Issues Note

Clean Tech Made in Europe: Need for Skills

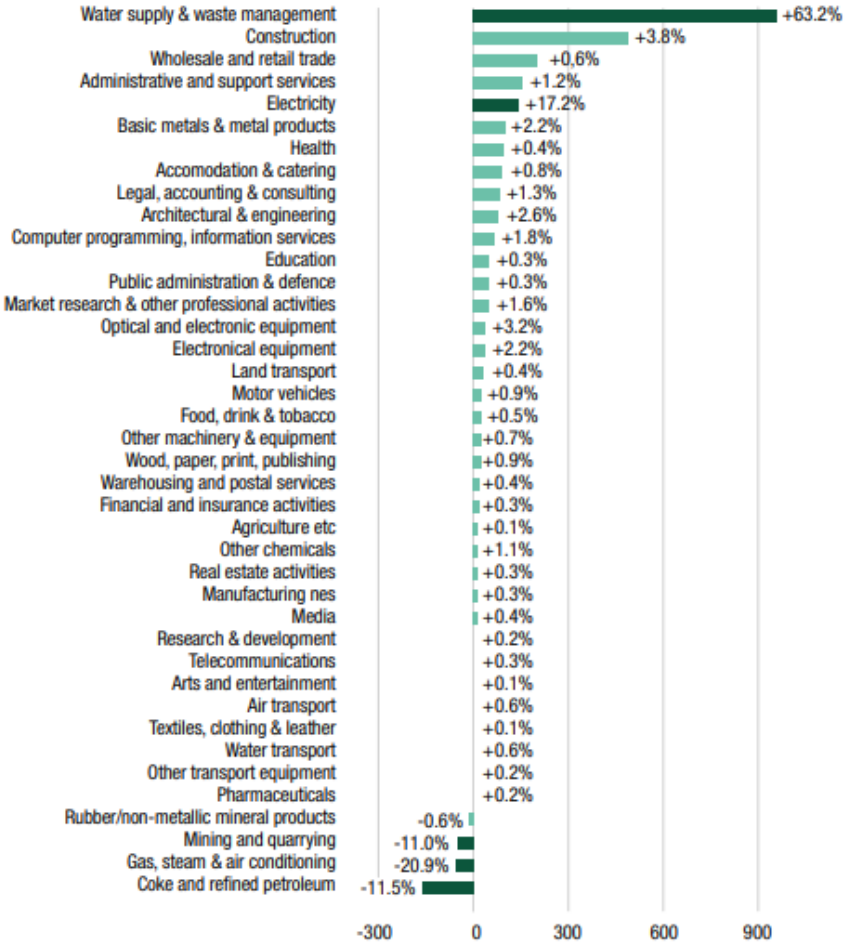
The third pillar of the **Green Deal Industrial Plan for the Net-Zero Age** is dedicated to developing the skills needed to achieve the green transition. The European economy counted 4.5 million green jobs in 2019, up from 3.2 million in 2000. In this context, technological progress is transforming the global ecosystem: with the influx of new technologies comes the increased need for an upskilled as well as reskilled workforce.

The EU unemployment rate at 6% on average is encouragingly low, but the workforce would nevertheless benefit from future-oriented qualifications: youth unemployment is at 14%, female participation in the labour force is at 69% (while male reaches 80%) and older employees only participate in the labour market at a rate of 48%. Between 35% and 40% of all jobs could be affected by the green transition, while alone in the battery industry, 800,000 workers will need to be up- and reskilled by 2025. To address the latter, a new **European Battery Academy** was established to equip workers with the skills needed for this strategic industry. The European Commission supports the Academy with a grant of €10 million under REACT-EU. The Academy aims to effectively coordinate upskilling and reskilling efforts at European level and to provide for the immediate roll out of high-quality training across Member States. It is part of the **overarching European Skills Agenda**, the **Pact for Skills**, a shared engagement model for skills development in Europe. In addition, within the **European Year of Skills 2023**, the Commission proposed the establishment of **Net-Zero Industry Academies** to roll out up- and reskilling programmes in strategic industries for the green transition, such as raw materials, hydrogen and solar technologies. Another measure aims at increasing science, technology, engineering and maths (STEM) graduates, fostering entrepreneurial and transversal skills. With a special focus on encouraging **women's participation in STEM**, Erasmus+ funds guidance and mentorship programmes for female students. Lastly, to support EU regions most affected by the sharp decline in working age population, the Commission launched the **Talent Booster Mechanism**, which aims to train, retain and attract workers and prevent new or increased territorial disparities in the EU.

Questions for discussion

1. *What initiatives has Europe taken, and what does it still need to lead the green skills revolution?*
2. *What does it require to achieve a comprehensive approach to skills matching, in order to achieve a just transition for workers and a smooth transition for industries and countries?*
3. *How can digital skills be used as an enabler for up- and reskilling green jobs?*

Figure 3. **Forecast employment impact of the EGD (difference between EGD skills forecast scenario and baseline in 000s and %) by detailed sector, EU-27**



NB: The percentages indicate the difference in forecast employment growth or decline (in %) between EGD and baseline scenario. Dark shaded bars indicate substantial differences (+/- 10% or more).

Source: Cedefop skills forecast, 2020 baseline and EGD scenario estimates.

EGD = European Green Deal

Table 8.1. Different approaches for defining "green" jobs

Approach	Definition
Policy-driven	A job that is in demand because of the implementation of climate change policies
Process-based	A job in an establishment that uses green production processes and practices
Output-based	A job in an establishment that produces green goods and services, i.e. that generate little harm to the environment while produced or consumed
Task-based	A job that is intensive in green tasks

Source: Elaboration on OECD Skills Outlook (forthcoming[22]).