

## Digital and Open Innovation Project

The digital transformation has changed the way economies work and how innovation is organised. The OECD project 'Digital and Open Innovation' investigates whether and, if so, how digital transformation changes the rationales for innovation policy and identifies the most appropriate instruments to foster innovation for inclusive and sustainable growth in the new context. To identify practical policy implications, the project reviews changing innovation dynamics across sectors and different actors, including SMEs, start-ups and research institutions. It sets specific focus on new forms of collaboration.

The 2017-18 project is conducted by the Working Party on Innovation and Technology Policy (TIP) under the auspices of the OECD Committee for Scientific and Technological Policy (CSTP).



### Innovation policy for the digital age

Most innovations today are **new products and processes enabled by digital technologies** or embodied in data and software. Digital technologies are also transforming **innovation processes** (from the research, to the development and commercialisation stages) and facilitating collaborative innovation practices.

In view of these changes and emerging opportunities and challenges for different actors, this project evaluates how **policy support to innovation should adapt** and in what directions. **Eight guiding principles for changes to innovation policy** identified are as follows:

1. Develop **data access** policies
2. Ensure **rapid & agile** policy responsiveness, and encourage policy experimentation
3. Revise the suitability of traditional research & innovation **support instruments**
4. Support **core technology development**
5. Support **competition & the long tail** of firms, regions and individuals
6. Foster **interactive & collective** innovation
7. Optimise the efficiency of **public research** in the digital age
8. Set national policies in view of **global markets**

#### Digitalisation of innovation

**New innovation dynamics across and within sectors**

**Innovation policies for inclusive and sustainable growth**

Public research

Science-industry linkages

Businesses

**Collaborative innovation**

These guiding principles and specific policy recommendations build on two project pillars: (1) a **policy collection and analysis exercise** to explore new trends in innovation policy making; and (2) a **sectoral analysis** that investigates the impacts of digital transformation on innovation across sectors.

## (1) What are the features of new innovation policies adopted by countries?

Most countries have already developed specific **innovation policy initiatives** to ensure a **successful transition to a digital economy**. These often aim at enhancing digital technology diffusion and adoption; promoting innovative entrepreneurship in the digital era; and/or fostering research and innovation in key digital sectors and technologies.

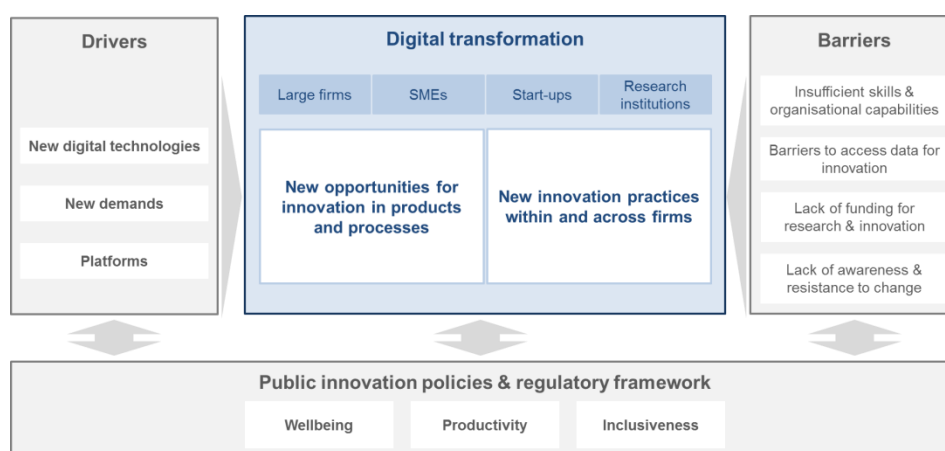
This project conducts an **extensive policy collection and analysis exercise** aimed at identifying new innovation policy approaches, including those of more novel and experimental nature. **Selected country policy case studies** provide in-depth insights on initiatives that stand out in how they promote firm's experimentation with digital technologies in demonstration facilities and testbeds (e.g. SME 4.0 Competence Centres in Germany, Smart Industry Field labs in the Netherlands, Digital Catapult in the UK). The resulting policy toolkit is intended to support innovation policy makers tasked with reforming innovation policies to address the challenges of the digital age.

## (2) How does digital transformation affect the ways different sectors innovate?

Digital transformation is a multifaceted phenomenon that is impacting innovation across all sectors of the economy. New digital technologies are not only leading to **new product and process innovations**, but also transforming **innovation practices within and across firms**. Opportunities for **open innovation practices** are also expanding. However, **differences in impacts across and within sectors** and countries are often important. Understanding those different experiences is key to design **appropriate innovation policies** to foster vibrant innovation ecosystems.

The project reviews how digital transformation is affecting different dimensions of innovation (i.e. products, production processes, innovation practices) across sectors and in particular the agri-food, automotive and retail, with a focus on identifying commonalities and differences in impacts across sectors and **different actors** (e.g. start-ups, SMEs, large firms).

**Figure 1. Digital transformation: factors shaping innovation across sectors**



## Project events

- Workshop “[How to leverage the potential of the digital transformation for innovation and research?](#)” (Paris, June 2018)
- Workshop “[Digital health innovations](#)”, organised jointly with the Dutch Ministry of Economic Affairs and Climate Policy (The Hague and Eindhoven, April 2018)
- Workshop “[The impacts of digital transformation on innovation across sectors](#)”, organised jointly with Digital Catapult and Innovate UK (London, September 2017)
- Workshop “[Innovation and the digital economy: What role for innovation policies?](#)” (Paris, June 2017)

This project contributes to the OECD-wide [Going Digital project](#)

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