



GREEN DEAL INDUSTRIAL PLAN - PLUGGING THE SKILLS GAP

February 2023

THE SITUATION

4.5 million
jobs in the
environmental
economy



Up to 40% of European workers are contributing to the green transition. In 2019, there were **4.5 million jobs in the environmental economy** - up from 3.2 million in 2000.



Labour shortages doubled between 2015 and 2021 in key sectors and jobs for the green transition.

1 million
additional
jobs



The **green transition could create up to 1 million additional jobs** in the EU by 2030.

For example: in 2021 the **solar energy sector** added 100,000 jobs, bringing the total to 460,000 jobs. By 2030, solar energy employment could reach 1 million jobs .



Battery sector: approximately 800,000 workers will need to be trained, upskilled, or reskilled by 2025 to meet the demand of this sector for new workers – a staggering 160,000 workers to be trained every year

€65 billion
in training



EU funds are investing around **€65 billion in training.**



Top 5 fastest growing green jobs globally in 2016-2021 (in terms of annual growth)



Sustainability
Manager
(30%)



Wind Turbine
Technician
(24%)



Solar
Consultant
(23%)



Ecologist
(22%)



Environmental
Health and
Safety Specialist
(20%)

BOOSTING SKILLS ACROSS SECTORS

As part of the [European Skills Agenda](#), the [Pact for Skills](#) helps public and private organisations **commit to training and investing in reskilling workers.**



Automotive industry: around **700,000 workers** in the supply chain will be trained each year on new sustainable and digital technologies.



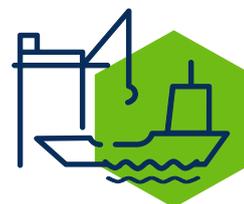
Construction sector: at least 25% of the workforce in the next 5 years, with a target of **3 million workers**, will be upskilled or reskilled.



Offshore renewable energy: between **20,000 and 54,000 new workers** will be trained by 2025.



Cultural and Creative Industries: partners committed to provide skills trainings on digital, green, entrepreneurial and technical skills as well as on arts and crafts, in particular for young people.



Shipbuilding: more than **200,000 workers** will be reskilled to help the European shipbuilding and maritime technology industry achieve the goals to deliver smart, zero-emission ships and technologies by 2030.

BRIDGING THE SKILLS GAP: FURTHER EU ACTIONS

EXISTING INITIATIVES

- ✓ With the [Recommendation on ensuring a fair transition towards climate neutrality](#), all EU countries commit to systematically equipping people with the skills needed in a greening economy.
- ✓ The [European Alliance for Apprenticeships](#) (EAfA) unites governments, companies and key stakeholders to strengthen the quality, supply, and overall image of apprenticeships across Europe. The Alliance has also launched an [online training module on the role of apprenticeships in the green transition](#).
- ✓ The [Blueprint alliances](#), funded by Erasmus+, help design concrete education and training solutions within an industrial sector. For instance, sectoral partners identify the jobs and skills needs for the digital and green transitions.
- ✓ Aligned with the [European Research Area for clean hydrogen](#), the **project Skills4H2**, funded through ERASMUS+, brings together research, industry, and academia to assess the skills and jobs needed for the EU's green hydrogen economy.
- ✓ [Centres for vocational excellence](#), also Erasmus+ funded, are networks of partners that develop local "skills ecosystems" to provide high quality vocational skills to young people and adults. For example, POVE Water scale-up, a joint initiative of VET schools, water industry professionals, academia and others, aim to provide the competences needed for the current and future water sector.
- ✓ A [classification system of skills for the green transition](#) includes 381 skills, 185 knowledge concepts and 5 transversal skills considered most relevant for a greener labour market.
- ✓ [GreenComp](#) is a reference framework for sustainability competences that provides a common ground to learners and guidance to educators.
- ✓ The [European Institute of Innovation and Technology \(EIT\) Campus](#) provides courses, workshops and e-learning programmes support skills development towards a more digital, greener and healthier Europe, covering the areas of climate, food, health, raw materials, energy, manufacturing, urban mobility and culture & creativity.
- ✓ With the [EU Skills and Talent Package](#) and the [Labour Migration Platform](#), the Commission is advancing **labour migration policy** as part of a policy mix to help tackle labour and skills shortages in Member States.



UPCOMING EU ACTIONS

- ➔ The Commission is working with Member States to better measure, monitor and analyse developments in green jobs and skills for the green transition. The Commission also steps up cooperation with the International Labour Organization to better identify “green jobs” and analyse labour and skills shortages in the twin transition.
- ➔ With **blue careers for a sustainable blue economy**, the EU will fund projects to develop the next generation of blue skills, and to provide opportunities for attractive, sustainable maritime careers.
- ➔ The **European Solar Photovoltaic Industry Alliance** will build resilience and strategic autonomy for Europe’s solar photovoltaic value chain. It will identify barriers, opportunities, and investment possibilities, while also exploring and developing solar skills.
- ➔ The Commission will propose to establish **Net-Zero Industry Academies** to roll out up-skilling and re-skilling programmes in strategic industries for the green transition, such as raw materials, hydrogen and solar technologies.
- ➔ A **New European Bauhaus Academy** will promote skills to accelerate the transition towards sustainable construction highlighting the use of bio-based materials.
- ➔ **Onshore renewable energy**: a new partnership under the Pact for Skills is in the making to help train workers.
- ➔ A **Heat Pumps skills partnership** will be established by the end of this year and efforts are under way to create a skills partnership on energy efficiency.
- ➔ The Commission will adopt a **digital education and skills package** to improve digital skills, including those needed for the green transition, as well as digital education and training.

