Digitising European Industry Stakeholder Forum

Strengthening Leadership in Digital Industrial Platforms

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European Commission - DG CONNECT

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Micro-electronics

Autonomous driving

Smart Factory

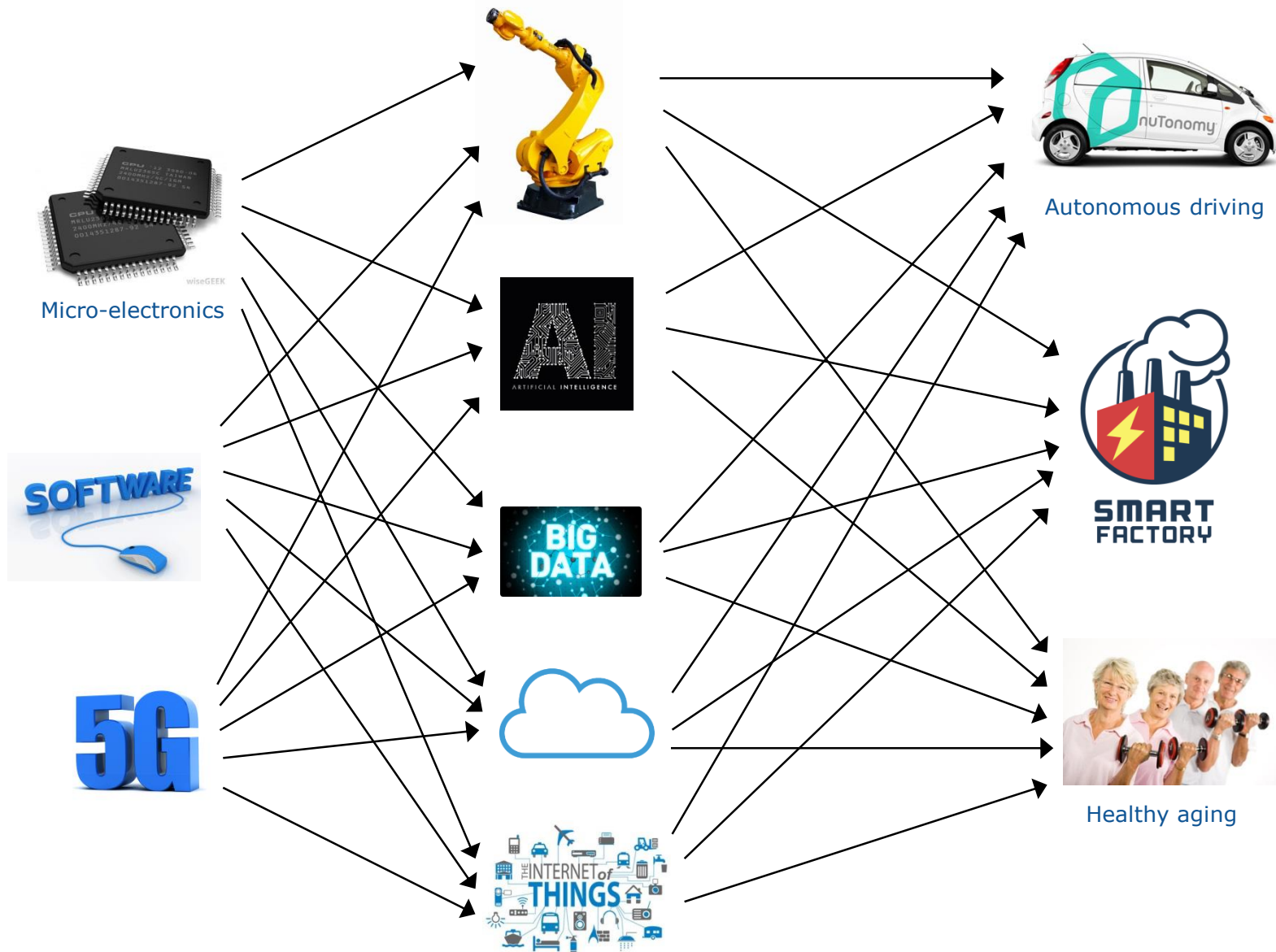Healthy aging

Digitising European Industry

To facilitate coordination of European, national & regional initiatives
such as Industrie 4.0 (DE), Smart Industry (NL) (SK), Industrie du Futur (FR)

Mainstreaming digital innovation across all sectors:
Setting up a pan-European network of Digital Innovation Hubs

Strengthening leadership in key parts of the digital value chain:
- Public-Private Partnerships
- Industrial platforms
- Large scale pilots & test beds

Preparing People for the digital age: Skills & Training

Regulatory framework:
- Free flow of data & data ownership
- Safety & liability of autonomous systems & Internet of Things

Challenges & opportunities of the **Internet of Things**

CLOUD
European Cloud Initiative in a data-driven economy:
- European Open Science Cloud
- European Data Infrastructure
- Widening access & building trust

High Performance Computing

Quantum

STANDARDS
Fast development in 5 priority areas:
- 5G
- Cloud Computing
- Internet of Things
- Data Technologies
- Cybersecurity

DIGITAL PUBLIC SERVICES
eGovernment Action Plan:
- New Digital Single Gateway
- eJustice Portal
- "Once-only" principle in Administrations
- Cross-border Health services
- eProcurement & "Once-only" in public procurement

To focus investments
(Horizon 2020, EU Investment Plan, EU Structural & Investment Funds, national & regional funds, private sector)

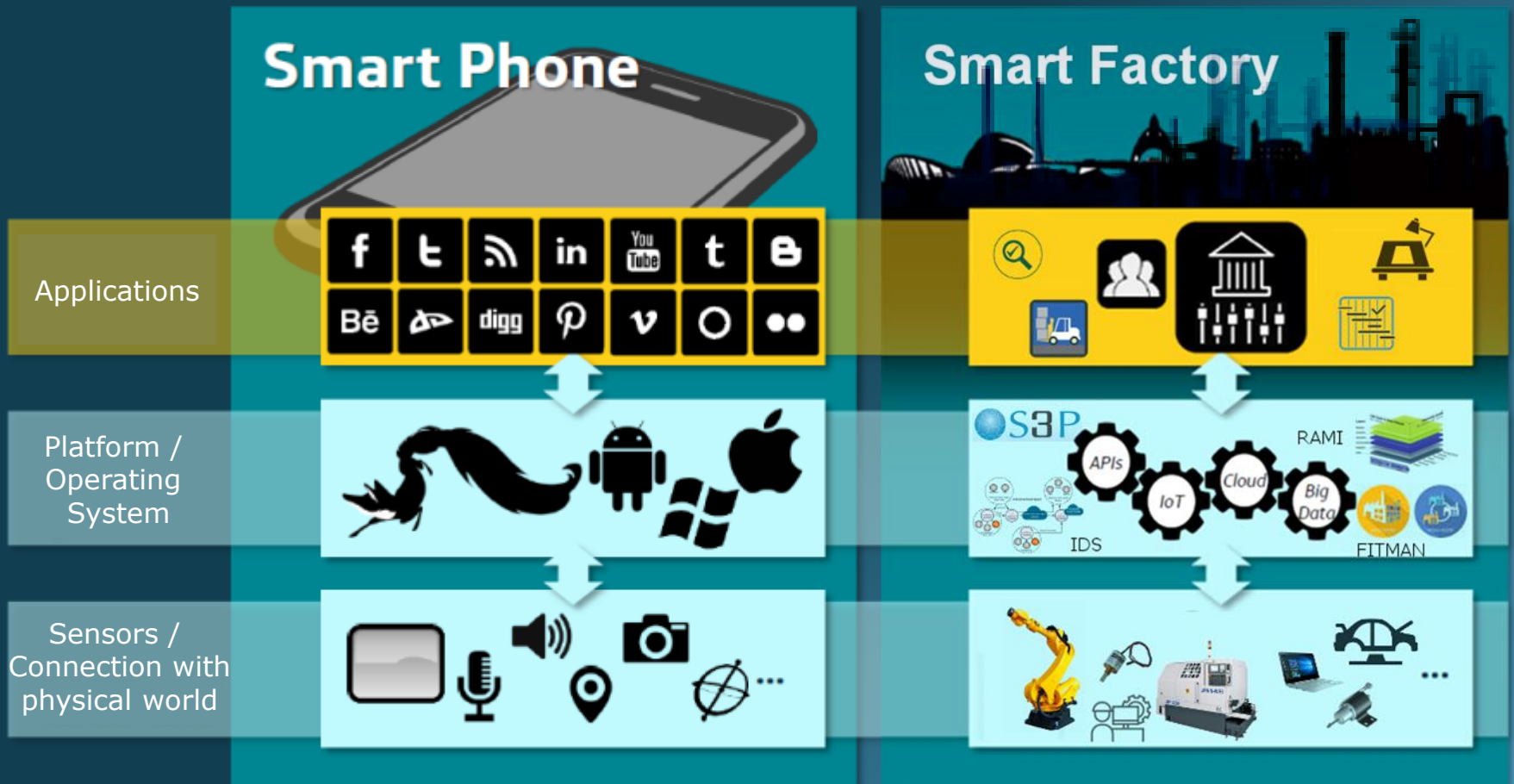**MOBILISING €50 bn of public & private investments**

🐦 #DigitiseEU
@DSMeu

f DigitalSingleMarket

bit.ly/DigitiseEU
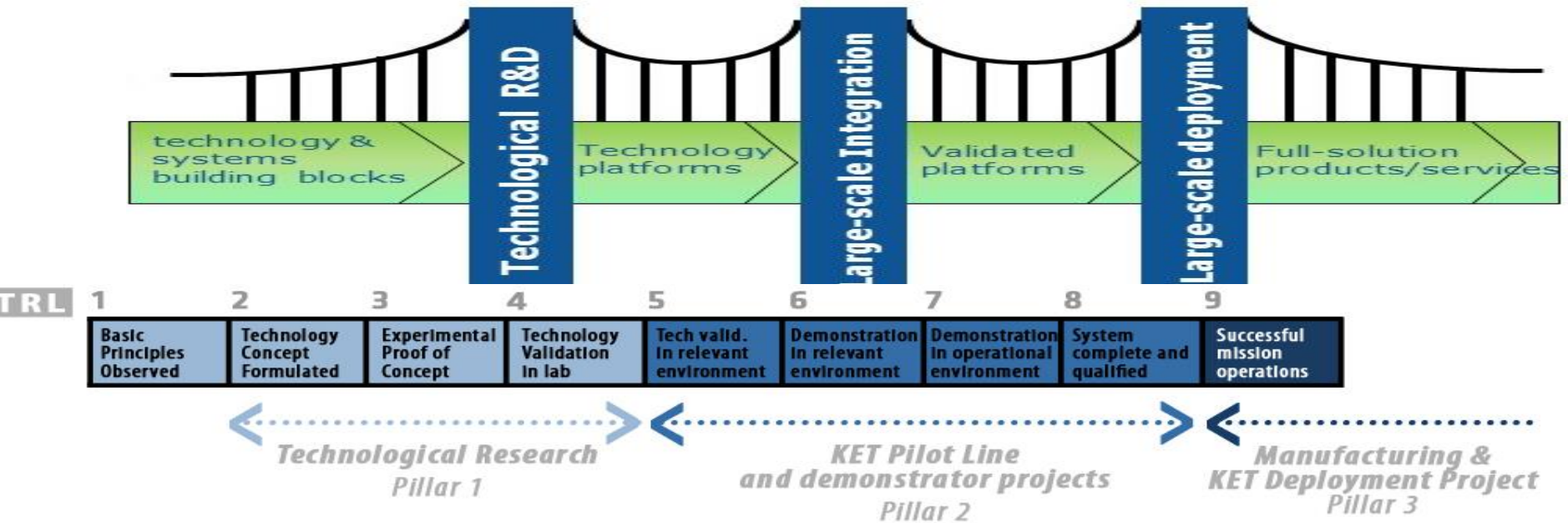
European Commission

- Alignment / federation of EU-wide R&I effort, national initiatives and industrial strategies

- Focus investments on
  - Key technologies and their integration across all sectors
  - Digital industrial platforms, reference architectures, interoperability frameworks, … leading to EU-driven standards
  - Development environments: reference implementations and experimentation environments in real setting

- Focus on a small number of strategic and ambitious large scale federating initiatives at European scale, which
  - pool resources across the EU, Member States, Regions, Industry
  - support bottom-up standardisation through platform building and large scale experimentation and piloting
  - use the framework of the EU PPPs, the ECSEL JU and the Focus Areas as the linking pin (H2020 Work Programme 2018-20, ECSEL)

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R&D projects
- FP7, Horizon 2020
- TRL 2-5
- National programmes

Testing experimentation, Pilot lines
- FP7, Horizon 2020, MS, industry
- E.g. 400 M€ for power semi-con pilot lines
- TRL 5-8

Deployment e.g. IPCEI,
- MS, industry
- E.g. microelectronics IPCEI
- TRL 8-9

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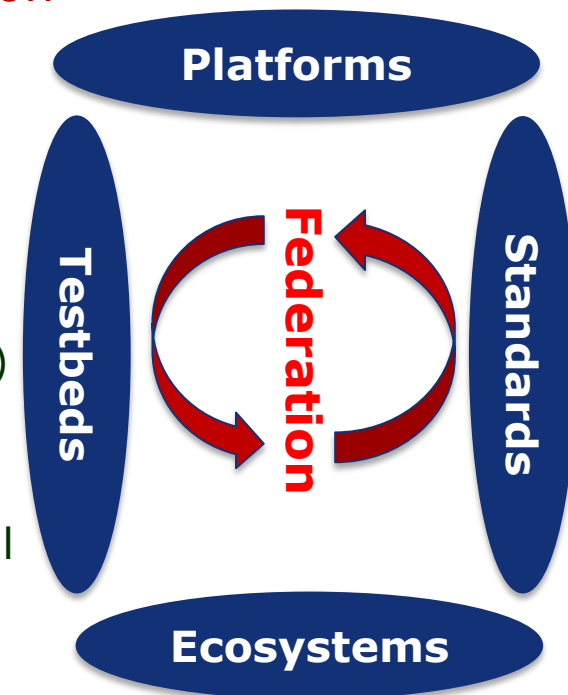
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European Commission

Key objectives

- Future global standards & platforms driven by interests of EU actors
- EU actors join forces along common interests ("platform economy")

Approach: Bottom-up standardisation & platforms (TRL 5-8)

- Ref. architectures, platforms, interoperability frameworks
- Testbeds + large scale/system level experimentation
  - Broad experimentation by SMEs and mid-caps
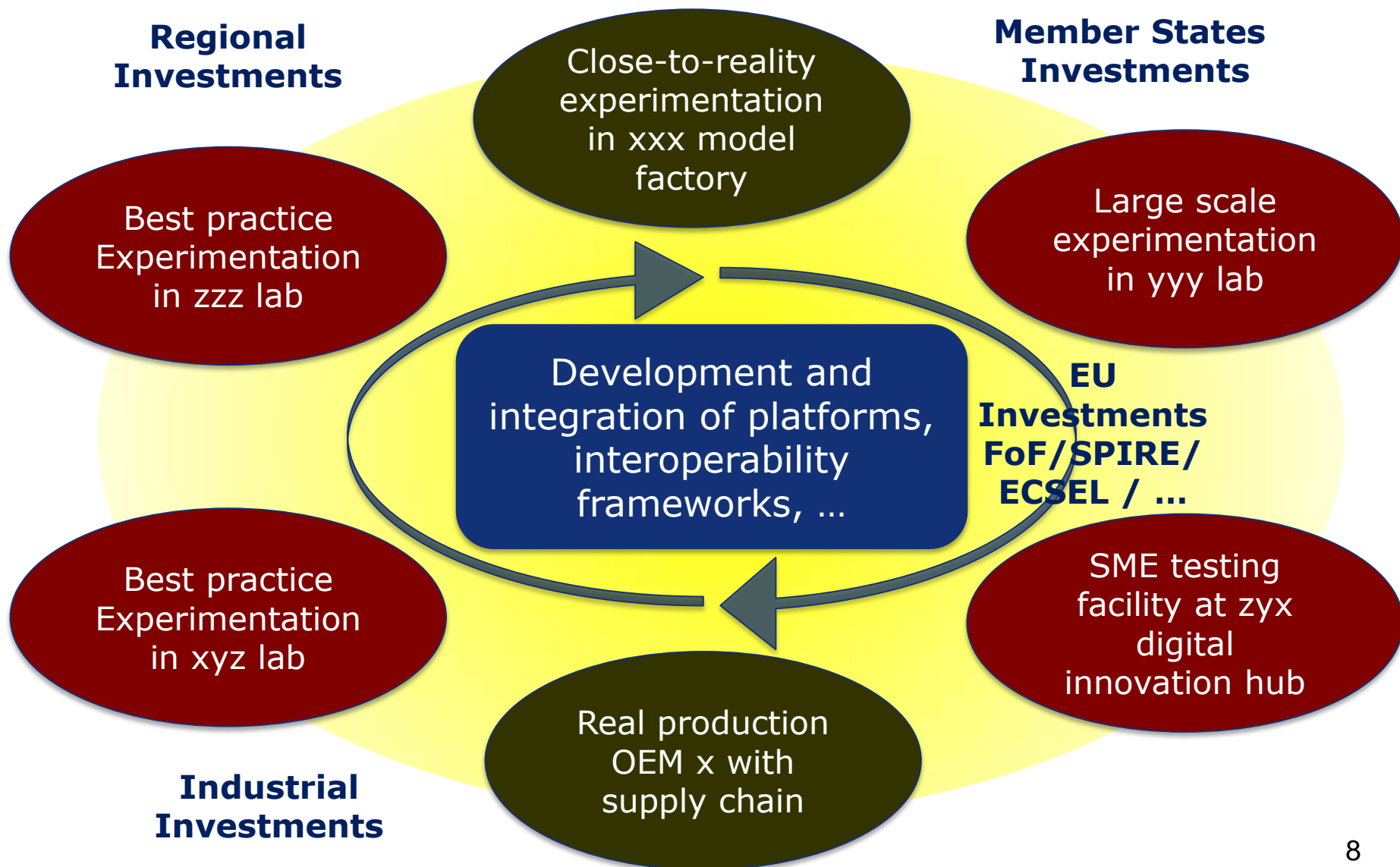- Standardisation & ecosystem building

Scope

- Addressing the domain challenges of the future
  - Profiting from digital advances (AI, analytics, IoT, …)
- Building on existing platforms/ref architectures
- Balancing the interest of EU industrial actors
  - Large – Small, users – providers, industrial – societal
- Focus on basic concept / grand challenges

Platforms

Testbeds

Federation

Standards

Ecosystems

European Commission

Pooling of Resources – Co-investment

Regional Investments

Member States Investments

Close-to-reality experimentation in xxx model factory

Best practice Experimentation in zzz lab

Large scale experimentation in yyy lab

Development and integration of platforms, interoperability frameworks, …

EU Investments FoF/SPIRE/ ECSEL / …

Best practice Experimentation in xyz lab

SME testing facility at zyx digital innovation hub

Real production OEM x with supply chain

Industrial Investments

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AGILE VALUE NETWORKS:

LOT-SIZE ONE

ZERO-DEFECT MANUFACTURING

MACHINES & HUMAN COMPETENCES

SUSTAINABLE VALUE NETWORKS

PLUG & PRODUCE COMPONENTS FOR DIGITAL FACTORIES

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DIGITAL PLATFORMS FOR AGRICULTURE

 - Optimize farm operations

- High-precision farming

DIGITAL SERVICE PLATFORMS FOR RURAL ECONOMIES

...

HOSPITAL OF THE FUTURE

HEALTH & CARE AT HOME

- Healthy & extended living

- Early detection for intervention

...

SMART ENERGY-EFFICIENT HOMES

...

Cross-border corridor of 5G for connected and automated driving

...

Cross-cutting platforms, IoT, Big Data, Security...

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