



Workshop 3: VET and skills for a green deal and new digital age

Our world is in transformation. Europe must lead the transition to a healthy planet and a new digital world by connecting people and upgrading the social market economy.

Climate change is impacting our planet. Europe wants to lead and strives to be the first climate-neutral continent by 2050, based on a more sustainable resource use, reducing dependency from energy imports and creating a circular economy. The success of EU becoming a climate neutral economy by 2050 is strongly associated with the development of its human capital. Digital transformation is a necessity and an important aspect to moving towards a low-carbon economy. Despite all evils, the COVID19 crisis has been an enormous stimulus for massive online working and learning. Moving to a digital world can make Europe more vulnerable, however. To make Europe fit for the digital age, we need to speed up information sharing but also create a safer digital environment.

Moving to a circular and low-carbon economy affects sectoral and occupational structures. It creates new opportunities but also challenges for declining sectors and will cause recruitment bottlenecks. All economic sectors are affected, with some resource and energy-intensive sectors like heavy industries, mining, textiles and construction severely. The shift to a low-carbon economy creates employment opportunities, but also leads to the decline of traditional industries with some activities disappearing. New skills and competences are required in new and changing jobs.

Green skills have to be functional and set in the context of the real world. While digital skills are generally well understood, there is no accepted definition of green skills. Generic skills such as autonomy and communication skills are critical as well as generic green skills in such areas as waste reduction, energy and resource efficiency. There are new occupations emerging, such as builders working with sustainable materials and methods. Specialized green skills can transform existing occupations but, in most cases, they need to top up existing profiles.

Automation and digitalisation affect all jobs. They bring fast change to our labour markets, integrating them with international markets and global value chains. They bring new opportunities but also affect existing business. These changes need to be managed to avoid disruptions. This requires attention to cybersecurity, protecting the privacy of citizens, combatting misinformation and improving the labour conditions of platform workers and addressing the human and ethical implications of Artificial Intelligence on our labour markets.

From traditional VET to skills ecosystems

The focus on skills and education and VET is important for a successful green and digital transformation. Human capital development is a strong determinant of how the inherent opportunities are taken and how underlying challenges are addressed. We are not preparing for the future, changes are happening now in real time.

All countries were taken by surprise by the current COVID19 crisis. The interruption of the on-site learning processes was abrupt. Alternative solutions were not easily available. In general education, schools quickly switched to remote teaching and learning online and introduced new applications for online learning and assessment. This was not so easy in VET. Companies closed their doors to apprentices and stagiaires, before shutting down completely. For many occupations, in-company training became impossible to perform. The focus of remote teaching was on general competences. For VET, meaningful digital alternatives were often not available. Some individual VET teachers and trainers, companies, European projects and specialized entities have been developing digital materials for training, but these were not shared enough. The discontinuation of the practical learning threatens the continuity of VET and increases the risks of dropouts. The digital

readiness of VET providers is a critical factor that needs new definitions. In order to improve access a more digital VET provision is needed that provides where possible also alternatives for on-site practical training and assessment.

VET should drive transformation towards connected skills ecosystems. This requires new partnerships at domestic and international level, upgraded VET curricula to accommodate skills and competences for digitalisation and greening, advanced skills intelligence systems and feedback loops and more fit-for-purpose governance arrangements. Existing VET systems will not be able to implement and drive such changes rapidly without a strong private-public partnership. The role of international, sectoral and regional stakeholders needs to be reinforced. The speed of change requires integration of initial and continuing VET systems, better connected between countries and with labour markets, innovation and other types of training providers. VET needs to be accessible for lifelong learners and reach out to groups at risk. It has to respond more flexibly to individual needs and learning pathways.

VET needs to get involved with the restructuring of the economy. Green and digital skills could become an important part of upskilling pathways. In order to allow the workforce to switch more easily from old brown jobs to new green and digital jobs, more targeted and real-time analysis of the change in the demand for labour and skills needs to be in place. Improved labour market and skills intelligence (LMSI) with the use of big data on job advertisements and Artificial Intelligence will help gain a better understanding of what is happening in the world of work and on the VET-to-work transition. With changes in traditional employment structures, the platform economy and the growing importance of SMEs to function in global value chains and taken into account the need to adapt continuously to changing situations, VET needs to support new skill sets such as entrepreneurship in green and digital economy, career management skills and focus more on adaptability and problem solving.

Cooperation and learning from one another has never been as important as it is today. We need to rethink VET by using the potential the internet provides to make learning material available to all, for example by the increased use of open sources and massive open online courses. From common European tools, we could move gradually to sharing more common European resources to address the needs of learners in VET. Teachers and trainers need to be better prepared to teach online and use blended solutions, to coach individual learners and support more active learning. Digital literacy and environmental awareness along with other key competences have to be a foundation for everyone.

Examples of practice

- [Supporting teachers in digital distance learning](#), Sigrid Ester Tani (Estonia).
- [Green Skills in construction and electricity sectors](#), Alptug Calik (Turkey).
- [VET as a facilitator of the 'green' transition](#), Stelina Chatzichristou (Cedefop).

Discussion questions:

- (1) What are countries' existing or needed priorities in making VET digital and green?
- (2) How can involvement of the private sector enhance the transformation from traditional VET to connected skills ecosystems?

As a result of the discussion on their topics, the participants of each workshop will propose up to **two key messages** (suggestions for action) to feed into the European cooperation in VET in the coming years.