EFFRA
EUROPEAN FACTORIES OF THE FUTURE RESEARCH ASSOCIATION

NEXT GENERATION MANUFACTURING

MADE IN EUROPE: INNOVATION, SOVEREIGNTY & SUSTAINABILITY

APRIL 2026

Investing in Manufacturing Innovation: Strengthening Europe's Sovereignty & Sustainability through Framework Programme 10 and the European Competitiveness Fund

Europe's manufacturing base stands at a decisive crossroads. Global competition, resource constraints, accelerating technological change, and demographic pressures are reshaping the industrial landscape. To remain competitive and sovereign in this environment, Europe must reinforce its leadership in advanced manufacturing technologies.

Manufacturing is not only essential to Europe's economic performance; it is the foundation of Europe's strategic autonomy, security, high-value employment, and long-term prosperity. Manufacturing industries employ around 30 million people in the European Union, generate more than €2 trillion in value added annually, and account for roughly 80% of EU exports (Eurostat). They are also the main driver of industrial innovation, responsible for around 60% of private-sector R&D in the EU (Eurostat). Within manufacturing, advanced manufacturing companies constitute the technological backbone of Europe's industrial ecosystem and are essential enablers of productivity, innovation, and job creation across nearly all manufacturing value chains.

Yet Europe's industrial competitiveness has come under increasing pressure in recent years. Geopolitical instability and global industrial competition are intensifying. Other leading economies are deploying large-scale industrial policies to secure technological leadership and strengthen domestic manufacturing capacities. Global competition for advanced technologies and industrial investments is growing, and recent supply chain disruptions have exposed the vulnerability of globally fragmented production systems.

To address these challenges, the advanced manufacturing innovation community proposes a truly European coordinated effort. This effort should accelerate industrial innovation, strengthen resilience, support circular and climate-neutral production, embed digital and Artificial Intelligence technologies across value chains, and empower Europe's workforce. Central to this ambition is a new, European "Made in Europe" manufacturing initiative, with fast implementation, strong manufacturing SME participation, and close collaboration among industry, research organisations, academia, and policymakers.

Five Strategic Research & Innovation Priorities for European Manufacturing (2028–2034)

In this strategic vision, the advanced manufacturing innovation community identifies five R&I priorities for the period 2028–2034, which will drive Europe's industrial competitiveness by 2035. Achieving these objectives will require enhanced coordinated actions across research, innovation, and industrial policy:

Proposal for Framework Programme 10 and the European Competitiveness Fund

Europe's industrial future depends on aligning technological innovation, industrial investment, and policy frameworks. The next generation of European research and innovation programmes must therefore support not only technological breakthroughs, but also industrial deployment, cross-sector collaboration, and the strengthening of strategic industrial capacities within Europe.

To deliver meaningful impact by 2035, Framework Programme 10 (FP10) and the European Competitiveness Fund (ECF) should target investments based on real industrial needs, evolving labour market dynamics, and towards the strategic technologies that will underpin Europe's long-term competitiveness.

Building on long-standing experience with high-impact public-private partnerships, the advanced manufacturing innovation community stands ready to work with policymakers to secure Europe's industrial future and global leadership. Through a strong "Made in Europe" initiative supported by FP10 and other means, Europe can turn its scientific excellence into world-leading industrial competitiveness.

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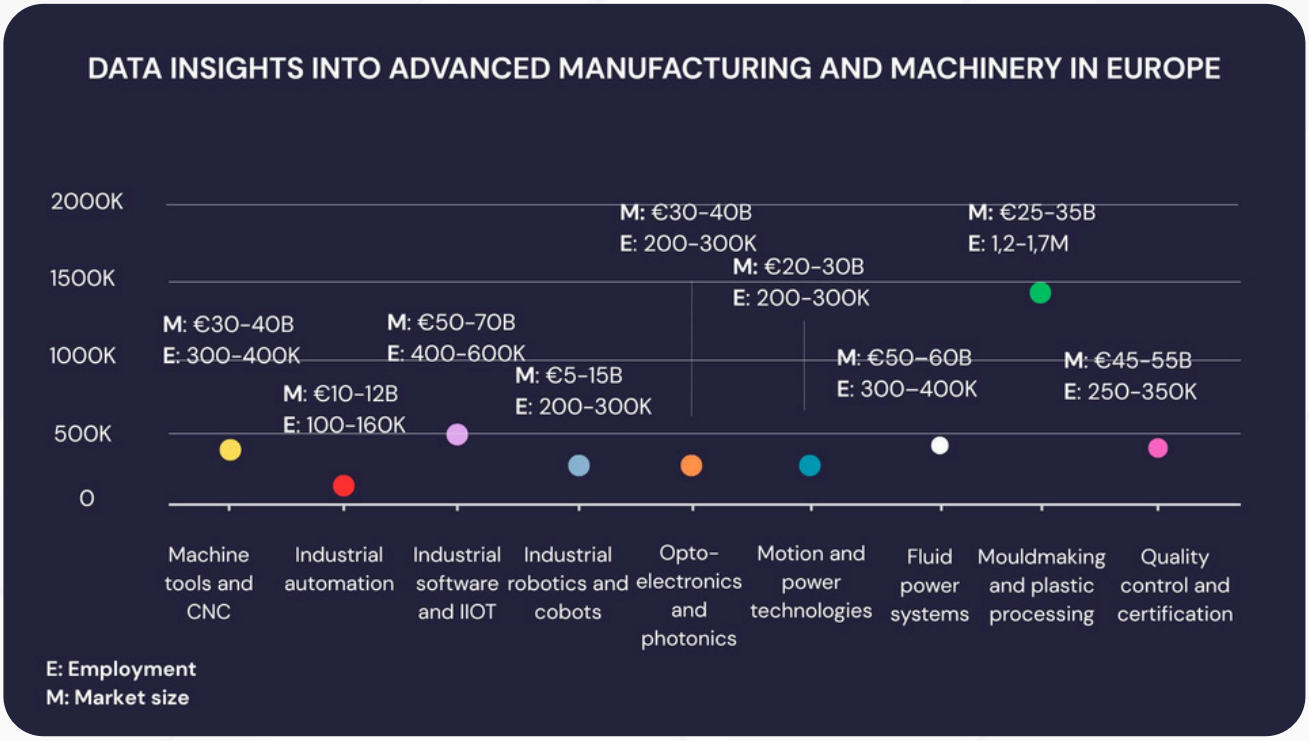
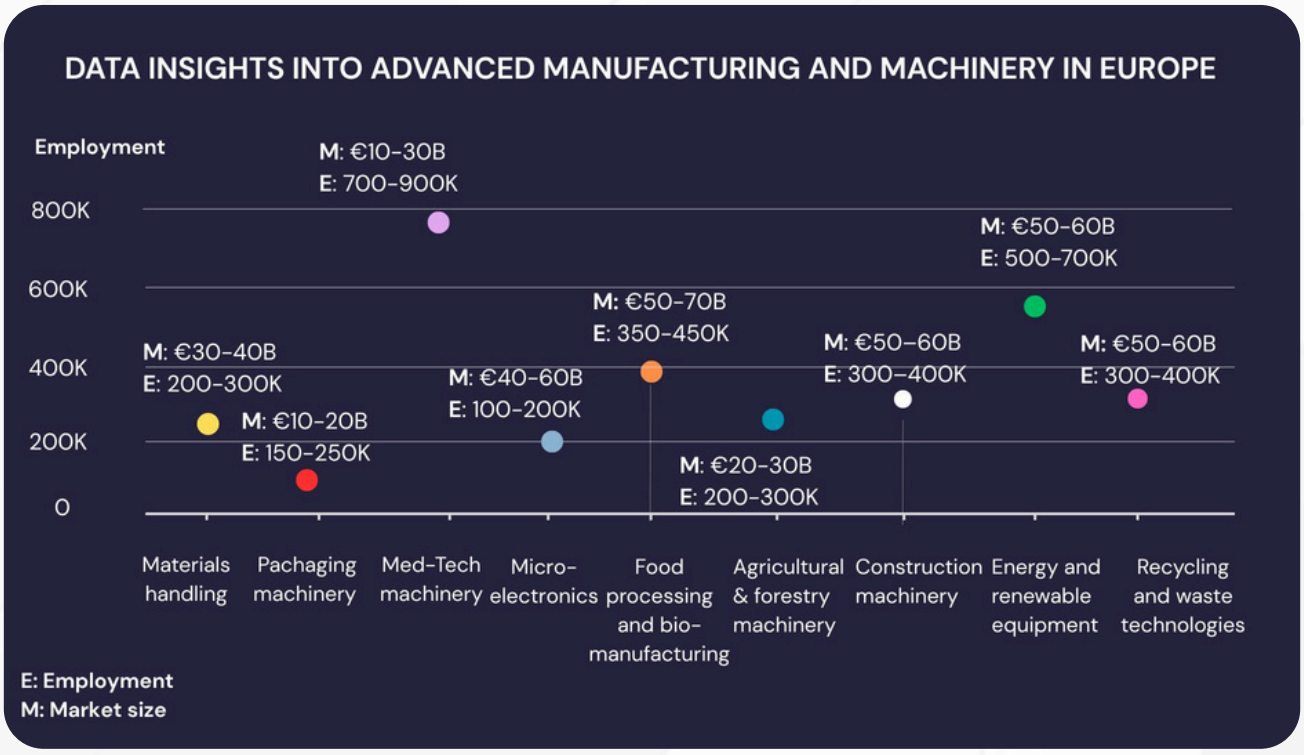
Advanced manufacturing and machinery data insights





All figures are indicative - please see Annex for further details

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Deep Dives into the Five Strategic Research & Innovation Priorities for European Manufacturing (2028–2034)

1. Innovation, Industrial Scaling & Productivity

There is a need to strengthen innovation-to-market pipelines, strengthen domestic manufacturing capacity, and enable rapid industrial scaling. Europe must significantly improve its ability to translate technological breakthroughs into globally competitive industrial production. Many European start-ups and innovative companies struggle to scale due to limited access to industrial pilot facilities, a fragmented financing environment, and slower market deployment than in other regions. Strengthening Europe's manufacturing innovation ecosystem, therefore, requires integrated support from early research to industrial deployment and large-scale production.

2. Strategic Autonomy & Industrial Resilience

There is a need to reduce dependencies, enable crisis-resilient and reconfigurable production, and ensure European technological sovereignty at the equipment, data, and systems level. Strengthening industrial resilience also requires addressing Europe's dependencies on critical raw materials and key enabling technologies. To create strategic autonomy within Europe effective widespread dissemination and deployment of research and innovation results is needed among the manufacturing sectors.

3. Circular & Climate-Neutral Industrial Production

Europe must turn sustainability into a competitive advantage through circular business models, net-zero manufacturing, decarbonisation, innovative materials, and energy-efficient production. Today, the EU relies heavily on imports for many strategic inputs (magnets, for example) and components that underpin advanced manufacturing systems.

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Developing technologies for raw input recovery from high-value components, for recycling, and for circular production systems will therefore play an important role in reducing external dependencies and improving Europe's industrial security. By extending product lifetimes, recovering inputs, and developing new circular business models, European industry can create new economic opportunities across manufacturing value chains.

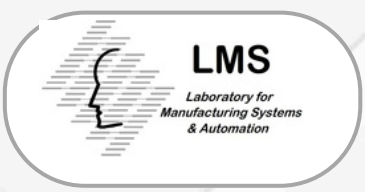
4. Digitalisation, Automation & Industrial AI

Europe must lead the way in deploying trusted, European data spaces, AI-enabled production systems, advanced robotics and cobots, physical AI and sovereign digital infrastructures across all industrial sectors. Ensuring European leadership in digital manufacturing requires industrial data sovereignty. European companies must be able to develop and deploy AI solutions using trusted data infrastructures that protect industrial know-how, intellectual property, and cybersecurity while enabling cross-sector collaboration and innovation.

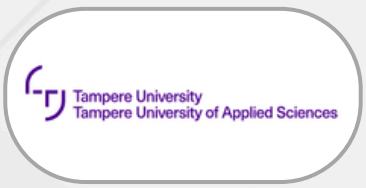
5. Workforce Empowerment, Skills & Human-Centric Transformation

A highly skilled workforce is essential, and support is required for lifelong learning, digital and AI upskilling, human-centric technology adoption, and cross-sectoral mobility to reinforce Europe's industrial talent base. Demographic trends make this challenge even more pressing. Europe's workforce is expected to decline significantly in the coming decades, increasing the importance of productivity improvements, automation, and continuous skills development. Human-centric deployment of advanced technologies will therefore be essential to ensure that digital transformation strengthens both industrial competitiveness and quality employment.

SUPPORTING ORGANISATIONS:



SUPPORTING ORGANISATIONS:



SUPPORTING ORGANISATIONS:

IBV INSTITUTO DE BIOMECÁNICA DE VALENCIA

aitiip centro tecnológico

NSB project

METALTECHNOLOGY AUSTRIA

we+

ADItech COORDINADOR SINAI Sistema Navarro de I+D+i

vicomtech MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

TURKU AMK TURKU UNIVERSITY OF APPLIED SCIENCES

[TECHNOLOGY CENTRE] CARTIF

DANOBAT

SORALUCE

GOIMEK

SAVVY

ALDAKIN

Steinbeis Europa Zentrum Enabling Innovators to Grow

Avio Aero a GE Aerospace company

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PRODUTECH TECHNOLOGIES FROM PORTUGAL PRODUTION TECHNOLOGIES CLUSTER

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BRAINPORT EINDHOVEN

USN University of South-Eastern Norway

inegi

nlr Accelerating the future of aerospace

SUPPORTING ORGANISATIONS:

FONDAZIONE links
PASSION FOR INNOVATION

STELLANTIS | CRF

CEMA
European Agricultural Machinery Association

FME POWERED BY DUTCH TECHNOLOGY

TITECH

DIMECC

FEM European materials handling federation

EIRAS
European Institute for Robotics, Automation & Resilient Systems

Technische Universität Braunschweig

Collins Aerospace
An RTX Business

mesap

STILFOLD

Avio Aero	https://www.avioaero.com/
Aalborg University	https://www.mp.aau.dk/
ADITech	https://www.aditech.com/es/
AGORIA	https://www.agoria.be/nl
Aitiip	https://www.aitiip.com/
ALDAKIN	https://aldakin.com/
AltForm	www.altform.com
Association of Metaltechnology Industries (FMTI)	https://www.metalltechnischeindustrie.at/en/
Austrian Institute of Technology	https://www.ait.ac.at/
Bio.3DGREEN	https://www.bio3dgreen.eu/
CARTIF	https://www.cartif.es/en/home/
CASP	https://casp-uk.net/casp-tools-checklists/
CECIMO	https://www.cecimo.eu/
CENTIMFE	https://www.centimfe.com/en-home.html
Centro Servizi Industrie S.R.L MESAP Innovation Cluster	https://www.mesap.it/
CETIM	https://www.cetim.be/
Chalmers University of Technology	https://www.chalmers.se/en/
Collins Aerospace Ireland	https://www.rtx.com/collinsaerospace/
COMAU SPA	https://www.comau.com/en/
Commissariat a l'Energie Atomique et aux Energies Alternatives (CEA)	https://www.cea.fr/
COMPETENCE INDUSTRY MANUFACTURING 4.0 S.C.A R.L. (CIM4.0)	https://cim40.com/
CRIT Srl	https://www.critweb.it/
DANOBAT	www.danobat.com

DIMECC Oy	https://www.dimecc.com/
EIRAS	
ESTIA	https://www.estia.fr/
Eurecat	https://eurecat.org/home/es/
FILL GmbH	https://www.fill.co.at/de
European Materials Handling Federation	https://fem-eur.com/
FME-CWM	https://www.fme.nl/
Fondazione Links Leading Innovation & Knowledge for Society	https://linksfoundation.com/en/
Fraunhofer IAO	https://www.iao.fraunhofer.de/en.html
Fraunhofer IPA	https://www.ipa.fraunhofer.de/en.html
VICOMTECH	https://www.vicomtech.org/es/
Fundacion Tecnalia Research & Innovation	https://www.tecnalia.com/
Ghent University	https://www.ugent.be/en
GOIMEK	www.goimek.com
Iberomoldes	https://www.iberomoldes.pt/
IDEKO	https://www.ideko.es/
IKERLAN	https://www.ikerlan.es/en
INEGI Portugal	https://www.inegi.pt/en/
INESC TEC	https://www.inesctec.pt/en
INSA Lyon	https://www.insa-lyon.fr/
Irish Manufacturing Research (IMR)	https://imr.ie/

JOANNEUM RESEARCH Forschungsgesellschaft mbH	https://www.joanneum.at/
LORTEK	https://www.lortek.es/
MADE S.C.A.R.L. Competence Center Industria 4.0	https://www.made-cc.eu/it/
Manufacturing Academy of Denmark (MADE)	https://www.made.dk/en/
Manufuture	Home
Mondragon Corporation	https://www.mondragon-corporation.com/en/
Netherlands Aerospace Centre NLR	https://www.nlr.org/
Northern Ireland Technology Centre - Queen's University Belfast	https://www.momentumonezero.com/
Norwegian University of Science and Technology - NTNU	https://www.ntnu.no/
NSBProject Srl	http://www.nsbproject.com
Orgalim	https://orgalim.eu
Philips Consumer Lifestyle BV	https://www.philips.be/
Politecnico di Milano	https://www.polimi.it/
PRODUTECH	https://www.produtech.org/
Profactor GmbH	https://www.profactor.at/
SAVVY	www.savvydatasystems.com
SINTEF Manufacturing	https://www.sintef.no/en/manufacturing/about-us/
Sirris	https://www.sirris.be/nl
SORALUCE	www.soraluce.com
STEINBEIS 2I GMBH	https://www.steinbeis-europa.de/en/home

Stellantis - Centro Ricerche Fiat	https://www.stellantis.com/it
STILFOLD AB	https://www.stilfold.com/
Tampere University of Applied Sciences	https://www.tuni.fi/en/about-us/tamk
Technische Universität Braunschweig, IWF	https://www.tu-braunschweig.de/iwf
Technische Universität Darmstadt	https://www.tu-darmstadt.de/
TNO	https://www.tno.nl/nl/
TTTech Computertechnik AG	https://www.tttech.com/
Turku University of Applied Sciences	www.turkuamk.fi
University of Bologna (UNIBO)	https://www.unibo.it/
University of Patras	https://www.upatras.gr/
University of South Eastern Norway	https://www.usn.no/english/
VTT Technical Research Centre of Finland Ltd.	https://www.vttresearch.com/en
We Plus	https://www.we-plus.eu/en
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