'25 MANUFUTURE CONFERENCE

MANUFACTURING IN EUROPE – THE INNOVATION ENGINE FOR THE FUTURE

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MANUFUTURE-EU

From an investment and innovation perspective

Manufacturing drives innovation, autonomy and resilience.

Without action, Europe’s share of global manufacturing production is projected to fall from ~26.6% in 2010/12 to ~19.7% by 2025.[1]

At the same time, Europe’s smart manufacturing market is forecast to reach ~USD 160 billion by 2030, growing at ~13.6% per year[2].

The 3 Tensions shaping manufacturing’s role today:

- Innovation vs Outsourcing
- Skills & Talent Pipeline
- Resilience vs Global Dependencies

China’s recent surge intensifies competition and urgency.

Tension 1: Innovation vs. Outsourcing

Can Europe lead in technology without focusing on manufacturing?

- Manufacturing enables faster feedback, scaling, and quality control.
- EU R&D spend is strong (€95B Horizon Europe[3]), but scaling lags.
- Europe <7% of global advanced chip capacity[4].
- China’s high-tech investment grew 7.5% in H1 2025; aerospace up 26%, computing up 21%[5].
- US has 4x more pilot facilities than EU
- Innovation to market in EU takes 2-3x longer in than US and China
- Building at scale matters as much as inventing – execution problem!

Tension 2: Skills & Talent Pipeline, Attracting the Workforce

Manufacturing must compete for the best minds.

- Germany/Austria: apprenticeships keep youth unemployment <7% vs. 14% EU average[6].
- 45% of EU workers in lifelong learning (Eurostat, 2022) but ‘upskilling’ & ‘reskilling’ not at retirement levels[8]
- Prestige gap remains: CEDEFOP finds manufacturing still ranks lower in appeal[6].
- China installed ~295k industrial robots in 2024 (54% of global deployments). 320k+ robot installations projected for 2025 (YoY growth 35%) [7].
- **Rebranding manufacturing as a tech-driven, green career path is critical.**

Tension 3: Resilience vs. Global Dependencies

Boosting Europe’s Manufacturing Resilience Against Global Risks

- Asia holds >70% of global chip capacity; Taiwan dominates[9].
- EU imports >90% of critical raw materials[10]
- Europe leading in legislation: EU Chips Act, Critical Raw Materials Act, Important Projects of Common European Interest.
- While China is building capacity and strategic supply chains, e.g. NEVs = 44% of all vehicle production in 2025 (+18.8% YoY)[12]
- China has secured integrated industrial ecosystems → Supply chain resilience requires building at home.

Leveraging Europe's Unique Advantages to Compete Globally

Europe's edge lies in worker satisfaction, sustainability, and potential to scale.

- High worker satisfaction (>75%), strong labor protections (Eurofound)[12] → drives quality
- 450M consumers enable short, efficient supply chains.
- First mover advantage in sustainability: EU Green Deal, Fit for 55, and Sustainable Finance shape global norms.
- Skilled workforce, apprenticeships, Erasmus+ and lifelong learning.
- Opportunities in open practical partnerships, e.g. with Africa (Global Gateway)
- Challenges: Underdeveloped industrial scale-up infrastructure, risk-avers business culture, and high levels of regulation slowing down innovation, **energy cost 20% higher than US and 4-5x higher than China**, 27 different tax & permitting systems

Closing the Gap Between Innovation and Industrial Scale

Deeptech depends on physical scale-up and production.

- Quantum computing needs fabs, AI needs chips, clean energy needs gigafactories
- EU Chips Act aims for 20% global chip share by 2030[13] requires capital deployment now
- High-tech growth in China includes aerospace, electronics, and EVs[14].
- US deploys 7-8x more capital for deeptech & manufacturing, US companies have access to more capital at all stages, EU has 5 deeptech & manufacturing IPOs/yr, US has 150/yr, only 8% of EU unicorns and deeptech/HW, compared to 23% in US.
- Europe must connect R&D with scaled production to get results. Like ASML and TSMC bur ween need systematic scale-up infrastructure.

Investing Now to Lead Tomorrow’s Industrial Revolution

How does winning look like?

We go from world class R&D, skilled workers & sustainability leadership to **scale**, **speed** and **industrial execution**.

For example:

- 3-4x number of deeptech unicorns
- University-industry collaborations (45% of US university research funded by industry vs. 15% in EU)
- €500B in new manufacturing capacity across strategic sectors
- 5M manufacturing jobs created or upgraded
- 2-3% industrial output growth instead of current stagnation
- Manufacturing capacity decisions for the next decade will be locked in 2025-2027.

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