



# **BETTER FACTORY**

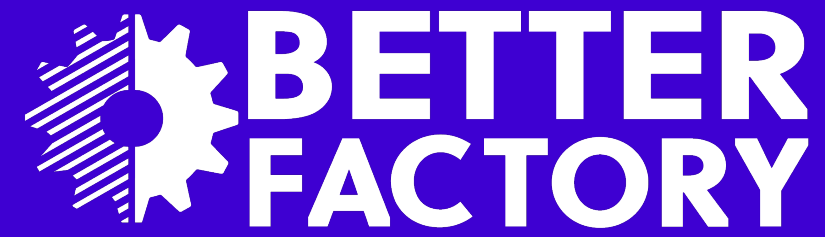
**Grow your manufacturing business**

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# Topics discussed



- Brief introduction Better Factory
- NIS2 and IoT in manufacturing



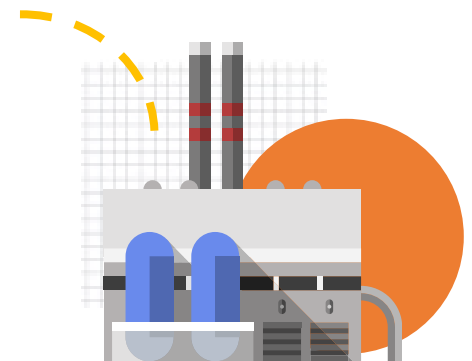
**Introduction to the project**

# What is Better Factory?



Better Factory is an initiative funded under the European Commission Horizon 2020 programme. We invite European **Manufacturing SMEs, Artists, and Technology suppliers** to engage in a set of one-year collaborative experiments to redesign manufacturers product portfolio.

- The project will enable Manufacturing SMEs and Mid-Caps to **enter new markets** with customisable products or service portfolios.
- Artists with an industrial background to **create new business models** for themselves and reach new prospective clients.
- Technology Suppliers to reach out to **new potential customers and test technologies** in real-life situations with low financial risk.



# The challenges we will address



## #CreativityChallenge

Before adopting new business models and investing into factories for new or personalized products, **SMEs need to reinvent their products for customization**, around the core value proposition of the product and around the core knowledge of the SME.



## #Lean-AgileChallenge

To produce batches of new and personalized products, alongside existing products SMEs will require more from their factories. **Factories will need to operate as fully connected Lean-Agile cyber-physical-systems**, minimizing the use of resources, and simultaneously reconfiguring Human-Robot-Interaction while keeping the constraints on quality, delivery, time, etc.

# The challenges we will address



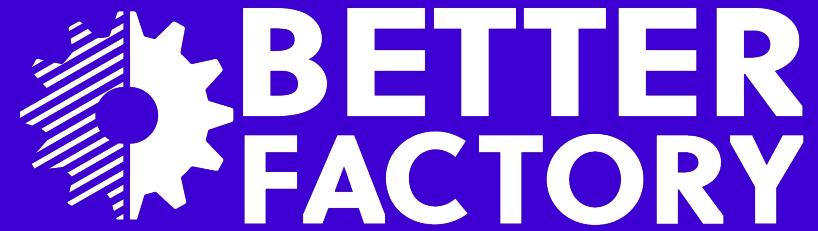
## #InvestmentChallenge

Arts drive science and science drive arts and a combination of these drive innovation. The **artists can spur new innovations** on the path to digital transformation with manufacturing SMEs, as well as explore new horizons with Technology suppliers. **Yet, full exploitation of these unpredictable innovations will rely on the access to finance.**



## #SkillsChallenge

Transformation process of a conventional factory requires **transformation of organisational design and enterprise architecture** that embrace convergence of multiple advance technologies. This requires **strategic thinking, simulation, planning and re-skilling.**



## NIS2 and its impact on IoT in manufacturing

# Why NIS2



- Current NIS Directive dates from 2016
  - Significant fragmentation across the EU
  - Security levels are not on par with threats
  - Massive surge in cyberattacks (focused on supply chains!)
  - Threat-level has increased substantially
- NIS 2:
  - Strengthening response capabilities
  - Different approach to scoping
  - Focus on supply chain security
  - (Voluntary) vulnerability disclosure
  - Stronger enforcement



# A lot more stakeholders in scope

NIS Directive

Operators of essential services

Sector	Explanation
Energy	Electricity, oil and gas
Transport	Air, rail, water and road
Finance	Institutions and exchanges
Health sector	Healthcare providers as defined in point (g) of Article 3 of Directive 2011/24/EU
Drinking water	Suppliers and distributors
Digital infrastructure	Internet exchanges, DNS service providers and registrars

Digital service providers



NIS 2

Essential or Important entities	
Energy: - electricity - district heating and cooling - oil - gas - hydrogen	Postal and courier services Waste management
Transport: - Air - Rail - Water - Road	<b>Manufacture, production and distribution of chemicals</b> <b>Food production, processing and distribution</b>
Banking	<b>Manufacturing:</b> - <b>Manufacture of medical devices and in-vitro diagnostic medical devices</b> - <b>Manufacture of computer, electronic and optical products</b> - <b>Manufacture of computer, electronic and optical products</b> - <b>Manufacture of machinery and equipment</b> - <b>Manufacture of motor vehicles, trailers and semi-trailers</b> - <b>Manufacture of other transport equipment</b>
Financial market infrastructures	
Health (incl. healthcare providers, reference laboratories, R&D, basic pharmaceutical manufacture, manufacture medical devices critical during public health emergencies)	
Drinking water	
Waste water	Digital providers: - Online marketplaces - Online search engines - Providers of social networking services platform
Digital infrastructure (incl. cloud computing service providers, data centre service providers, content delivery network providers, trust service providers, electronic communication network and service providers)	
Public administration	
Space	
ICT Service management (MSP and MSSP)	

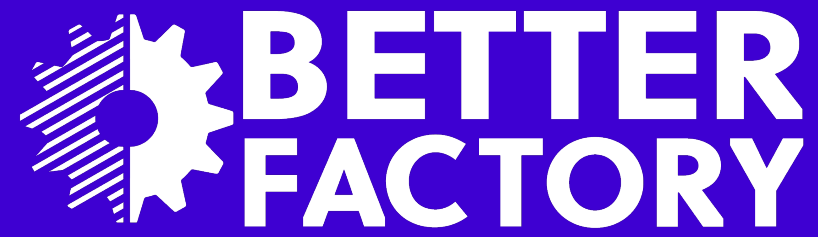
# The carve-out for SMEs

	Irrespective of size	Medium-sized (or above)	Above SME
<b>Essential</b>	<ul style="list-style-type: none"> <li>- Qualified trust service providers</li> <li>- Top-level domain name registries (even when non-critical)</li> </ul>	Providers of public electronic communications networks or publicly available electronic communications services (even when not meeting levels of essential services)	Active in Energy, Transport, Banking, Financial market infrastructures, Health, Drinking water, Waste water, IT Service Management and Space
	Public administrations		Postal and courier services, Waste management, Manufacture, production and distribution of chemicals, Food production, processing and distribution, Manufacturing, Digital providers meeting the criteria for essential services
	Critical entities		
	Any entity providing an essential service according to an MS		
	Operators of essential services		
<b>Important</b>	Non-qualified trust service providers	Active in Energy, Transport, Banking, Financial market infrastructures, Health, Drinking water, Waste water, Digital infrastructure, IT Service Management, Space	
	Micro and small providers of public electronic communications networks or publicly available electronic communications services (even when not meeting levels of essential services)	Postal and courier services, Waste management, Manufacture, production and distribution of chemicals, Food production, processing and distribution, Manufacturing, Digital providers	
	Any micro or small entity providing an important service according to an MS		

# Obligations



- Vulnerability disclosure (whistleblowing, but for vulnerabilities)
- Stronger accountability and role for senior management
- TOMs (“all-hazard”, risk-based approach (essential>important))
  - Risk analysis & information system security policies
  - Incident handling (full cycle)
  - BC and crisis management
  - Supply chain security
  - Security in NIS, vulnerability handling and disclosure
  - Policies and procedures to assess cybersec risk management effectiveness
  - Policy on cryptography and encryption
  - HR security, access control policies and asset management
- Vendor risk assessments (!)
- Incident reporting
- Use of certified IT products and services can be made mandatory at national level



Thank you!