Alliance for IoT and Edge Computing Innovation

6G SNS IA

# The End User Requirements Collection/Smart Manufacturing Case

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5th Oct. 2023

SCoDIHNet

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# Agenda

1. Introduction
2. D-BEST
3. Customer Journey
4. Use Cases
5. Demo

# INTRODUCTION

**METHODIH** is a methodology for DIHs aiming at supporting DIHs with a structured approach, providing four basic tools to define a sustainable offering matching their customer-base needs:

- The Service Portfolio Analysis (D-BEST)
- The Customer Journey analysis
- The Digital Transformation Pipelines
- The Business and Governance Model

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## DATA

Data ecosystem building inside and among companies and data spaces

## BUSINESS

Business planning and access to financial pools

## ECOSYSTEM

Structuring relations, communication, community building

## TECHNOLOGY

Hardware/Software solutions

## SKILLS

Skills for ecosystem building, technology and business enhancement

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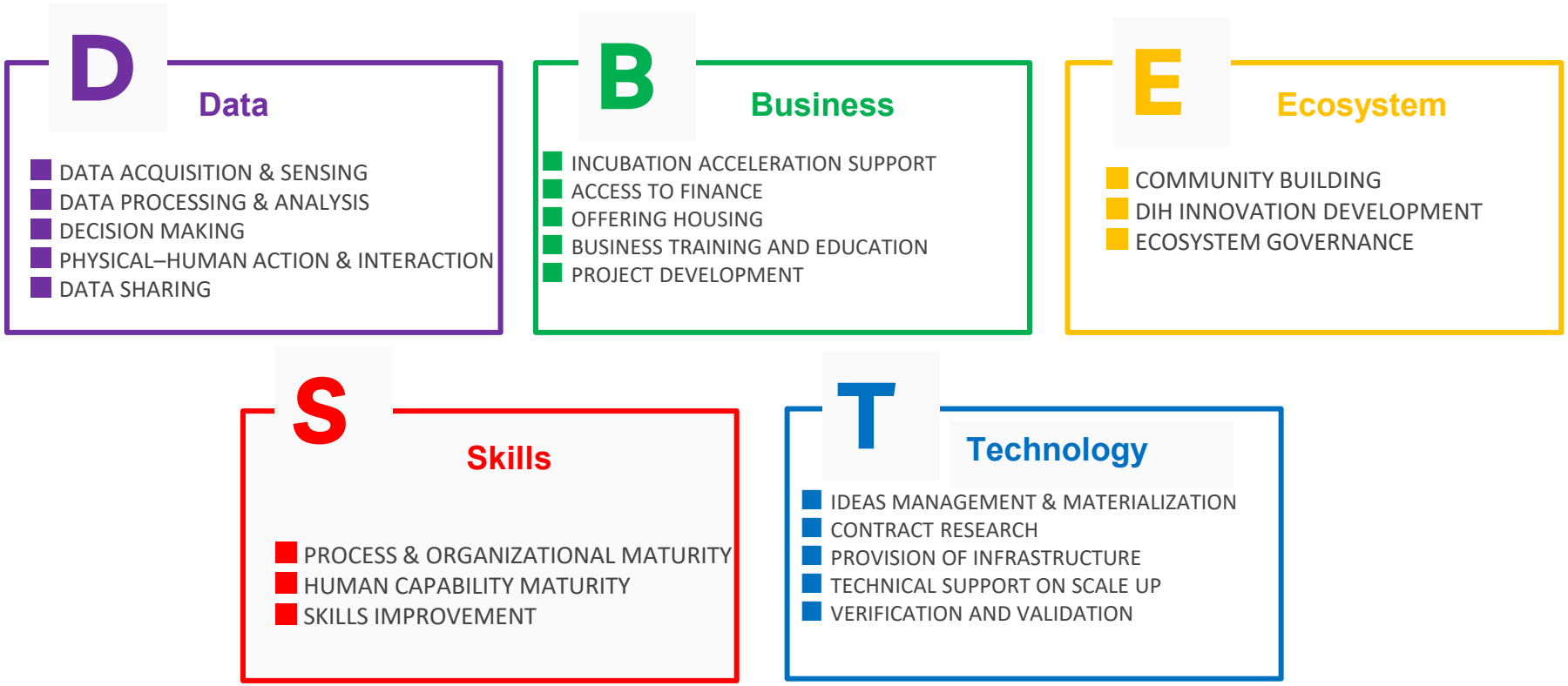
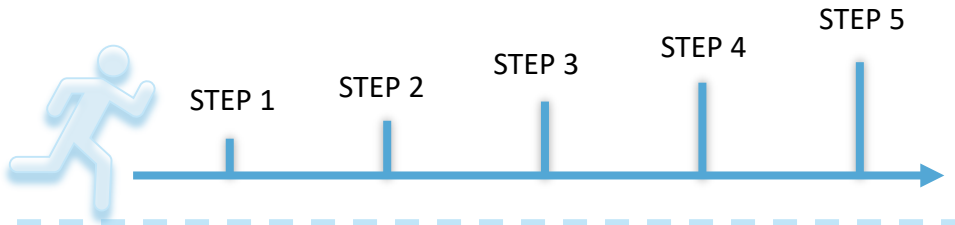
# Types of services in the D-BEST reference model



# Customer Journey Analysis

- Customizable templates for six different customer types (Technology Provider, Technology User, Student, Policy Maker, Start-up, Experimenter)





OBSTACLES


TIMELINE

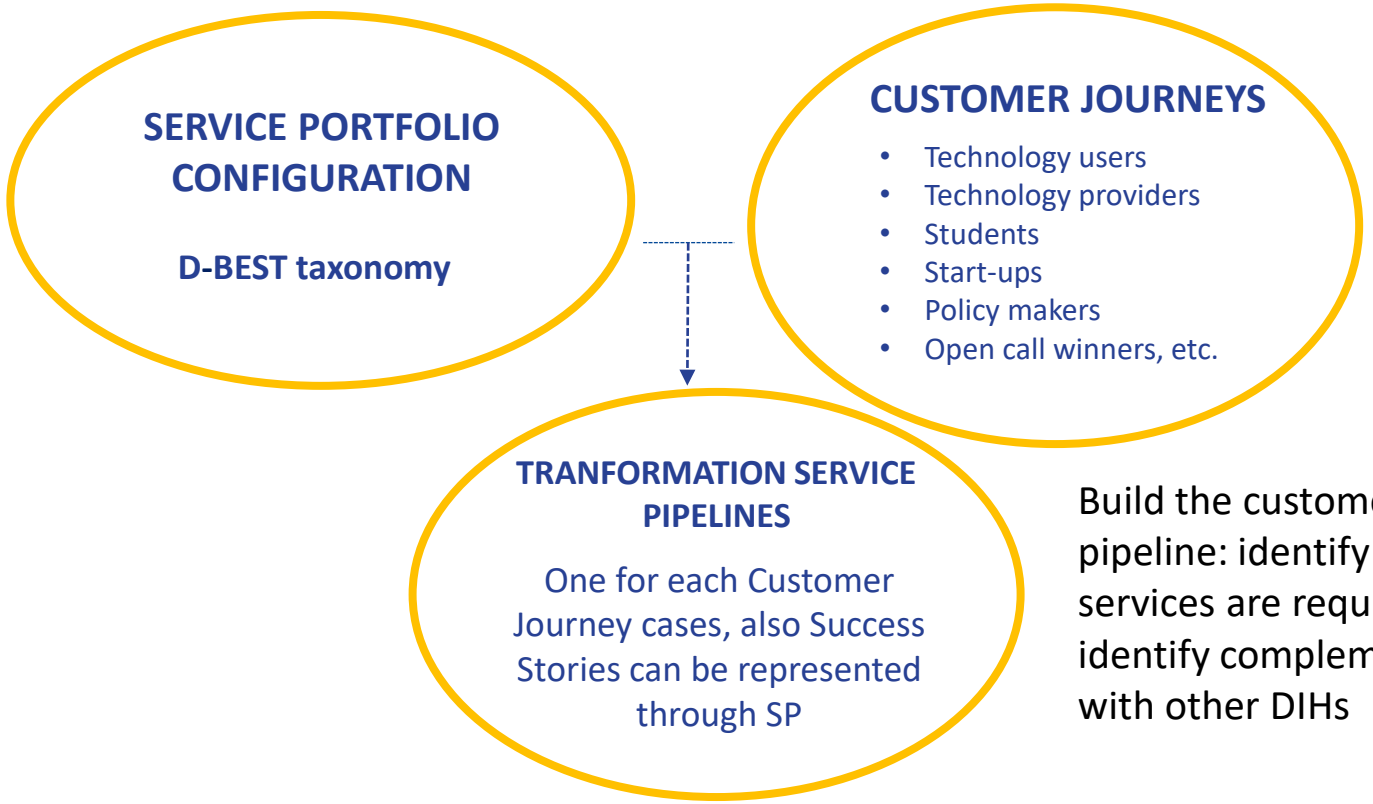

SERVICES

5 steps path to describe the journey of a DIH customer:

- Each step is characterised by related obstacles and barriers
- DIHs are expected to know the needs of their customer base
- The DIH's offering can be shaped to facilitate the transition from a step to the next one

# Services Pipelines

Identify provided services (AS-IS) and future services (TO-BE)




Identify the customer base

Build the customer journey pipeline: identify if more services are required or identify complementarities with other DIHs

Service pipelines help to match the DIH offering with the customer base needs. As well, service pipelines help to better visualize this matching.

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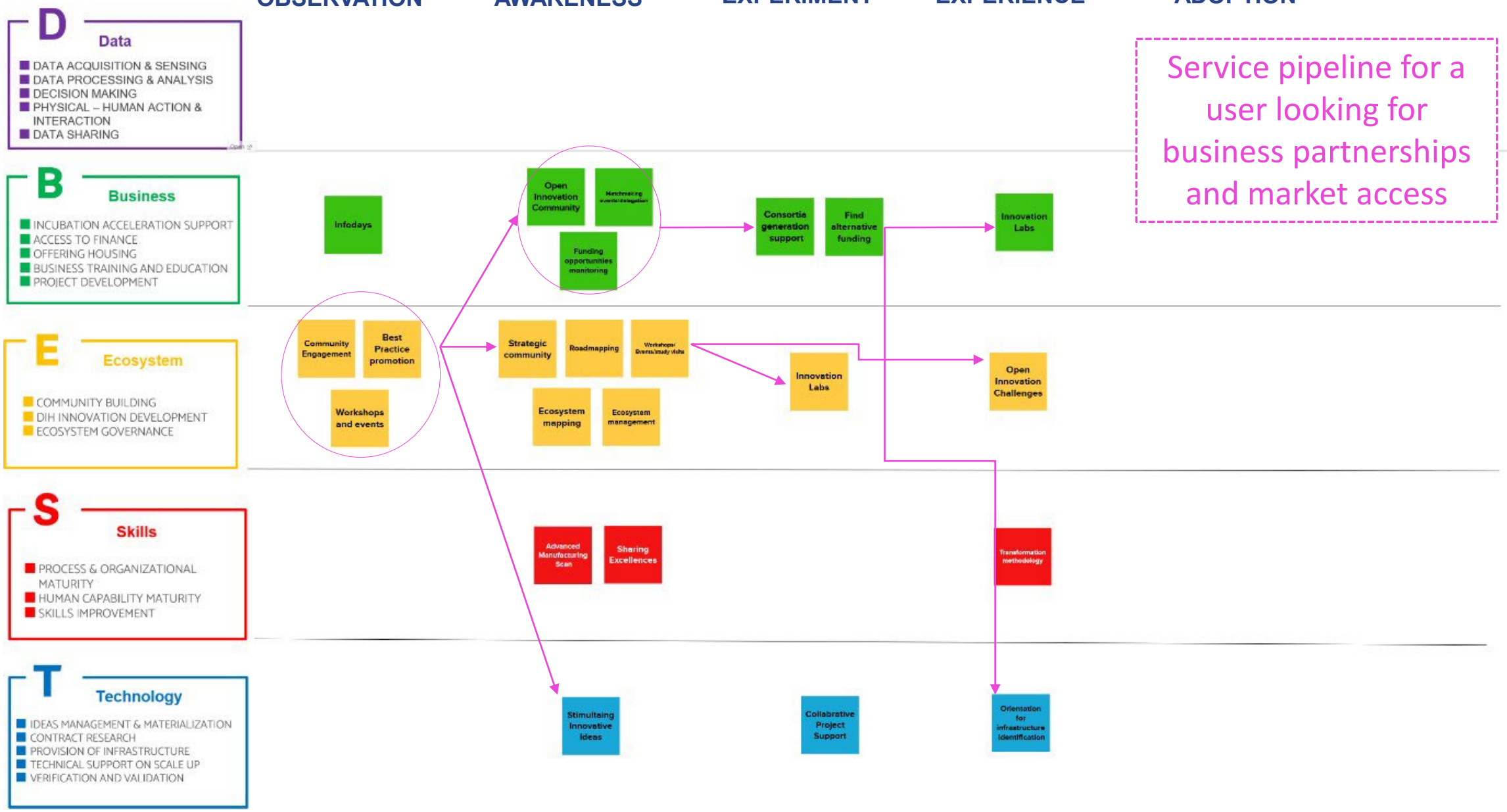
OBSERVATION | AWARENESS | EXPERIMENT | EXPERIENCE | ADOPTION

Service pipeline for a user looking for business partnerships and market access



## Business and Governance Model:

- To guide the DIH in the definition of a model to describe its business, that considers the complexity of a its customer-base and a multistakeholder network, including sustainability for cross-regional activities. One specific dimension is the Governance, that considers the complexity of the collaborative DIH's activities.

## DIH Network Benefits:

- Self-awareness
- Understand the offering of similar DIHs
- Collaboration opportunities
- Create synergies

# Use Cases

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# INDUSTRY4.0Lab

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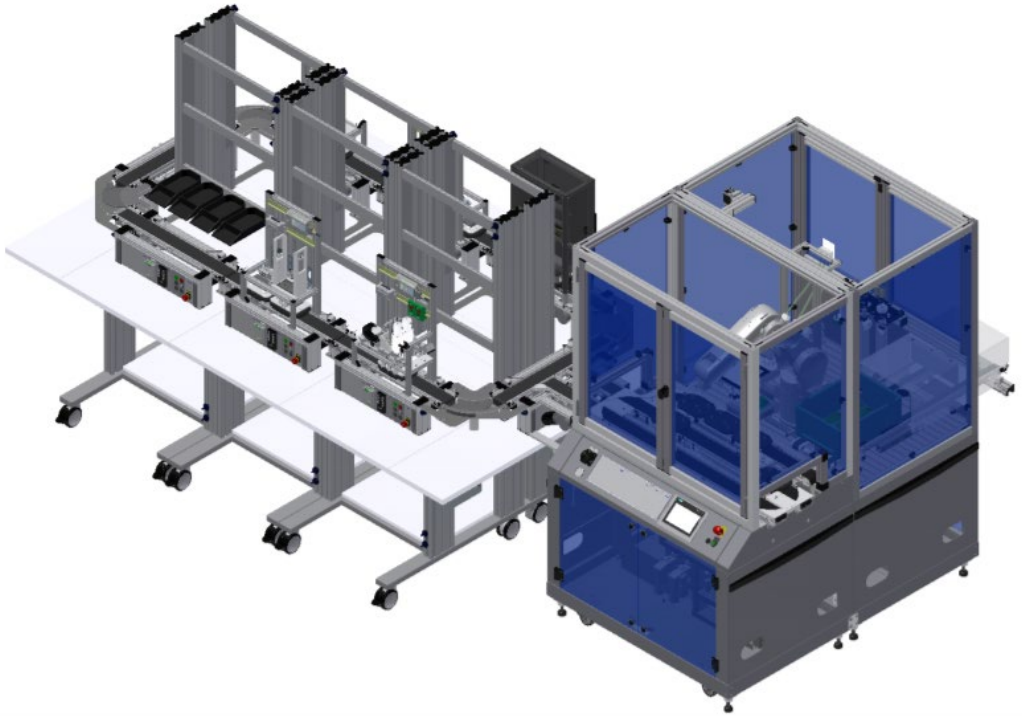
**Industry4.0lab @ SOM** is implementing a tangible physical entity where the research activity in the innovative manufacturing management and planning approaches can be carried out in conjunction with a practical implementation in a “real-like” environment.

- Assembly line with a robot station
- Cobots
- AGV



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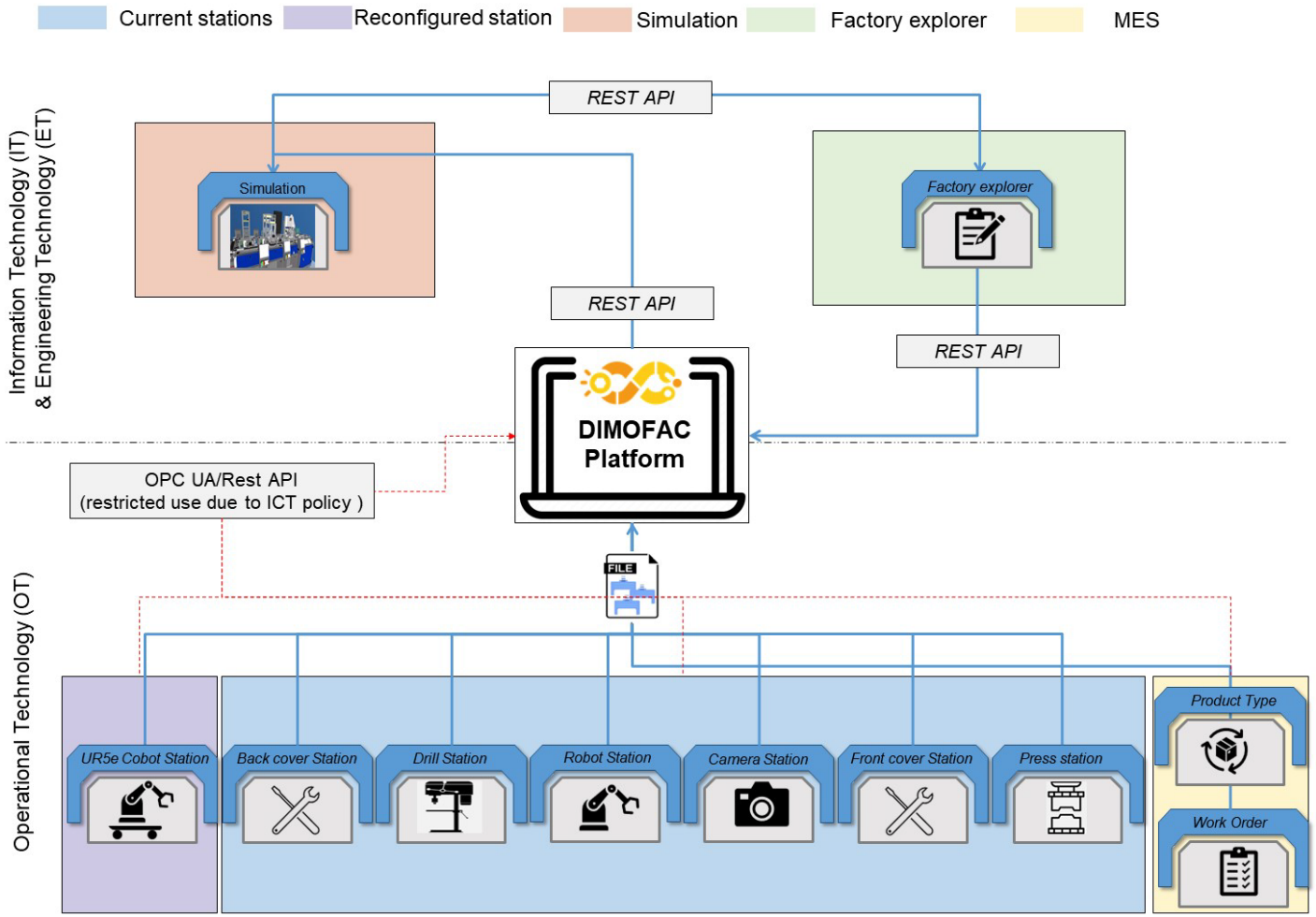
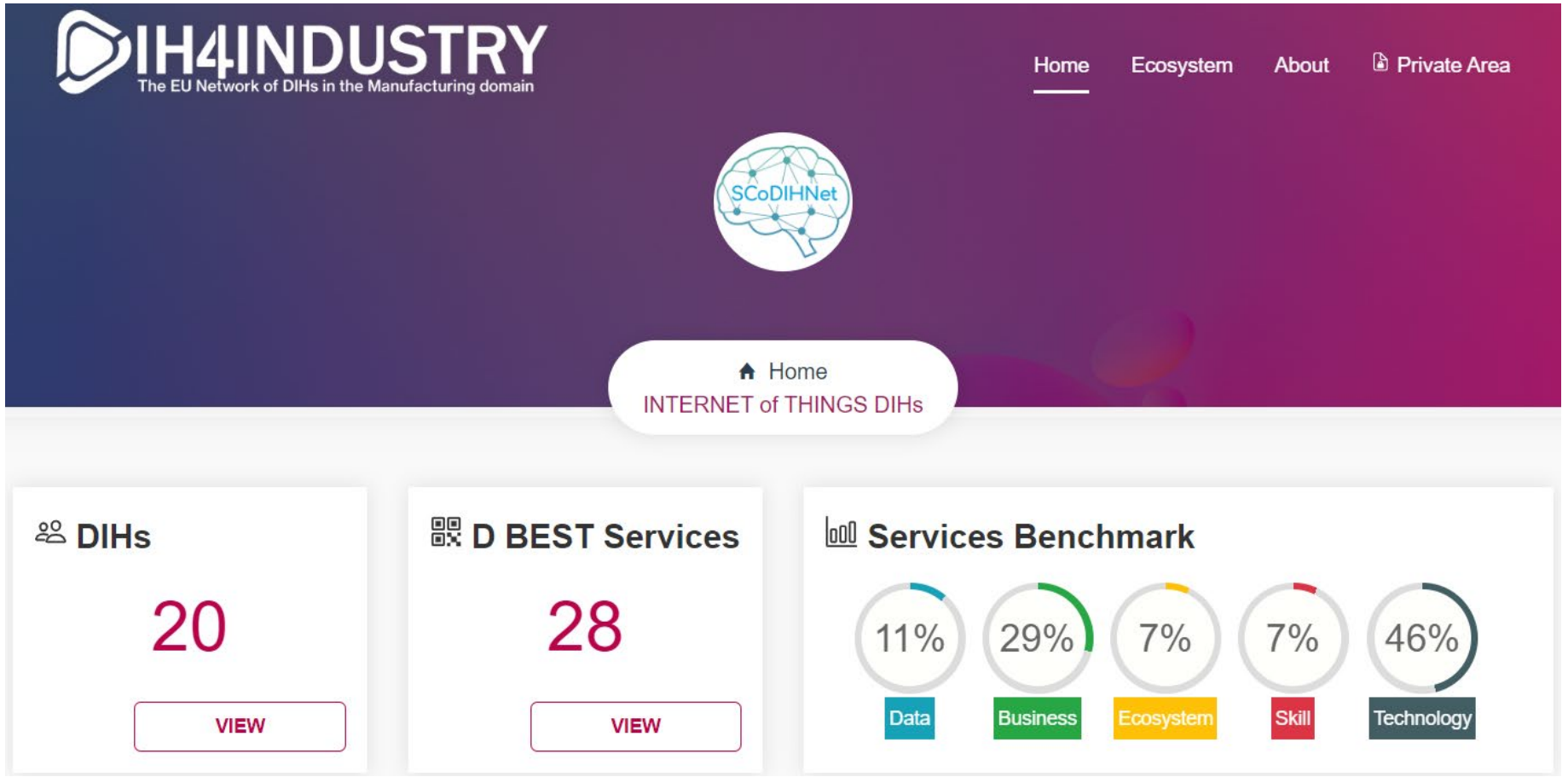
# Polimi Industry4.0Lab as DIMOFAC Open Pilot Line

- AAS representation of each station, product type and work order based on CIM
- AAS-based resource configuration
- Simulation analysis of AAS resources
- Reconfiguration of POLIMI assembly line relying on DIMOFAC
- Replacing Manual station with UR5e co-bot using DIMOFAC



# INCODE USE-CASE

# DIH4INDUSTRY Platform-demo



# Thank you for listening

**Any questions?**

**You can email us at Nima.rahmani@polimi.it**

https://aioti.eu/scodihnet/