

EIT Manufacturing

An European Approach on AI





Over 2.1 million manufacturing enterprises



32 million jobs (16% of the total EU working population)



Approx. 13 million jobs in the growing high-tech manufacturing industry¹



16.1 % of the share of EU-28 GDP² (2016)



Total turnover of EUR 7.11 trillion³

¹Eurostat, GDP percentage of total, industry breakdowns, 10.01.2018, ²Ibid.

³European Commission, Factories of the Future Manufacturing in Horizon 2020 and beyond, 2017.



DIGITALISATION



SUSTAINABILITY



COMPETITIVENESS



MANUFACTURING – AND THE WORLD - IS FACING MAJOR CHALLENGES



A Strong and Unique Partnership

47% Industry

Electronics and Digital



Automotive



Aerospace



Robotics



Consumers Goods, Medical Equipment and Process Industries



33% Universities



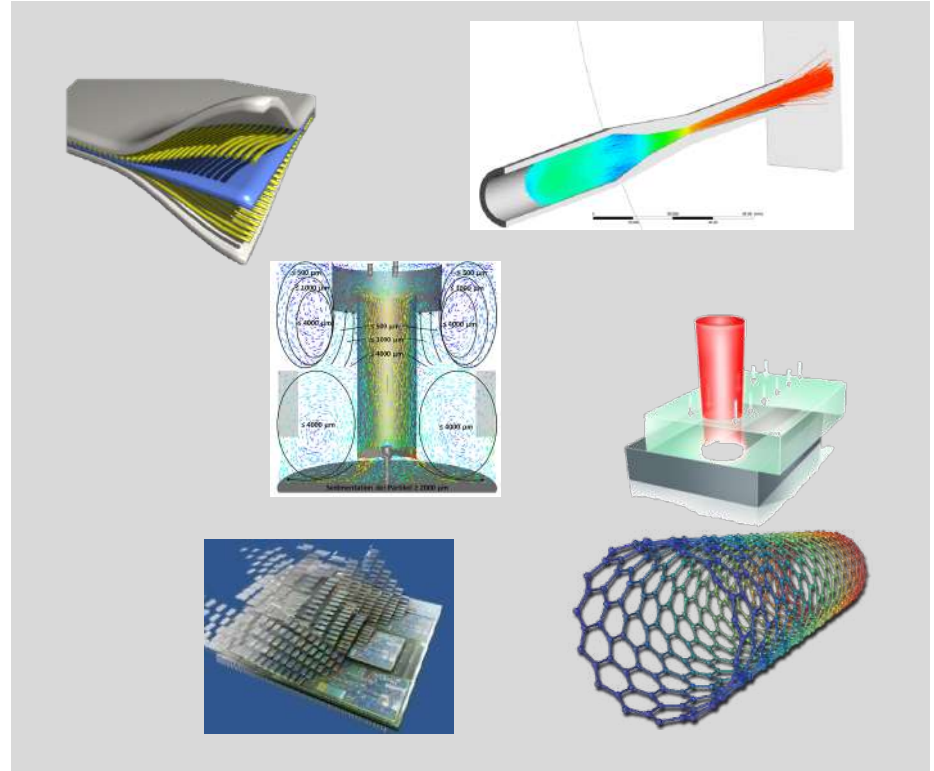
20% RTOs



Info June 2020

The role of data in manufacturing

- Movement, acceleration, vibration of mechanical parts
- Temperature and heat transfer of all kind of materials
- Magnetic and electronic fields
- Noise and Sound
- Fluid dynamics
- ...



Blue print for system design in the digital age

Cyber Security

Protecting industrial infrastructure over all levels

Connectivity and Edge Computing

Smart Products

Digitalization of product and service offerings

Smart Factory/Plant

Digitalization and integration of complete value chains

Smart Services

Innovative digital business models

Digital Twin & Simulation

Design products and systems better and faster, and optimize their usage

Artificial Intelligence (AI)

Applying artificial intelligence to industrial use cases from perception to cognition and decision

Industrial Data Platforms

Humans, devices and systems are connected along the entire value chain

EIT Manufacturing example I: Manufacturing Data Space

Hybrid Cloud Sandbox data space for participants

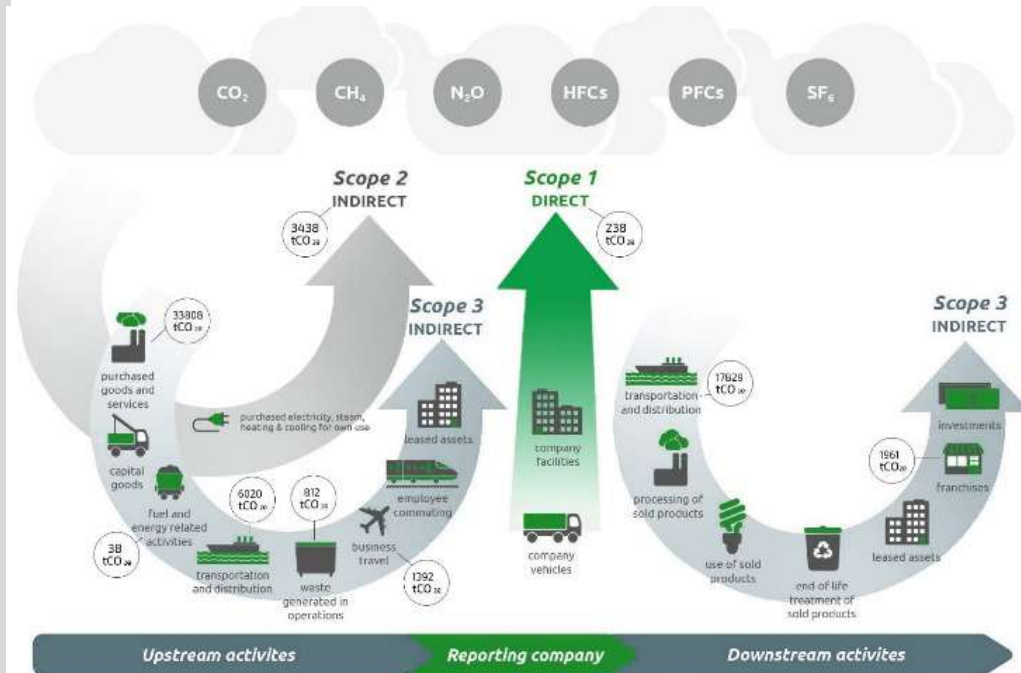
Co-operate with existing initiatives for consistency, e.g. BDVA*, ...

Improve and Expand in a multi-phase approach

Decarbonization Demo App initially drives platform requirements

Atos, Siemens, Festo, Vives, Comao, Procter&Gamble, Aerospace Valley, ...

* Memorandum of Collaboration under development



EIT Manufacturing example II

Results of an online survey* conducted by the KICs

Cross KIC Project

Digitalized Production Testbeds for the Food Sector

Led by EIT Manufacturing – providing manufacturing expertise

Joining Forces with:

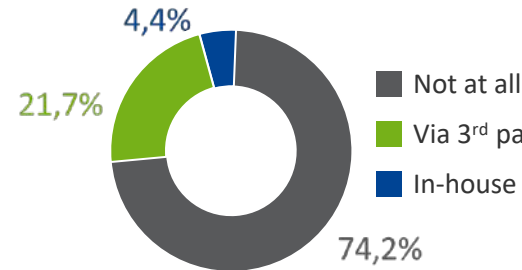
EIT Digital – unlocking digitalization potential

EIT Food – identifying use-cases and pain points

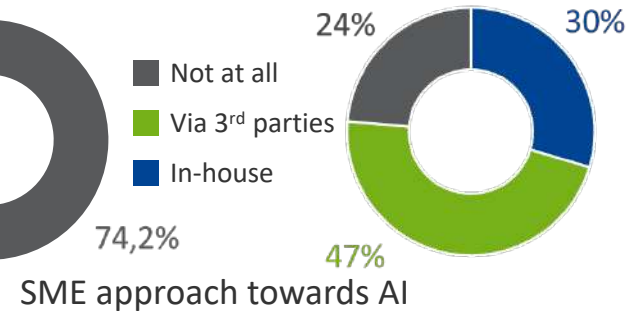
Goal:

Development of fully digitized production testbeds, to foster the identification of AI use-cases and implement AI-based solutions for more efficient and sustainable production of food and beverages.

Food manufacturing



Other manufacturing sectors



~50 % of European manufacturing SMEs think missing out on AI will lead to losing competitiveness

Manufacturing inherits huge potential for AI
SMEs face difficulties approaching the subject

**EIT Manufacturing connects both “worlds”,
generating mutual benefits and chances**

Joint report on AI

Recommendations:

- To ensure effective policy in the area of AI it is necessary to take context (sectors of application) into account.
- Policies regarding application of AI on personal data should be allowed to differ from policies regarding application of AI on machine data, especially in certain application sectors.
- General regulation or policy measures can be considered in relation to algorithm transparency and explainability
- Regulation should be adaptable and flexible, whilst minimizing and mitigating risks and ensuring human rights and European values.





Thank you