally, she acknowledged the network's third anniversary and expressed gratitude for members' feedback through recent surveys.

Yngve Rosenblad (OSKA) introduced Estonia's comprehensive labour market and skills forecasting system, designed to address challenges such as an aging population, declining workforce, and rapidly evolving economic needs driven by automation, digitalisation, and the green transition. Managed by the Estonian Qualifications Authority, OSKA uses a ten-year horizon to align education with labour market demand by integrating qualitative and quantitative data through sectoral expert panels and a coordination council comprising government, employers, and trade union representatives. The system provides critical insights for education, labour, and migration policies, ensuring curricula are updated to meet societal and economic needs, while fostering the development of relevant skills for sustainable growth.

She emphasised OSKA's evolution from a basic quantitative model into a sophisticated, multi-stakeholder collaboration framework. By offering both short- and long-term forecasts, OSKA supports workforce planning and addresses skills mismatches, promoting cooperation between academia, employers, and policymakers. Its impact extends to guiding educational reforms and preparing Estonia for green and digital transitions, establishing OSKA as a replicable model for countries seeking to address similar workforce challenges.

The second speaker, **Rain Leoma (OSKA)** presented in detail the OSKA system. Initially based on macroeconomic models and labour force surveys in its first round of development (up until 2020), OSKA has evolved into a comprehensive system that integrates qualitative and quantitative inputs. Sectoral studies, guided by expert panels including employers, educators, and policymakers, form the core of

OSKA's methodology. These studies ensure that labour market forecasts align with the real needs of the economy, providing actionable insights for education policy, labour market planning, and economic development.

In its second round (2021–2029), OSKA introduced significant advancements, including an in-house registry-based data model that enables detailed tracking of workforce dynamics such as job inflows and outflows, migration, and educational outcomes. This allows OSKA to produce more precise analyses and identify emerging trends, particularly through topical studies on critical themes like green skills, and COVID-19. The updated methodology also includes follow-up mechanisms to ensure that recommendations are implemented, fostering accountability among stakeholders and enhancing the impact of its findings.

OSKA's adaptability and evidence-based approach make it a model for other countries seeking to address workforce challenges in a rapidly changing economic landscape. By connecting education systems with labour market demands and providing long-term forecasts, OSKA supports sustainable workforce development and economic growth. Its collaborative structure and focus on aligning policies with practical needs highlight the importance of integrated planning in addressing global labour market challenges.

Yngve Rosenblad (OSKA) intervened again, presenting the role of the OSKA system in bridging the gap between labour market needs and educational frameworks. OSKA employs a robust methodology, combining sectoral studies, ad hoc topical studies, and a registry-based data model to provide precise analyses of workforce dynamics. By aligning vocational and higher education curricula with industry demand, OSKA has played a pivotal role in addressing skills mismatches and demographic challenges. The system's findings have influenced significant policy changes, including adjustments to study places and the development of upskilling programs focusing on green and digital skills. These insights also guide active labour market measures, such as reskilling initiatives and career counselling, ensuring education systems remain relevant to labour market demands.

One of OSKA's notable contributions has been its integration into Estonia's vocational education reforms, designed to increase enrolment and address inefficiencies in skill utilisation. The reforms include extending study durations, updating curricula to reflect digital and green economy demands, and introducing self-funding requirements for certain adult learners to ensure resource efficiency. Additionally, OSKA's collaboration with the Estonian Unemployment Insurance Fund has enabled targeted support for training and workforce development, ensuring resources are allocated effectively. These measures exemplify how OSKA's data-driven approach informs both immediate and long-term workforce strategies.

Through its adaptable framework and engagement with stakeholders, OSKA continues to enhance Estonia's workforce planning. Its topical studies on critical issues such as foreign labour needs and green transition strategies provide policymakers with actionable recommendations. By facilitating evidence-based decisions and fostering cooperation between policymakers, educators, and employers, OSKA serves as a model for workforce planning systems. Its integration of qualitative and quantitative data ensures Estonia's education and labour market policies are well-positioned to support sustainable economic growth and adapt to future challenges.

Finally, **Rain Leoma (OSKA)** provided an overview of OSKA's online tools and resources aimed at making labour market and skills forecasting data accessible and interactive. These include dynamic web pages with downloadable datasets, customisable charts, and traffic charts comparing occupational and sectoral statistics. He also introduced the upcoming Skills Compass system, which allows users to explore job and skill matches, analyse mismatches, and receive personalised training suggestions. Although still evolving, the system aspires to integrate registry data to offer tailored career recommendations and validate users' skills for future employment.

In the Q&A session moderated by **Najib Hamouti** (Skills Lab Network facilitator) participants had the opportunity to discuss with speakers on a number of issues, including communication and cooperation mechanisms in place, the relationships with education providers, and OSKA's funding mechanisms,

Cristiana Burzio (ETF) emphasised the success of Estonia's OSKA system, highlighting its sector-specific methodology, evidence-based data, and strong stakeholder collaboration as key factors making it one of the most advanced in Europe. She thanked the speakers and participants for their engagement.

Resources

All presentations and material presented at the event can be found at:

<https://openspace.etf.europa.eu/events/predicting-skill-needs-oska-system-estonia>

Materials shared by the speakers on labour and skills needs by economic sectors:

<https://uuringud.oska.kutsekoda.ee/>

OSKA website (in English):

<https://oska.kutsekoda.ee/en/>

OSKA YouTube channel:

<https://www.youtube.com/@sakutsekoda6095>