

The background features a low-poly, geometric pattern of light gray and white triangles, creating a modern, abstract aesthetic.

**orgalim**  
EUROPE'S TECHNOLOGY INDUSTRIES

# Advanced Manufacturing at the heart of a resilient, sustainable and competitive Europe

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# Manufacturing is entering a new age



**1765**

1<sup>st</sup> revolution

**MECHANIZATION**

led by the steam engine



**1870**

2<sup>nd</sup> revolution

**MASS  
PRODUCTION**

driven by electricity  
and oil-based power



**1969**

3<sup>rd</sup> revolution

**AUTOMATED  
PRODUCTION**

supported by electronics  
and information  
technologies



**Today**

4<sup>th</sup> revolution

**NEW  
TECHNOLOGIES**

Internet of Things (IoT),  
Artificial Intelligence (AI);  
Big Data, Cloud,  
Cyber-Physical Systems...

# What is Advanced Manufacturing

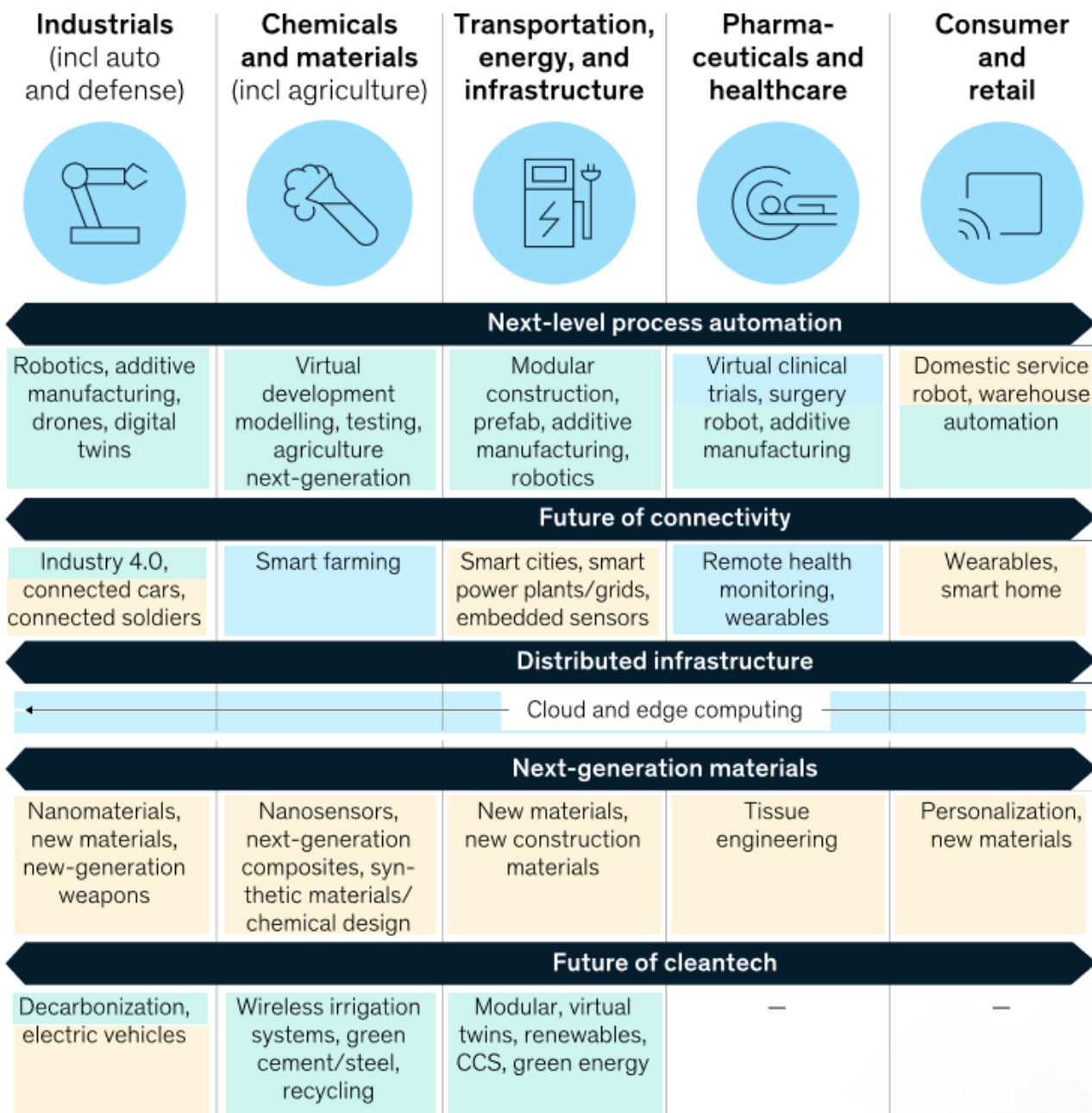
Advanced manufacturing is not a vertical sector

It is a transversal set of technologies, processes and products used across different industrial sectors

New production processes

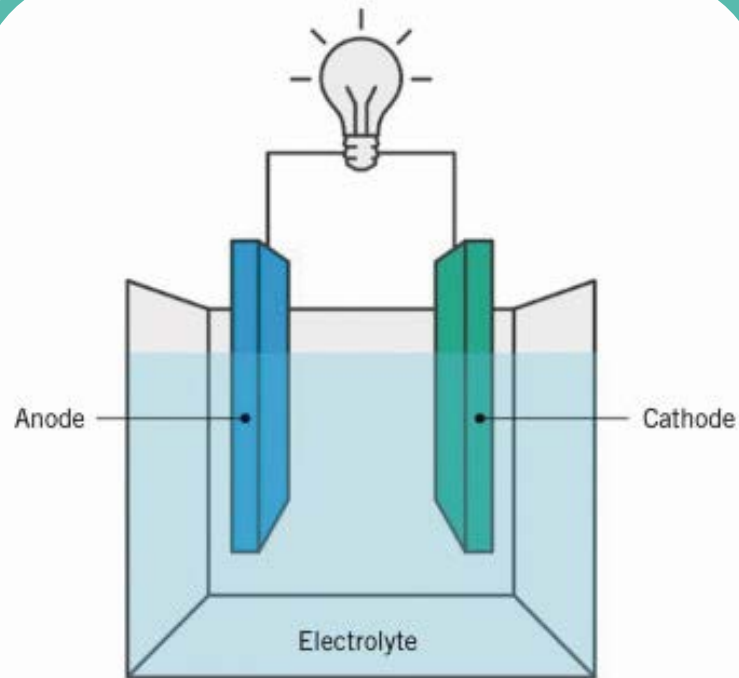
New types of products

New business models

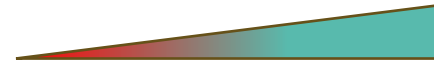


# Case study: next generation battery technology

## CONVENTIONAL BATTERY



Capacity



Charging speed



Weight



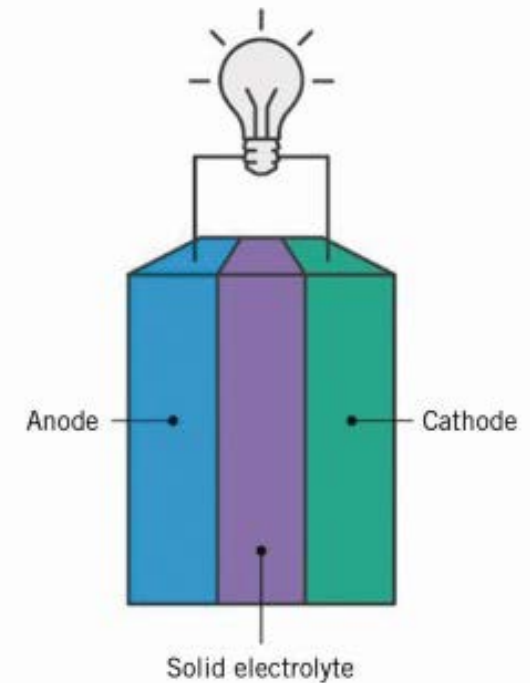
Fire risk



Manufacturing complexity



## SOLID STATE BATTERY

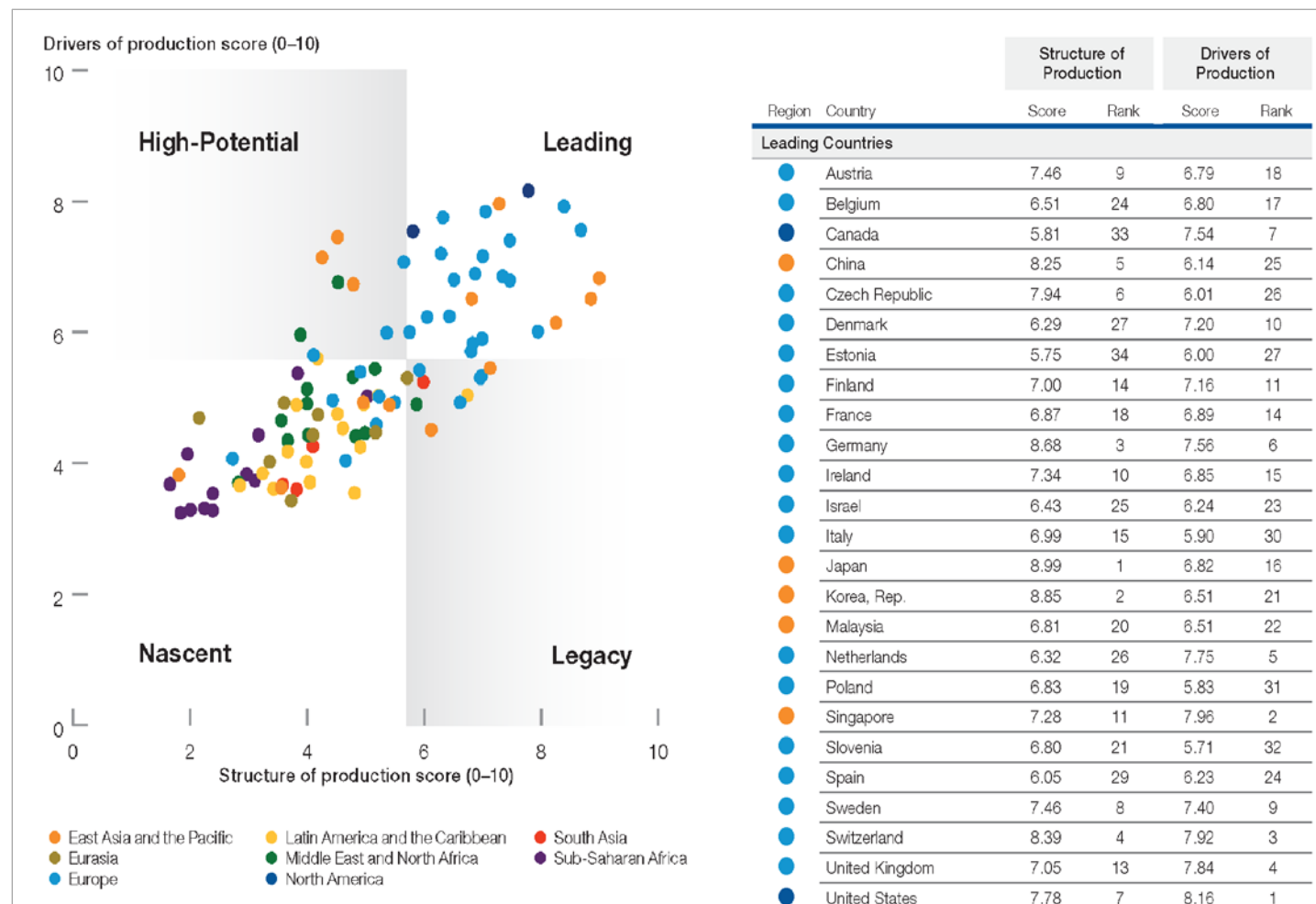


# Advanced Manufacturing is Europe's key strategic differentiator

## "Future of production" readiness

Leading markets will generate:

- Products and services with **higher added value**
- Processes and products with **increased environmental sustainability** throughout the product life cycle
- **Stronger industrial competitiveness and resilience**, employment creation and improved job quality



# Europe is at risk of falling behind

## Relative European position vs leading or second-best region

Europe trailing ● <0.8 ● 0.8–1.2 ● >1.2 Europe leading

Transversal technology	Innovation <sup>2</sup>	Production <sup>3</sup>	Adoption <sup>4</sup>	Average
<b>Next-level automation</b> Industrial, collaborative, and professional robots; additive manufacturing; virtualization	0.6	1.0	0.7	0.8
<b>Future of connectivity</b> 5G, Internet of Things	0.7	0.7	0.3	0.6
<b>Distributed infrastructure</b> Cloud, edge computing	0.2	0.1	0.7	0.3
<b>Next-generation computing</b> Quantum computing, neuromorphic software	0.5	n/a	n/a	0.5
<b>Applied AI</b> Robotic process automations, optimized decision making, natural language processing, computer vision, speech technology	0.5	<0.1	0.8	0.4
<b>Future of programming</b> Software 2.0, no-code and low-code programming	0.3	<0.1	n/a	0.2
<b>Trust architecture</b> Blockchain, Zero Trust security/cybersecurity	0.3	0.3	0.6	0.4
<b>Bio Revolution</b> Biomolecules, biosystems, bio-machine interface, biocomputing	0.8	0.4	0.5	0.6
<b>Next-gen materials</b> Nanomaterials, composite materials, semiconductors	0.7	2.0	1.2	1.3
<b>Future of cleantech</b> Solar power, wind energy, hydropower, nuclear, electric vehicles, hydrogen	1.3	0.4	1.2	1.0

# Policy makers are fighting over Europe's industrial strategy

<p><b>2020</b> <i>A New Industrial Strategy for Europe</i></p>  <p>EN EN</p> <p><b>“Strategic Autonomy”</b></p>	<p><b>2021</b> <i>Updating the 2020 New Industrial Strategy</i></p>  <p>EN EN</p> <p><b>“Ecosystems”</b></p>	<p><b>2023</b> <i>A Green Deal Industrial Plan for the Net Zero Age</i></p>  <p>EN EN</p> <p><b>“Clean Tech”</b></p>
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# EU Industrial Forum: developing a manufacturing “Masterplan”

Curators



Members



Convened by



# Industrial Forum recommendations span seven areas



<https://ec.europa.eu/docsroom/documents/54817>

- 1 Use EU “net zero” initiatives to generate demand
- 2 Fix bottlenecks in access to capital
- 3 Incentivise supply chain resilience
- 4 Strengthen the EU Single Market & standardisation
- 5 Facilitate the data economy
- 6 Solve the skills shortage
- 7 Track KPIs needed to measure progress

# Keeping up the pressure



# SHAPING A FUTURE THAT'S GOOD

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Thank you!



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