



Alliance for  
Internet of Things  
Innovation

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# **IoT vehicle of vitamins and white blood cells for the healthy growth of the new chip industry market**

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# Market scenario

# Smart manufacturing market 2021-2027

Smart manufacturing is the **combination of systems** that integrate with each other to provide real-time data to ascertain the changing demands and requirements of the manufacturing sector.

It helps monitor and control production processes with the help of information technology and provides insights for effective decision-making with the help of enabling technologies.

Smart manufacturing is therefore capable of **solving the current and future problems of manufacturing** through an open infrastructure.

It also **fosters flexibility** in manufacturing processes and provides cost-effectiveness and agility.

# Smart manufacturing market 2021-2027

2021  
89 B\$



2027  
228 B\$

CAGR (2022-2027)  
+ 18.5%

# Semiconductors Market

# What is the European Chips Act?

## Actual Scenario

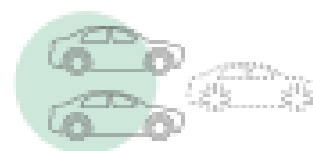
### World shortage since 2020



Higher prices

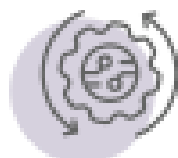


Lengthier delivery for consumer electronics and life-saving equipment

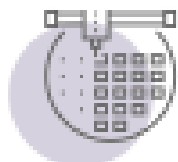


Car production **decreased by 1/3** in some EU countries

### Europe is strong in some specific areas



Semiconductor research  
World leading techniques behind most advanced chips



Chip manufacturing equipment  
central equipment for all advanced chips



Silicon wafers  
mirror-like material essential for manufacturing semiconductors



Chips for automotive and for industrial equipment  
EU companies global leaders on the market

However, **the EU has only roughly 10% of global market share** and is heavily dependent on third-country suppliers.



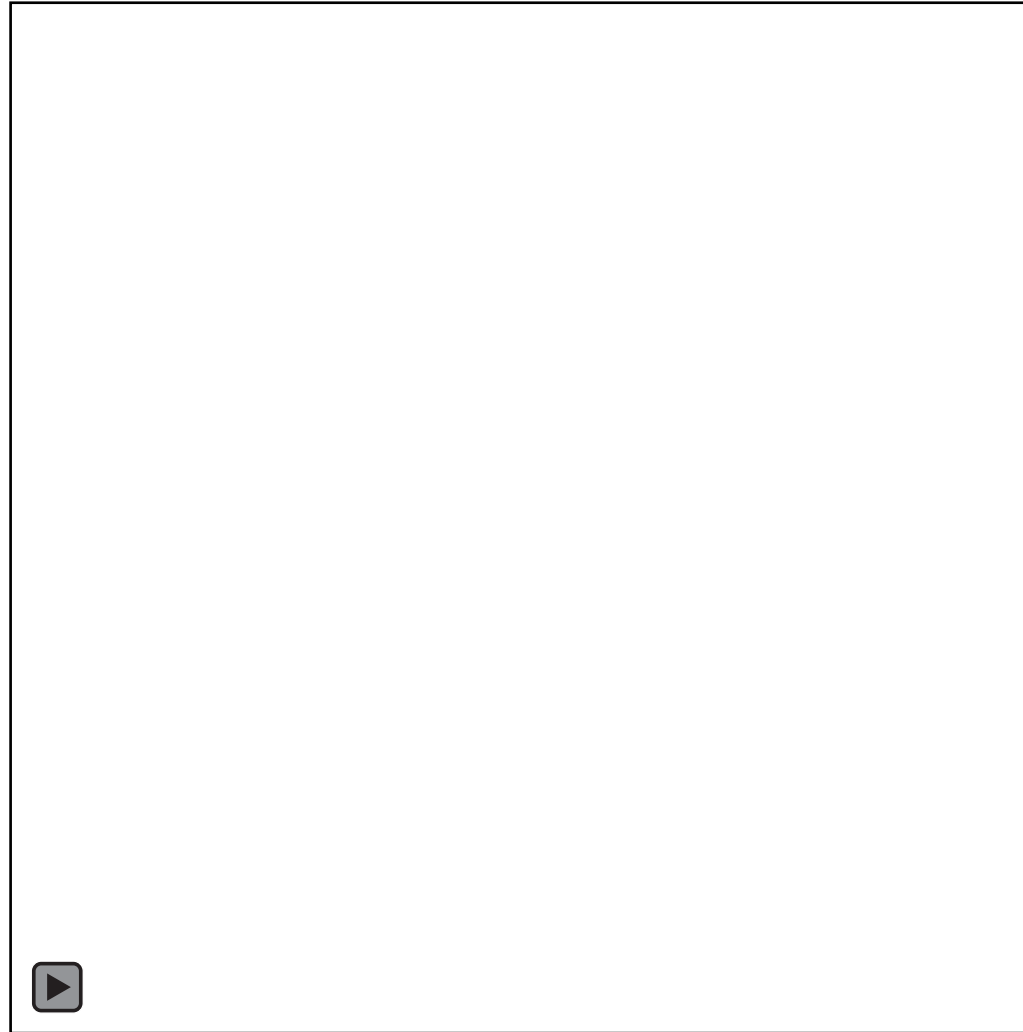
Our aim is to jointly create a state-of-the-art European chip ecosystem, including production. We need to link together our world-class research, design and testing capacities. We need to coordinate EU and national investment along the value chain. This is not just a matter of our competitiveness. This is also a matter of tech sovereignty.

Ursula von der Leyen  
President of the European Commission, 2021 State of the Union address



February 2022  
#EUChipsAct #DigitalEU

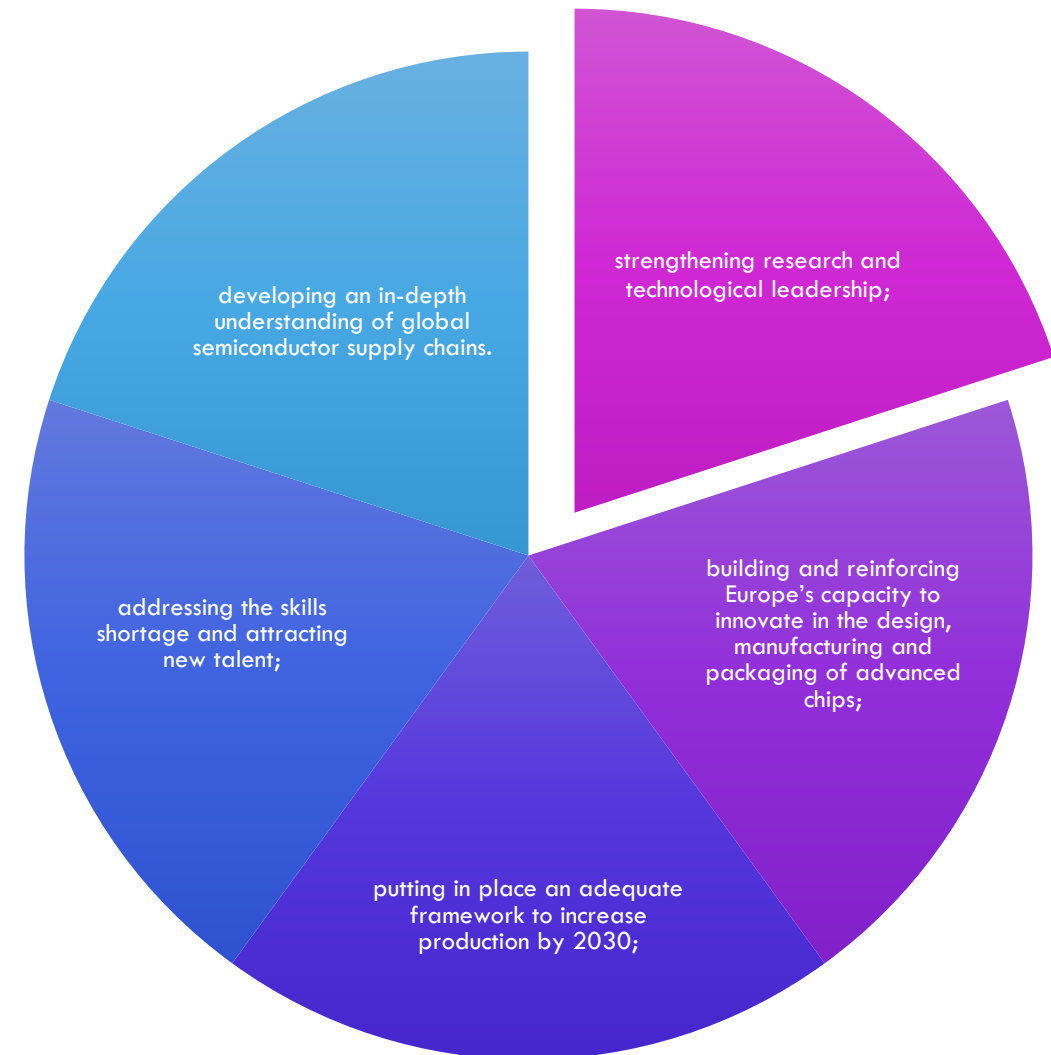
# What is the European Chips Act?



# What is the European Chips Act?

The **European Chips Act** will **reinforce** the **semiconductor ecosystem** in the EU, ensure the resilience of supply chains and reduce external dependencies. It is a key step for the EU's technological sovereignty. And, it will ensure Europe meets its digital decade target of doubling its global market share in semiconductors to 20%.

It will do so by focusing on 5 strategic objectives:

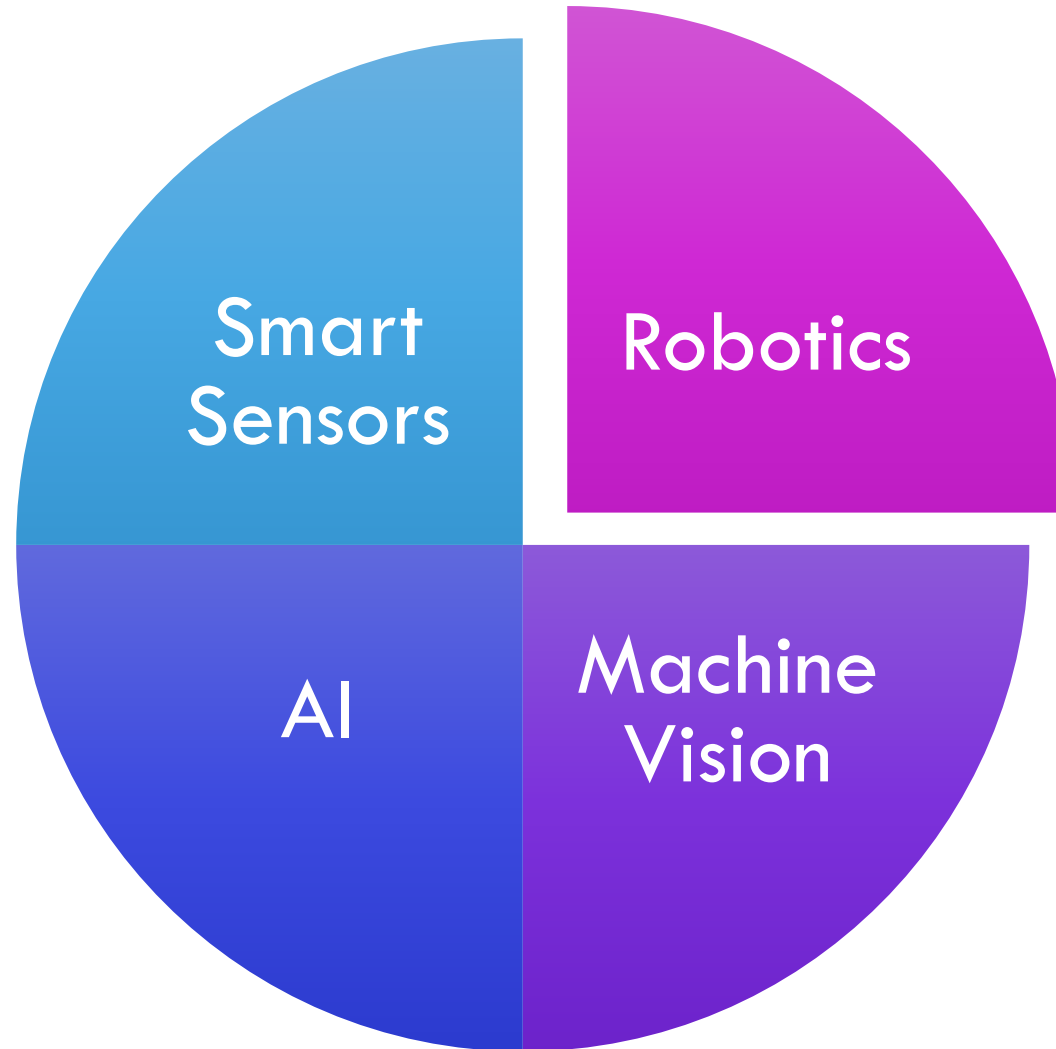


# What areas can be supported by IIoT?





# IloT enabling technology for data transport



# IloT enabling technology for data transport

Industry 4.0 com



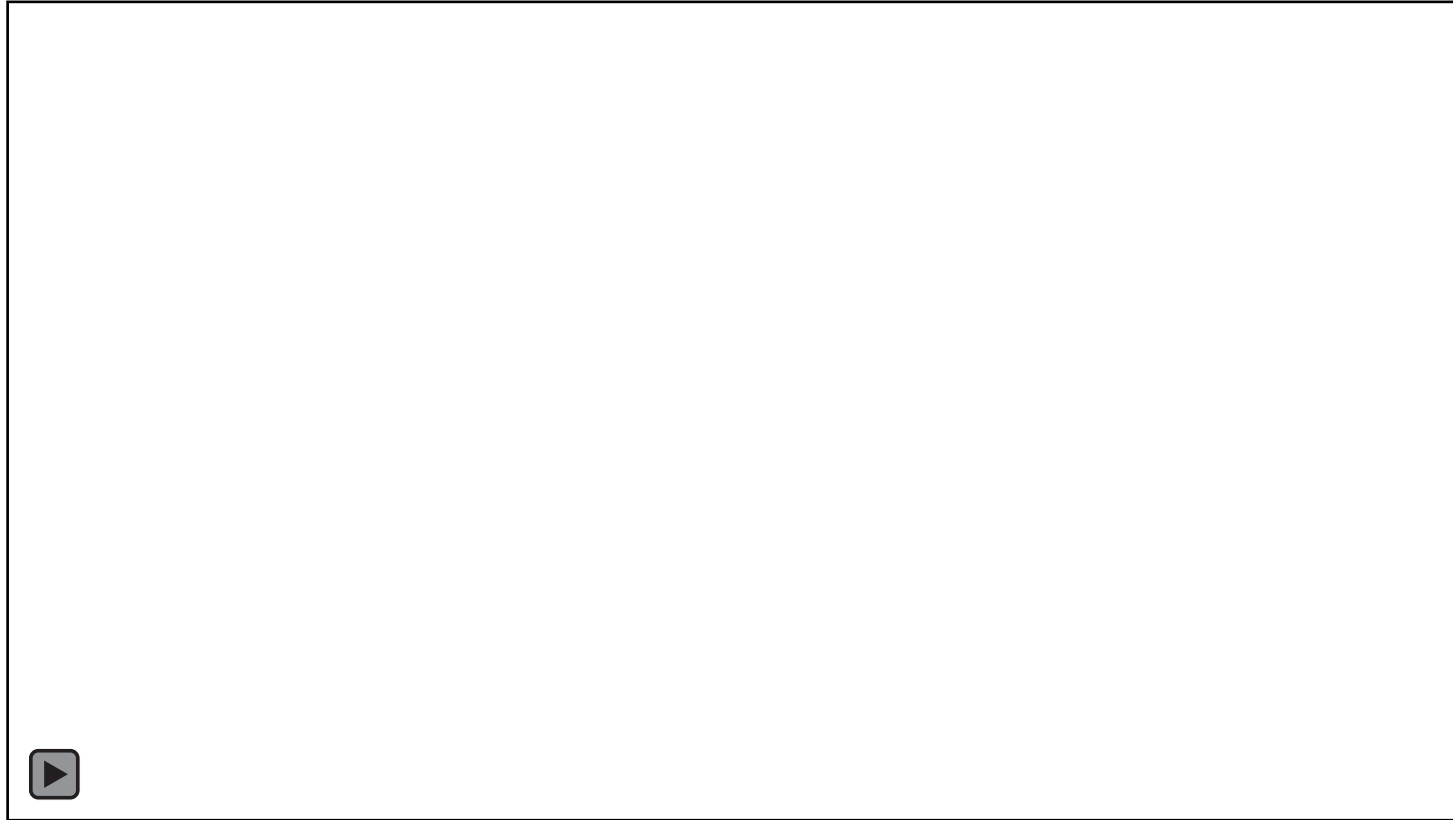
# IloT enabling technology for data transport

## Industry 5.0 Agile product quality verification example



# IloT enabling technology for data transport

## Industry 5.0 process support



# IIoT enabling technology

IIoT is not only changing our industry by a technological point of view also opens new scenarios on:

- Business models
- Sustainability
- Inclusivity

In AIOTI Manufacturing group we analysed this impact and summarized a White Paper “Business Impact of IIoT in Manufacturing Industries”

# IIoT enabling technology

IIoT is the enabling technology for Federated Learning that will open new scenarios on manufacturing, agriculture and in general in all aspects of our life.

This new approach open new challenges about:

- security of the data
- Validity of data
- Cyberattacks

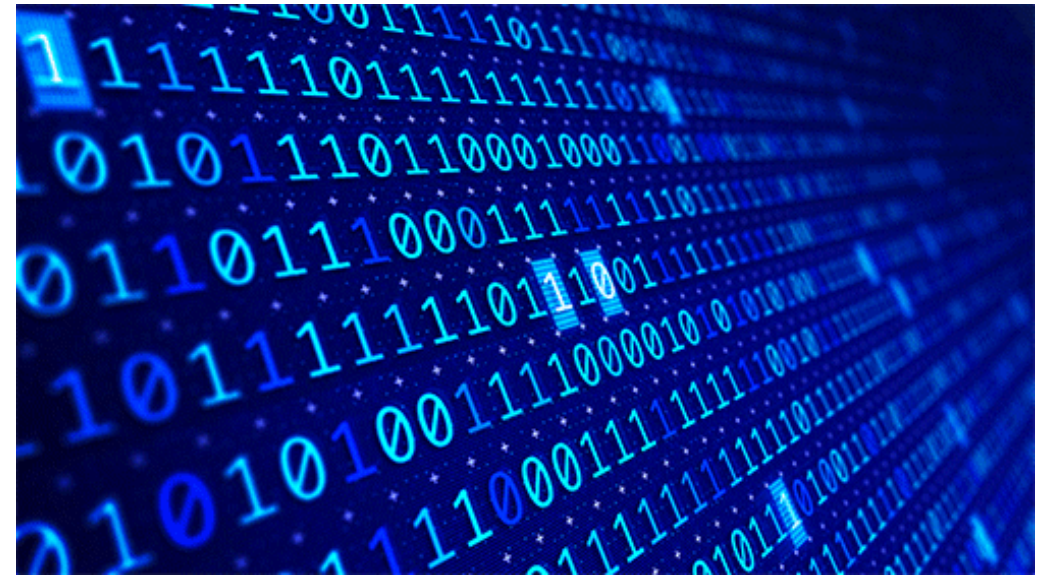
# IoT vehicle of vitamins and white blood cells for the healthy growth of the new chip industry market

Taking the human body as a methafor, IIoT can represent our blood-carrying apparatus:

vitamins -> data

white blood cells -> distributed cybersecurity capabilities

just as circulation is fundamental to a healthy body, so too in our digital 'body', our EU smart factories ecosystem must be able to rely on robust, high-performance infrastructures.



# IoT vehicle of vitamins and white blood cells for the healthy growth of the new chip industry market

I think it is essential to stimulate the all the European industry world to move in the fastest way to embrace the digital transformation with the best practices and continue to invest in the creation of digital infrastructure appropriate to the change and IIoT is one of the facilitator technologies to solve this task.

We have big challenges ahead of us in terms of sustainability and social inclusiveness, and I think that are challenges we can win only if we will work all together sharing our knowledges and shaping our future and new generations one.







# Thank you for listening

You can find us at [@AIOTI EU](#) or email [sg@aioti.eu](mailto:sg@aioti.eu)