

WORK-BASED LEARNING AND THE GREEN TRANSITION



Inter-Agency Working Group on Work-based Learning

The Inter-Agency Working Group on Work-based Learning (WBL) was set up in 2015 with the aim of:

- (a) sharing and discussing WBL-related activities respectively conducted by its members;
- (b) identifying emerging trends and further areas for knowledge creation, monitoring and advocacy about WBL; and
- (c) developing joint products/tools to enhance cooperation in the field of WBL

Members of the working group include the European Centre for the Development of Vocational Training (Cedefop), the European Commission, the European Training Foundation (ETF), the International Labor Organisation (ILO), the Organisation for Economic Cooperation and Development (OECD), and the United Nations Educational, Scientific and Cultural Organisation (UNESCO).

The working group is a subgroup of the Inter-Agency Group on Technical and Vocational Education and Training.

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THE GREEN TRANSITION IS CHANGING SKILL NEEDS

Climate change is one of the greatest challenges facing today's society. Changes in our behaviour and in our consumption and production patterns are needed to limit the rise in global temperatures. Transition to a greener economy and society will require actions on many fronts. While advances in climate change adaptation and mitigation are happening, there is a general consensus that we are not acting fast enough.

The benefits of investing in the green transition go beyond cleaner air and restored natural resources. The transition can contribute to economic growth and job creation: certain green sectors, such as those related to clean energy, are growing quickly. New types of jobs are being created, such as electric vehicle charging station installer, waste manager officer, solar power technician and sustainability officer. Many existing jobs are changing, as cleaner technologies and greener work processes are being adopted. For example, a car mechanic will also increasingly need to carry out repair and maintenance of hybrid or fully electrical cars. At the same



time, some sectors will face jobs losses, as societies move away from polluting activities. Workers in the fossil fuel sector, for example, are at risk of seeing their jobs disappear.

These trends in the labour market translate into changing skill needs. The new jobs that are being created often have different skills requirements from the ones that are disappearing. The changes in current jobs imply that the skillsets needed for those jobs are also evolving. Greener economies and societies cause people to think and behave consciously about the impact of their actions on the planet, i.e. to develop green values and attitudes. There are many definitions of 'skills for the green transition', and most share that they refer to a broad set of technical and transversal skills that will be driven by, or contribute to, the green transition (Box 1).

Education and training systems should support the green transition: first, by equipping young learners with the skills needed to navigate a greener economy and society; second, by giving adults an opportunity to adapt to – and ideally anticipate – changes that result from the transition.

Vocational education and training (VET) has a key role to play in this respect. High-quality VET enables young learners to make a successful transition from education and training into work. It prepares learners for the labour market, and should therefore ensure that the skills it develops correspond to those needed in a greener economy. VET is also vital for providing opportunities for upskilling and reskilling of adults: it can support workers who are



faced with changes in their job due to the green transition or who need to move into a new – greener – job. It can also support employers who need to identify training opportunities for their employees, in the context of the introduction of green technologies or other changes arising because of the green transition, such as making existing processes more energy-efficient or the production of goods, services or products less resource-intensive. As VET lies at the intersection of the education and training sector and the world of work, it is well-placed to respond to – but also enable – the green transition.



Box 1. **Defining 'skills for the green transitions'**

'Skills for the green transition' include skills and competences but also knowledge, abilities, values and attitudes needed to live, work and act in resource-efficient and sustainable economies and societies. They are:

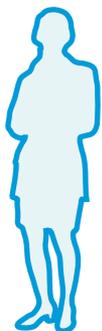
- ✓ technical: required to adapt or implement standards, processes, services, products and technologies to protect ecosystems and biodiversity, and to reduce energy, materials and water consumption. Technical skills can be occupation-specific or cross-sectoral;
- ✓ transversal: linked to sustainable thinking and acting, relevant to work (in all economic sectors and occupations) and life. Alternatively referred to as 'sustainability competences', 'life skills', 'soft skills' or 'core skills'.

Source: Based on the definitions of the members of the IAG-TVET working group on WBL, as agreed in 2022.



WORK-BASED LEARNING: AN ASSET FOR THE GREEN TRANSITION

A combination of learning venues and methods can provide learners with opportunities to develop 'skills for the green transition'. Work-based learning (WBL), particularly apprenticeships, thanks to their structured in-company training component and adequate pedagogical support, can be part of the skills solution.



Box 2. Defining work-based learning

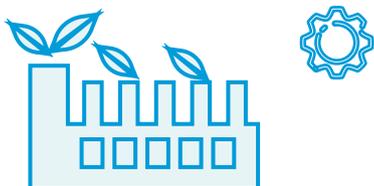
Work-based learning refers to all forms of learning that takes place in a real work environment. It provides individuals with the skills needed to obtain and keep jobs and progress in their professional development. Apprenticeships, internships/traineeships and on-the-job training are the most common types of work-based learning.

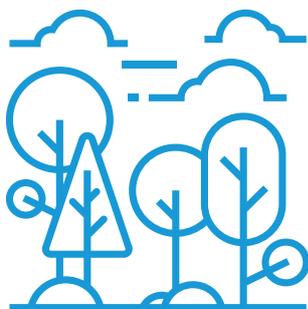
- ✓ Apprenticeships provide occupational skills and typically lead to a recognised qualification. They combine learning in the workplace with school-based learning in a structured way. In most cases, apprenticeships last several years. Most often the apprentice is considered an employee and has a work contract and a salary.
- ✓ Traineeships and internships are workplace training periods that complement formal or non-formal education and training programmes. They may last from a few days or weeks to months. They may or may not include a work contract and payment.
- ✓ On-the-job training takes place in the normal work environment. It is the most common type of work-based learning throughout an individual's working life.

These types usually – but not always – combine elements of learning in the workplace with classroom-based learning.

Source: [Working Group on work-based learning of the Interagency Group on Technical and Vocational Education and Training](#).

Learning at the workplace offers learners direct access to the innovative practices and technologies brought about by the green transition. It directly exposes them to changes as they happen at the workplace. WBL can offer learners an opportunity to develop, while working, the skills needed for the green transition – both technical and transversal ones – which broaden learners' understanding of a 'greener' way of working and living, in addition to raising awareness of environmental issues (Box 1).





Given that WBL is a powerful tool for promoting lifelong learning and adaptability to change, it can prepare learners in initial VET (IVET) for the 'greener' labour markets of tomorrow. WBL may empower young people to become agents of change, relaying green innovation from schools to companies and vice versa in daily learning and working activities. In this way, learners and the wider VET system, including VET leaders, teachers and supporting staff working at learning venues, can trigger cross-fertilisation between learning venues in relation to greening processes and products, as well as new ways of thinking. If the right conditions are met (see pages 10-12), WBL may deploy its effects also in terms of young people's employability and wage premiums.

Structured WBL in continuing VET (CVET) can help adults whose skills are no longer needed in a greener labour market to shift from declining to growing sectors or occupations by providing opportunities to up- and reskill. In this context, WBL can offer adults flexible learning opportunities, typically more in line with the needs of those who are already in the labour market or trying to (re)access it.



WBL in VET can be part of the solution both in the short and in the longer term. It can help ease workers' current transitions to new jobs and alleviate the related social and economic costs; and, in parallel, prepare young(er) learners for future skill demands. In the short term, specific training modules that integrate WBL can be set up for certain occupations that will be most affected by the green transition. Such a modular approach may support the adaptation of curricula and aid staff engagement in the change process. This should accompany the changes in jobs and skills: first, by mitigating identified skill mismatches, and second, responding to pressing (local) needs of employers and learners, including vulnerable groups (such as young people not in employment, education or training (NEETs) and early school leavers).

In the longer term, a more systematic and holistic approach to WBL will be needed, one that goes beyond its contribution to higher productivity, sustained growth and competitiveness, and embraces its potential for environmental sustainability. WBL in both IVET and CVET can support the development of skills at all levels and across sectors and occupations, supporting the long-lasting ability of people to get quality jobs and of companies to innovate and be competitive while pursuing the goals of a climate-neutral society.



WORK-BASED LEARNING POTENTIAL FOR THE GREEN TRANSITION

To maximise the positive effects of WBL on the green transition, it has to take place within favourable, conducive and supportive learning contexts at company and system levels, and its design and delivery have to be informed by high-quality intelligence on skills needs.



There are several enabling conditions.

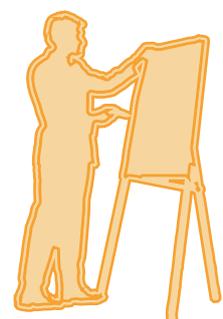
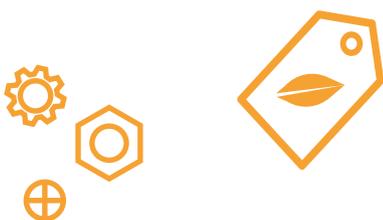
- ✔ **Solid skills intelligence** is needed to make informed decisions. The green transition will continue to change skill needs, with further advancements in technologies and working practices. Understanding these skill needs is crucial for developing relevant WBL opportunities. Big data can complement more traditional information sources to provide more timely and granular information on green skill needs.
- ✔ **Effective coordination among stakeholders**, notably governments, training providers, social partners and learner representatives, in policy- and decision-making, but also at the implementation level, is crucial to ensure that WBL opportunities are aligned with policy priorities for the green transition and with the needs of employers and learners.
- ✔ **Structured and frequent dialogue between training companies and VET providers** allows both venues to learn from each other's good practices, for example in terms of sustainable training delivery modes or the adoption of greener technologies and work practices. It may also foster collaborations and cross-fertilisation that could lead to eco-innovations.
- ✔ **Skilled teachers and trainers** involved in WBL provision need to keep abreast of changing skill needs related to the green transition in order to develop those skills among their learners. Investment in training opportunities for these teachers and trainers is needed.
- ✔ **Commitment of companies to sustainability and WBL** is key. The more work-based learning is integrated into company strategies to tackle the challenges of the green transition, the more stable and effective should be the solutions they can provide at company and at system/society level. Targeted



incentives may help companies to invest in 'skills for the green transition' and to ensure a fair distribution of costs.

- ✔ **Learners of various backgrounds need to be able to reap the benefits of WBL for the green transition.** This will contribute to tackling persistent labour market gaps (e.g. gender imbalance, urban-rural divide). Making WBL for the green transitions work for all may require additional training to close gaps in foundational and/or employability skills, as well as targeted outreach and support for (prospective) learners to overcome obstacles to WBL participation; raising awareness of the need to develop 'skills for the green transition' and the opportunities available is essential. Since many adult workers may have acquired their existing skills, relevant to the green transition, in a non-formal or informal mode, recognition of prior learning processes and instruments are needed.
- ✔ **High-quality career guidance systems** that orient individuals towards training for sustainable jobs are vital to improving participation in WBL that addresses the needs of the green transition. Adults leaving jobs in polluting sectors may not be fully aware of the opportunities in emerging green professions and sectors. High-quality career guidance, which is built on accurate skills assessments and provides personalised advice, is important to leverage existing skills and focus training on skill gaps.

The role of WBL should be understood from a systemic perspective, in the ecosystem of the green transition, by exploring synergies with other learning opportunities for the young and adults, in connection with innovation, labour market and industrial policies, without forgetting the educational component needed to change ways of working and living in greener economies and societies.



FURTHER READING

Cedefop

Cedefop (2022). Briefing note: an ally in the green transition.

Cedefop and OECD (2022). Apprenticeships for greener economies and societies.

Cedefop (2021). Digital, greener and more resilient: insights from Cedefop's European skills forecast.

Cedefop (2021). The green employment and skills transformation: insights from a European Green Deal skills forecast scenario.

Cedefop (2012). Green skills and environmental awareness in vocational education and training.

European Commission (EC)

European Alliance for Apprenticeships (2022). EAFA online training module 8: greening apprenticeships: the role of apprenticeships in the green transition.

European Commission (2021). European Network of Public Employment Services: greening of the labour market: impacts for the Public Employment Services: small scale study.

European Commission (2021). The future of jobs is green: foresight study.



European Commission (2019). *Employment and social developments in Europe: sustainable growth for all: choices for the future of social Europe: annual review 2019*.

ETF

ETF (2021). *Building lifelong learning systems: skills for green and inclusive societies in the digital era: conference conclusions*.

ETF and UNICEF (2021). *Building a resilient generation in Central Asia and Europe: youth views on lifelong learning, inclusion, and the green transition*.

ILO

ILO (2022). *Greening TVET and skills development: a practical guidance tool*.

ILO (2019). *Skills for a greener future: a global view*.

ILO (2019). *Skills for a greener future: challenges and enabling factors to achieve a just transition*.

ILO (2016). *Guidelines for a just transition towards environmentally sustainable economies and societies for all*.

ILO (2015). *Anticipating skill needs for green jobs: a practical guide*.



OECD

OECD (2021). *The inequalities-environment nexus: towards a people-centred green transition*. OECD Green Growth Papers, No 2021/01.

OECD (2020). *Building back better: a sustainable, resilient recovery after COVID-19: OECD policy responses to Coronavirus (COVID-19)*.

Chateau, J. and Mavroeidi, E. (2020). *The jobs potential of a transition towards a resource efficient and circular economy*. OECD Environment Working Papers, No 167.

OECD and Cedefop (2014). *Greener skills and jobs*. OECD Green Growth Studies.

UNESCO

UNESCO-UNEVOC (2021). *Skills development and climate change action plans: enhancing TVET's contributions*.

UNESCO-UNEVOC, Sgarzi, M. (2021). *New qualifications and competencies for future-oriented TVET (Volume 2): TVET advocacy: ensuring multi-stakeholder participation*.

UNESCO-UNEVOC, et al. (2018). *Advancing a green human capital: a framework for policy analysis and guidance*.

UNESCO-UNEVOC (2017). *Greening technical and vocational education and training: a practical guide for institutions*.



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