

Digital and Green Transition

The combination of the Digital Transition and Green Transition is often referred to as the Twin Transition. This concept highlights the simultaneous digital and green transitions, which mutually reinforce one another. The digital transformation enhances the green transition by enabling various sustainability measures, while the green transition integrates sustainability principles into the digital tra



Digital can support the Green Transition by optimizing energy consumption and logistics and enabling new processes and methods. Many green innovations are based on green technology or the use of artificial intelligence (AI). For instance, in agriculture, AI can boost productivity by enabling precise applications of resources such as water and fertilizers, while reducing the need for pesticides. Digital solutions can also minimize the need for physical spaces and transportation by facilitating remote meetings and online shopping. Energy-intensive industries benefit from monitoring and tracking systems, which provide valuable information for better maintenance, recycling, and reuse of materials.

It is essential to apply **Systems Thinking**, to approach a sustainability from all sides; to consider time, space and context in order to understand how elements interact within and between systems. Additionally, **Critical Thinking** is needed to assess information and arguments, identify assumptions, challenge the status quo, and reflect on how personal, social and cultural backgrounds influence thinking and conclusions.

Questions to ponder:

1. **How to offer learning possibilities for the competences and skills relevant for both, digital transformation and sustainability?**
 - a. Critical thinking
 - b. Systems thinking
 - c. Problem solving
2. **How can digital transformation support sustainability?**
 - a. By virtual communication, meetings and virtual collaboration instead of traveling
 - b. By digital content and materials
 - c. By using digital tools and methods enabling new, more effective processes and new functions
3. **How to promote sustainable digital transformation?**
 - a. What is the added value the digital technology provides?
 - b. How much energy and other resources does the use of the digital technology consume?
 - c. How much energy and other resources does the use of the digital technology save?

For references and more information:

- [The European Green Deal - European Commission](#)
- [JRC Publications Repository - Towards a green & digital future](#)
- [The twin green & digital transition: How sustainable digital technologies could enable a carbon-neutral EU by 2050 - European Commission](#)
- [Digital Competence Framework for Citizens \(DigComp\) - European Commission](#)
- [GreenComp: the European sustainability competence framework - European Commission](#)