European Commission

PACT FOR SKILLS

‘UP- AND RESKILLING FOR THE DIGITAL AND GREEN TRANSITION’

Peer Learning Activity | 18 September 2025

The European Commission organised a Peer Learning Activity on 18 September 2025, as part of its ongoing efforts to create opportunities for Pact members to discuss and share ideas and practices within the Pact for Skills community. Practical example presentations and breakout room discussions allowed participants to deepen their knowledge on the topic and reflect on the benefits and challenges of upskilling and reskilling initiatives for the twin transition.

Key messages

In the face of continuous global challenges such as demographic shifts, climate change, the green and digital transition, and the widening skills gap in adult basic competencies, the need for effective upskilling and reskilling strategies has never been more critical. The European labour market is evolving at an unprecedented pace, with rapid changes in skills requirements and persistent labour shortages.

The peer learning activity 'Up- and reskilling for the digital and green transition' on 18 September 2025 concentrated on the twin (green and digital) transition, discussing challenges faced by Pact for Skills members, exploring how to leverage these changes for up- and reskilling of the European workforce, by showcasing examples from the Pact for Skills community.

Pact for Skills members had the opportunity to hear from experienced members and discuss ideas on how upskilling and reskilling can help people to acquire digital and green skills needed in changing workplaces. The PLA included discussions on perceived obstacles and success factors in securing/ retaining/creating jobs for the green and digital transition, good practice examples and approaches from Pact for Skills members, as well as lessons learned and recommendations.

Discussions held during the event highlighted the importance of developing accessible, well-timed training programmes that allow participation alongside work commitments and foster co-learning formats where participants can exchange knowledge and experiences. Another area where collaborations can bring key benefits is in building flexible, short, and targeted training offers that respond quickly to fast-changing labour market requirements, particularly in the context of the green and digital transition. Participants reflected on the challenge of entrenched institutional structures, such as guilds and highly regulated professions. Discussions also highlighted the strong convergence of themes across diverse projects and sectors, underlining how targeted upskilling and reskilling can empower enterprise owners and workers to contribute directly to Europe's twin transition while simultaneously strengthening individual businesses and supporting broader societal goals.

The twin transition: Fostering competitiveness and climate neutrality in the EU

As climate change and environmental degradation represent continuous existential threats to both the European Union and the planet at large, at the same time, the rapid advancement of digital technologies including examples like AI, blockchain, or cloud computing, ushers' transformative societal shifts. The green and digital transitions are deeply interconnected: they hold great potential to reinforce one another, but also present risks of tension and trade-offs. While digital innovation can help cut emissions, optimise resource use, and enable smarter energy systems, it may also increase energy demand and material consumption.

The EU, in line with the European Green Deal (2019) wants to achieve climate neutrality by 2050. Meeting this ambition requires a balanced approach out of maximising digital solutions that advance sustainability while simultaneously ensuring to minimise their environmental footprint. This dual challenge underpins EU policy efforts and has led to integrated strategies that aim to align industrial growth with both climate objectives and technological progress. A central focus in recent years evolved to not only achieve climate neutrality but also strengthening the EU's competitiveness on the global stage. The Green Deal Industrial Plan (2023) sets out this vision, aiming to create the right framework for scaling up clean technologies, fostering innovation, and ensuring that European industry remains a leader in the transition to a net-zero economy.

EU Framework guiding the twin transition

The most recent comprehensive EU framework plan that takes the dual transition into account is the Green Deal Industrial Plan of 2023, was introduced to enhance the competitiveness of Europe's net-zero industry and accelerate the on-going shift to climate neutrality. Its overarching aim, besides achieving climate neutrality, is to enable an environment for scaling up manufacturing capacity within the EU and igniting a clean-tech revolution.

The Plan complements ongoing measures under the European Green Deal and REPowerEU, ensuring policy coherence and reinforcing the Union's long-term strategic objectives to strengthen resilience, safeguard strategic autonomy in key sectors, and foster sustainable, inclusive economic growth.

The Green Deal Industrial Plan recognises that the success of the green and digital transitions depends not only on technology and investment but also on equipping people with the right skills. As seen under Pillar 3, strengthening upskilling and reskilling opportunities across sectors most affected by the twin transitions is one major focus. This includes the establishment of Net-Zero Industry Academies to provide targeted training programmes in strategic clean-tech areas such as raw materials, hydrogen, solar technologies, and sustainable construction. A "skills-first" approach is promoted, placing greater value on practical competencies and experience rather than solely on formal qualifications, thereby enabling more flexible and inclusive pathways into green and digital jobs.

In parallel, the Plan emphasises the need to attract and retain skilled talent, including from outside the EU, by facilitating access to the European labour market in key sectors and exploring new instruments such as an EU Talent Pool. To ensure that the scale of the challenge is met, the Plan also calls for closer alignment of public and private investment in skills development, for instance by creating incentives for companies to invest in training their workforce.

The Plan aims to ensure that Europe's workforce is prepared to drive and sustain the clean-tech revolution, reinforcing both climate neutrality objectives and the EU's global competitiveness.

The twin transition and the Pact for Skills community

Green and digital transitions are reshaping Europe's industrial ecosystems, making upskilling and reskilling essential to ensure a resilient, competitive, and future-ready workforce. With over 3,200 members, 20 Large-scale Skills Partnerships (LSPs), and 18 Regional Skills Partnerships (RSPs), the Pact for Skills brings together a wide range of stakeholders to drive joint public–private action at both sectoral and regional levels.

By uniting industry, education and training providers, social partners, and public authorities, the Pact plays a pivotal role in identifying sector-specific skills needs and co-developing targeted solutions, such as micro-credentials. These initiatives enable workers to acquire the new skills required to meet emerging challenges in the green and digital economy.

The Pact's collaborative approach fosters innovation and scale. Through peer learning, knowledge sharing, and cross-European cooperation, members can exchange concrete practices—from newly launched initiatives to well-established projects, accelerating the design and delivery of effective reskilling and upskilling opportunities.

In this way, the Pact for Skills can aid in fostering Europe's response to the green and digital transition, ensuring that workers and businesses alike are equipped to thrive in rapidly evolving ecosystems.

Up- and reskilling in practice: challenges and opportunities

The PLA provided participants an opportunity to hear insights and reflections from three different perspectives on tackling the up- and reskilling in the green and digital transition. Presentation by in total three LSP representatives offered insights into how collaborative work can help tailor approaches in up- and reskilling developments in the digital and green transitions to the needs of specific industries. 182 participants were present, with a few descending after the introduction of the break-out sessions.

EU initiatives to support VET and the twin transition

Melina Tasiovasilis, Policy Officer for Skills in Green and Digital Innovation (DG EMPL), opened the PLA with a presentation on the European approach to up- and reskilling in vocational education and training (VET) to support the digital and green transitions. She underlined the urgent need for AI and digital skills across the workforce and VET's pivotal role in equipping learners for these evolving demands. Her presentation highlighted EU policy frameworks, funding tools, and research showing how AI can improve personalization, teaching, and institutional efficiency, while emphasizing the importance of teacher training and inclusive access. She also showcased how VET contributes to the green transition through European working groups, peer learning activities, and Centres of Vocational Excellence, which strengthen collaboration, develop innovative practices, and deliver the skills needed for a competitive and sustainable future.

Training for tomorrow: building Europe's clean heating workforce

In the first Pact presentation, Amber Riedl, Managing Director, presented Ohne Hände keine Wende (OHKW), a project coming from the Large-Scale Partnership on Renewable Energy Skills. OHKW (also known as *Klimajobs – climate jobs*) has developed fast-track training programmes that are tailored to urgent labour market needs in the heating pump sector in Germany. These short, standardised courses are designed primarily for career changers and lateral entrants, offering them accessible pathways into renewable energy occupations and enabling them to build careers step by step.

Riedl underlined the crucial role of skills development in Europe's clean energy transition. The heat pump sector already provides more than 400,000 direct and indirect jobs, making Europe a global leader in this field. With the potential for many more jobs, the expansion of manufacturing and installation capacity is essential for reducing dependence on imported fossil fuels and for decarbonising industry. Achieving these ambitions, however, depends not only on stable long-term policies to stimulate demand and secure competitiveness, but also on the timely availability of skilled workers. Drawing on the experience of OHKW, she highlighted that training programmes must be accessible and well timed, allowing participation alongside work commitments, and should foster co-learning formats where participants benefit from exchanging knowledge and experiences. Moreover, effective programmes require a clear understanding of the target group and should strike a balance between being short and focused while remaining embedded in broader career ladders. By making use of division of labour and welcoming lateral entrants, productivity and inclusiveness can be increased at the same time.

Overall, her contribution showed how urgent skills needs in the renewable energy sector can be met through rapid and targeted interventions, while also laying the groundwork for sustainable long-term career opportunities. This approach illustrates how reskilling and upskilling strategies can both accelerate energy transition and secure Europe's position as a leader in climate-related jobs.

Interoperable Data Skills for the Green and Digital Transition

In the second presentation, Lisa Bilotti from Epsilon Italia introduced the DIS4SME project, which is co-funded under the Digital Europe Programme and dedicated to developing short courses on data interoperability[1] for small and medium-sized enterprises (SMEs). The project responds to the growing need for SMEs to acquire the capacity to exchange and reuse data effectively, particularly in relation to geographical and location-based information. By equipping SME owners and staff with these skills, the project seeks to support entrepreneurial potential, strengthen digital transformation strategies, and make businesses more resilient in the context of the green and digital transition.

In Europe, large-scale databases already operate in fields such as migration, asylum, and internal security, yet they were initially designed for separate purposes. Increasingly, however, efforts are being made to link these systems, creating a more coherent European Single Market for Data. This larger policy vision frames the work of DIS4SME, which focuses on non-formal training and the delivery of micro-credentials outside traditional academic structures.

The implications of interoperability extend far beyond the digital economy. Reliable and secure data exchange enables evidence-based climate action, supports sustainable resource management, and provides the foundation for innovations such as digital twins and smart communities. Without the skills to harmonise, manage, and safeguard such data, Europe risks falling behind in the race for global competitiveness in a data-driven world.

Against this backdrop, the DIS4SME courses, demonstrate how targeted upskilling and reskilling can empower SME owners and workers to contribute directly to Europe's twin transition. By focusing on

[1] Interoperability refers to the ability of different information systems to communicate with one another, enabling the exchange of relevant data without compromising privacy or data protection

practical competences in location data interoperability and designing flexible, non-formal training offers, the project shows how skills development can both strengthen individual businesses and support broader societal goals.

Smart Grids Skills: Building a Future-Ready Energy Workforce

The final presentation was delivered by Fernando de Cuadra and introduced the SG-SKILL project (active in the Large-Scale Partnership on the Digitalisation of the Energy System). As Europe's power systems undergo rapid digitalisation, the need for a new generation of professionals has become urgent. Goal of the project is training needs for smart grids areas, full value chains, adaption of existing networks, training programmes matching demand and supply, systematic and replicable methodology to achieve those skills, sustainable action plan and applying methodology beyond the project

Smart grids represent one of the most ambitious infrastructure transformations of our time: networks must become flexible, digitalised, and decarbonised in order to integrate renewable energy sources and respond to real-time demands. To achieve this, Europe requires an energy workforce that combines strong technical competences with the ability to operate new digital tools, manage increasingly complex systems, and work across disciplines.

De Cuadra underlined that this transformation will not succeed without major investment in skills. Preparing the workforce involves both retraining today's professionals and equipping the next generation with future-oriented curricula. Updating existing programmes and developing new training pathways is therefore essential to ensure that the energy workforce can meet the challenges of decarbonisation and system integration.

The SG-SKILL project, building on the earlier EDDIE initiative, is designed to provide precisely this foundation. It delivers a Blueprint Strategy for the smart grids sector while fostering strong cooperation between industry, education providers, and policymakers. The project's ambition is to establish sustainable structures that facilitate networking, knowledge sharing, and alignment between training provision and labour market needs. By covering the entire value chain of smart grids, SG-SKILL identifies training needs, adapts existing programmes, and creates systematic and replicable methodologies to match skills demand and supply. Importantly, the project aims not only to generate a sustainable action plan for the energy sector but also to ensure that its methodology can be applied beyond the immediate scope of the project.

Key take aways and insights from breakout groups discussions

The three breakout sessions revealed a strong convergence of themes despite focusing on different projects and sectors. A central takeaway was the need for **flexible, short, and targeted training offers** that can **adapt quickly** to fast-changing labour market requirements, particularly in the context of the green and digital transitions. Equally important was the **role of partnerships** across VET providers, companies, academia, NGOs, and sector organisations, which enable co-creation of training materials, ensure relevance, and facilitate uptake. Participants also emphasised the barriers created by entrenched institutional structures, such as guilds or highly regulated professions, which often slow down innovation and adaptation.

In one discussion, participants stressed that while in some member states like Bulgaria, e.g. teachers are obliged to upskill annually, however fewer than 20% of companies invest in training, often outside paid time, highlighting that cultural attitudes and incentives matter more than formal partnerships, and that NGOs and support organisations play a vital role in revealing hidden skill gaps to employers.

To keep learners motivated and enable real career progression, the **validation of prior learning** and certification of skills were seen as indispensable. Across all sessions, there was agreement that practical, labour-market aligned solutions, built on collaboration and trust among diverse actors, are key to driving reskilling and upskilling forward in the digital and green transition and to ensuring Europe's competitiveness in the global market.