Why European co-operation?

Sustainable manufacturing program 14.4.2020

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COVID-19 is challenging certainties everywhere

- European and international collaboration needed to defeat covid-19.
- What are the impacts and consequences of covid-19 on our lives and our societies?
- There will be competition even in the new normal. It takes innovation, collaboration and continuous learning to be successful. Digitalization forms the foundation for high value-added jobs.
- History shows that those who plan and act decisively at speed during such crises emerge as winners in their industry.

High-Level Roundtable "Industry 2030": Vision 2030



In 2030, European industry will be a global leader, responsibly delivering value for society, the environment and the economy. Europe will build its competitive advantage on cutting-edge and breakthrough technologies, respect for our environment and biodiversity, investment in our people, and smart European and global alliances. Based on collaboration and our common European values, this new industrial model will help to make Europe a role model for the rest of the world.

Industry 2030 recommendations

TURNING VISION INTO REALITY

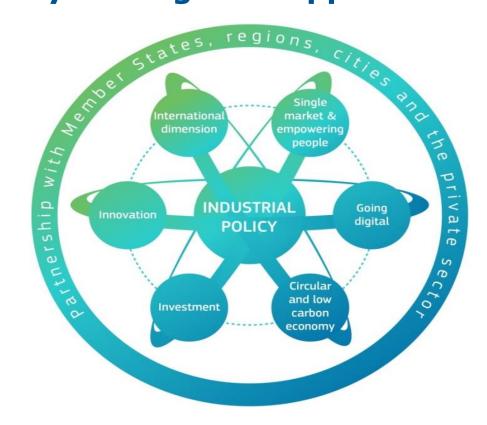
To turn this vision into reality, Europe will need to manage a fast and inclusive transformation, champion global competitiveness and address social inclusiveness and values. This will require action and the collaboration of policy makers at all levels, industry stakeholders and the broader civil society. The following game-changing ideas offer concrete proposals to make this happen.



EU Industrial Policy – Integrated approach

Investing in a smart, innovative and sustainable Industry

Promoting Industrial ecosystems and alliances and more strategic collaboration



There are several good reasons for businesses to participate in EU co-operation

- Opportunity to anticipate emerging technologies, undertake R&D and try radical and disruptive innovations with best researchers and talents.
- A way to **identify new business opportunities** and to **strengthen and diversify** your innovation and business **networks**

 EU-project can be a way to true partnership with your important customers, suppliers and other partners.

- Your competitors are already there doing R&I and investments with EU funding and support. EU instruments support the different phases of innovation process – from R&D to demos and pre-industrial validation of pilot lines and testbeds, and even first industrial deployment.
- The EU initiatives and regulation affect the internal market. Through active EUcollaboration you will more likely have a say in how it evolves.

• About 70 % of the export of Finnich technology industries goes to Europe.

- EU's broad-based innovation investments go beyond Horizon Europe –program.
- A range of funding schemes at EU level can be mobilised. If this can be done in a coordinated way, we can have more leverage and impact.
- Same focal areas can be found in several programs/schemes

 AI, data, cybersecurity, IIoT, autonomous mobility, smart
 health, low carbon industry etc.

Policy	Competitiveness	Investments	Cohesion	Digital Single Market	Research and Innovation	Space	Defence
MFF Program	New EU Industry Policy Strategic Value Chains (SVC) Alliances	EIB InvestEU EU's Emissions Trading System	Structural Funds	Digital Europe Programme	Horizon Europe Programme	European Space Programme	European Defense Fund
Priorities	Connected, clean and autonomous vehicles Smart health Low-carbon industry Hydrogen technologies and systems Industrial Internet of Things Cybersecurity	Coherent investment across EU policies (IPCEI)	Regional Policy priorities: Low-carbon economy Support to SMEs Smart Specialisation Sustainable urban development Regional co- operation and interregional innovation projects	Digital capacity building, advanced digital skills, infrastructure deployment and interoperability: High Performance Computing Artificial Intelligence Cybersecurity and Trust	Health Culture and inclusive society Civil security for society Digital, Industry and Space Climate and energy Mobility Bio-economy, food, natural resources and environment	Space Data High Performance Computing IoT Autonomous Driving Monitoring Greenhouse Gas Emissions Security	Collaborative projects in defence research and in industrial development research Emerging and disruptive technologies
Actions	Industry strategies and investments aligned with SVCs National budget provisions needed in case exemption from State Aid Rules (IPCEI) Source: Sarvaranta, VTT	Continuation of budgetary model of EFSI (European Fund for Strategic Investments)	Synergies with other programmes, Strategic Value Chains (SVCs), Component 5	National Competence Centres and DIHs to be set up	Partnerships and Missions to be established in Pillar 2 Clusters Pathfinder and Ecosystems in Pillar 3	EU's Technological Leadership in Space EU's Autonomous Access to Space	EU's autonomy and technological leadership in defence Inter-operability

Innovation Fund: Basics

Improving the impact of investments in reseach and technology development investments

- Build and operate large-scale industrial assets with breakthrough technologies.
- Single entity, i.e. international consortia not required.
- Technical, business, and financial viability.
- Lump-sum payments upon milestones and performance (verified GHG emissions avoidance).
- Contents and conditions of calls can be adjusted annually.

Key features of the Innovation Fund

Volume of at least EUR 10 billion at current carbon prices	Support of up to 60% of additional costs related to innovative technology	Renewable energy CCS and CCU Industry Energy storage
Financed from the revenues	Support of additional capital	First call in mid-2020
of the EU Emissions Trading	and operating costs (up to 10	Projects with CAPEX > 7,5
System	years)	million

Driving low-carbon technologies to the market



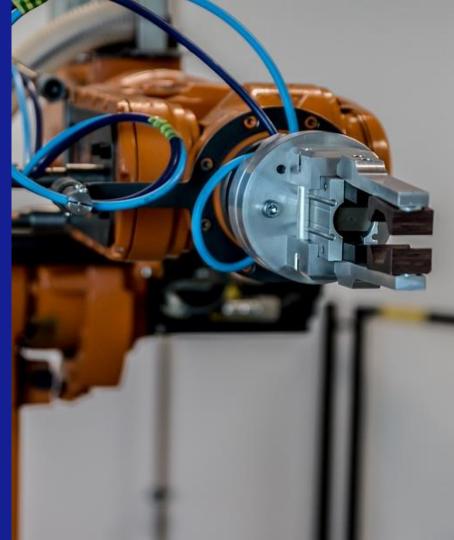


• We have in Finland expertise and good examples of industrial and public private collaboration e.g. in view of the Green Deal objectives and digital transition.

- To achieve the ambitious objectives of the ecosystems and boost further the competitiveness of manufacturing industry, European/international cooperation is needed.
- National policy initiaves and programs boost active European/international co-operation.

Advanced Manufacturing and IIoT made in Finland

- Increasing R&D and fixed investments in Mechanical Engineering industry since 2013; 40 % increase in R&D investments
- A new national R&D program on <u>Sustainable</u> and <u>Smart Manufacturing</u>
- <u>Reboot IoT Factory</u>:
 - Ecosystems of SME's and research institutions centered around forerunner factories (ABB, Nokia, GE Healthcare, Ponsse, Kongsberg).
 - Industry challenges solved: Data driven supply chain and production management, robotics fusion, labor at digital work
- IndEx Industrial Data Excellence
- <u>One Sea</u> Autonomous Maritime Ecosystem



Smart Health made in Finland

- <u>Healthtech Finland</u> Sustainable growth for more than 20 years
- National health sector strategy
- "Toisiolaki" Law on secure and safe use of health and social data (03/2019) e.g. for R&D purposes
- <u>Clever Health Network</u> Ecosystem for digital innovation
- <u>FinnGen</u> one of the very first personalized medicine projects at this scale
- <u>Health Capital Helsinki</u> Innovating and accelerating health and life science business



Thank you!