

- Digitising European Industry measures were defined in the Communication of 19 April. Activities on Standardisation, Cybersecurity, European Science Cloud are running in parallel to this Round Table.
- We are on track for the next DEI Round Table in April, as well as the Stakeholder Forum on 31 Jan/1 Feb in Essen.
- This is the 2nd Round of Working Groups. We may need further Rounds in the Spring, as we are still collecting inputs and defining the way forward.



- Digital and physical technologies can be best brought to bear through coordinated platform activities across Europe and across many sectors.
- Need a mapping of EU, MS and industry initiatives – we are on the way to this, but need more input
- Need to align national and European initiatives
- Large-scale federating initiatives would help convince industry of the value of digital platforms and start to build the necessary partnerships and ecosystems

- Various platform development activities exist
- Efforts are highly fragmented
- Need for better mapping of EU, MS and industry initiatives
- Need to bring national and European initiatives together
- Large-scale federating initiatives would help convince industry of the value of digital platforms and start to build the necessary partnerships and ecosystems

- Workshop focused on 4 questions
- Work was structured in 5 subgroups (vertical and horizontal)
- Inputs requested from MS, PPPs, and invited experts
- Unbalance in subgroup members mitigated

Just a few contributions received

| | Connected Smart Factory | Digital transformation of health and care | Smart agriculture | Industrial Data Platforms | Internet of Things |
|-----------------|---------------------------------------|---|----------------------------|---|-----------------------------|
| Austria | | | | | |
| Belgium | | | | | |
| Bulgaria | | | | | |
| Croatia | | | | | |
| Cyprus | | | | | |
| Czech Republic | | | | | |
| Denmark | | | | | |
| Estonia | | | | | |
| Finland | | | | | |
| France | | | | | |
| Germany | | | | | |
| Greece | | | | | |
| Hungary | | | | | |
| Ireland | | | | | |
| Italy | | | | | |
| Latvia | | | | | |
| Lithuania | | | | | |
| Luxembourg | | | | | |
| Malta | | | | | |
| Netherlands | | | | | |
| Poland | | | | | |
| Portugal | | | | | |
| Romania | | | | | |
| Slovakia | | | | | |
| Slovenia | | | | | |
| Spain | | | | | |
| Sweden | | | | | |
| United Kingdom | | | | | |
| AIOTI | | | | | |
| Big Data | | | | | |
| EIP-AGRI | | | | | |
| FoF | | | | | |
| IMI | | | | | |
| SPIRE | | | | | |
| Invited experts | VDMA, Telefonica, ZVEI, Siemens | Philips, ZVEI | ZVEI, CEMA, COPA COGECA | Telefonica, ZVEI, COPA COGECA, Fraunhofer | IERC and IoT-EPI, Huawei |

- So far:

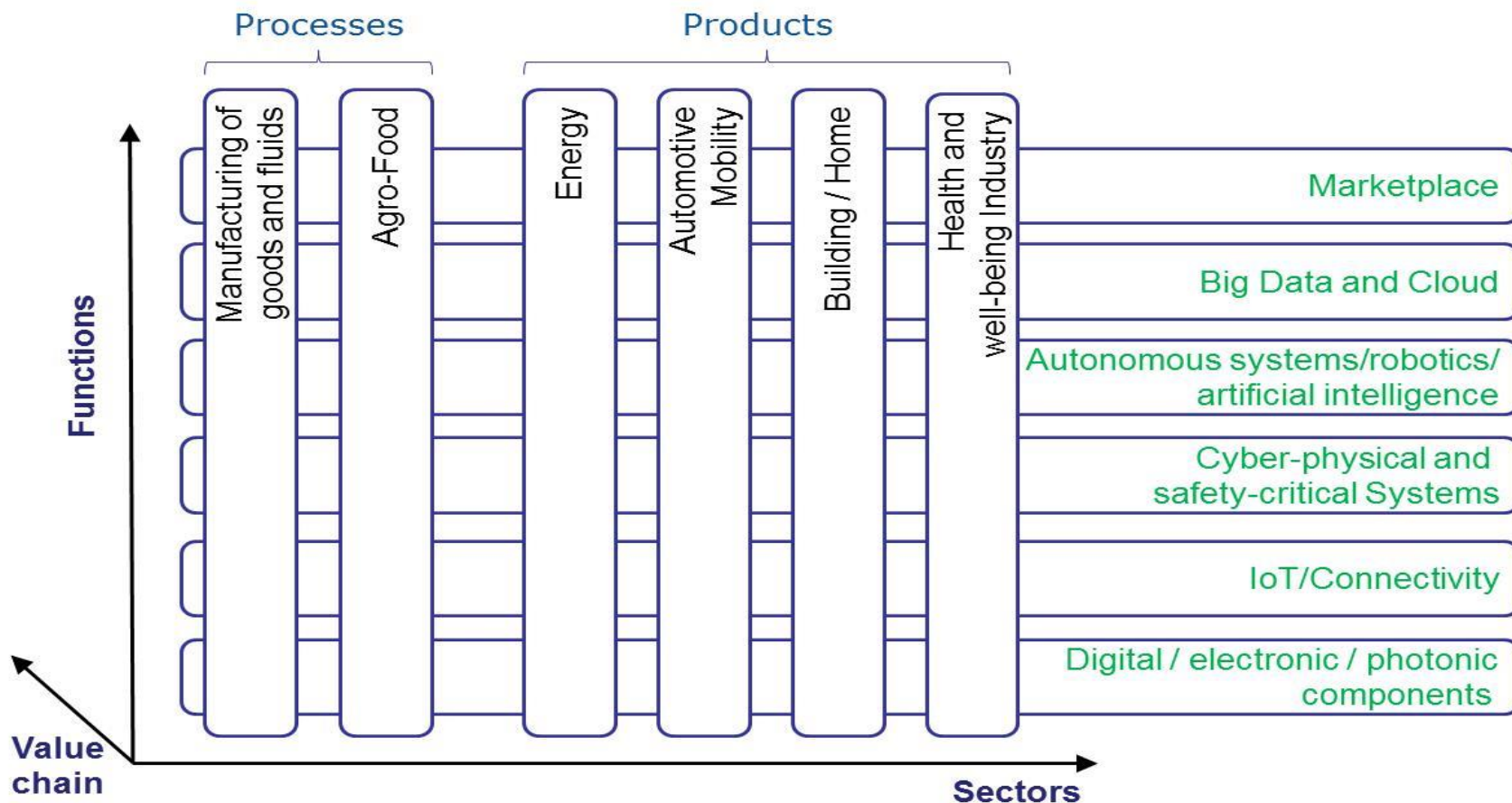
- Comment by Jan van den Biesen (Philips), 17/11/2016 17:04, [subgroup Health and Care](#)
- Comment by Kai Peters (VDMA), 17/11/2016 16:01, [VDMA on Platforms for Connected Factories](#)
- Comment by Alejandro Cadenas (Telefonica), 18/11/2016 11:18, [Do you consider the 6 topics](#)
- Jan van den Biesen (Philips), 17/11/2016, [HealthSuite Digital Platform](#)
- Marcus Wittrin (Germany, Federal Ministry of Education and Research), 18/11/2016, [RE: DEI WG2: Oct 21 workshop report.](#)
- Ana Garcia Robles (BDVA), 18/11/2016, [BDVA input to DEI WG2 data](#)
- Martin Winter (SPIRE PPP), 18/11/2016, [SPIRE PPP Contribution DEI, WG2](#)
- Cornelius Eich (ZVEI), 18/11/2016, [ZVEI contribution](#)
- Ivo Hostens (CEMA), 18/11/2016, [CEMA input to DEI WG2 on smart farming](#)
- Daniel Azevedo (COPA COGECA), 18/11/2016, [Copa Cogeca inputs](#)
- Egbert-Jan Sol (Netherlands), 17/11/2016, [Contribution from the Netherlands](#)
- Milan Petkovic (BDVA), 18/11/2016, [BDVA input to DEI WG2 Health subgroup](#)
- Davide Dalle Carbonare (BDVA), 18/11/2016, [BDVA input to DEI WG2 Manufacturing subgroup](#)
- Simon Scerri, Soeren Auer (Fraunhofer), 18/11/2016, [Fraunhofer input to DEI WG2](#)
- Silviya Lozanova (Bulgaria), 18/11/2016, [Contribution to the Digitising European Industry Working Group 2](#)
- Herve Meteyer (France), 18/11/2016, [DEI WG2 French contribution](#)
- Chris Decubber (EFFRA), 22/11/2016, [Contribution from EFFRA \(Factories of the Future PPP\)](#)
- Luis Perez-Freire (AIOTI), 22/11/2016, [Contribution from AIOTI on smart agriculture subgroup](#)
- Ovidiu Vermesan (IERC and IoT-EPI), 06/12/2016 , [IERC and IoT-EPI input for the DEI WG02 subgroup IoT](#)
- Yongjing Zhang (Huawei), 06/12/2016, [Huawei answers to DEI WG2 Questions](#)
- AIOTI WG03 Members, 06/12/2016, [DEI WG2 Questions and Answers provided by AIOTI WG03 Members](#)
- Eddy Roelants (Siemens), 07/12/2016, [Siemens input: position paper on Digital Platforms and on Digitalization of EU Industry \(DEI\)](#)

Leadership in digital industrial value chains

The concept of federating initiatives for platform building and large scale testing and piloting



Leadership in digital technologies value chains



Large scale piloting & platform building in FP7, H2020 including ECSEL, ...

| | Connected Smart Factory | Digital health & care | Smart agriculture | Connected & automated driv. |
|---------------------|--|---|--|--|
| FoF PPP | FoF-11 cluster - automation - supply chain | | | |
| IoT Focus Area | | ACTIVAGE cloud services SC cofinancing | IOF2020 cloud services AGRI cofinancing | AUTOPILOT services for connected cars |
| Societal Challenges | | UNIVERSAAL e-health platform for AAL | | SCOUT (CNECT) 4G connectivity CARTRE (RTD/MOVE) WIFI connectivity |
| Big Data PPP | | AEGLE personalised services | DATABIO* satellite data in agriculture | AUTOMAT vehicle data services |
| ECSEL JU | ARROWHEAD automation Productive40* supply chain | | | ENABLE-S3 ADAS systems CRYSTAL Autosar |
| Future Internet PPP | FITMAN cloud services for optimization | FISTAR cloud services | FI-Space cloud services | |

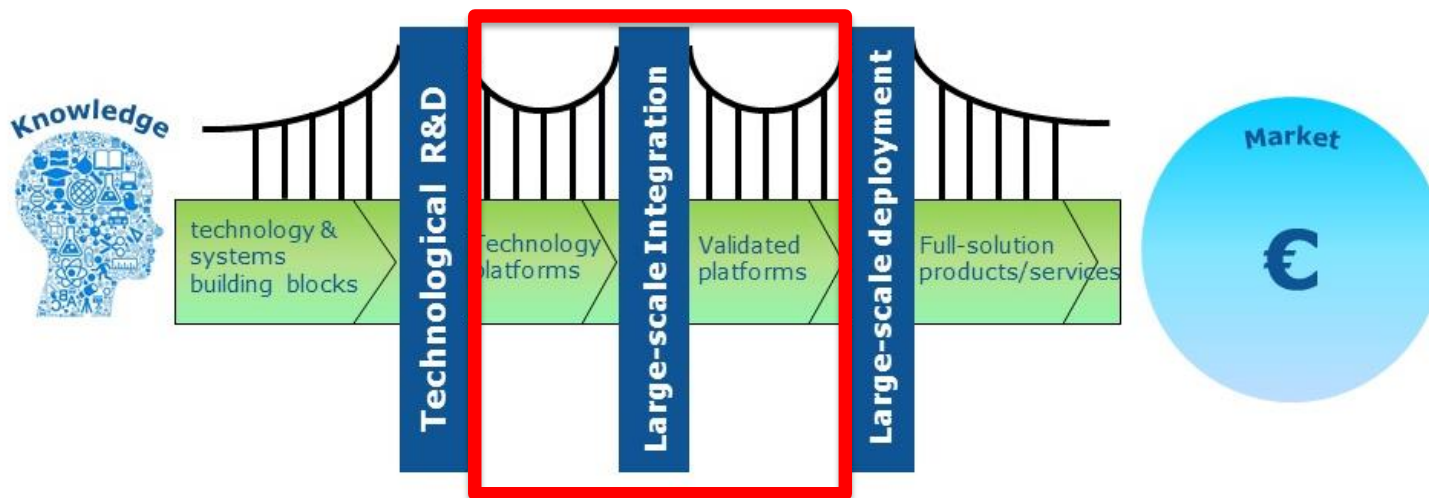
* To start in due course

Not including IoT Smart City Pilot Synchronicity

Strategic and Ambitious Large Scale Federating Initiatives at European Scale on Digital Industrial Platforms and Ecosystem building through testbeds and piloting

European
Commission

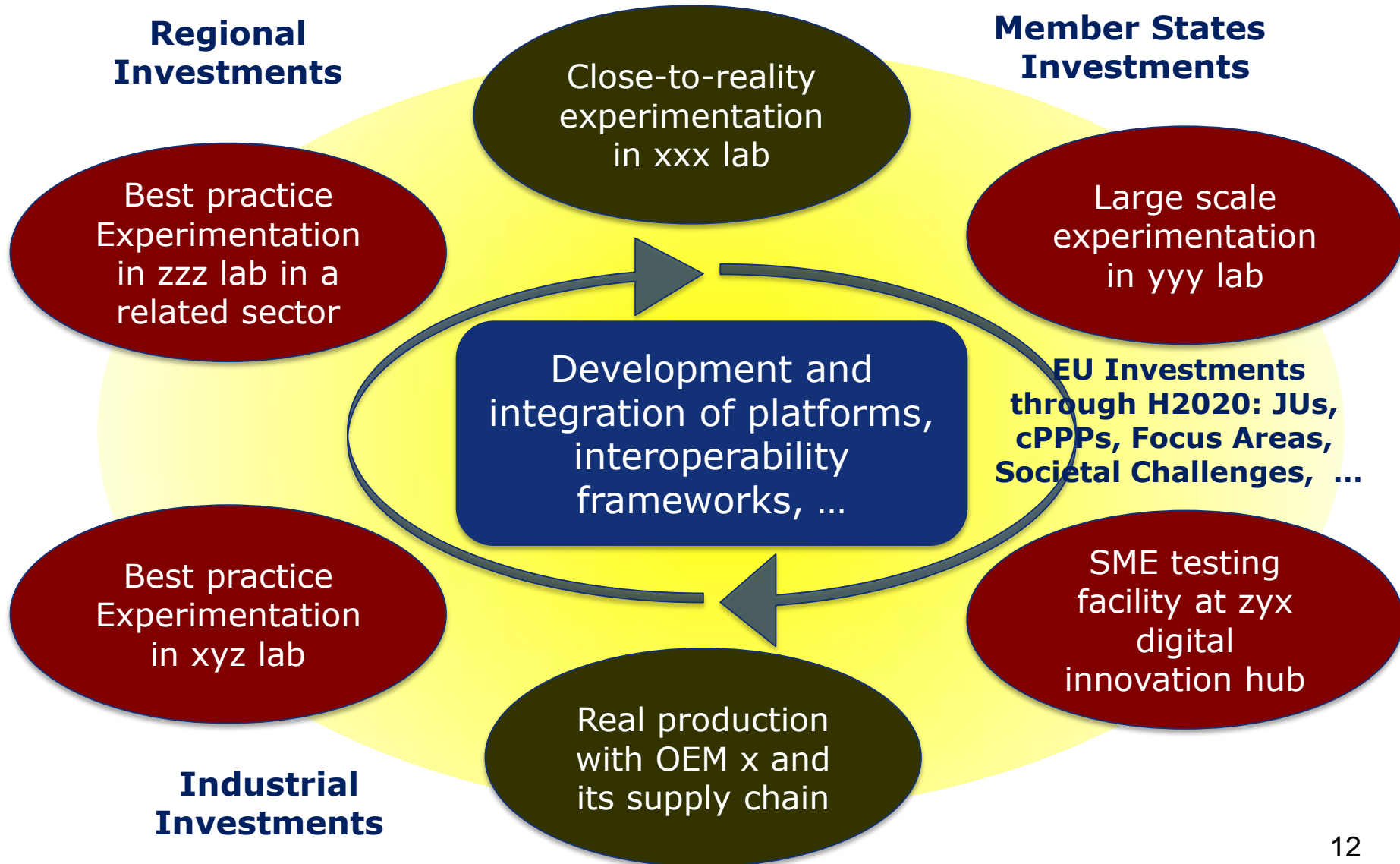
- Under the Digitising European Industry Strategy:
"Leadership in digital industrial value chains and platforms"
- Overall goal: **aligning regional, national and EU strategies for large-scale reference implementations**
 1. Initiatives by industry and MSs/regions
 2. Linking pin: WP 2018-20 PPPs, Focus Areas, ...
- Focusing on a small number of larger strategic pan-European Innovation Actions, which pool resources across the EU



- Key objectives
 - Future global standards and platforms driven by the interests of EU actors
 - EU actors joining forces along common interests in the "platform economy"
- Approach: Bottom-up standardisation & platform building (TRL 5-8)
 - Reference architectures, platforms, interoperability frameworks
 - Testbeds and large scale experimentation
 - Piloting on system level
 - Broad experimentation with "apps" by SMEs and mid-caps
 - Standardisation and ecosystem building
- Scope
 - Addressing the domain challenges of the future
 - Profiting from digital advances (AI, data analytics, CPS/IoT, ...)
 - Building on existing platforms and reference architectures
 - Balancing the interest of EU industrial actors
 - Large and Small
 - Users and system providers
 - Industrial and societal actors
- Basic concept / grand challenges
 - "digital twin", trusted and secure data platforms, ...



Pooling of Resources – Co-investment



- Choice of baseline platform(s)
- Domain / Use case / sector
- Grand challenge - Unifying concept
- Focus
- Balance: visionary – real vs lab – innovative - pre-competitive
- Pooling of resources: EU, MSs, industry - conditional funding
 - High priority to the wishes of industry and MSs
- Open platforms and interoperability frameworks while safeguarding the interests of European industrial actors
- Broad involvement of SMEs and mid-caps
- Size of H2020 pilots and testing – **the linking pin**
 - Small number of strategic large initiative-type projects with involvement of many actors

Key challenges to be addressed in future platform projects for the smart connected factory of the future

- Agility – logistics 4.0
- Mass customisation – lot size 1
- Urban manufacturing
- Autonomous systems – cobotics - AI
- Excellence in manufacturing: laser-based, zero-defect, additive manufacturing, ...
- Energy and resource efficiency – circular economy
- Fully linked physical and digital worlds
AND fully linked product and production

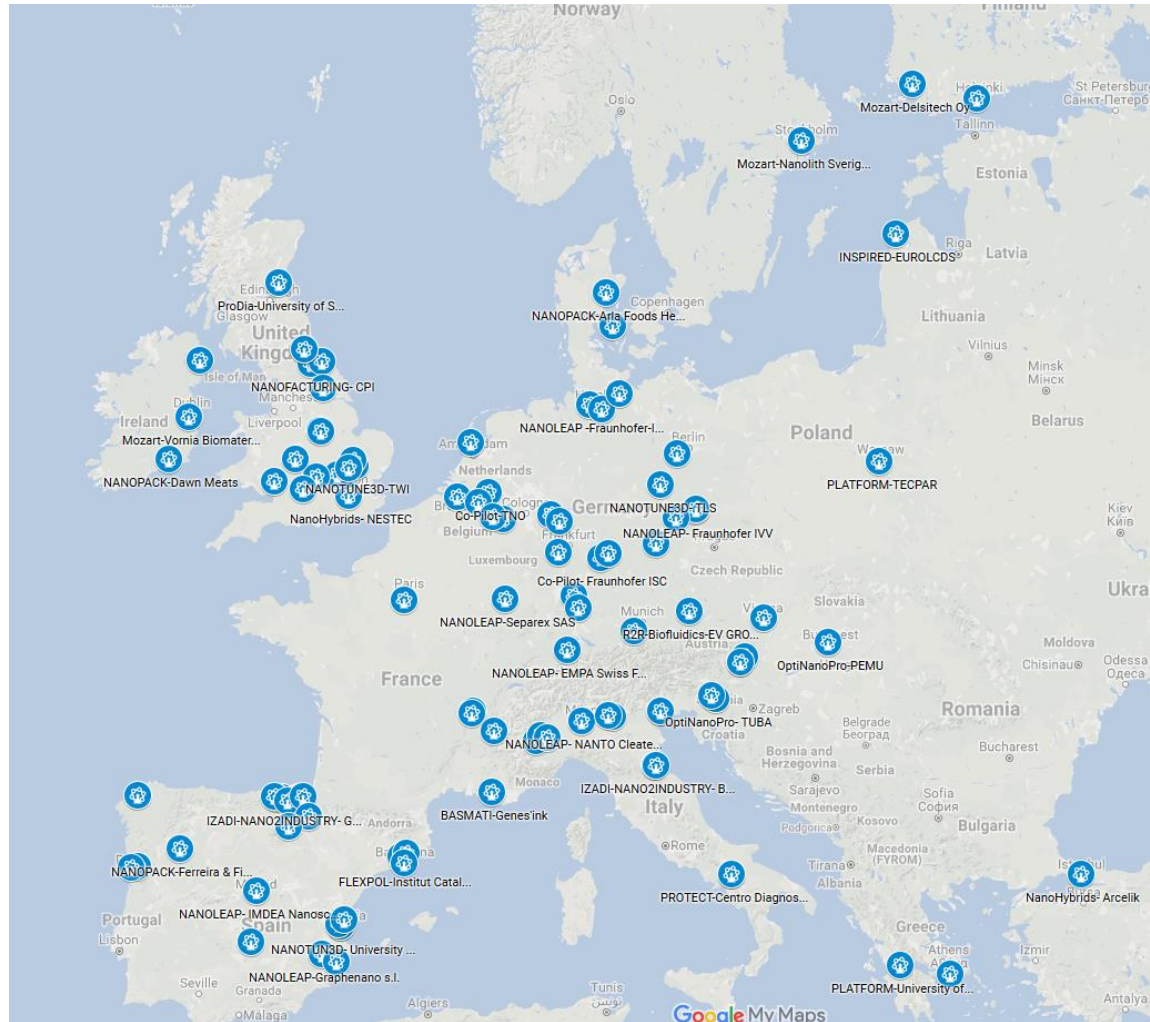
- Platform economy
- Data economy
- Security – trust

In PPPs FoF and SPIRE under WP2018-20 it is envisaged to support several large scale federating initiatives (+-100 MEURO)

- SME equipment producers = Europe's strength
 - They offer niche solutions for manufacturing
 - They have world-class products of highest quality and precision
 - They are able to quickly conquer new markets worldwide
- Today:
 - Manufacturers visit industrial trade fairs to get informed about novelties
 - No online one-stop-shop
- Proposal:
 - Create Commercial Online Platform bringing together manufacturers & equipment suppliers
 - Facilitating decision making & new business for both sides
- Online Platform:
 - To offer transparency: Buyers comparing products/prices & learn from other users
 - To help manufacturers stay on top of tech developments & improve operations.
 - Equipment suppliers to advertise & showcase products to buyers worldwide

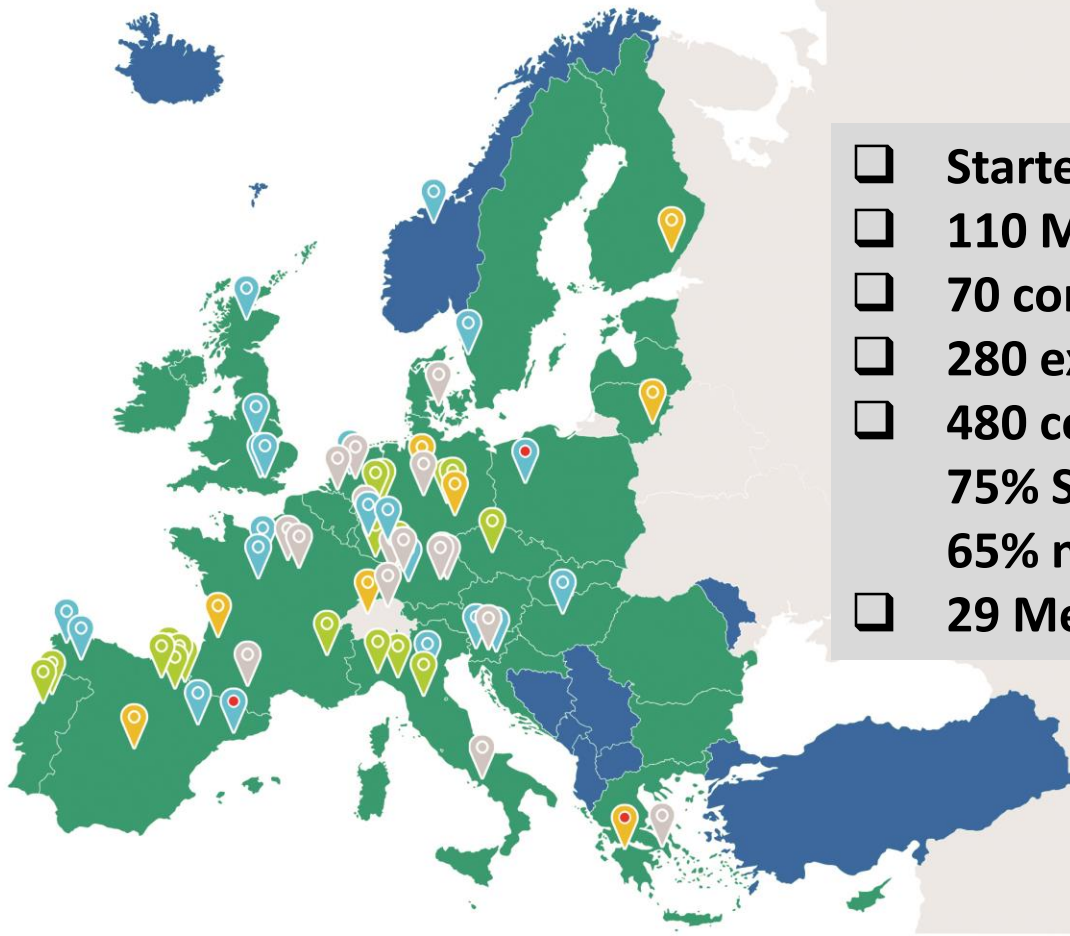
Would EU Member States support?

Possible link with Pilot Networks/Hubs



I4MS

Factories of the Future PPP



- Started in 2013
- 110 M€ of EU funding - 11 networks
- 70 competence centres
- 280 experiments: 75% cross-border
- 480 contractors/340 industrial:
75% SMEs and mid-caps, 50% users,
65% new in EU R&I Programmes
- 29 Members States + Ass. Countries

To come:

- Phase 3 WP2016-17
Calls are open
- Phase 4 WP 2018-20

1. Stocktaking

- report from 21st October meeting
- Some inputs received

2. Next-generation platforms

- elaborate, develop further ideas/concepts

3. Supporting initiatives

- What kind of large scale federating initiatives are needed?
- What platforms to be tested and demonstrated in large-scale pilots?

4. Action plan

- Need actions
- Contributions from PPPs
- Contribution from the MSs
- Links with national initiatives

Agenda Dec 8

- 09:30 - 09:45 Welcome and objectives of the day
- 09:45 - 10:00 Concept of large scale federating initiatives
- 10:00 - 10:15 Discussion
- 10:15 - 10:45 Coffee break
- 10:45 - 12:30 Parallel sessions on vertical areas:
 - Connected Smart Factory (room CCAB-0A)
 - Digital transformation of health and care (room CCAB-3.05)
 - Smart agriculture (room CCAB-3.04)
- 12:30 - 13:30 Lunch break
- 13:30 - 15:15 Parallel sessions:
 - Industrial Data Platforms (room CCAB-0A)
 - Internet of Things (room CCAB-5B)
- 15:15 - 15:45 Coffee break
- 15:45 - 16:30 Closing plenary
 - Reporting from groups, next steps, and closure