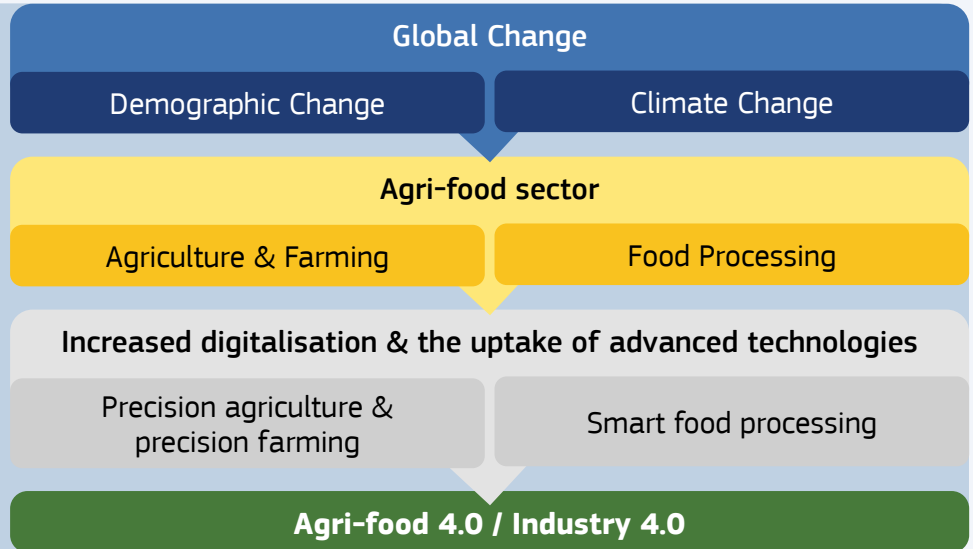


Advanced technologies can transform the agri-food industry and its value chain

Sectoral Watch: Technological trends in the agri-food industry

In the face of global change, the challenge remains to deliver a sustainable food and agricultural production system. Advanced technologies are essential in enabling the agri-food industry to increase efficiency in production, while limiting the global impact of food production on the environment.



The value chain is becoming increasingly digital, with farm management systems and tools to support activities at farm and production level

Technological trends

The Internet of Things is used to optimise water use for crops and support the development of irrigation schedules as well as water stress monitoring.

The introduction of **advanced manufacturing** has led to automation and improved process control within the agri-food processing chain.

Sensors (photonics) are applied in farm and animal sensing as well as in the form of smart sensors for food packaging.

Robotics are important for smart food processing. Robots support activities requiring a range of motion from packaging to assembling food objects.



Germany



France



Netherlands



Spain



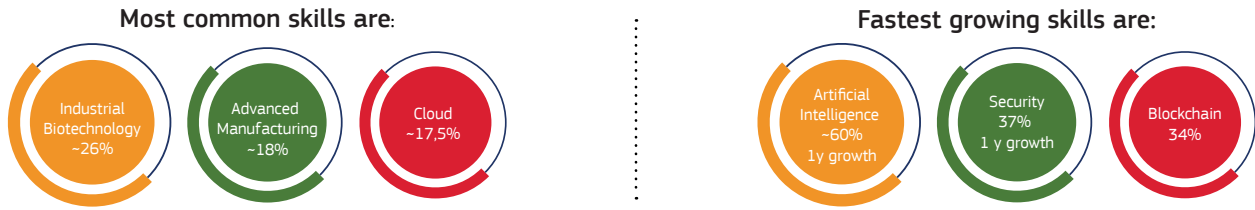
Italy

The EU27 is leader in patenting activities in the agri-food sector at global scale. Germany, France and the Netherlands are patent leaders in agri-food in 2017.

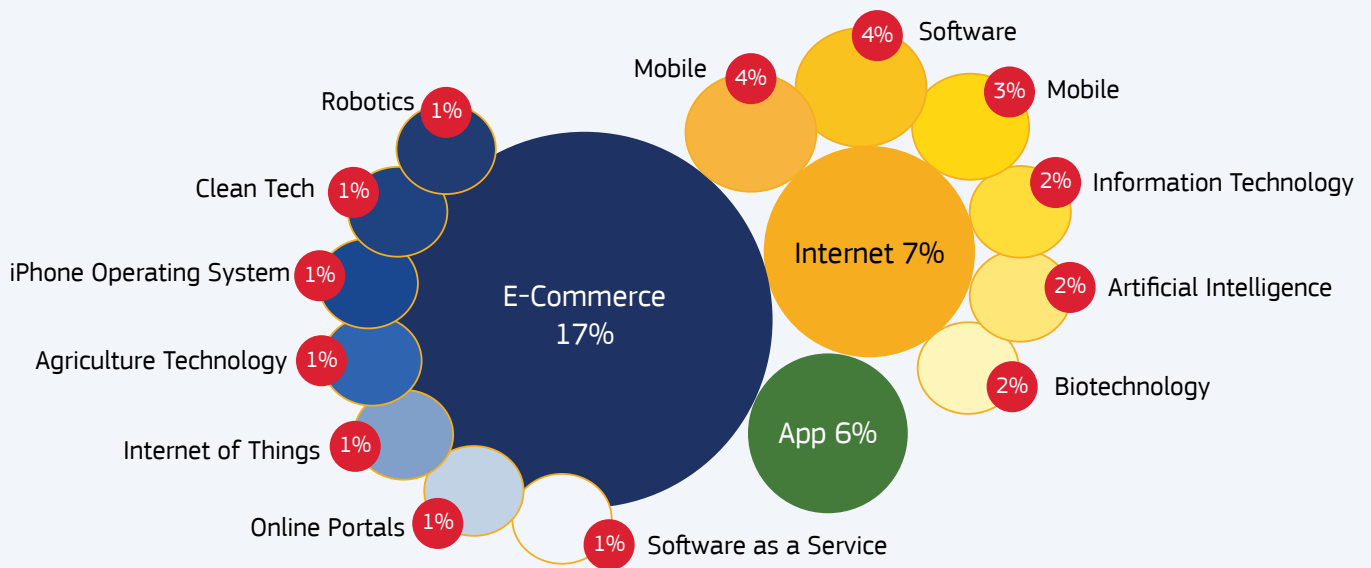
Overall, nearly 50% of the start-up creation in food and beverage and food processing in the EU27 comes from Germany, Spain and France.

France, Spain and Italy are leading in the absolute number of professionals with advanced technology skills employed in the agri-food sector.

Transformations and fundamental shifts in agri-food require diverse advanced skills



Start-ups represent the most recent trends of technology development in the industry. The most common related field for food and beverage and food processing start-ups is in **e-commerce, internet-related activities and apps.**



About the Advanced Technologies for Industry (ATI) project

The ATI project – funded by the European Commission – supports the **implementation** of Europe's new growth strategy with a systematic monitoring of **technological trends** and reliable, **up-to-date data** on advanced technologies.



The **Sectoral Watch** analyses trends in the generation and uptake of advanced technologies, related entrepreneurial activities and skills needs in a number of selected sectors. It interprets data from a list of data sources compiled to monitor advanced technologies and their applications in industry across Europe and key competitor economies. It allows policy makers, industries and intermediaries to contextualise the collected data on advanced technologies specific for the industries in focus.

For more information, read the full Sectoral Watch on the Agri-food Industry here:
<https://ati.ec.europa.eu/reports/sectoral-watch/technological-trends-agri-food-industry>