SMART INDUSTRY FIELDLABS (THE NETHERLANDS)

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The case study provides a researcher's perspective on how the Smart Industry Fieldlabs accelerate the digitization of the Dutch industry. It covers the main fields of activity, organisation, international linkages, and impacts of 10 fieldlabs.

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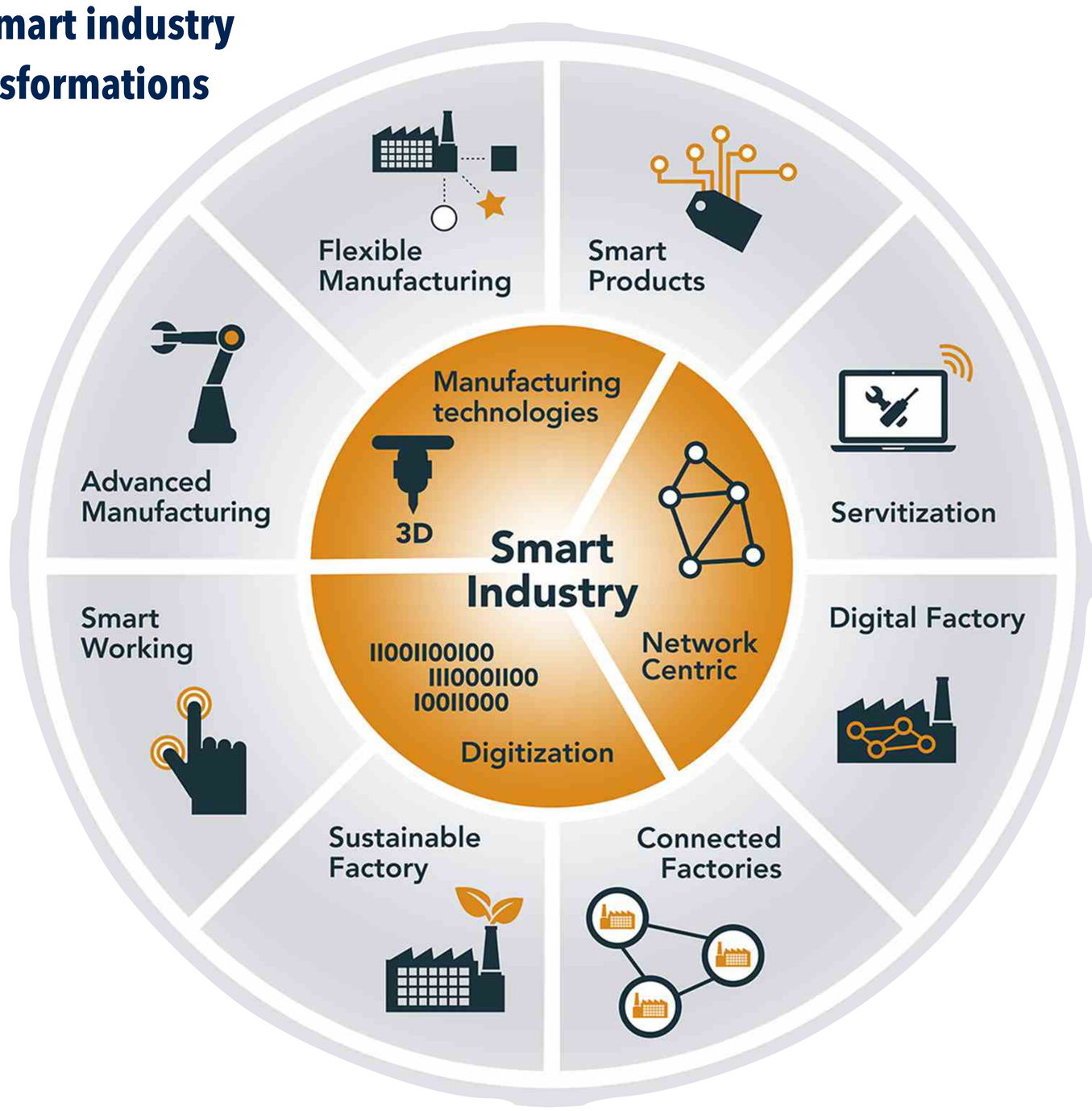
Topics covered

Public-private partnership, smart industry solutions, science-industry collaboration, technology development and testing

What are the Smart Industry Fieldlabs?

- Shared facilities in which companies and knowledge institutions develop, test and implement Smart Industry solutions.
- Initiated in 2014
- There are currently 40 fieldlabs - Some have a regional focus, others a national or a European focus.
- Initiated by different stakeholders (e.g. public parties, firms, knowledge institutes) on average more than 20 partners

Key smart industry transformations



What are the main objectives of the field labs?

5 examples:

FreshTeq	Make Dutch industry the world leader in smart solutions for fully automated production, cultivation and distribution of fresh fruit and vegetables
Flexible Manufacturing	Enable the production of small series, flexible and fully automated by robots
Smart Dairy Farming / JoinData	Increasing the sustainability of dairy farming and agriculture by real-time monitoring of dairy cows and agriculture and the sharing of data in the chain.
Multimateriaal 3D printing	Develop new value chains, based on the next generation of 3D printing technologies
Ultra-Personalized Products and Services	Develop new product propositions for the manufacturing industry through innovative use of data and customization of products.

What are their main activities?

- Collaborative research, development and innovation
- Concept validation and prototyping
- Testing and validation
- Awareness raising (organisation of workshops, invite firms to visit their field lab)
- Ecosystem building, scouting, brokerage and networking
- Education & skills development, targeted at students & employees
- Incubator and acceleration support (1 fieldlab)
- Standardisation (1 fieldlab)

Some key findings:

- Most field labs started with a focus on ICT technologies with a relatively high TRL level (i.e. used existing/ generic ICT solutions and (re-) used them in an industrial context, driven by the specific needs of Dutch industry)
- Most field labs have a clear, but non-hierarchical organization structure and use a project based approach
- Most field labs have a physical test location to execute their activities.
- 5 field labs have created spin-offs

Budget

- More than EUR 72 million invested in field labs since 2015, of which about 43% is private financing
- Sources and composition of funding differ, but all include private financing

Stolwijk, C. and M. Punter (2019), "Case study on Smart Industry Fieldlabs, the Netherlands: Contribution to the OECD TIP Digital and Open Innovation project", TNO, The Hague.