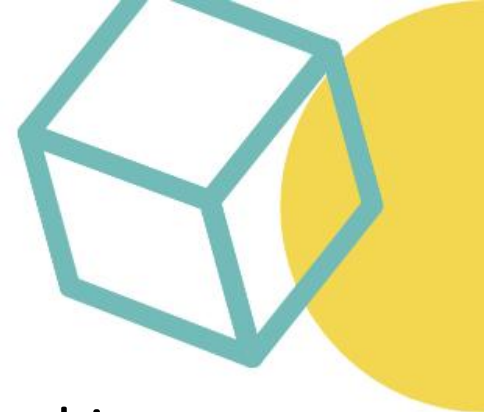


Vanguard Initiative ARTIFICIAL INTELLIGENCE PILOT

Domenico Guida

ART-ER (Bologna, Emilia-Romagna Region)

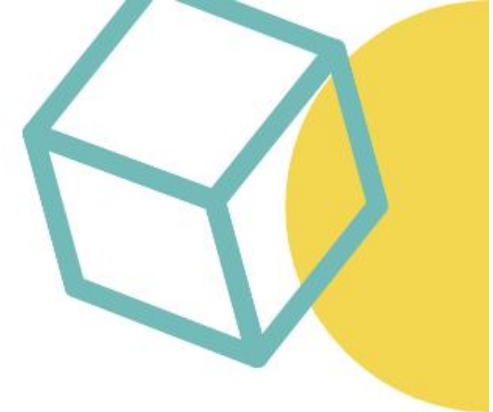




AI Pilot – Introduction 1/2

The AI Pilot takes its first steps from the **Artificial Intelligence and Human-Machine Interface TSSP – Industrial Modernization**

- Start:** May 2018
- Main aim:** to fill the “Last-mile” to bring AI-enhanced and AI-related innovation in SMEs and Companies.
- Operative focus:** AI-enhanced innovation for manufacturing SMEs



AI Pilot – Introduction 2/2

What AI Pilot inherits from the AI&HMI Partnership...

- technical background and implementation process
- the inter-regional partnership
- the strong aim to fill the “Last-mile” to bring AI-enhanced and AI-related innovation in SMEs and Companies
- Its first Demo Project, the AI DEMO LAB GRID

...and the AI Pilot specific added value.

- a wider outlook on fields for application of AI technologies
- a wider geographical coverage from a heterogeneous partnership
- a wider set of cooperation opportunities inside the Vanguard Initiative

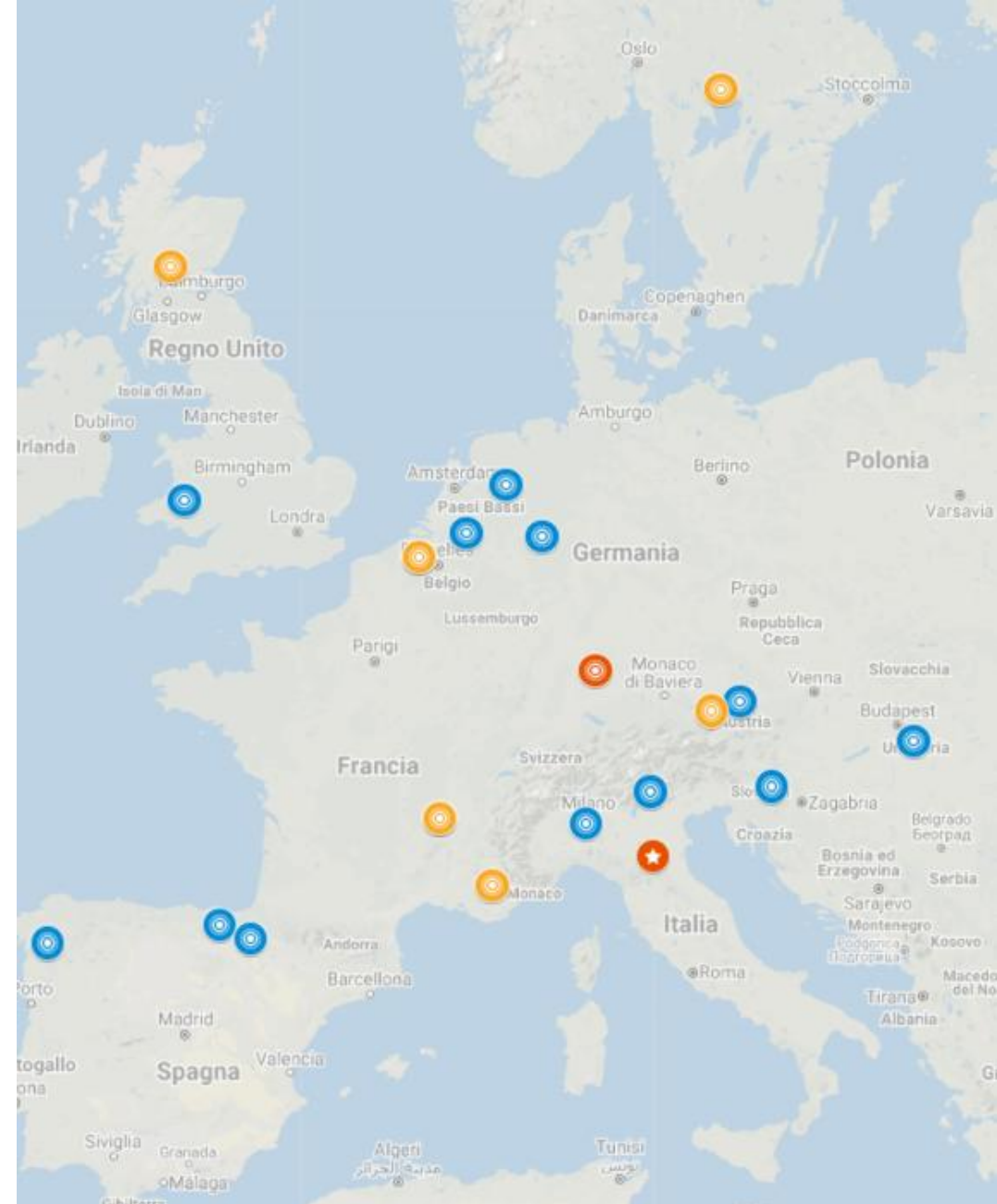


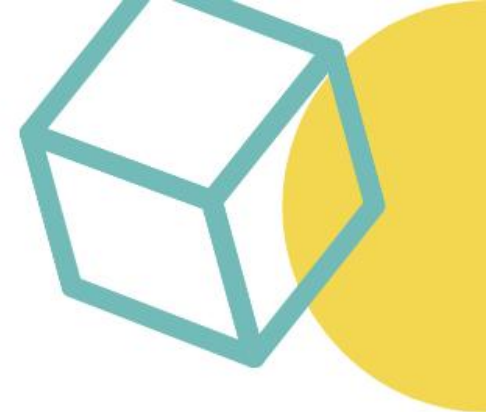
AI Pilot - Participating Regions

Emilia-Romagna (IT)
Baden-Württemberg (DE)
Autonomous Province of Trento (IT)
Basque Country (ES)
East Netherlands (NL)
Galicia (ES)
Hungary
Lombardy (IT)
Navarra (ES)
Noord Brabant (NL)
North-Rhine-Westphalia (DE)
Slovenia (SLO)
Upper Austria (AT)
Wales

Involved/Interested Regions

Auvergne-Rhône-Alpes (FR)
Flanders (BE)
Friuli Venezia Giulia (IT)
Provence-Alpes-Côte d'Azur (FR)
Salzburg (AT)
Scotland
South Sweden (SE)
Veneto (IT)





AI Pilot - Objectives

Support and stimulate the deployment of AI-related technologies in the different industrial value chains

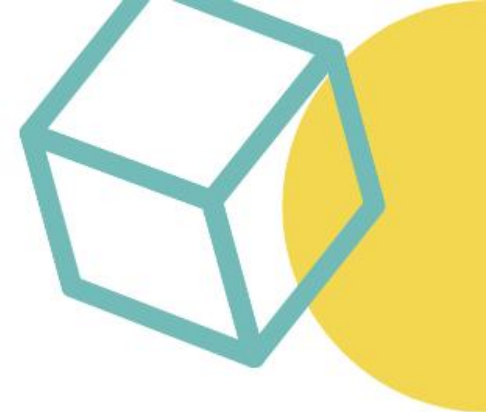
Support and accelerate the innovation processes of European companies – in particular SMEs – by facilitating the adoption of AI technologies in the industrial ecosystem

Create cross-sectorial paths for application of AI technologies through relevant sectors, other than Manufacturing.

Encourage a multiple involvement of its participants, both at Pilot and at Demo Project level

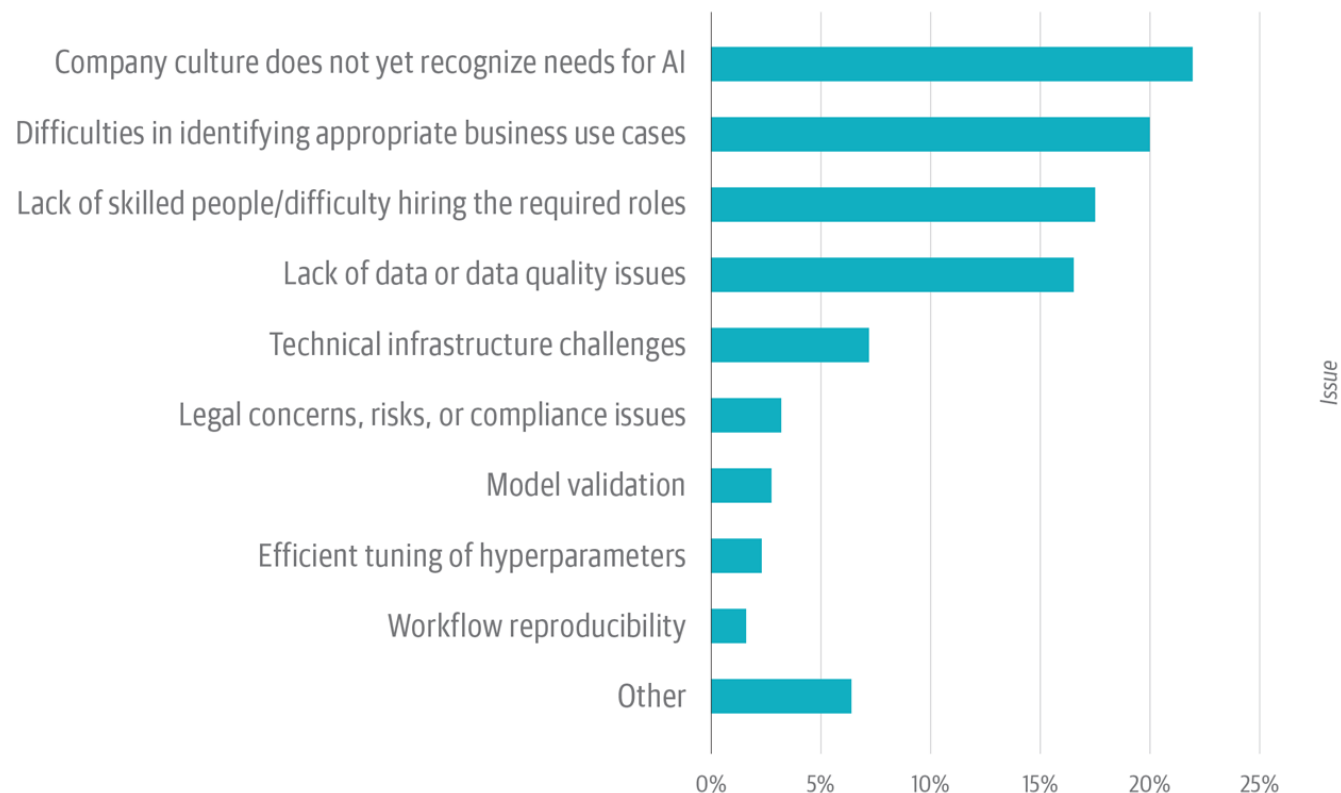
Continuous alignment and cooperation with other relevant initiatives running in the EU scenario on Industrial Innovation

Foster the participation of participant regions and stakeholders to partner with other regions and stakeholders in the context of AI related calls for projects



AI Pilot – Challenges from the market

What is the main bottleneck holding back further AI adoption?

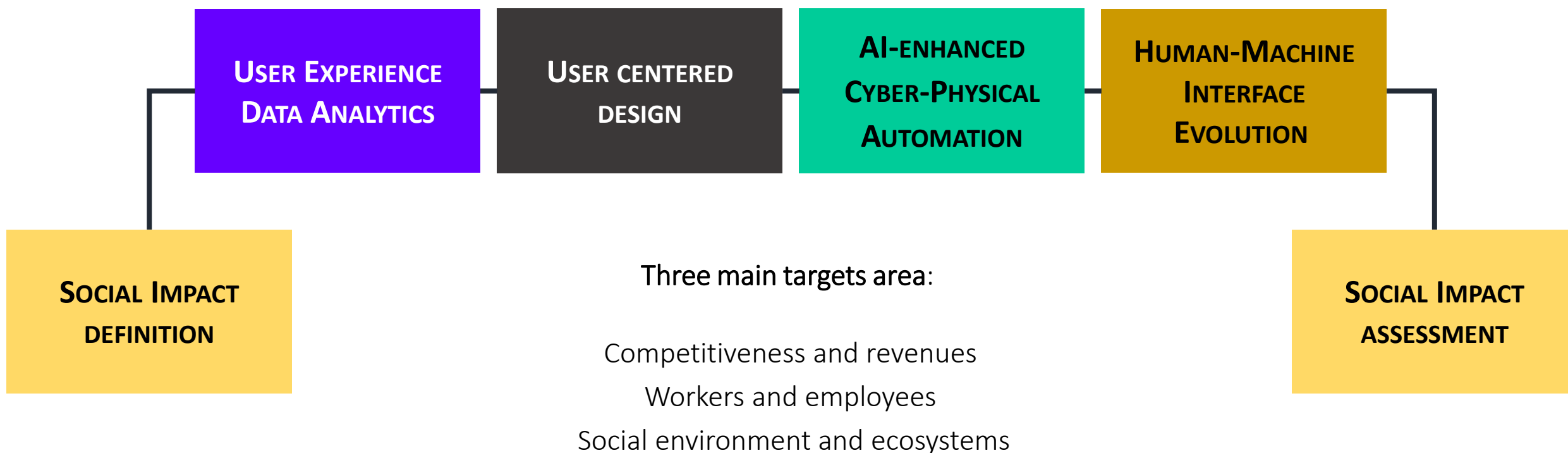


from: O'Reilly - *AI adoption in the enterprise 2020*, March 2020

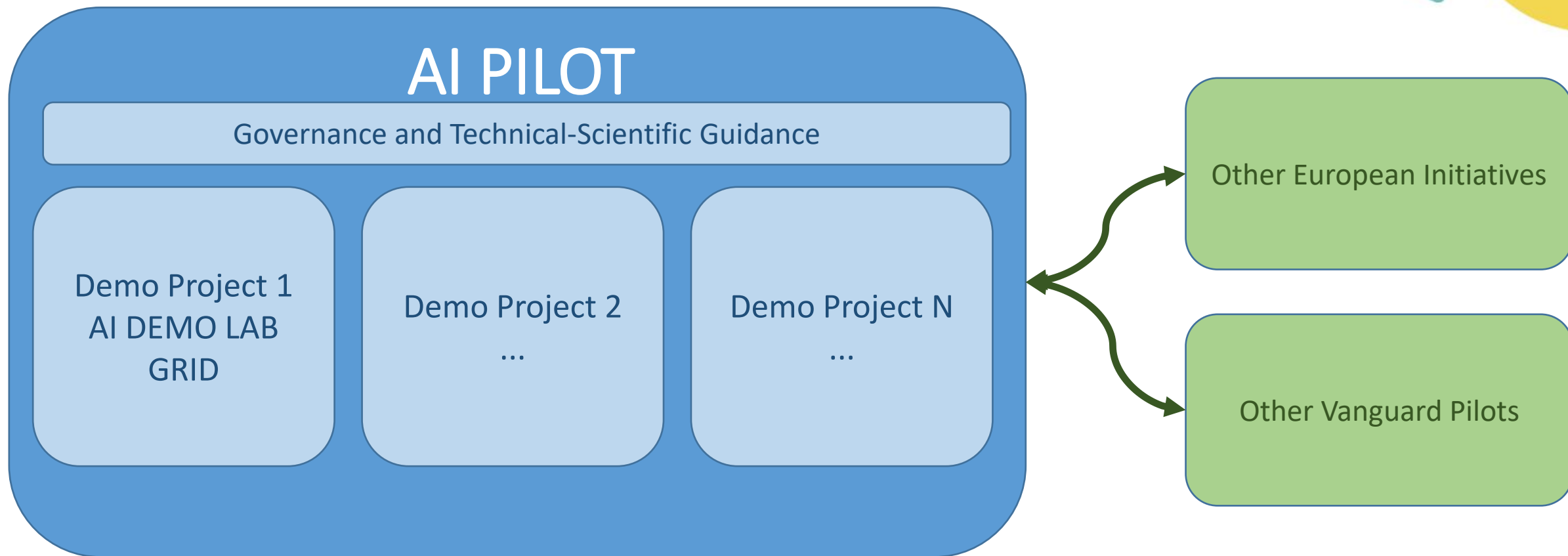
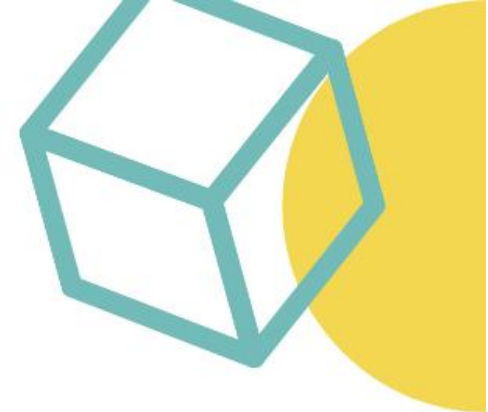


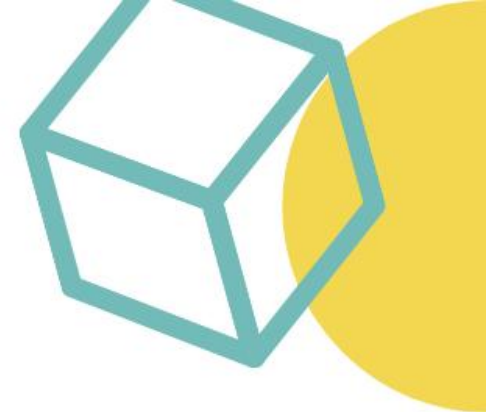
AI Pilot - Domain and Target

Four main AI application domains identified with bottom-up process involving Industrial Partners, LE & SMEs and RTOs



AI Pilot - Structure





AI Pilot – New Demo Projects

A call for new Demo Projects to be implemented inside the AI Pilot is ongoing.

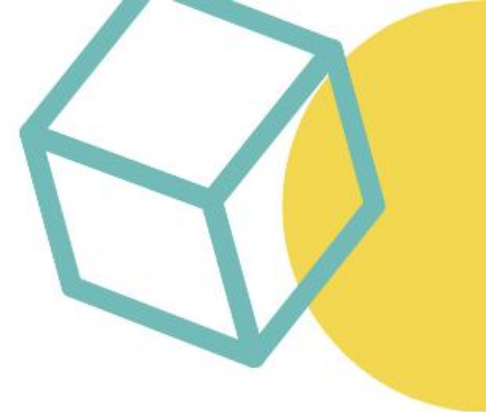
Challenge/technology driven

Connecting existing infrastructure

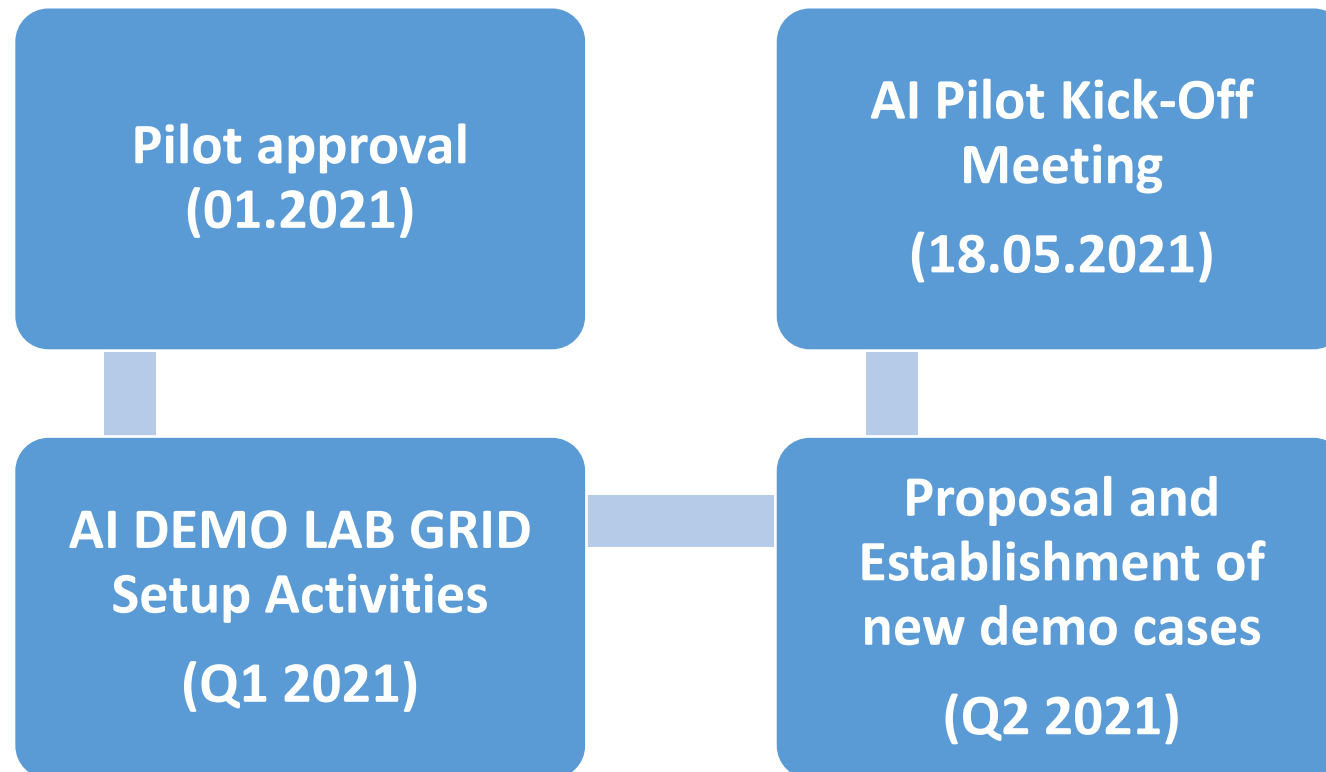
Building new infrastructure

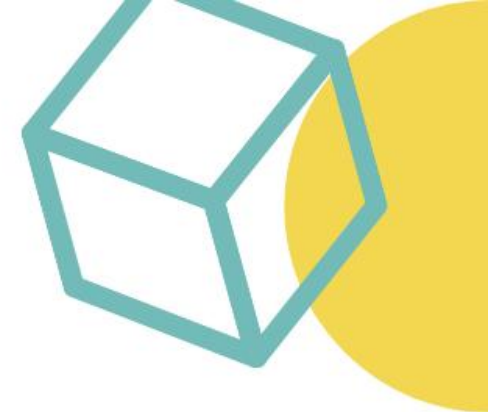
Connect and upgrade existing infrastructure

Co-working with some Partner/interested Regions to define new demoprojects



AI Pilot - Next Steps





First Demo Project: The AI DEMO LAB GRID

- An Inter-regional Grid of high-level laboratories providing Innovation services to SMEs in the field of AI-enhanced and AI-related innovation.
- Ideated and created with a bottom up process, collecting inputs from local stakeholders, both innovation actors, SMEs and Companies
- 5 relevant fields of AI-enhanced and AI-related innovation for SMEs were identified

USER LAB

USER EXPERIENCE FACILITY
LAB: DATA HANDLING,
MULTIPLE SITE OPERATIONS,
METHODOLOGY AND ETHICAL
ASPECTS

COOBOT LAB

COOPERATIVE ROBOTS,
MACHINES AND PRODUCTION
LINES FACILITY LAB

INDAT LAB

INCLUSIVE AND ENHANCED
INDUSTRIAL DATA COLLECTION

CONTRAI LAB

AI-ENHANCED MACHINE
CONTROLLING STRATEGY:
QUALITY, MAINTENANCE,
AUTOMATION IMPROVEMENT,
DIGITAL TWINS

HMI LAB

AR, VR, ADAPTIVE,
SUPPORTIVE INTERFACE, FROM
INTERFACE TO ASSISTANCE



USER LAB

COOBOT LAB

INDAT LAB

CONTRAI LAB

HMI LAB

Each DEMO LAB is a **distributed Lab**, based on cooperation between already running / high-level Innovation Laboratories.

Purpose: meet SMEs' innovation needs while connecting high-level innovation laboratories in an inter-regional scale.

WIN-WIN strategy

Innovation Laboratories

- Complement their Service Portfolio by mean of cooperation and exchange of know-how, facilities, mutual services with other Laboratories
- Reach out to SMEs from other regions through other laboratories, while still being the contact point for their local customers.

SMEs and Companies

- Receive high-level innovation services from a wide network of Laboratories, interfacing with the local Laboratory.

24 Expressions of Interest collected from Laboratories

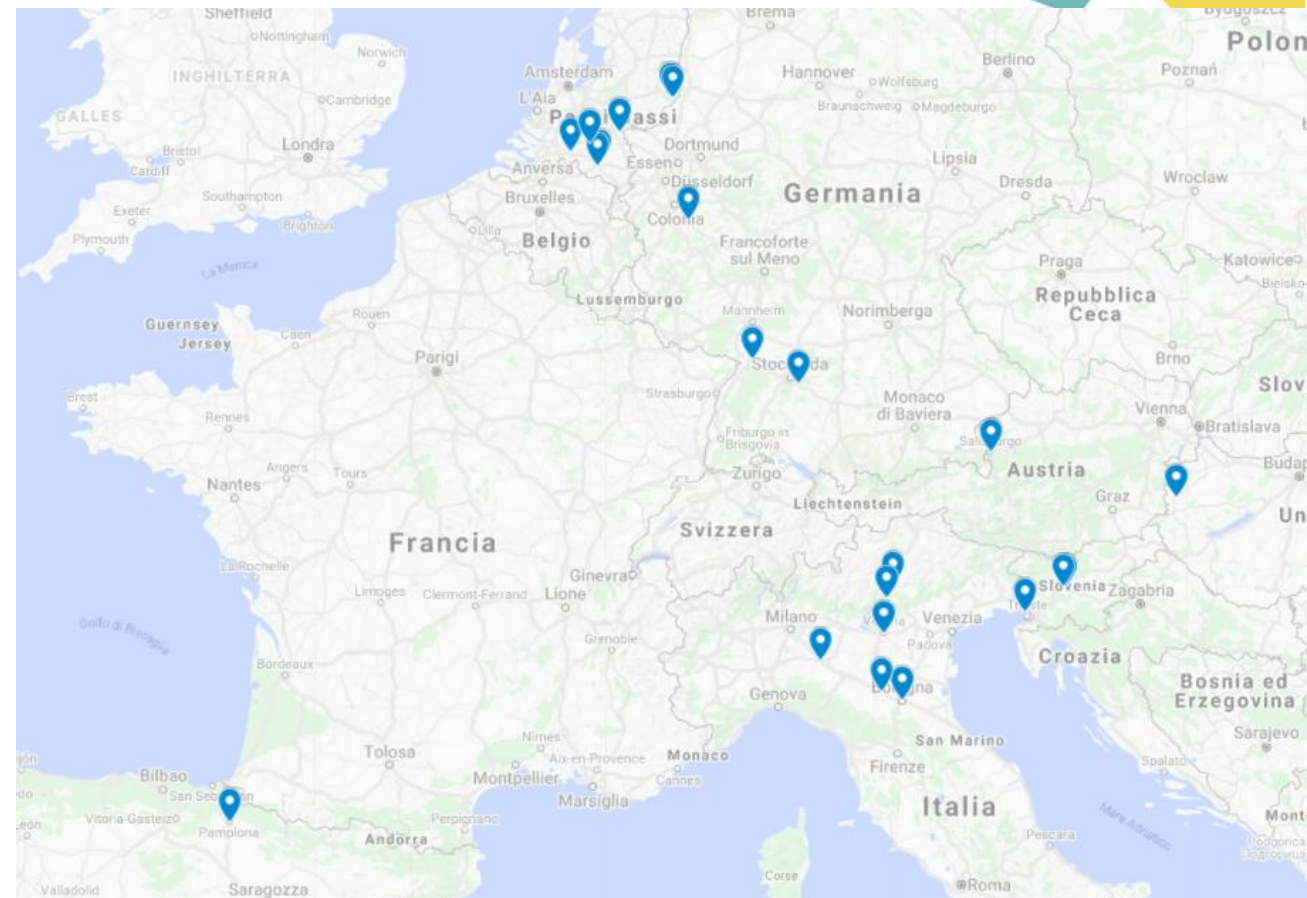
Next steps

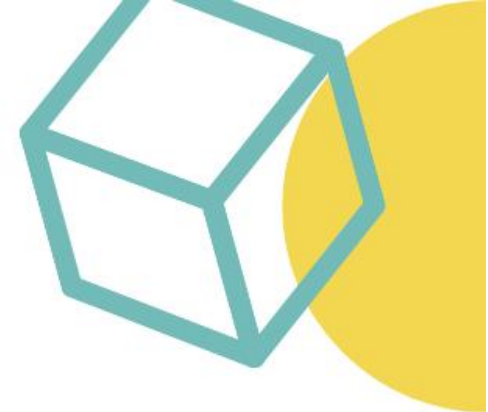
Identification of cooperation patterns (Ongoing)

Continuous collection of Expressions of Interest (Ongoing)

Participation to **specific funding programmes** (In preparation)

Positioning the GRID at an EU Level and connection/exchange with other initiatives in AI Industrial innovation.





AI Pilot – EU Level Impact

AI Pilot

- **encourages** a multiple involvement of its participants, both at Pilot and at Demo Project level, in European Networks;
- **fosters** participants to partner with other regions and stakeholders in the context of AI related calls

Inside the AI DEMO LAB GRID

Several Laboratories participating the GRID are:

- recognized **centres of excellence** in AI at Regional, National and international level
- enrolled in the JRC Digital Innovation Hub Catalogue
- active part in **proposals for the European Digital Innovation Hub forthcoming call.**

Targets:

- **create complementarities** between AI PILOT and other initiatives
- **find synergies** in regional efforts to leverage effort and investments

AI Pilot aims at **being complementary and additional** to other regional efforts, while **leveraging** on them and **supporting** them to the most possible extent

AI Pilot – Future priorities

Impact

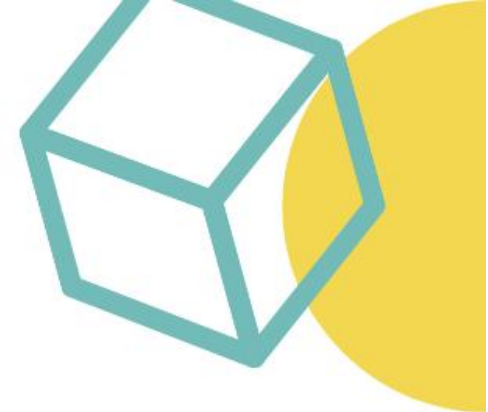
- Raise impact in the AI European scenario

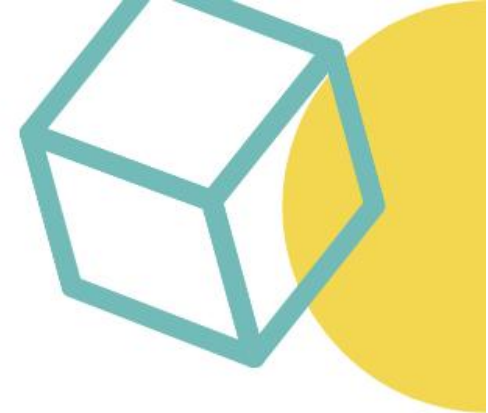
Funding

- Mobilize investment funding programmes from partner Regions
- Mobilize private investments in relevant democases

Commitment

- Foster Industrial commitment in the Pilot Activities





Thanks for your kind attention

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