Driving Competitiveness and Sustainability in European Manufacturing

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Strong European Community

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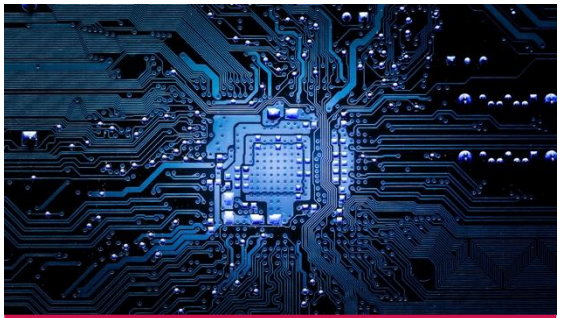
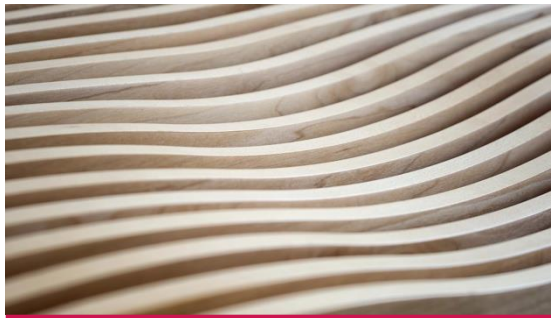
Europe addresses global challenges in manufacturing



Digital transformation



Sustainability

Competition

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Our Vision

Global manufacturing innovation is led by Europe.

Our Mission

Bring together manufacturing actors across Europe to integrate innovation and education for an entrepreneurial and sustainable Europe.

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Who we are

• Institutionalized partnership, 14 years financial support by the European Institute of Innovation and Technology (EIT)

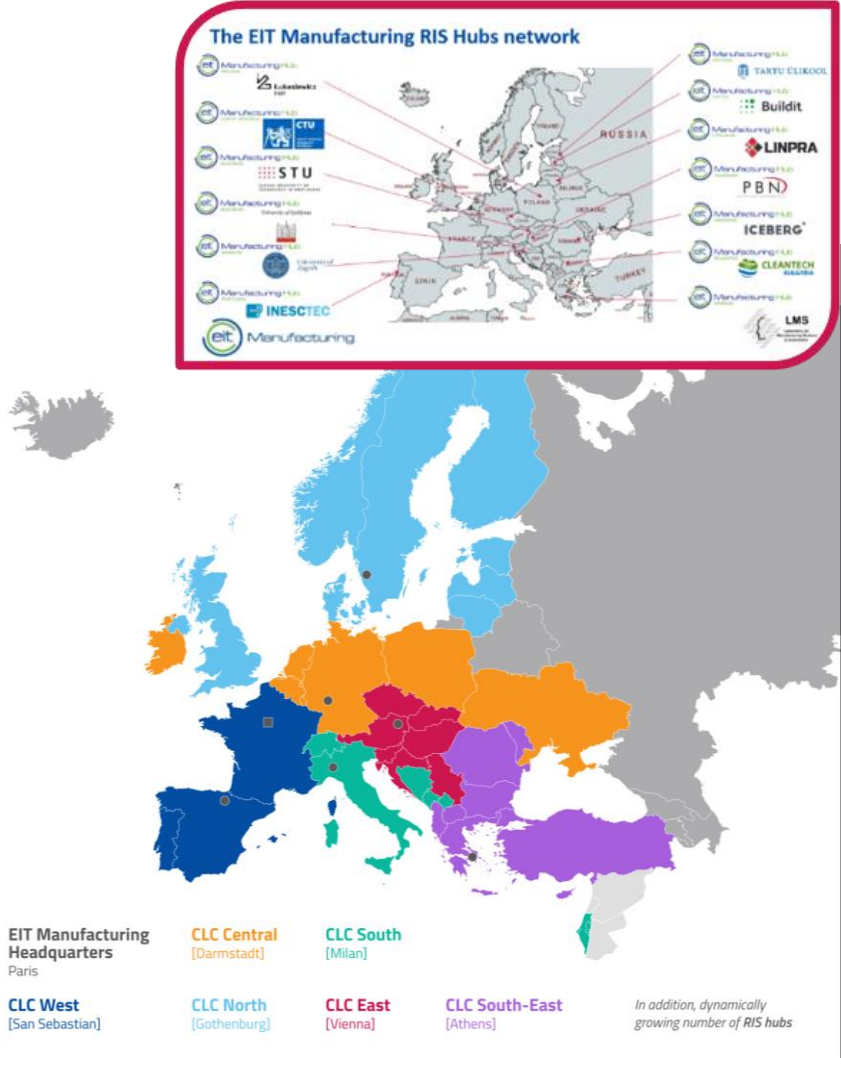
• 6 European Co-Location Centers plus 13 Innovation Hubs in Eastern Europe and other regions

• Holistic approach integrating Innovation, Business Creation and Education

• Our European learning platform Skills.Move (www.skillsmove.eu) with state-of-the-art content

• Our social network and innovation Platform AGORA (agora-eitmanufacturing.eu)

•€400M budget until 2026



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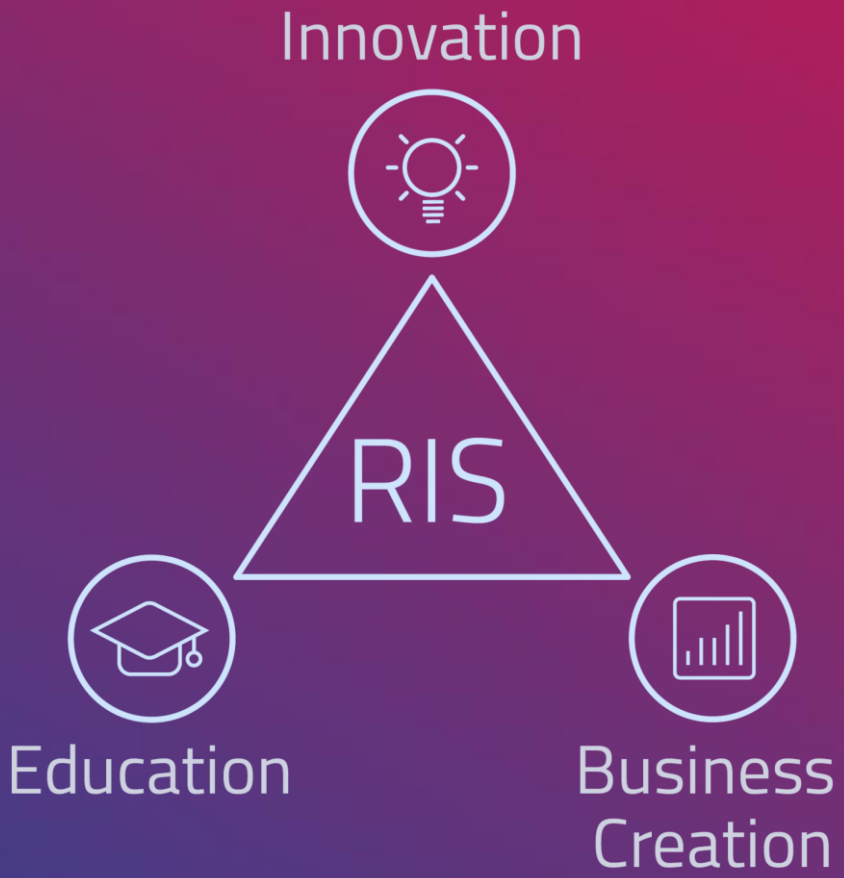
Who we are- A PanEuropean partnership

Our Approach
How we create impact

To ensure that **innovations reach the market**, industry has the **right talent** and **entrepreneurs can thrive**,

Connecting the areas of **education, innovation and business creation** and the Regional Innovation Scheme (RIS).



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Our Approach – 4 flagships guiding our investments

1.Flexible production systems for competitive manufacturing

2.Low environmental footprint systems & circular economy for green manufacturing

3.Digital & collaborative solutions for innovative manufacturing ecosystems

4.Human-machine co-working for socially sustainable manufacturing

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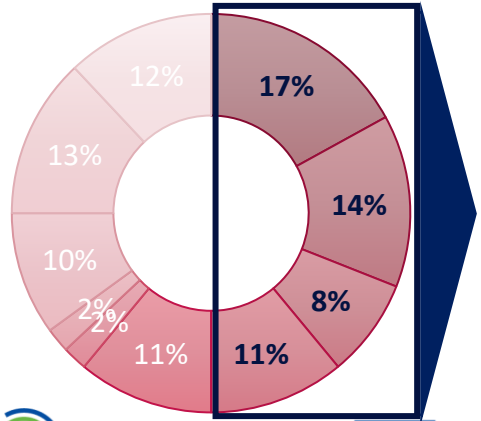
Why energy efficiency matters - Growing Environmental Concerns

Increasing pressure to reduce carbon footprint

DECADE OF ACTION



Emissions are high

Automotive, industrial manufacturing, energy & utilities, and consumer products and retail contribute to **roughly 50% of the overall GHG emissions in the globe**.

Policies and Regulations promoting sustainable practices and resilience

- Incoming Lower Emission targets for a number of industrial sectors
- Net Zero Industry act. CleanTech R&D and manufacturing in EU, to cover >40% of internal demand across EU by 2030
- Making the EU Green deal, twin transition inclusive to increase societal uptake
- European EU Green deal / Climate Law aims for EU to reach climate neutrality by 2050 and reduce emissions by 55% by 2030

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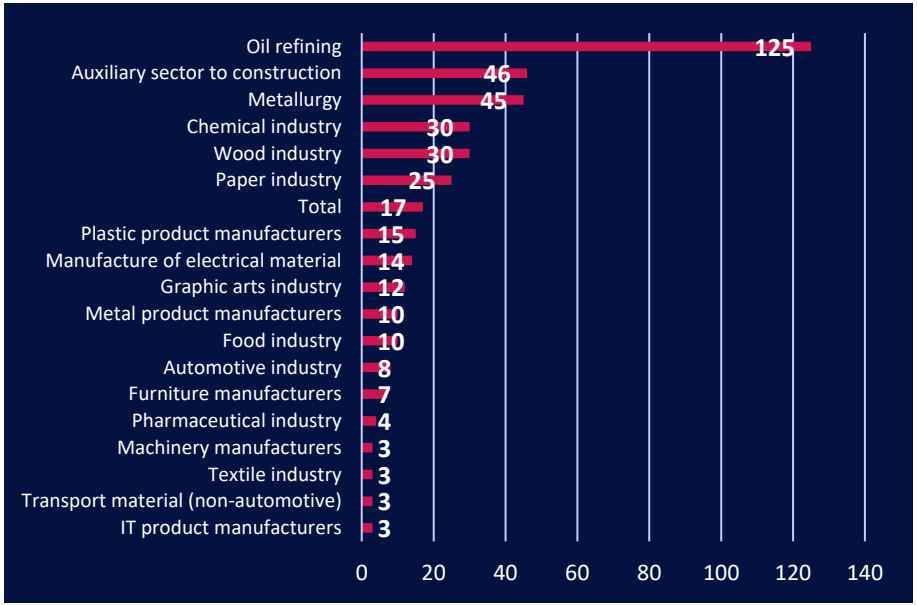
Capgemini Research Institute analysis. Data from CAIT Climate Data Explorer via. Climate Watch/Our World in Data, accessed October 2020.

Why energy efficiency matters - Economic Advantages

Reduced energy costs leading to improved profitability

Increase of gross operating surplus by a 50% increase in energy prices



Enhanced competitiveness in the global market

- EU CleanTech Industry on the rise driven by the need for supply chain resilience. New value creation
- Increased resiliency by relying on EU made energy sources. New value creation
- *Discussions in EU Importers from countries that regulate less, will pay a carbon tax to enter EU markets. Level the playing field
- The combination of Green & digital business transformations amplify the performance of investments in IT & capability development

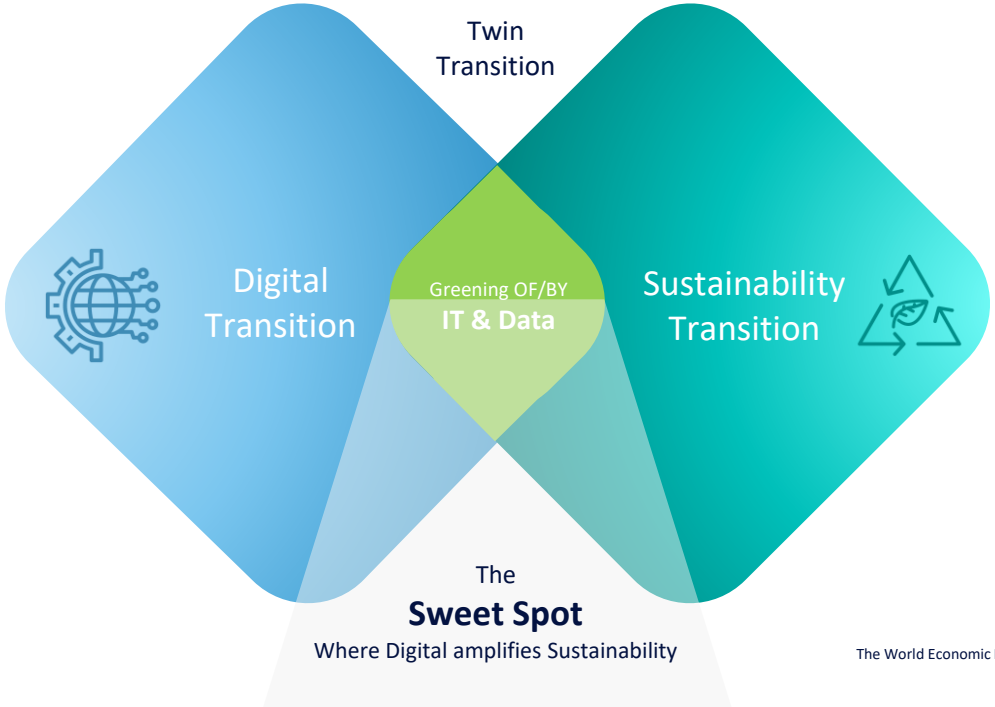
CaixaBank Research: Rising energy prices and their impact on the manufacturing industry: which sectors are being hit the hardest?

Digitalization enables sustainability

The Twin Transition approach assumes that there is a huge and largely untapped opportunity for technology and data to drive sustainability goals

EITM contribution:

- Investing & Funding
- Use Cases
- New technologies
- Consultancy
- Upskilling
- Leadership network



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The World Economic Forum

Voice of the customer – Innovation & Sustainability

Data from EIT Manufacturing survey, end-2022

Question 1
How will you innovate towards an environmentally sustainable manufacturing practice?

77%
prioritize investments in circular business models

Question 2
How will you implement circular business model strategies

71% focus on innovation to use less materials and resources

52% believe in redesigning products and processes with circularity in mind

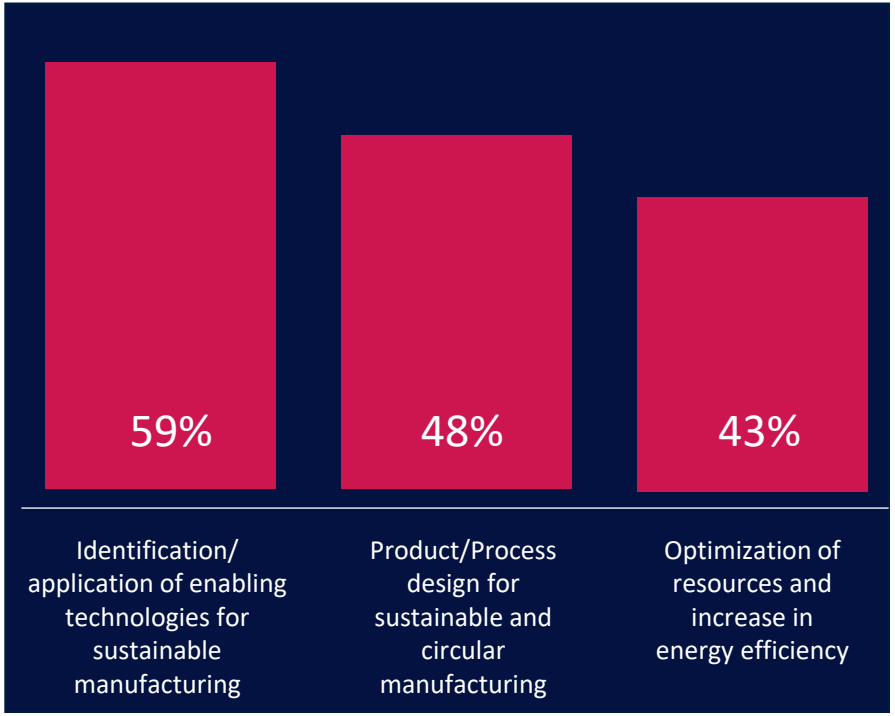
Question 3
How will you innovate towards business competitiveness and resilience

70% prioritize improved management of critical and non-critical resources

62% prioritize innovation in reliability and efficiency of existing processes

Voice of the customer – Innovation & Sustainability

Data from EIT Manufacturing survey, end-2022

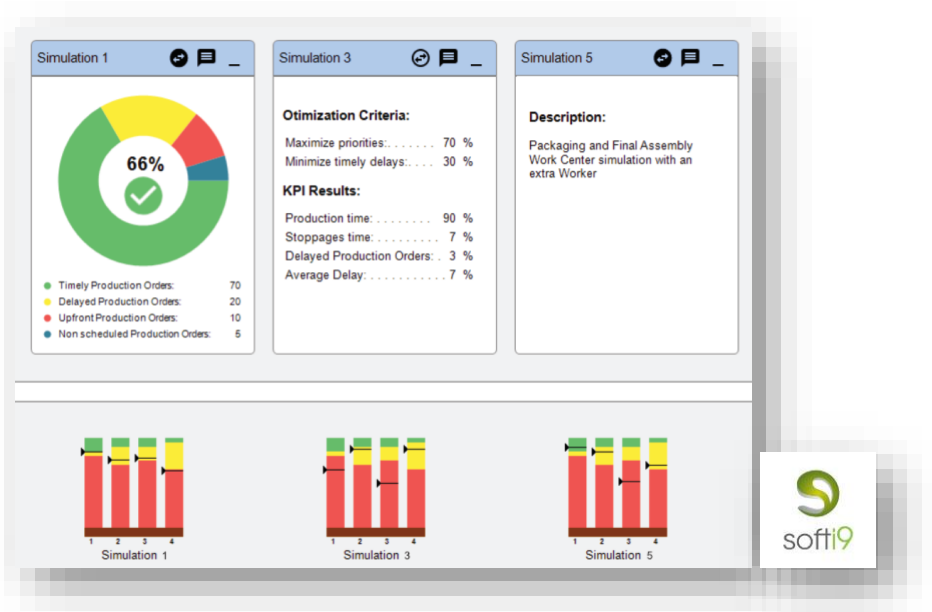


I&D Project 1 – GreenAPS

15-20% energy saving opportunities for steel producer by improving Planning & Scheduling processes

Green AI-supported APS

Analyzes energy offer, demand and consumption variables, thus acquiring knowledge that will be used to minimize energy consumption per part produced while assuring customer service levels.



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INESCTEC
TVARIT
RP Santini officina italiana
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I&D Project 2 – CHEAPREMAG

Changing the prototyping game for new electric motors with 3D printed –recycled-magnets

Recycled NdFeB bonded magnets

Performance matches those of non-recycled bonded NdFeB magnets (Remanence: 0.4-0.75T)

Cost reduction of 70% compared to non-recycled bonded NdFeB magnets

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Fraunhofer ceit MONDRAGON COPRECI MAGNETI MARELLI

I&D Project 1 & Commercial Partnership

Enabling cost effective and locally produced parts in 2 micro factories

ADAXIS spun-off an EITM Innovation project. Their solution allows to **turs any robotic arm to an FDM 3D printer**

Stilride marries design and function with simplified product/process architecture for electric bikes.

Taking the next step they have added 3D printing capabilities via Adaxis partnership

ADAXIS + STILRIDE

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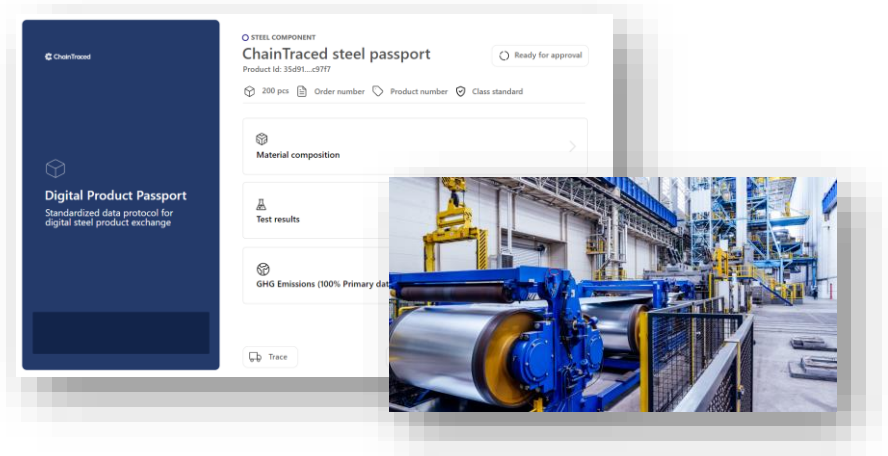
Commercial Partnership

The solution contributes to Voestalpine goals of reducing CO2 emissions by 25% by 2029

Digital traceability platform enables a representation of products through out the full value chain.

Voestalpine accelerates decarbonization by empowering collaboration across the SC and dynamic green house gas (GHG) data gathering

ChainTraced + voestalpine



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Education Project 1

An easy-to-use diagnostic tool helping businesses take the first steps in the sustainability transformation

SRC4i - SUSTAINABILITY READINESS CHECK for Industry

Framework for sustainable transformation in industry based on technological and managerial changes.

- Training program
- Readiness Diagnosis Tool
- Sustainability roadmap aimed at employees of industrial companies

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LMS Laboratory for Manufacturing Systems & Automation University of Patras

CLEANTECH BULGARIA

TECHNISCHE UNIVERSITÄT DARMSTADT

PUTOKŠNIS

Education Project 2

Learning Paths for upskilling of R&D and Ops workforce

Delivery of Educational content on digital technologies for sustainable production.
LEARN 4.0 offers learning paths for up-skilling manufacturing operators that will drive European manufacturing towards sustainable, net zero emission production environments.

- Innovation and change management
- Introduction to sustainable production
- Introduction to circular design
- I4.0 for sustainability & circular economy

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ineqi
Reply santer
tecnalia MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE
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Skills.move.eu ← Educational content for professionals

Call to Action – Opportunities in 2023

November 29th

Joining Startups and Corporates

BoostUp! 2023
In Athens

You are invited!

Mid-September

Innovation & Education projects

Year Round

Join the Pan European Manufacturing community

AGORA

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