

# How to bridge digital and green policy objectives?

## Policy Brief on Bridging digital and green policy objectives

### The twin policy challenge of a digital and green transformation



#### Energy and material need

Data storage, data processing and AI algorithms consume immense energy; its sector environmental footprint is estimated at 5-9% of total global electricity use.



#### Efficiency and flexibility

Digital technologies help monitor and minimise pollution and consumption of energy and materials.



#### E-waste

Discarded electronic equipment is hazardous to the environment and our health. In 2014, 40 million metric tonnes of e-waste were discarded world-wide.



#### Resource efficiency

Digital technologies can support waste reduction and recycling and contribute to sustainable transport solutions, energy systems and climate-neutral communities.

### Coupling digital and green policy objectives

The areas where digitalisation and sustainability are most often coupled relate to energy efficiency, resource efficiency and smart cities including smart mobility.



#### Energy efficiency

Green data centres can deliver sustainable energy efficiencies. In a new initiative in Sweden, data centres have been transformed according to the circular economy model.



#### Resource efficiency

Resource efficiency can be increased by using data to circulate materials. In Denmark, data generated by digital sensors and IoT solutions is used to contribute to transparency about which materials can be found in products and buildings, and to optimise material flows.



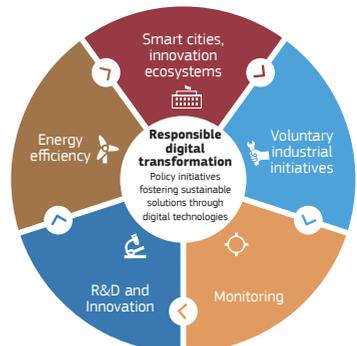
#### Smart cities and smart mobility

Smart cities and smart mobility can enhance quality of life. In Spain, the Basque Environmental Cluster has committed itself to explore opportunities offered by technologies, such as the Internet of Things and big data, which can positively impact sustainable cities.

### Policy actions and initiatives putting digital technologies at the service of the environment

The report reviews national policy actions which explicitly aim at fostering the use of digital technologies to solve climate or environment related challenges. This includes smart cities, industrial initiatives, monitoring, R&D and energy efficiency.

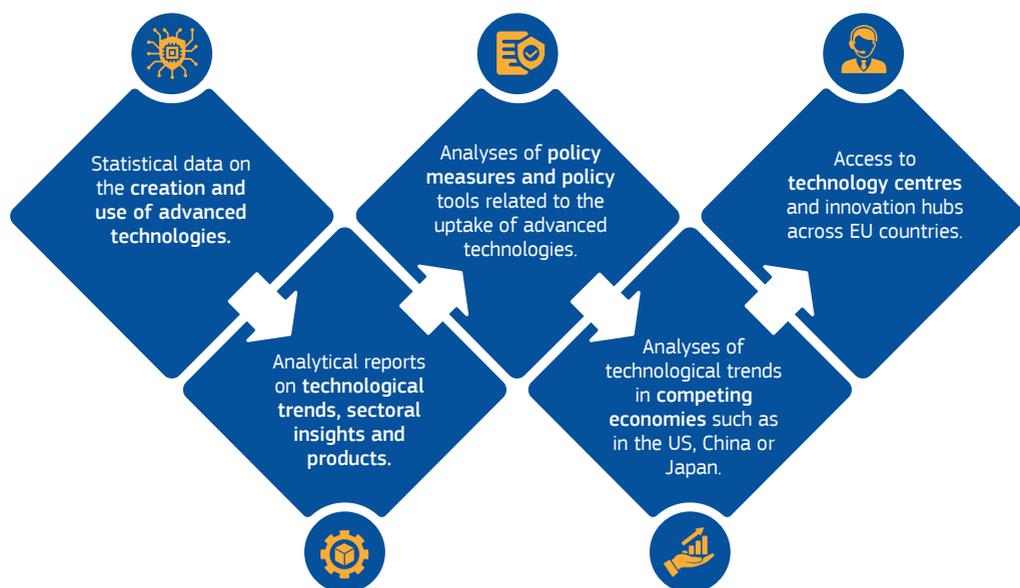
*Read more about the national policy actions that aim to support the circular economy, the environment and the climate enabled by digital technologies in the [policy brief on Bridging digital and green policy objectives](#).*



# About the Advanced Technologies for Industry project

Industries constitute an essential part of the European economy. They now face a new industrial revolution, brought on by a new generation of advanced technologies. To remain competitive, it is crucial that European companies apply advanced technologies in order to provide innovative products and services across all industries. The EU's industrial policy promotes such a competitive European industry. In order to properly support the implementation of policies and initiatives, a systematic monitoring of technological trends and reliable, up-to-date data on advanced technologies is required.

To this end, the **Advanced Technologies for Industry (ATI)** project provides policymakers, industry representatives and academia with:



**Policy Briefs** analyse national and regional policy measures focused on a specific policy challenge, technological area or mode of implementation and explore policy tools that have been designed and implemented with the aim of fostering the generation and uptake of advanced technologies. The reports provide a comparative analysis of some of the most relevant national and regional examples on the policy landscape in the EU. They highlight the lessons learnt based on existing policy evaluations, monitoring or any other learning process and will present both good practices and potentially the bad ones. In the case of novel policy initiatives, they focus on the key challenges in the design process.

<https://ati.ec.europa.eu/reports/policy-briefs/responsible-digital-transformation-bridge-between-digital-and-circular>

