



AI & Robotics for
Sustainable Development Goals



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FundingBox

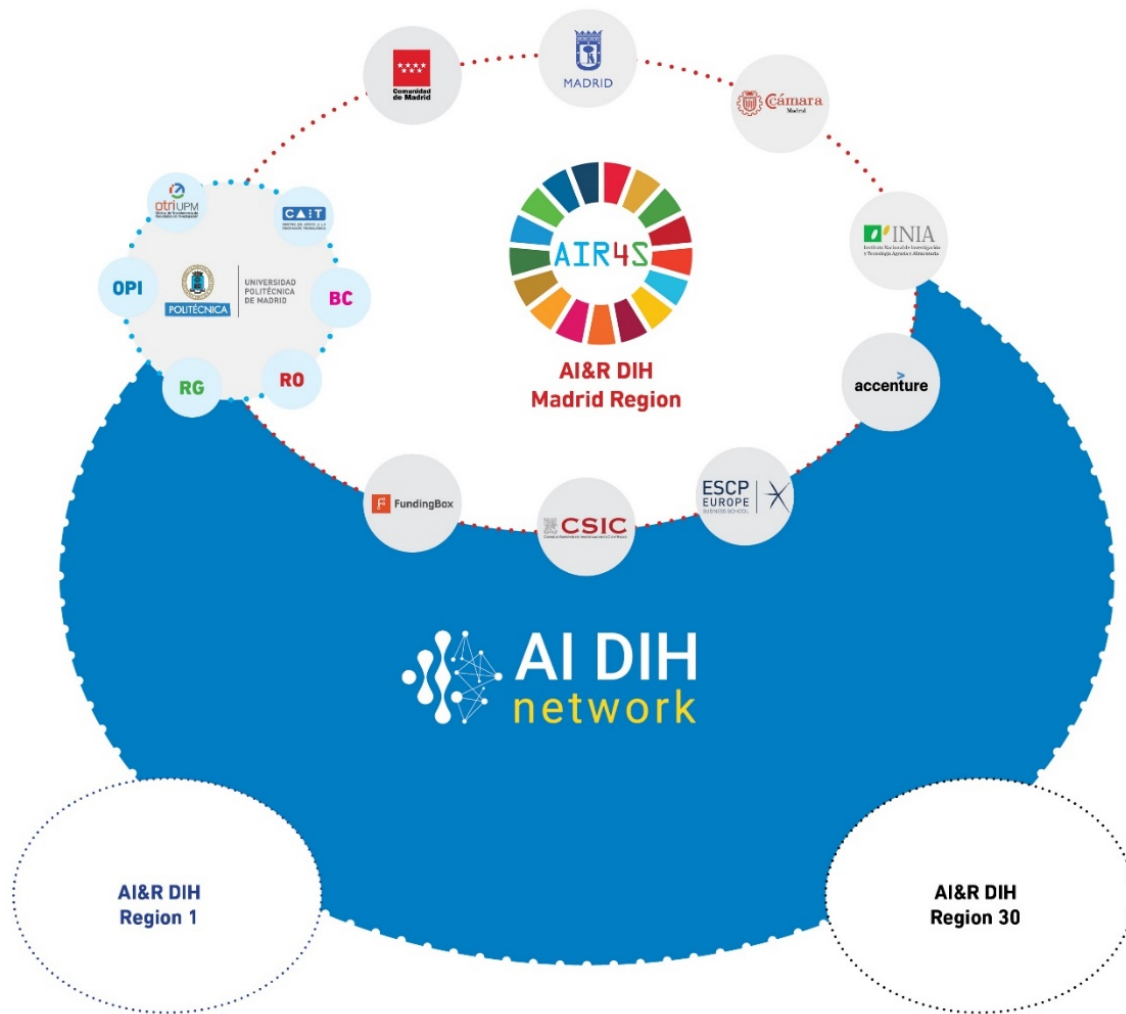
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www.upm.es/dih-air4s





LINK ESTRATÉGICO A OTROS HUBS CON INTERÉS EN AI



AI & Robotics for Sustainable Development Goals



UPM
AI Task Force Lead



Comité Ejecutivo
Comité Científico



UPM
iSpace

A services portfolio structure made up of **2 MAIN SETS OF SERVICES**

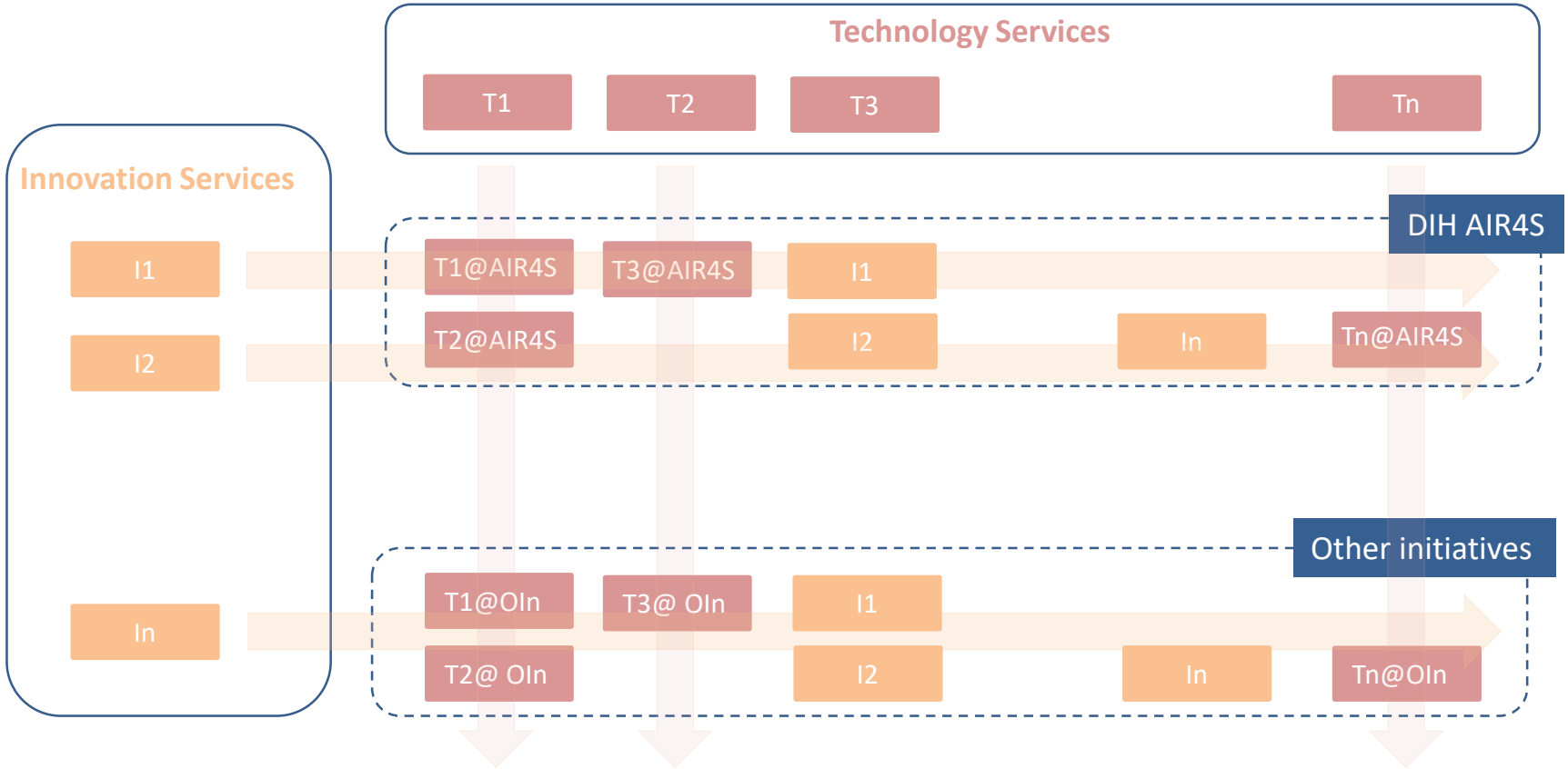
- ✓ **NOT TO BE** considered as 'silos'
- ✓ **TO BE** considered as a collaborative framework

Innovation Services

Cross-cutting services aimed at accelerating innovation processes for companies, SMEs, public entities...

Technology Services

Services based on AI-technologies and innovative knowledge to be provided.



Services portfolio @ AIR4S

Innovation Services

Innovation Management support

- I1. Brokerage & ecosystem support
- I2. Global ecosystem management

I&E + Open Innovation Programmes

- I3. Training on I&E skills
- I4. Business acceleration programmes
- I5. Open innovation programmes
- I6. Commercialization of technologies

Cooperative project development

- I7. Proposal development process
- I8. Access to funding support
- I9. Training on European funding opportunities

Innovation Facilities

- I10. Access to innovation services & spaces
- I11. Access to specialised facilities

Outreach

- I12. Communication & awareness

Technology Services

AIR Tech & Services readiness

- T1. Assessment of techs & services
- T2. Assessment of client readiness

AIR Training

- T3. Training on tech skills

AIR Tech Services

- T4. Collaborative R&D&I
- T5. Tech Services on-demand
- T6. Certification

AIR Facilities

- T7. Access to tech infrastructure

AIR Tech Promotion

- T8. Product demonstration

1. Service maturity level

- Widely provided so far
- Occasionally provided so far
- Less experienced as service; enough capacities

2. Service readiness level

- Fully availability to provide it
- Availability depending on additional issues
- Not easily available under all circumstances

3. Service level agreement

- Metrics, KPIs: performance
- Commitments: availability, maintenance

Looking for a **UNIQUE** service offering data structure

- ✓ FOR ALL KIND OF SERVICES
- ✓ FOR ALL DIH PARTNERS

Public information

ONE-STOP-SHOP FOR ALL THE PARTNERS



WHAT? SERVICE DESCRIPTION

Expertise in cutting-edge machine learning. We develop and apply predictive and descriptive models as well as intelligent systems that allow for reasoning with uncertain and partial information and rational decision making. We develop models for analyzing data streams and temporal data that identify anomalies. We provide comprehensive formation in machine learning.

Our service applications include a system for real-time coaching recommendations and scouting (sports), predicting the failure of machines based on sensor data (industry 4.0), disease diagnosis and prognosis (medicine), and the organization of a top-level summer school in machine learning.

“Interpretable models and reasoning with uncertainty”

Learning interpretable models from data in order to extract knowledge, with transparent inclusion of prior knowledge for predictive, diagnostic, and prescriptive reasoning with uncertain and partial information, allowing for rational decisions.

TYPOLGY OF SERVICE

T3
T4
T5

WHY?

- More data is available than ever before. These data are increasingly used to gain knowledge and improve decisions, and to automate and improve processes.
- In many domains, a prerequisite for applying a machine learning models is interpretability. Probabilistic graphical models, in addition to being interpretable, allow for wider range of reasoning than standard prediction.

HOW?

- Senior researchers with vast expertise in supervised, semi-supervised, and unsupervised machine learning, big data, time series, and data streams.
- Primary domains of expertise: Bayesian networks and probabilistic graphical models, neural networks, meta-classifiers, support vector machines, classification trees, feature selection; hierarchical, partitional and model-based clustering. We adapt existing or develop novel methodologies according to the project's needs.

“Handling of data streams and temporal data”

“Many information sources, such as sensors, generate data streams. Handling such data can allow for decisions in real-time, such as preventing machine failure”

WHERE?

Customers

Repsol, Olocip, Etxe-Tar, BBVA, Banco Santander, Hospital Gregorio Marañón, Abbott Laboratories, Panda Security, Arthur Andersen

Collaborations

University of Columbia, EPFL, George Mason University, University of Essex, KU Leuven, Radboud Universiteit, The University of California San Diego, Utrecht University, Instituto Cajal, Allen Institute for Brain Science

CONTACT DATA

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