

Advanced Technologies for Industry Technology Watch Brochure

Technology Focus on Artificial
Intelligence

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E-mail: EISMEA-SMP-COSME-ENQUIRIES@ec.europa.eu

Directorate General for Internal Market, Industry, Entrepreneurship and SMEs
Unit D.2 - Industrial forum, alliances, clusters

E-mail: GROW-ATI@ec.europa.eu

European Commission
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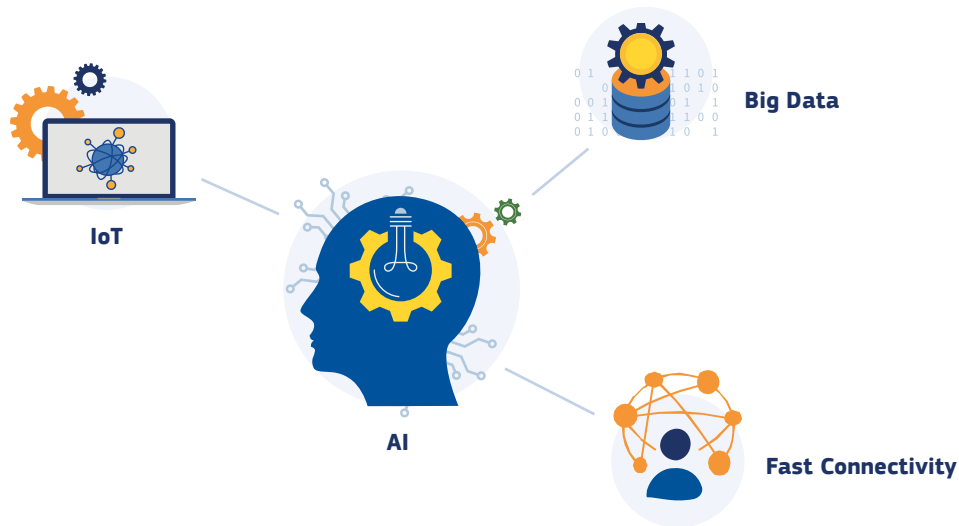
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The availability of huge datasets and technology advances in Big Data, Internet of Things (IoT), and fast connectivity are the enablers of Artificial Intelligence (AI) new systems and services, digital assistants, robots & drones



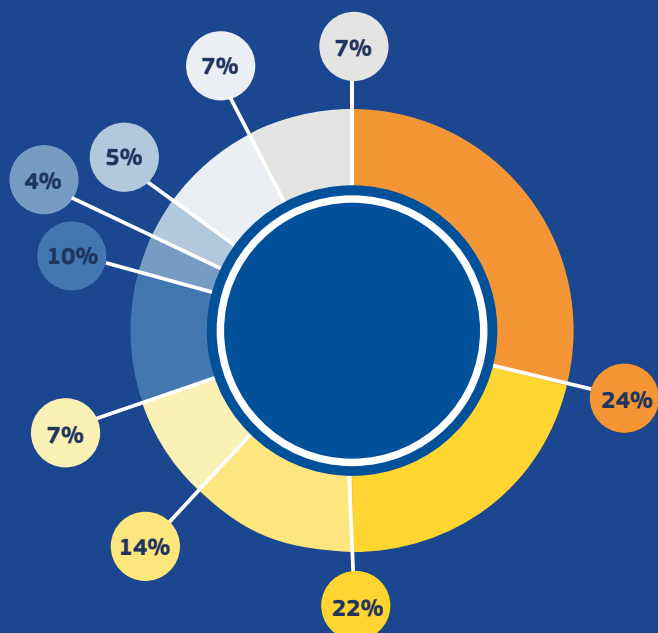
The EU market share of the global total spending on AI-based services is expected to grow from 18% market share in 2018 to 23% in 2023, an increase of **27.8%**

The European market is expected to grow even faster than the global market

Finance, Telecom/Media and Utilities/Oil & Gas take the front seat in the European AI scenario

Total Europe AI spending by Industry in 2019

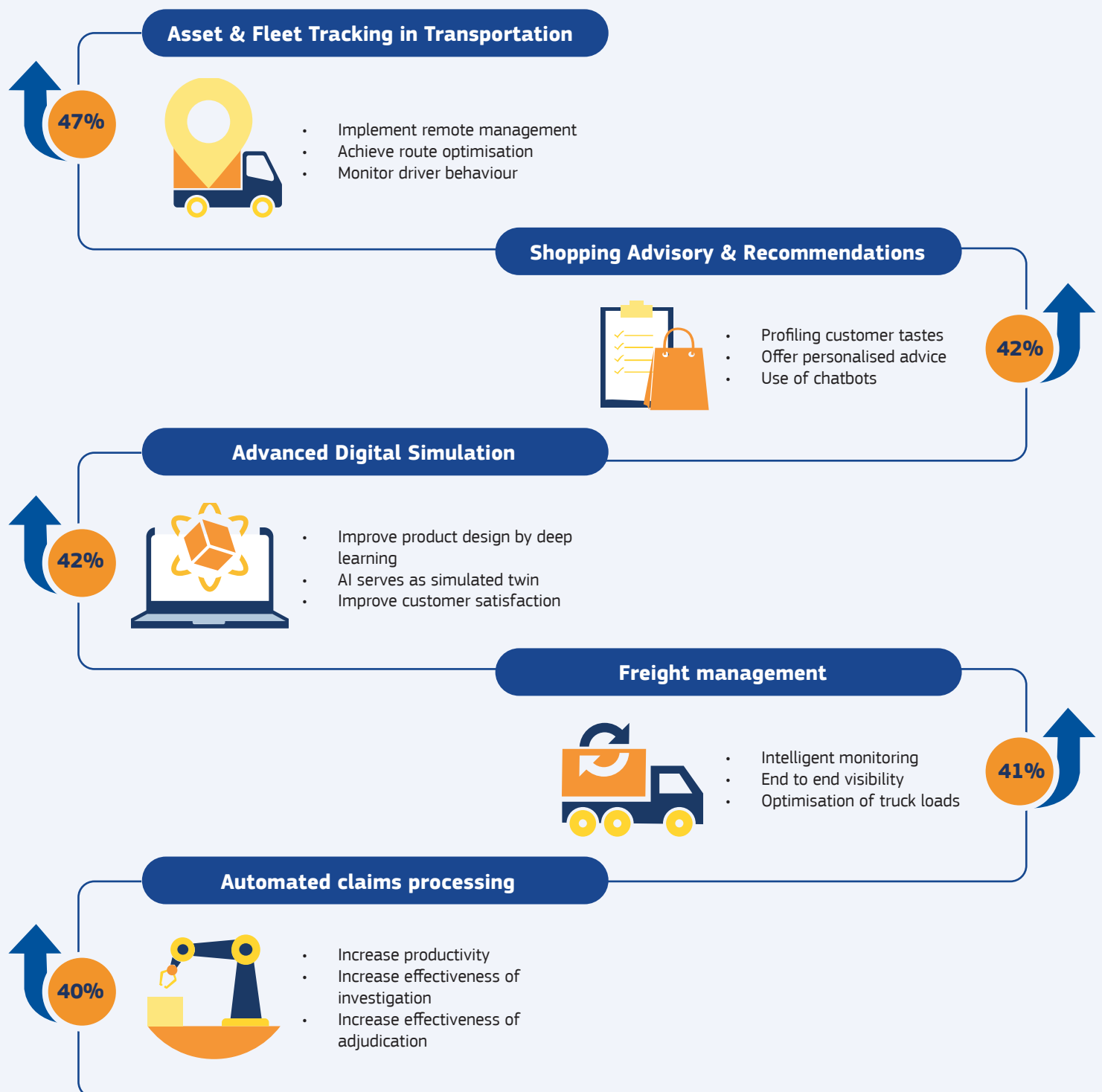
- Financial Services
- Manufacturing
- Retail and Wholesale
- Government
- Telecom and Media
- Healthcare
- Transport Services
- Professional Services
- Others



Source: IDC Worldwide Artificial Intelligence Spending Guide, March 2020

The **multi-faceted set of technologies** falling under the name of AI can be applied to multiple **business processes**, thus generating a wide variety of **business opportunities**

Top 5 opportunities for organisations:



For more information, read the full Advanced Technology Watch Report Technology focus on Artificial Intelligence here:
<https://ati.ec.europa.eu/reports/technology-watch/technology-focus-artificial-intelligence>

Moving to the next generation of AI:

To reap concrete **business opportunities**, organisations can move to the next generation of **AI** by focussing on the following points

Strengthen AI research & innovation

Build essential digital capabilities & bridge the gap between industry & research



Increase knowledge for skills & know-how

Create enough technical skills & know-how to meet the rising demand

Develop advanced digital skills



Sufficient availability of data/ data sharing

Datasets are the main ingredient for AI



Mature legislative framework

Develop good management of AI-related liability, safety, security



Enhance social trust

Build a trustworthy AI



How AI ensures a healthy life for all

AI for social good

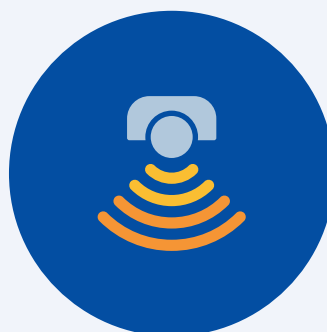


Outbreak of **COVID-19** has put enormous pressure on many **European healthcare systems**



Accelerating research

Open data to find AI driven solutions: drug and vaccine development



Detection

Detect smoke signals



Prevention

Calculate a person's probability of infection



Response

Use of drones for material transport

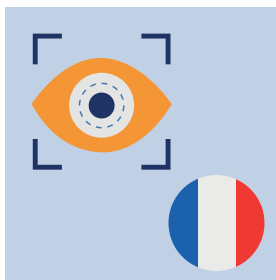


Recovery

Track economic recovery

AI for social good selected initiatives:

The **research, business and social communities** are becoming increasingly aware of the need to support and promote the use of AI for social good.



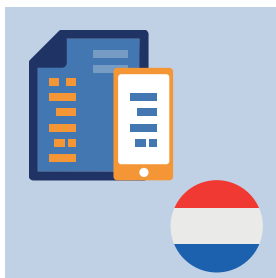
Fondation Médecins sans Frontières

Image recognition to identify antibiograms



European Emergency Number Association and Corti

Support emergency medical service operations



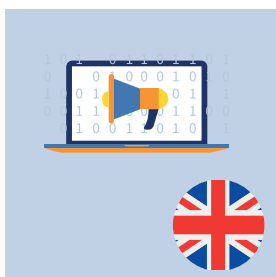
Skillab BV

AI app helping refugees to document skills in native language



HURIDOCs

Natural Language Processing and Machine Learning help extract facts from documents for human rights lawyers



Full Fact

AI Driven monitoring for fact checking of news

When implementing AI, you should be informed by:



Inclusive growth, sustainability and well-being



The rule of law, democratic values and human rights



Transparency and social responsibility



Security and safety



Accountability for individuals and organisations deploying AI

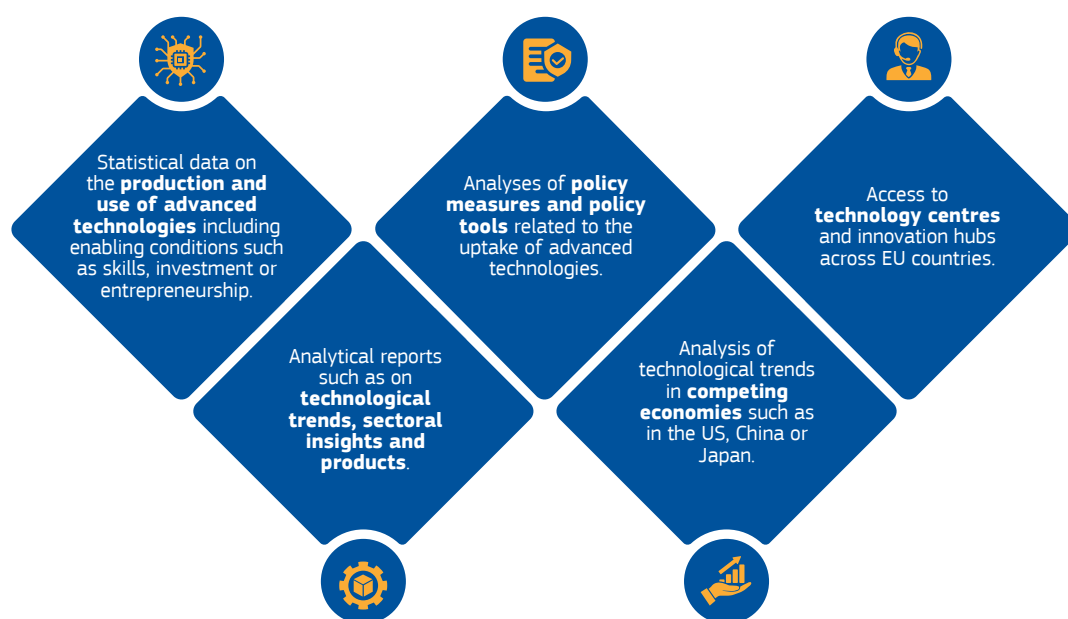
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Technology Watch report: Technology focus on Artificial Intelligence

Industry is an essential part of the European economy. It now faces a new industrial revolution, brought on by new-generation technologies. These technologies offer opportunities to innovate and become more efficient, thereby achieving higher revenues. However, there is severe competition from outside the European Union (EU). To remain competitive, it is essential that advanced technologies are applied not only in the more traditional sectors but also in the service sectors within the EU. Also, advanced technologies will be essential for the recovery of the European economy from the economic impact of the COVID-19 pandemic.

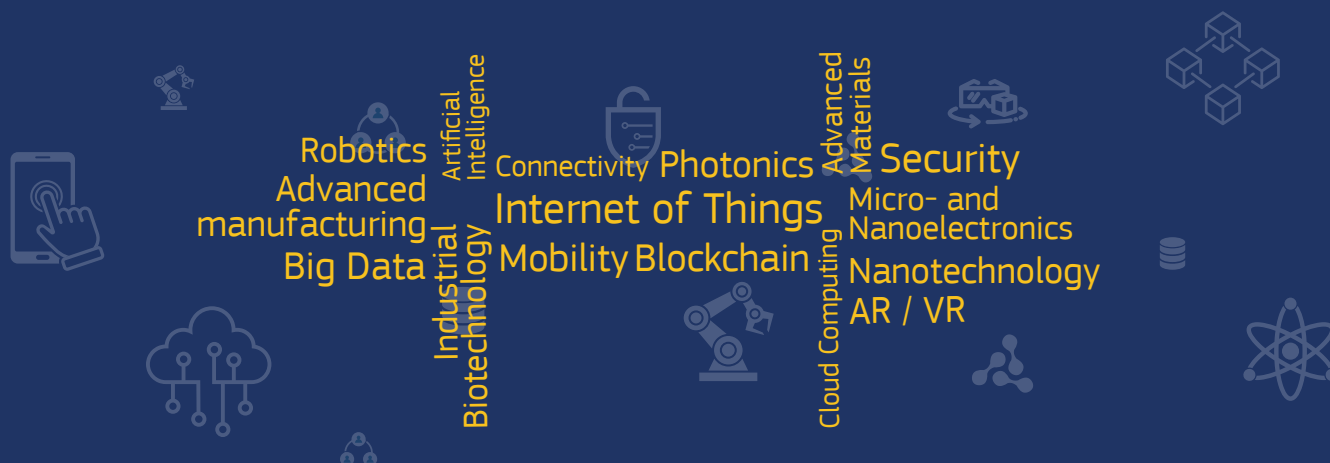
Advanced Technologies for Industry (ATI) project

The EU's industrial policy approach promotes the creation of 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 needed. To this end, the **Advanced Technologies for Industry (ATI)** project has been set up. It provides policymakers, industry representatives and academia with:



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 **Advanced Technology Watch Reports** explore the futuristic, upcoming technologies that are on the horizon of technology development today and that are characterised by high speed of evolution and a significative disruptive potential.

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