



# Horizon Europe Info Day and Brokerage event

Cluster 4 AI, Data and Robotics

17 June 2022, 9:30am to 1pm CEST

In collaboration with the European Commission and Ideal-ist

## Agenda:

**09:30 - 09:45 am - Welcome and Presentation of the AI, Data and Robotics Association (Adra)**

**09:45 - 11:15 am - Presentation of topics by the European Commission and Q&A**

**11:15 - 11:30 am - Presentation of Ideal-ist and Brokerage tool**

**11:30 - 13:00 pm - Pitches**

[adr-association.eu](http://adr-association.eu)



The AI Data Robotics  
Association

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Cluster 4 AI, Data and Robotics

17 June 2022, 9:30am to 1pm CEST

In collaboration with the European Commission and Ideal-ist

**09:30 - 09:45 am**

**Welcome and Presentation by Marina Bill,  
President of the AI, Data and Robotics  
Association (Adra)**

[adr-association.eu](http://adr-association.eu)



The AI Data Robotics  
Association

**Welcome**

# The AI, Data and Robotics partnership (2021-2030)

Co-programmed partnerships in Horizon Europe



**European Commission**  
Public Side

**Co-Programmed  
Partnership**

**Adra Association**  
Private Side



The MOU signed between Adra and the European Commission:

- Up to **1.3** billion euros of public investment by the European Commission (through Horizon Europe)
- Up to **1.3** billion euros of private investment through Adra for the period 2021 – 2030

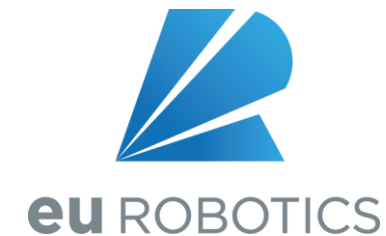


The AI Data Robotics  
Association

A Joint Initiative by



CLAIRE



Join Us!

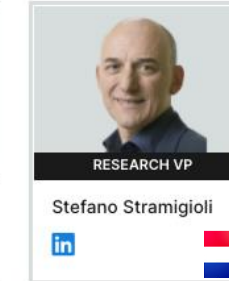
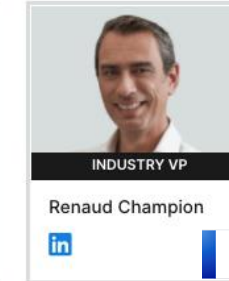
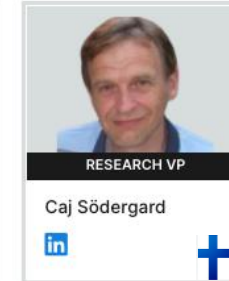
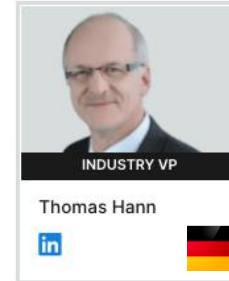
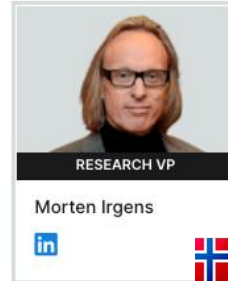
[www.adr-association.eu](http://www.adr-association.eu)

# President and Founding Board

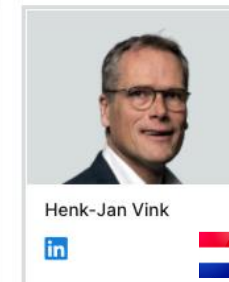
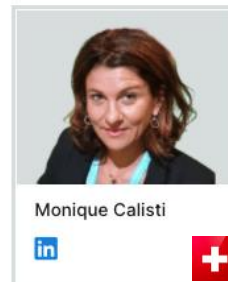
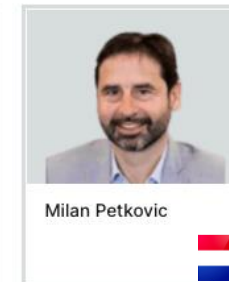
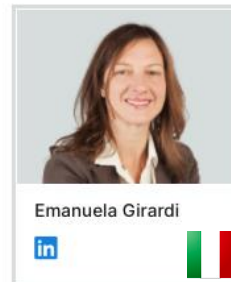
## PRESIDENT



## AI



The Adra Office is supported by  
BDVA, CLAIRE Paris/Inria and  
euRobotics/University of Twente.



# General Objectives of the ADR Partnership and Adra



Secure European's sovereignty over AI, Data and Robotics technologies and knowhow

Establish European leadership in AI, Data and Robotics technologies with high socio-economic and environmental impact



Reinforce a strong and global competitive position of Europe in AI, Data and Robotics

# Adra is needed for the EU Digital Decade policy

**Target:** 75% of European enterprises have taken up Big data  
**Baseline (2020):** 14%

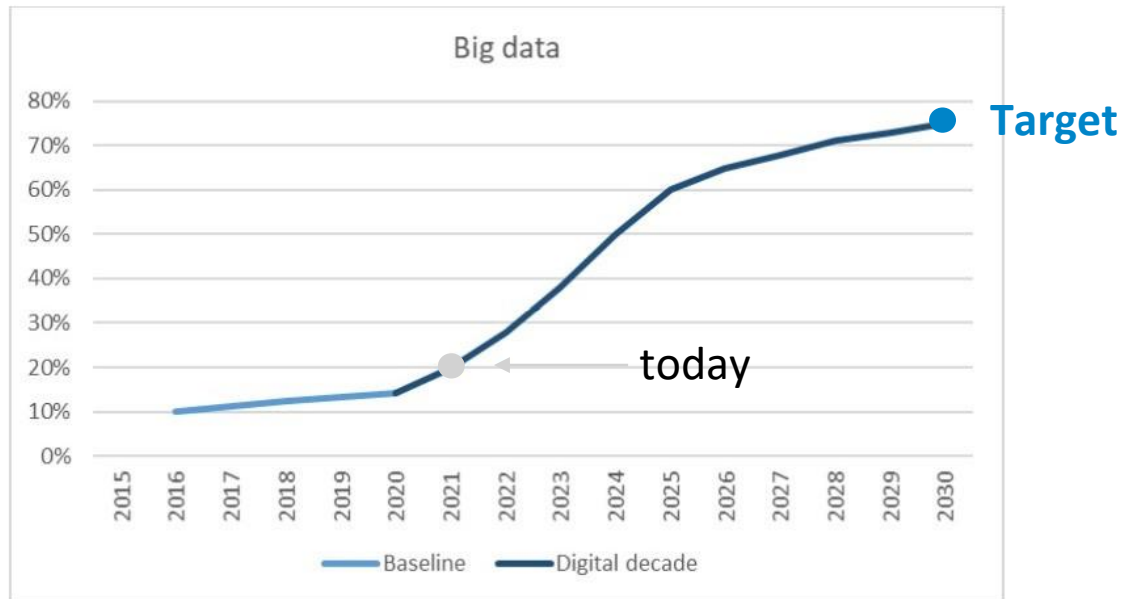


Figure 18: Percentage of European enterprises using big data (EU projection to 2030)

Source: Commission services based on data from Eurostat.

**Target:** 75% of European enterprises have taken up AI  
**Baseline (2020):** 25%

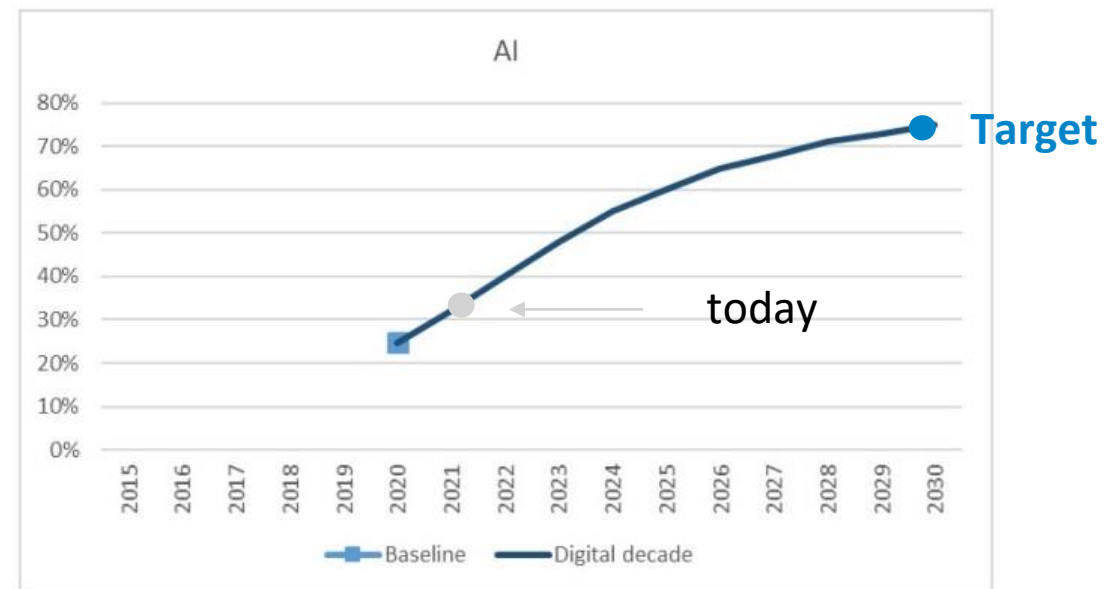


Figure 20: Percentage of European enterprises using AI (EU projection to 2030)

<https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SWD:2021:0247:FIN:EN:PDF>

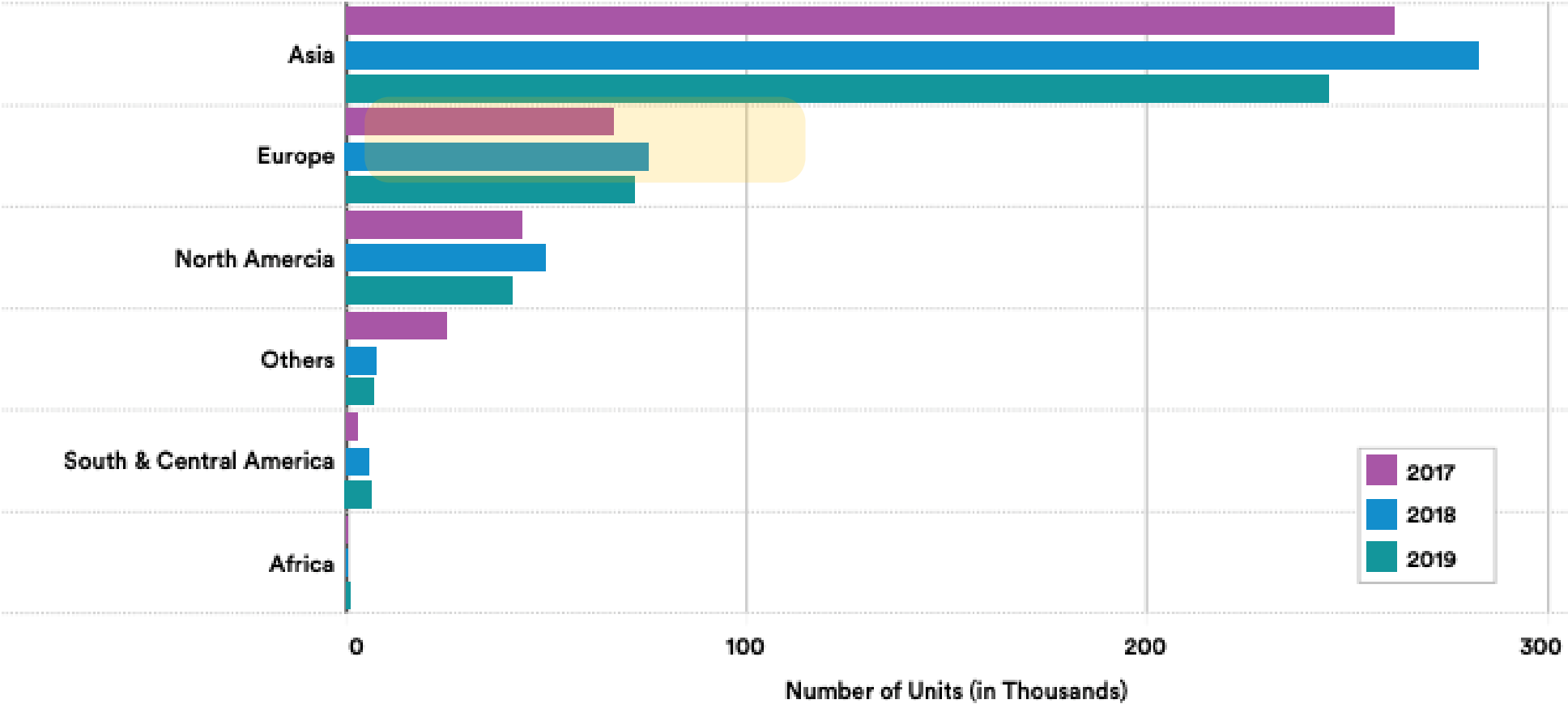




# The AI Index 2021 Annual Report(1)

## NEW INDUSTRIAL ROBOT INSTALLATIONS by REGION, 2017-19

Source: International Federation of Robotics, 2020 | Chart: 2021 AI Index Report



# European Parliament report (May 2022): “on artificial intelligence in a digital age”

## 5. ***Conclusion: an urgent call for action!***

294. Believes that the ongoing digital transformation, in which AI plays the key role, has triggered a global competition for tech leadership; stresses that the EU has so far fallen behind with the result that future technological standards risk being developed without sufficient EU contributions, oftentimes by non-democratic actors, which presents a challenge to political stability and economic competitiveness; concludes that the EU needs to act as a global standard-setter on AI;

p.58

REPORT on artificial intelligence in a digital age (2020/2266(INI)) Special Committee on Artificial Intelligence in a Digital Age. Rapporteur: Axel Voss.  
[https://www.europarl.europa.eu/cmsdata/246872/A9-0088\\_2022\\_EN.pdf](https://www.europarl.europa.eu/cmsdata/246872/A9-0088_2022_EN.pdf)


# Adra's approach to European AI, Data and Robotics

- Leverage existing **European strengths** in AI, Data and Robotics
- **Openness** and **inclusiveness** are essential to ensure success
- A **broad dialogue** is essential for the European innovation eco-system ( Start-Ups, SMEs, Large Industry and Research)
- Safeguard **balance** and **representation** between constituences and industry/research
- Build the AI, Data and Robotics eco-system on **existing** stakeholder communities.
- Ensure representation of **all** important stakeholders including start-ups/scale-ups, SMEs, regional ecosystems

# Adra Status – Chronology and Milestones 1/2

- 
- First Board meeting - April 2021
  - Office setup - April 2021
  - **Founding of the association** - May 2021
  - Election of President Marina Bill - June 2021
  - **Signing of MoU with the EC** - June 2021
  - InfoDay organised in collaboration with EC and IDEAL-IST – July 2021
  - Initial website launched (www.adr-association.eu) and social media (LinkedIn, twitter)
  - Start Bi-Weekly BoD meetings, bi-Weekly VP meetings (+ 45 minutes EC) – August 2021
  - GA (between founding members) – October 2021
  - Launch Event – November 2021

# Adra Status – Chronology and Milestones 2/2

- 
- Open for members – December 2022
  - Shaping WP23-24 with EC – February – March 2022
  - Exchange with NCPs – today
  - Periodic Welcome Event – starting May 17th
  - Infoday co-organized with EC and IDEAL-IST – 17 June
  - **General Assembly** – Monday June 20th

## Ongoing sub-committees (by the BoD) :

- Communication and Marketing
- Adra Strategy and Vision
- Setup of task-forces
- Regulations and Finance
- Recruitment of Secretary General

# Overview of Members

(June 2022)

## Membership Category

Industry Member	6
Research Member	24
Associate Member	0
Strategic Member	7
<b>Total</b>	<b>37</b>

## Founding Organisations Membership

BDVA Full	12
BDVA Associate	3
Claire	6
Ellis	1
EurAI	2
euRobotics	14
None	8

## Members per Country

Belgium	4
Germany	2
Spain	7
France	3
Netherlands	3
Finland	4
Ireland	1
Sweden	3
Norway	1
Greece	2
Slovakia	1
Italy	1
United Kingdom	1
Turkey	1
Poland	1

# Membership Benefits 1/2

- Access to a large network of ADR stakeholders (Industry, Research and policy makers). This facilitates match-making to enter e.g. EU project consortia
- Impact on EU research programs. As a unique contractual partner to EC, Adra is involved in writing the research programs of Horizon Europe concerning AI, Data and Robotics
- Participate in the authoring of the Strategic Research, Innovation and Deployment Agenda (SRIDA)
- Coordinated response through position documents and white papers to consultations, and policy documents
- Improved visibility at EU-level

# Membership Benefits 2/2 \*

- Propose candidates to the Board of Directors
- Voting right in the General Assembly
- Lead and participate in topic groups and task forces

\* for industry and research members. Slightly different rules for strategic and associate members



# Adra asbl: Types of Membership

Members with  
voting rights

## Industry Members

- Large companies
- Mid-Caps
- Small and Medium Enterprises (“SME”) and Start-ups

## Research Members

- Research and Technology Organisations (RTO)
- Universities, university colleges and university departments and laboratories or research groups of universities engaging in research, innovation and education (HES)

## Strategic Members

- Not-for-profit organisations having their own members and whose main objectives are of essential value for the Purpose of the Association

Members without  
voting rights

**Associate Members:** trade unions, non-governmental organisations, regional clusters, etc. and other stakeholders not falling in the Member categories above

# Annual membership Fees

Type of Organisation	Description (total number of employees)	Annual fee	Maximum Discount if member of Founding Organisations
Large Enterprise	>3000 persons employed	10,000.00 €	5,000.00 €
Mid-caps	250 – 3000 persons employed	5,000.00 €	2,500.00 €
SMEs	1- 249 persons employed	2,000.00 €	1,000.00 €
Research and Academia	>= 50 employees	2,000.00 €	1,000.00 €
Small research entity	<50 employees	500.00 €	250.00 €
Strategic members	Any size	3,000.00 €	NA
Start-ups	Any size (3 years)	250.00 €	125.00 €
Others	Any size	500.00 €	250.00 €

# How to apply

**STEP 1:** Download the template of the Adra Membership Application form from the Adra website [www.adr-association.eu](http://www.adr-association.eu)

**STEP 2:** Send an electronic copy of the Adra Membership Application Form filled in and duly signed to [membership@adr-association.eu](mailto:membership@adr-association.eu)

**STEP 3:** Your application will be reviewed by the Adra Secretary General / Office that will inform you if any modifications or additional information needed.

**STEP 4:** The Board of Directors reviews the application and decides on granting the temporary membership status.

**STEP 5:** The General Assembly grants the final membership status upon proposal of the BoD

**Do you need any support?** Send an email to [secretary-general@adr-association.eu](mailto:secretary-general@adr-association.eu)

# Get in touch



[secretary-general@adr-association.eu](mailto:secretary-general@adr-association.eu)



[www.linkedin.com/company/adr-association](https://www.linkedin.com/company/adr-association)



[adr-association.eu](http://adr-association.eu)



The AI Data Robotics  
Association

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Cluster 4 AI, Data and Robotics

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**09:45 - 11:15 am**

**Presentation of topics by Evangelia Markidou  
and Antonio Puente Roderro from the European  
Commission**



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**11:15 - 11:30 am**

**Presentation of Ideal-ist and Brokerage tool by  
Géraud Guilloud from Luxinnovation**

# Full Proposal Checks & Online brokerage

Horizon Europe Information & Brokerage

AI, Data, Robotics Partnership

17 June 2022



**IDEAL-IST**

[www.ideal-ist.eu](http://www.ideal-ist.eu)

Your Worldwide ICT Support Network

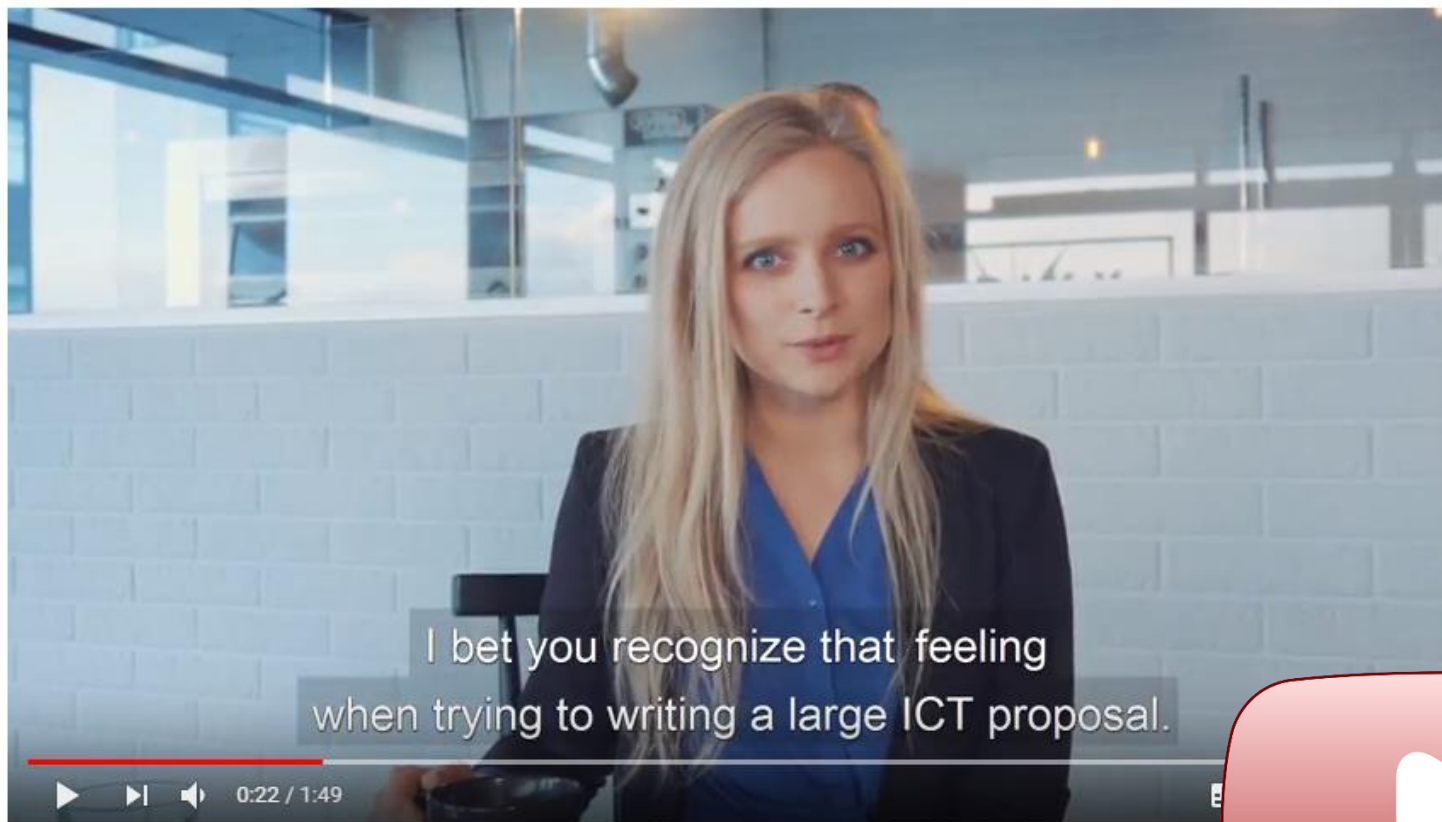
Géraud Guilloud  
HE delegate & NCP Luxembourg



# Who we are?



# Who?



Ideal ist Promotional Video

<https://www.youtube.com/watch?v=zldtz1yLKrE>



# Who?

**Made up individuals with lots of experience to help you!**

Ideal-ist has been active since 1996!

**from 48+ countries!**

Albania Argentina Armenia Austria Azerbaijan (Belarus) Belgium -Brussels Belgium -Federal Belgium -Flanders Belgium -Wallonia Bolivia Bulgaria Canada Croatia Cyprus Czech Republic Denmark Dominican Republic Estonia Faroe Islands Finland France Georgia Greece Guatemala Hungary Iceland Ireland Israel Italy Latvia Lithuania Luxembourg Macedonia Malta Mexico Moldova Netherlands Norway Poland Portugal Romania Serbia Slovakia Slovenia Spain Sweden Switzerland Tunisia Turkey Uganda Ukraine United Kingdom

# Our Benefit:

# Transnational

# Support to

# Applicants



**IDEAL-IST**

[www.ideal-ist.eu](http://www.ideal-ist.eu)

Your Worldwide ICT Support Network



This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No 101070043

# Ideal-ist Services

# Fantastic services!



Partner match/search



Trainings, Seminars & Webinars



Brokerage events



Toolbox for  
proposers



Pre-proposal check  
&  
Full proposal review



Personalised weekly  
notification



Topic Tree

# BROKERAGE



# VIRTUAL AGORA



Register



Create a profile



Share cooperation offers

- Project ideas
- Expertise
- Requests



Find & contact partners



A service offered by:  
the network of ICT  
National Contact Points



LONG TERM  
NETWORKING

<https://horizon-digital-2022.b2match.io/>  
(horizon-digital-2022.ideal-ist.eu)

# Ideal-ist Full Proposal Check

Date established  
24-28/10/2022

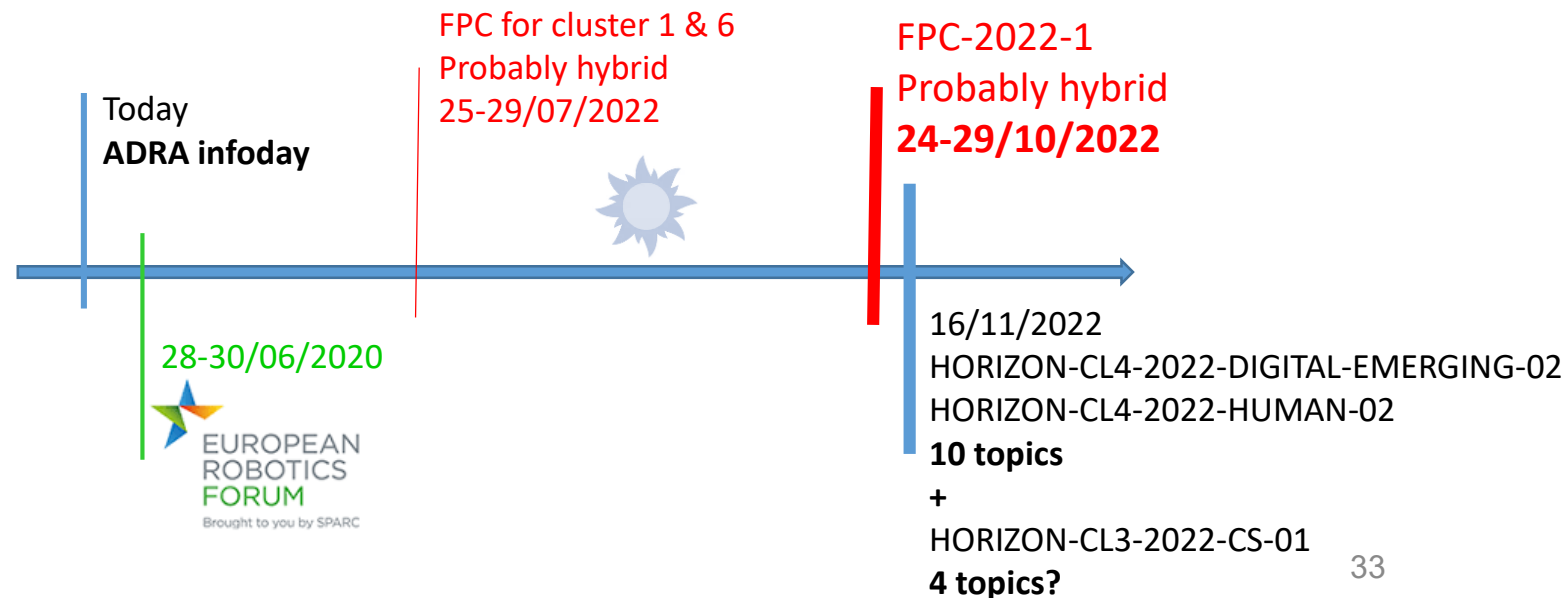
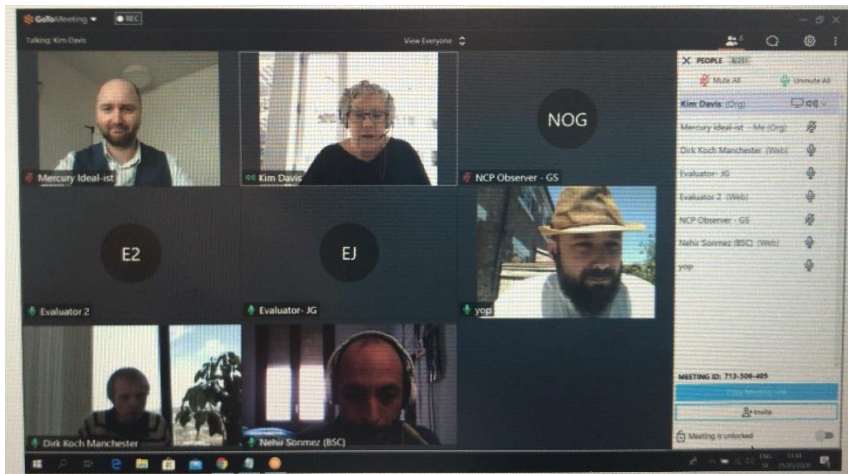
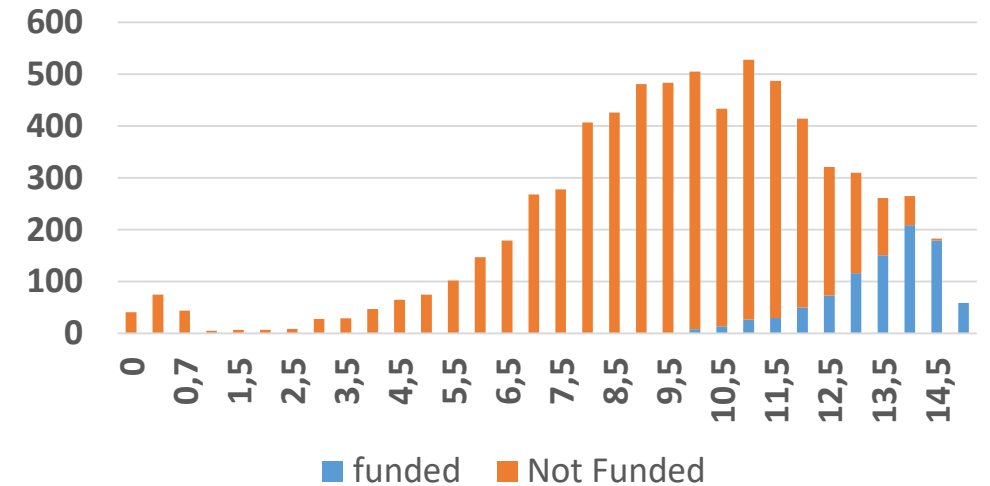




# T4.5 Proposal Checks

Flagship Idealist service  
**Mock evaluation of the advanced draft**

Score Distribution



# Full Proposal Checks – how can you benefit?

- 2 streams of actions:



Coordinators: if you are interested, you must **retro-plan to have an advanced draft for end October**

Partners: poke your coordinator



Volunteer as **paid evaluators**

Help us find evaluators: **forward the call for EoI DISCRETELY – NOT IN A NEWSLETTER**

Find us



**IDEAL-IST**

GA No 101070043

# Find us @

<https://www.ideal-ist.eu>

[https://twitter.com/ICT\\_IDEALIST](https://twitter.com/ICT_IDEALIST)

<https://www.linkedin.com/in/idealisticproject>

We're also on [Youtube!](#)

The best place to benefit from H2020's  
know-how,  
know-what, know-who  
and knowledge!



**Geraud Guilloud**  
NCP Luxembourg  
geraud.guilloud@luxinnovation.lu



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101070043



The AI Data Robotics  
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**Pitches**



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## Flanders Research Institute for Agriculture, Fisheries and Food ILVO

HORIZON-CL4-2022-DIGITAL-EMERGING-02-05: **AI, Data and Robotics for Industry optimisation (including production and services) //Together with BDVA Members**

HORIZON-CL4-2022-DIGITAL-EMERGING-02-07: **Increased robotics capabilities demonstrated in key sectors. //Willing to join**

*Panagiotis Ilias, PhD, Researcher at ILVO, BDVA TF.AgriFood Leader*

T: +3292722831

E: [panos.ilias@ilvo.vlaanderen.be](mailto:panos.ilias@ilvo.vlaanderen.be)



## EXPERTISE OFFER

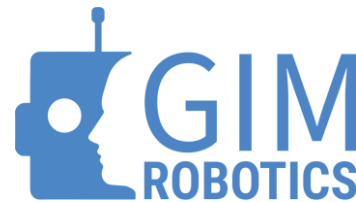
- ✓ Integrated Institute – AgriFood Industry - From Farm to Fork
  - ✓ Network of Farmers – AgriFood Tech Living Lab – DIH Smart Digital Farming
  - ✓ Relevant project experience AI Data Robotics – Strong Track Record
  - ✓ *“exploit the latest robotics advances and demonstrate at TRL6-7 use-case scenarios considering end-user needs and expectations” ... “real-world scenarios”*: Robotic Soil Sensing, Row spraying, Precision seeding, Fertilization
  - ✓ *“an interdisciplinary approach” ... “address non-technical issues hampering the adoption of AI, data and robotics in the selected application domain”*
- 
- ✓ H2020 & HE<sup>1</sup> proposal writing experience and project management.





## *Robust all-weather GNSS-free localization*

Mika Vainio, D.Sc.(Tech.)



Email: [mika.vainio@gimrobotics.fi](mailto:mika.vainio@gimrobotics.fi)

## ROBUST ALL-WEATHER GNSS-FREE LOCALIZATION

**Topic:** HORIZON-CL4-2022-DIGITAL-EMERGING-02-07:  
Increased robotics capabilities demonstrated in key sectors

**Type of project:** IA

### Project objectives:

Create GNSS and supportive infrastructure free full stack automation software working in all-weather conditions with centimetre level positioning.



## WANTED

### Competences & Skills wanted

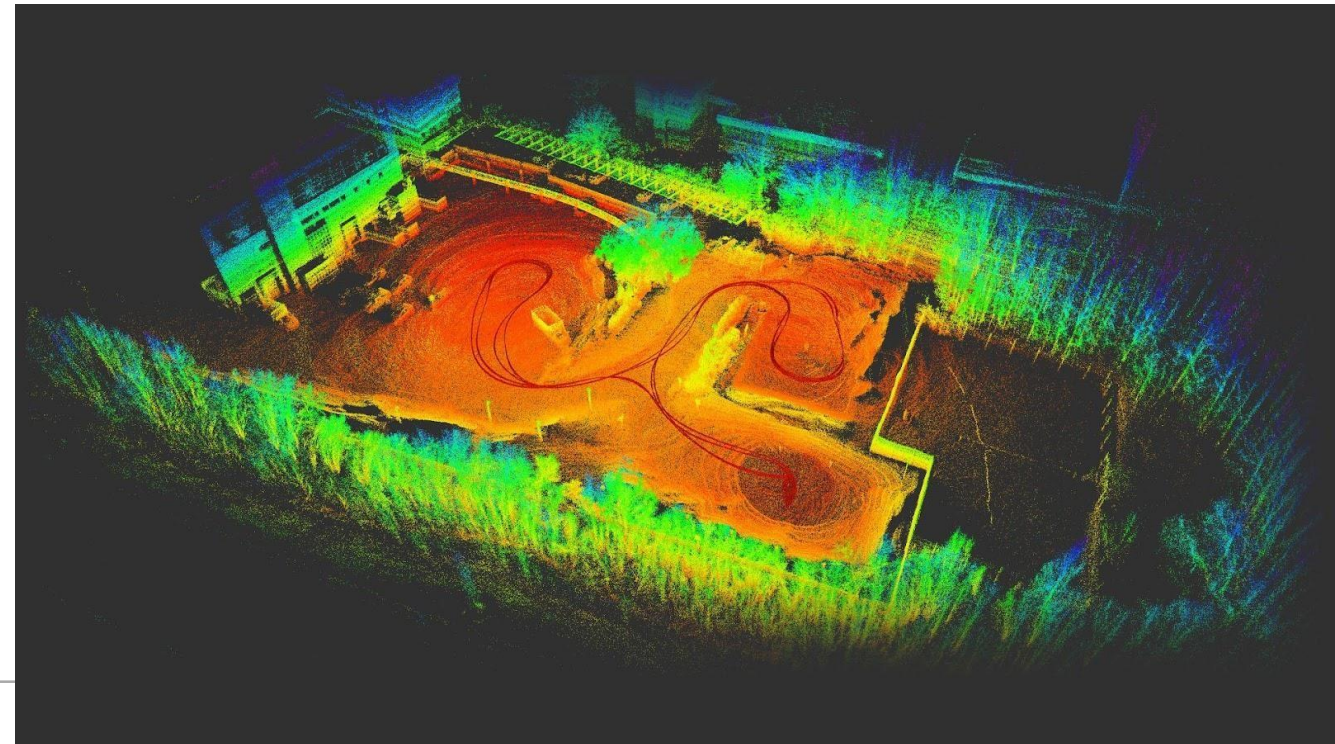
- Coordination, HQ software, HQ testing

### Types of partners sought

- Industry, SME, RTD center, Universities, Field&Service robot manufacturers/users

### Work to be performed

- Prototyping, Programming, System Integration and testing, Dissemination





The AI Data Robotics  
Association

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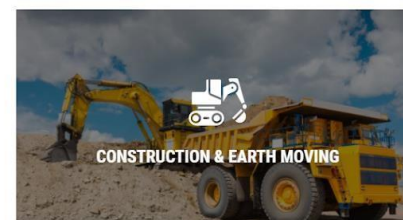
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## EXPERTISE OFFER

- GIM Robotics founded in 2014.
- Strong academic background. Mobile robotics since 1986 at Helsinki University of Technology (later Aalto University).
- 10 senior staff members have more than 200 years of combined robotic experience.
- 45 robotics professionals, with 7 having PhD.
- Tight R&D collaboration with sister company Sensible 4 with 100+ automation engineers.



Email: [mika.vainio@gimrobotics.fi](mailto:mika.vainio@gimrobotics.fi)



VTT

# Prof Caj Södergård

Adra Board and VP

VTT Technical Research Centre of Finland

Caj.Sodergard@vtt.fi

16/06/2022 VTT – beyond the obvious

# VTT – *beyond the obvious*

VTT is a visionary research, development and innovation partner

One of the leading research organisations in Europe.

## Our networks

- Adra (board), BDVA (board)
- euRobotics, eurAI, CLAIRE
- EARTO (president)
- Finnish Centre for AI, FAIR EDIH
- ....

**2,093**

employees

Turnover **254 M€**

**530**

scientific articles/year

**45%**

of net turnover  
from abroad

**~ 430**

patent families

VTT won **265 M€**

EU funds 2014–2021

**#18** out of 7000+

actors

Ranking timeline:



Source: Researchranking.org



# Digital technologies

S

We create cutting-edge digital technologies and identify future opportunities to solve global challenges

Quantum technologies

Next-generation microelectronics

Integrated electronics and photonics

Personalised health and wellness solutions

Strategic foresight

We innovate tomorrow's solutions together with our customers and partners



Connectivity in critical environments

Space-based communication and observation

Security & defence technology

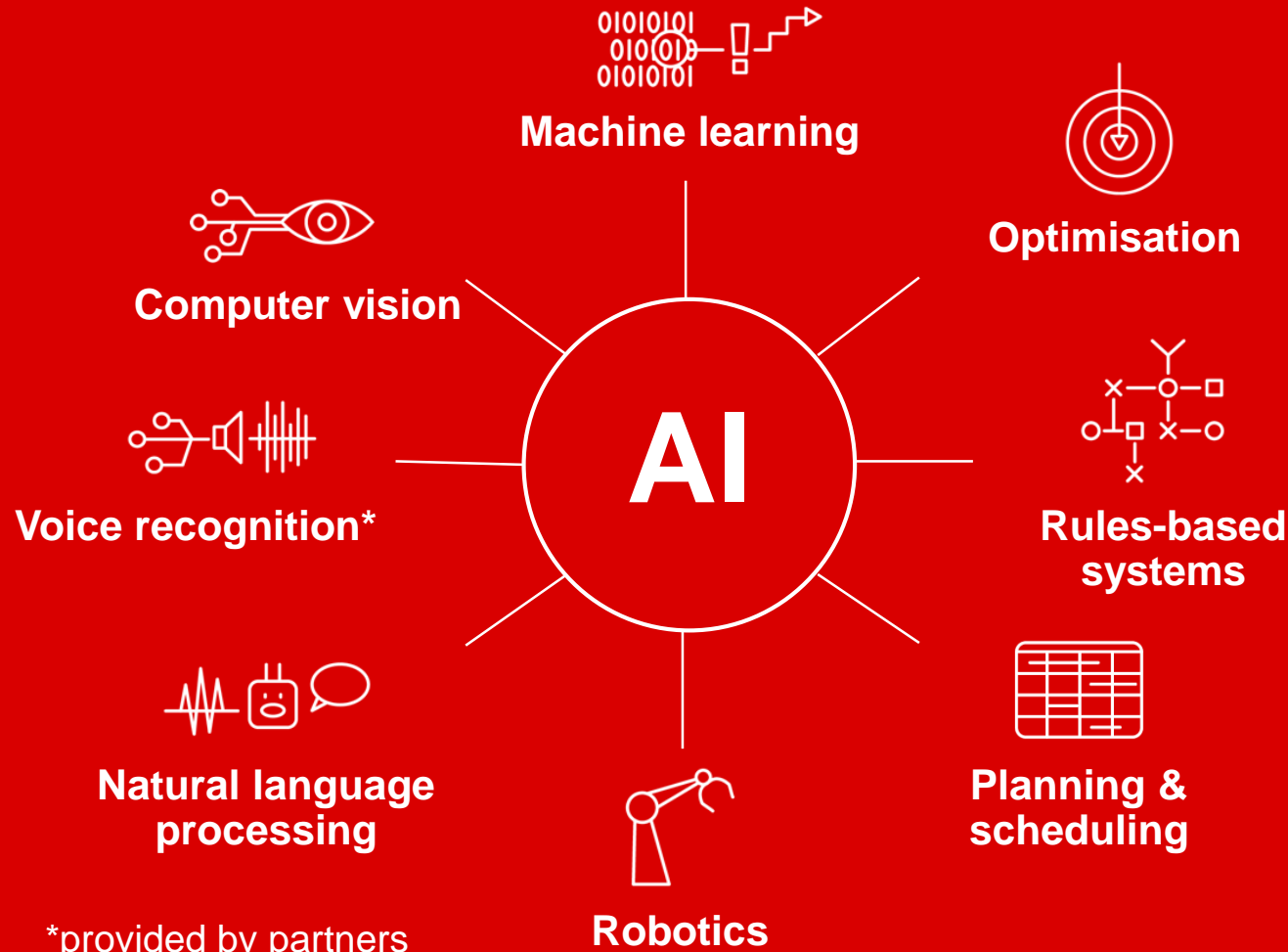
Competitiveness in an uncertain, complex, and ambiguous world



We enable the development of a high-performing and sustainable digital society



# AI, Data and Robotics expertise at VTT



\*provided by partners

**100+**  
AI & data scientists

**30 +**  
PhDs

Annual AI project volume  
**20+ M€**



# Demos Helsinki / Demos Research

## Horizon Europe CL4 calls

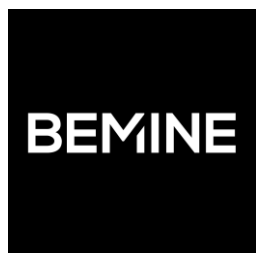
17.6.2022

Atte Ojanen, [atte.ojanen@demoshelsinki.fi](mailto:atte.ojanen@demoshelsinki.fi)

+358509177994

[www.demoshelsinki.fi/](http://www.demoshelsinki.fi/)

Demos Helsinki / Demos Research Institute is the leading independent nordic think tank in transformative AI and digital policies.



We are a consortium member in five Horizon Europe projects, and a WP leader in six Academy of Finland research projects.

## Our ongoing data/AI research projects:

**Avoiding AI biases** - Finnish framework non-discriminatory AI. Demos develops a framework for public organizations to assess fairness and biases in AI systems. (Finnish PMO, 2021-2022)

**TOKEN** - Transformative impact of distributed technologies in public services. Demos runs TOKEN's policy observatory for public officials (H2020, 2020-2022).

**ATARCA** - New economic models through anti-rival tokens. The project employs anti-rival DLT technology to better govern industrial data markets (H2020, 2021-2023).

**Artificial Intelligence 4.0 programme** for the Ministry of Economic Affairs and Employment

**Experimentalist policy-making in technology** for Open Loop.

# Our expertise

---

Demos has extensive expertise in:

- **Societal implications** of emerging technologies.
- **ethics, trustworthiness and responsibility** in AI and data
- **bias and discrimination in AI**
- **participatory co-design** with citizens
- **gender and intersectionality** in AI
- **data and AI governance**, including EU policies.

We have an interdisciplinary research background from **social sciences, ethics and political sciences**.

# Horizon Europe Cluster 4

We are especially interested in the following cluster 4 calls for fall:

- HORIZON-CL4-2022-DIGITAL-EMERGING-02-07: Increased robotics capabilities demonstrated in key sectors
- **HORIZON-CL4-2022-HUMAN-02-01: AI for human empowerment**

Possible roles:

- SSH and ethics partner, looking at the societal context, diversity and power structures of the AI use cases
- Trustworthiness and AI ethics in practice: mapping citizen attitudes, acceptability and explainability
- Participatory design and deliberation, democratizing algorithmic fairness
- Building on and scaling up our soon-to-be published *assessment framework non-discriminatory AI systems*
- EU AI policy interaction and dissemination

We coordinated a proposal that got reserve listed for *HORIZON-CL4-2021-HUMAN-01-24: Tackling gender, race and other biases in AI* last fall. It's possible we might try to repurpose it for the *2022-HUMAN-02-01* call with existing partners. If you have specific expertise that could complement us in mixed human-AI initiatives /hybrid

decision-support systems (HRI /HCI) we might be interested in hearing from you.



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## Eindhoven University of Technology

*Department of Industrial Design*

Dr Diana Stah

Project Development Officer

T:+31636248506

E: [d.stah@tue.nl](mailto:d.stah@tue.nl)

TU/e



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## Department of Industrial Design

### Future Everyday

*Bridging the gap between emerging technologies and people's everyday life.*

### Systemic Change

*Using design and technology to study socio-technical systems at the level of a group/community.*

Vitality, Learning and Social Resilience

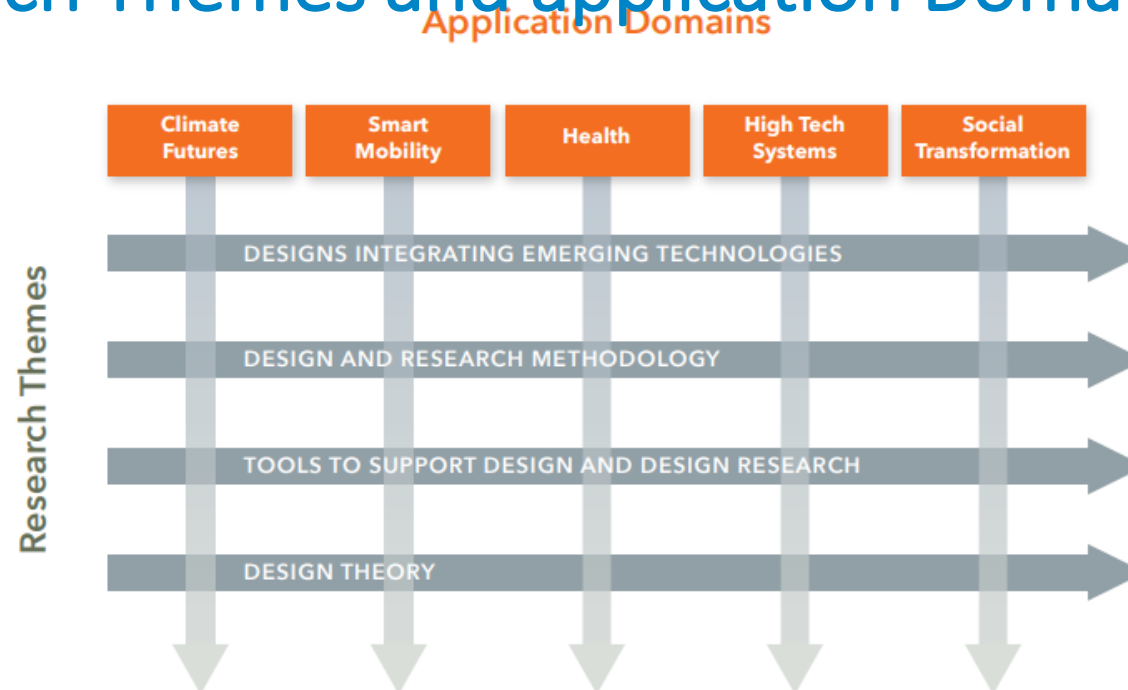
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Future Living and Health Continuum



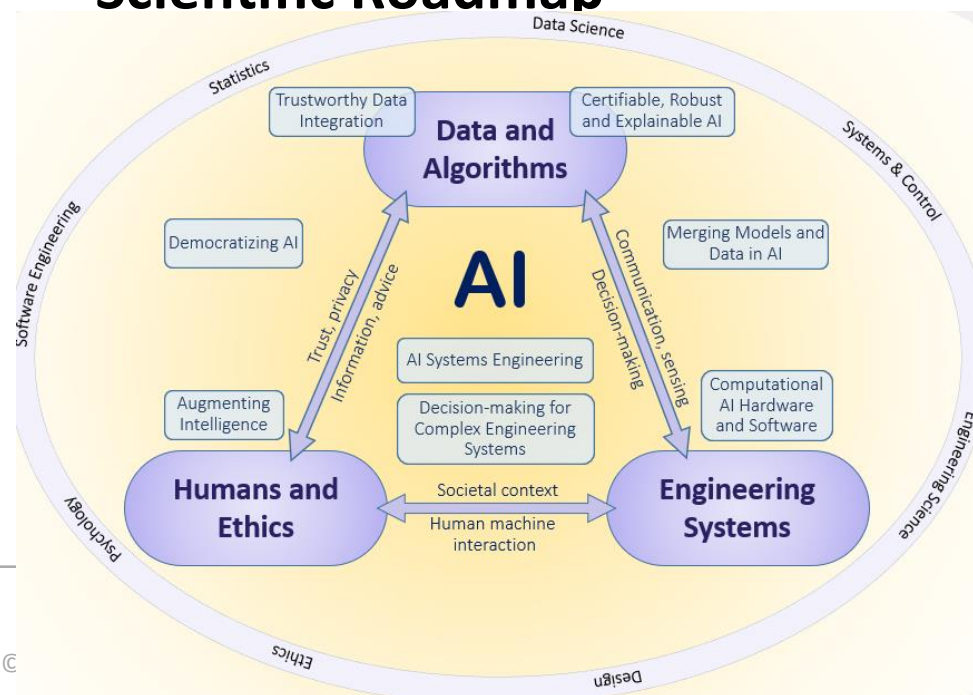
# Industrial Design Research Themes and application Domains

- Health
- Social Robotics
- Aesthetics of Intelligence
- Interactive Materiality
- Social Resilience
- Design Research Methodology
- Education

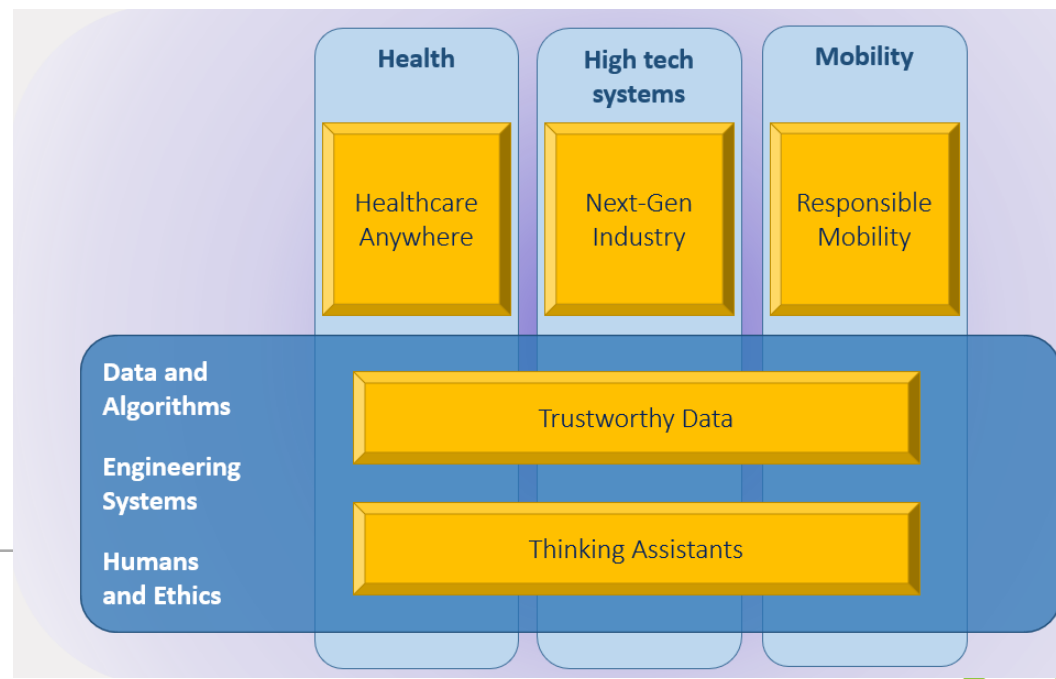


# Eindhoven Artificial Intelligence Systems Institute (EAISI)

## Scientific Roadmap



## Moonshots







# Horizon Europe Info Day and Brokerage event

Cluster 4 AI, Data and Robotics

17 June 2022, 9:30am to 1pm CEST

In collaboration with the European Commission and Ideal-ist

The University of Sheffield  
*Natural Language Processing Group*  
Prof. Kalina Bontcheva



The  
University  
Of  
Sheffield.

Twitter: kbontcheva

E: K.Bontcheva@sheffield.ac.uk



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## EXPERTISE OFFER as PROJECT PARTNER

Deep Learning Methods for Natural Language Processing  
Cloud-based Infrastructures for Natural Language Processing  
Knowledge Graph Extraction and Population  
Large-scale, Real-time Analysis of Social Media Content  
Detection of Online Abuse  
Detection and Analysis of Online Misinformation  
FAIR open-source NLP methods and tools

---

Over 20 years of world-leading research and EC project coordination





The AI Data Robotics  
Association

# Horizon Europe Info Day and Brokerage event

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## Institute for Energy Technology

*HADRON*

István Szóke



T: +47 45498721

E: [Istvan.Szoke@ife.no](mailto:Istvan.Szoke@ife.no)

# IFE, Institute for Energy Technology



Renewable energy



Nuclear technology



Materials technology



Digitalization



Radiopharmacy and  
health



Oil and gas



Industry and  
environment



Safety and security

Host of the **OECD NEA Halden HTO** (earlier HRP) project



The first designated **IAEA International Collaborating Centre** in the field of nuclear decommissioning

**DECOM**  
decommissioning and repurposing

Founding member of the

**Cluster for Applied AI &**

**Cluster for Decom. and Repurposing**



# Integrated industrial process management system

3D scanning/mapping



Characterisation



Job planning



Costing



Risk management



Catenda



BIM

Digitalised Training



Scheduling



Requirement management

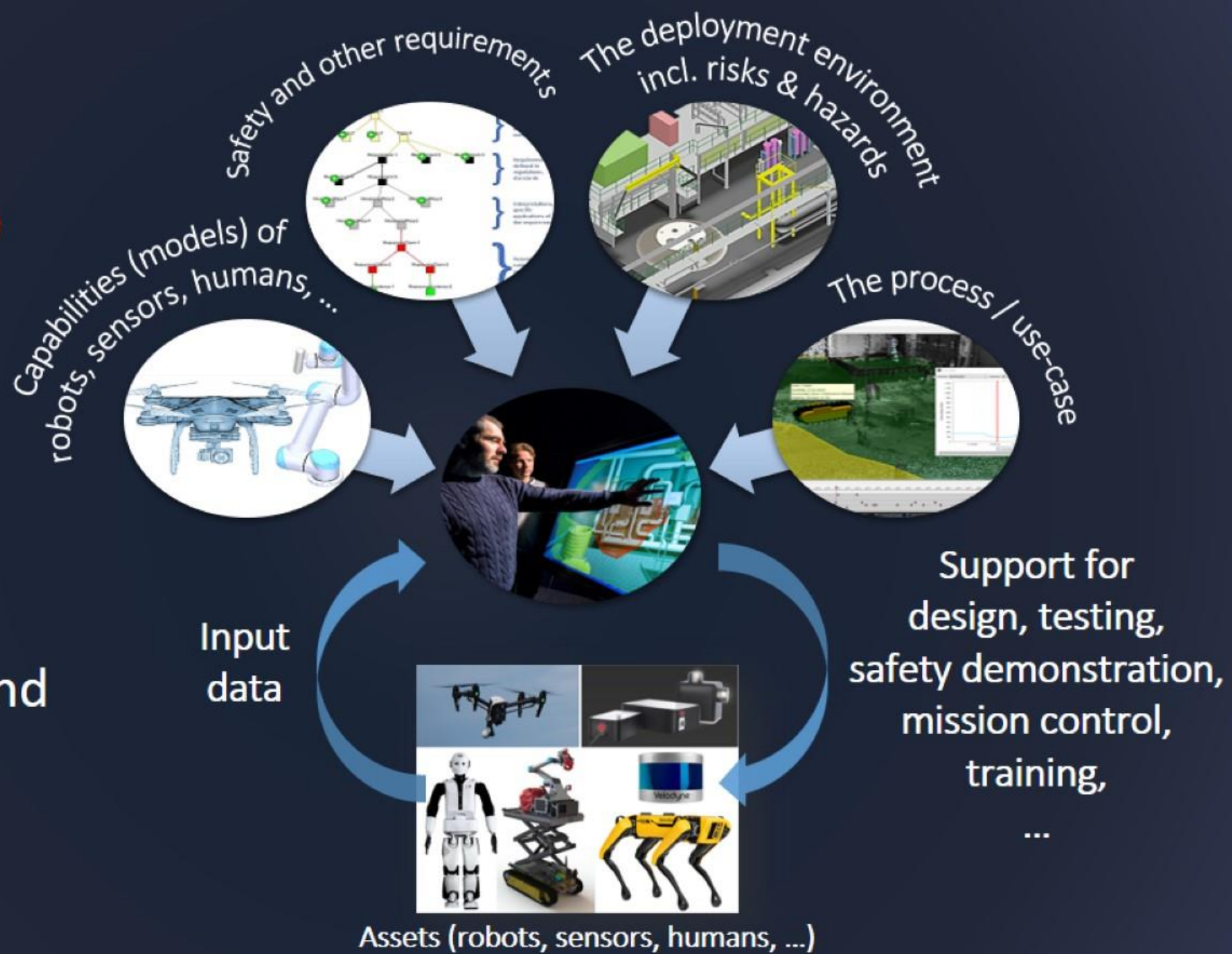


Info management



Open BIM compliant system

# Robots & Digitalisation



**Hazard  
Aware  
Digitalisation and  
RObotics in  
Nuclear and  
other domains**



Technology Driving Transition

# DECOM

decommissioning and repurposing

## DigiDecom 2022

### October 18 - 20

### Norway - hybrid event



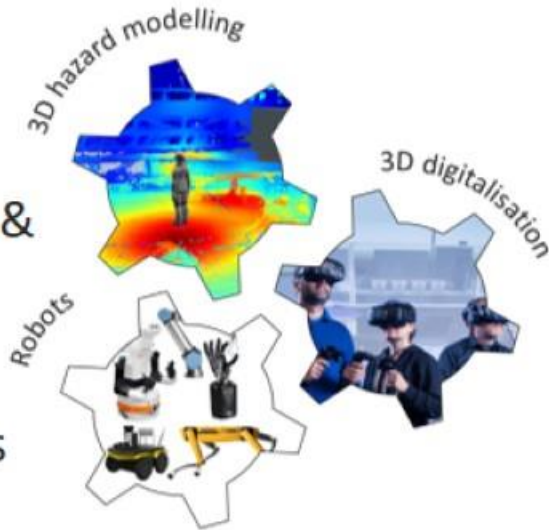
IAEA

International Atomic Energy Agency

Institute for Energy Technology (IFE)

IAEA Collaborating Centre

**H**azard  
**A**ware  
**D**igitalisation &  
**RO**botics in  
**N**uclear &  
other domains



## AI, data and robotics powered transformation for a sustainable decommissioning in nuclear and other industries



[www.smartinnovationnorway.com/events/digidecom-2022/](http://www.smartinnovationnorway.com/events/digidecom-2022/)

# MuseIA

HORIZON EUROPE CLUSTER 4



**MuseIA proposes to bring innovation and creativity to Horizon Europe projects « AI, data and robotics »**

Cécile Calé & Régis Guyonnet







# Presentation of MuselA founders & expertise

**Cécile CALE**

Researcher CNRS/Arts professor  
 Exhibition curator & ArtAdvisor  
 Direction of artists of intl. stature  
 Conceptor workshops &  
 Conferences Arts & Innovations

**Régis GUYONNET**

Chief Engineer  
 Head of innovation department  
 (French ministry of interior)  
 Manager cyber&IA



**Synergies Art Intelligence +  
 Engineering + Related technologies**

Imagination/Innovation/concretization  
 Usecases/feasibility/operativity  
 Reconciliation of the sensitive and the  
 intelligible  
 Strategic and prospective dimensions of  
 art intelligence associated with  
 operational added value

**Our approach is based on the  
 fusion of high quality creative  
 processes and those at the  
 cutting edge of engineering, in  
 order to create business value  
 and provide a broad  
 competitive advantage**

**Involved areas of expertise:**

Strategic and prospective dimensions  
 of art mobilized to innovate

Research in AI&cybersecurity

Design of Command&Control  
 Centres (C2)

Jury management, contemporary art  
 practice, training and selection of  
 emerging or renowned artists or  
 creatives

Information Design / data  
 visualisation

Scenographic direction of exhibitions  
 / art centers to maximize perception  
 and information capture

**Partner and WP leader in ASGARD  
 (H2020), CYBERSPACE (ISFP), POLIICE  
 (Horizon Europe FCT)**

**Envisioned Partnership :**

**Joining any C14 European  
 Consortium as a full SME partner**

**cecile.cale@museia.eu**

**regis.guyonnet@museia.eu**

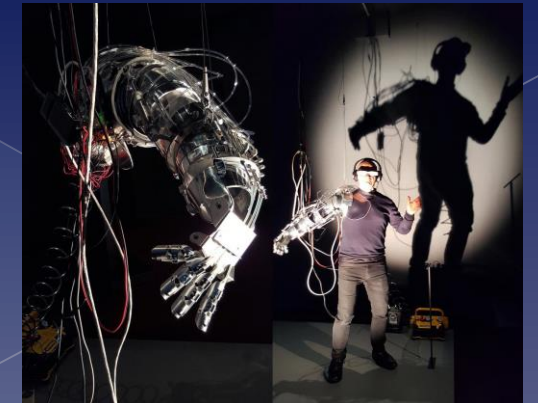
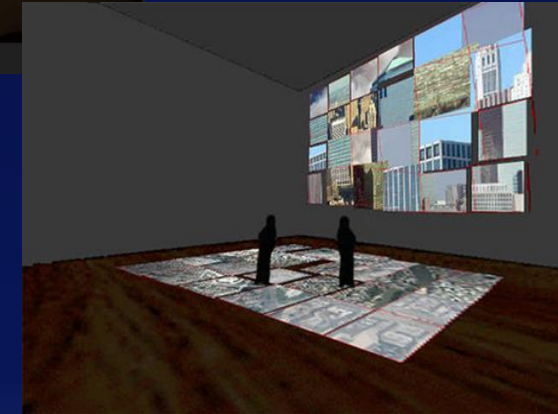
**This Muse + IA fusion becomes a catalyser of innovation for the future**

# What does MuselA bring into projects?

- Stimulate creativity and boost innovation in AI, robotics, improve data visualization through the involvement of our network of artists, researchers and innovators of very high levels.
- Develop the ability to think "out of the box" in order to develop a creative and prospective mindset.
- Bring together profiles from the arts and humanities with other fields to work (workshops, hands-on workshops, ...) in a transdisciplinary way and go as far as prototyping of innovative objects related to robotics.
- Enrich and refine the visualization of data, better showing and perceiving the complexity of data. Artists and designers make information more visually understandable.
- Working with designers and artists to produce information, communication and awareness-raising campaigns, including the production of films, cartoons, video games, digital material and social media, etc.
- Create immersive digital artworks and environments wherever necessary to facilitate training, education and user experience.
- Establish digital platforms for stakeholders and partners to easily and securely exchange research activities, digital strategies and scientific projects, as well as to share information between partners and stakeholders
- Organise events and exhibitions when required by European projects and interior architecture, interior design, digital environments. We are very experienced in aesthetics and how to design harmonious and pleasant spaces.



Seen at the Venice Biennale of Architecture 2002





# Horizon Europe Info Day and Brokerage event

Cluster 4 AI, Data and Robotics

17 June 2022, 9:30am to 1pm CEST

In collaboration with the European Commission and Ideal-ist

## Teknopar Industrial Automation/ TEKNOPAR

*Expertises Pitch*

*presented by*

*Dr. Özlem ALBAYRAK*

T: +90 312 395 9907

E: [albayrak@teknopar.com.tr](mailto:albayrak@teknopar.com.tr)

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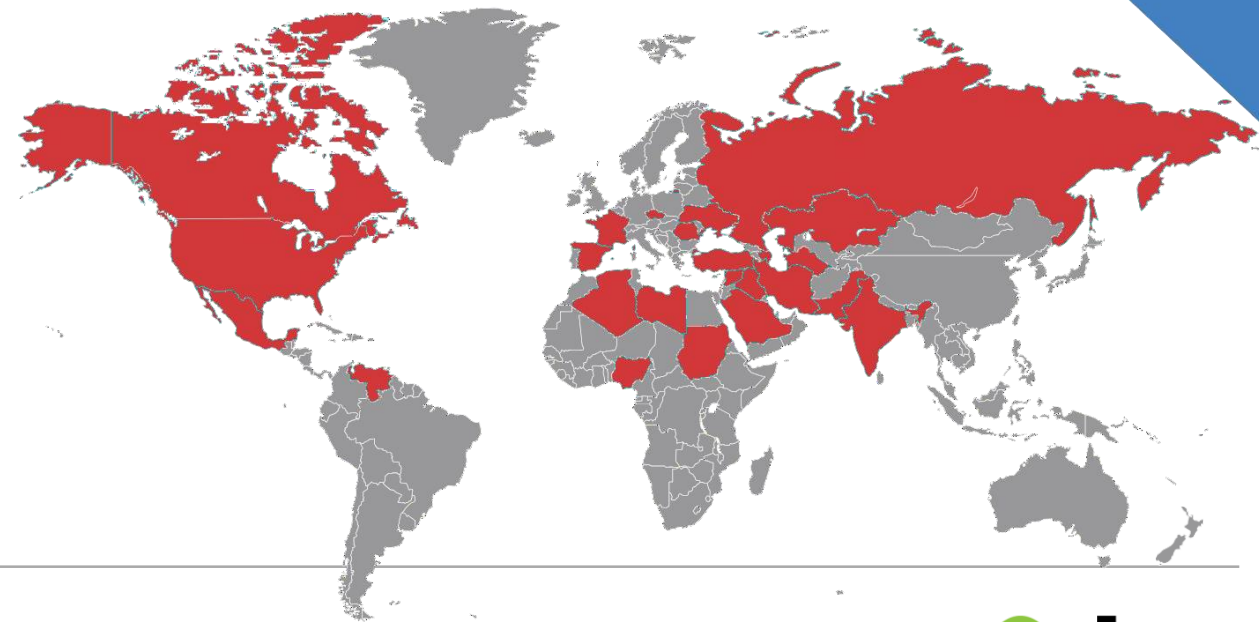
**teknopar**  
Industrial Automation



In collaboration with the European Commission and Ideal-ist

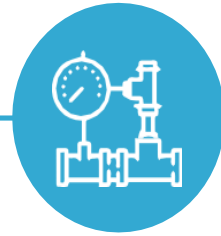


Five continents, 27 Countries, more than 500 successful projects

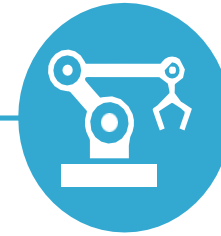




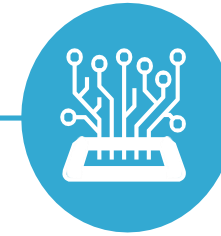
**MECHANICS**



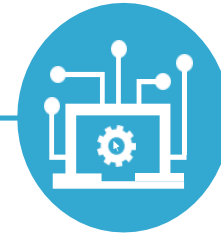
**HYDRAULIC**



**AUTOMATION**



**ELECTRIC-  
ELECTRONICS**



**INFORMATION  
TECHNOLOGIES**

**Industrial  
Facilities**



**Energy Sector  
Applications**



**Mobile  
Applications**



**Other  
Applications**





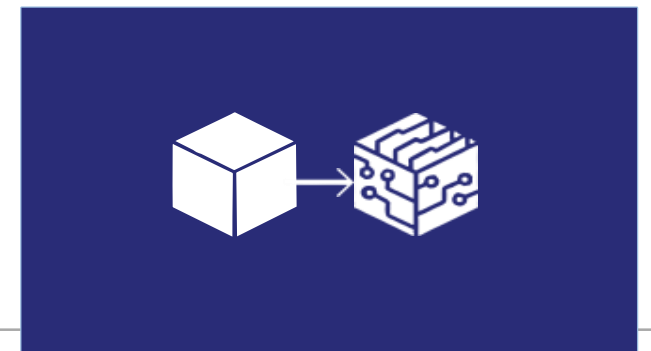
M2M/IoT



Computer Vision



Big Data/ Artificial Intelligence



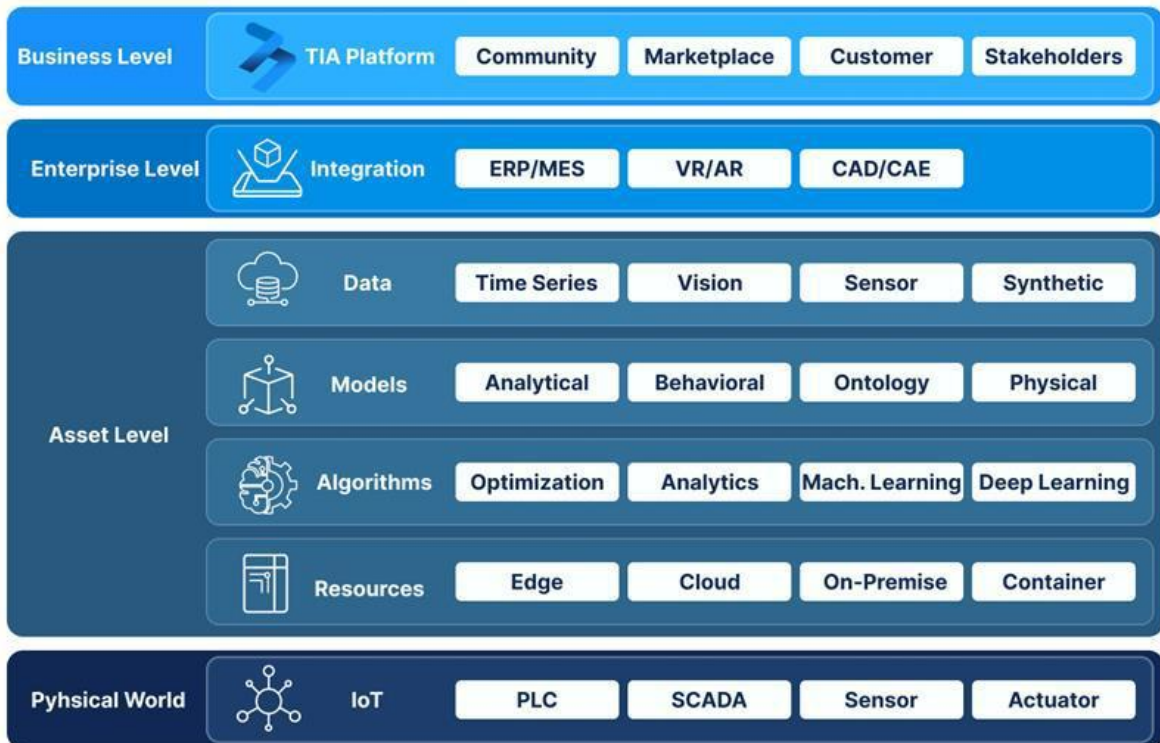
Digital Twin



# Horizon Europe Info Day and Brokerage event

## Cluster 4 AI, Data and Robotics

### Digital Platforms for Energy, Manufacturing and Process Industries and Use Cases



### Selected R&D Software Projects

#### COGNITWIN

Cognitive Plants Through Proactive Self- Learning Hybrid Digital Twins

#### FACTORY4.0

Development of Industry 4.0 Based Digital Twin Platform for Production Data Processing and Analysis

#### TC-VISION

Digital Transformation of Bearing Quality Control with Computer Vision and Artificial Intelligence

#### MACHINAIDE

Knowledge-based services for and optimisation of machines

#### TX-VISION

Automatic Defect Detection for X-Ray Test Systems

#### WELDVUE

Optimized Resource in High Value Sectors

#### CONSTRUMATIC 4.0

Industry 4.0 Based Advanced Robot Technology

#### FLOW-CAM

Knowledge-based Services for and Optimisation of Machines

#### QU4LITY

SMART-CNC

#### DIGITBrain

COATWIN





# Horizon Europe Info Day and Brokerage event

Cluster 4 AI, Data and Robotics

17 June 2022, 9:30am to 1pm CEST

In collaboration with the European Commission and Ideal-ist

## Teknopar Industrial Automation/ TEKNOPAR

*Digital Platforms for*

*Energy, Manufacturing & Process Industries*

*presented by*

*Dr. Özlem ALBAYRAK*

T: +90 312 395 9907

E: [albayrak@teknopar.com.tr](mailto:albayrak@teknopar.com.tr)

**teknopar**  
Industrial Automation





## PROJECT IDEA

*Development and Deployment of  
Digital Platforms for Energy, Manufacturing and Process Industries  
that bring AI, Data and Robotics in order to have quality lives and a better world*

### OFFERS by the CURRENT CONSORTIUM



Use cases from the energy sector

- especially in solar power

Technology providers in

- computer vision, data fusion, deep learning based automated inspection, smart camera AI based image sensor, robotics platform

Research institutes for

- machine learning, SLAM and SWARM algorithms



## RELEVANT CALLS AND TOPICS

**Digital and emerging technologies for competitiveness and fit for the Green Deal**

[2022-DIGITAL-EMERGING-02-07](#)

IA/ Project Size: 6.0M, Budget: 36M Euro

Increased robotics capabilities demonstrated in key sectors (AI, Data and Robotics Partnership)

- Development of robotics technologies in ways to autonomously take over dangerous, dull and dirty jobs, or tasks beyond human capabilities
- Easy to use, explainable and compliant AI tools

**A human-centred and ethical development of digital and industrial technologies**

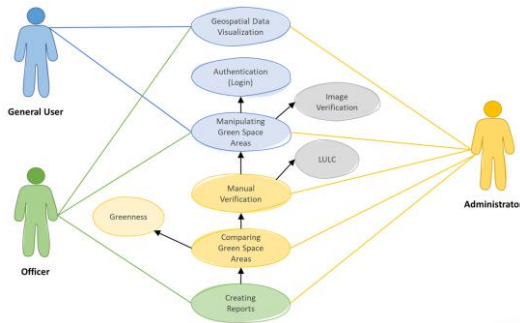
- [2022-HUMAN-02-01](#)

- RIA/ Project Size: 4.0M, Budget: 16M Euro
- AI for human empowerment (AI, Data and Robotics Partnership)
  - Human-AI hybrid decision-support systems

- Human-centric AI for supporting professionals in decision making
  - Developing AI/Data/Vision algorithms for Robotic Systems

Due: 16 November 2022

# WANTED ...



More application oriented use cases:

- dangerous/dull and dirty tasks beyond human capabilities
- strenuous for humans
- in extreme environments
- manufacturing and process industry

Experts with Social Sciences and Humanities

- Ethics
- Trustworthiness and acceptability by humans at the design phase
- Researchers/Technology providers and research institutes in

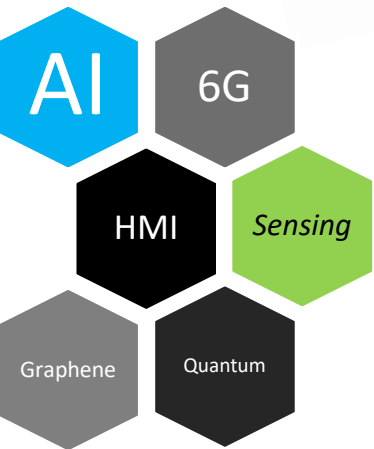


- 6G networks
- explainable AI and human centric AI
- Innovative HMI
- Quantum science/computing/simulation/communication/sensing
- Graphene
- Sensing

DIH networks

DIH

- Robotics
- AI
- Data



## REFERENCES

Use case: <https://www.mdpi.com/2220-9964/11/3/208/htm>

SSH: <https://schoolweb.tdsb.on.ca/yorkmillsci/Departments/Social-Science-and-Humanities>

Expert's hand: <https://www.pngegg.com/en/png-yjljw>

Computer vision: <https://teknopar.com.tr/en/rved-projects-4.html>

[punal@teknopar.com.tr](mailto:punal@teknopar.com.tr)  
[albayrak@teknopar.com.tr](mailto:albayrak@teknopar.com.tr)

Thanks for your attention  
**teknopar**



# Horizon Europe Info Day and Brokerage event

Cluster 4 AI, Data and Robotics

17 June 2022, 9:30am to 1pm CEST

In collaboration with the European Commission and Ideal-ist

Loughborough University (LU)  
*Artificial Intelligence on the Edge*  
Dr. Shirin Dora



Loughborough  
University

T: 01509635704

E: [S.Dora@lboro.ac.uk](mailto:S.Dora@lboro.ac.uk)

## PROJECT IDEA

**Topic:** HORIZON-CL4-2022-DIGITAL-EMERGING-02-05 - AI, Data and Robotics for Industry optimisation

**Type of project:** *RIA* for developing new/improved solutions involving fundamental or applied research. *IA* for contributing towards improvement of existing products, processes or services.

### Project objectives:

*RIA* Develop effective Artificial Intelligence techniques for edge computing.

*IA* Adapt existing AI techniques to meet the requirements of specific applications.

## WANTED

**Competences & Skills wanted:** Coordination for managing the whole project, **Industrial/academic domain expertise** for developing complementary research ideas and exploitation.

**Types of partners sought:** **Industrial partners** with real-world use cases of AI and for data sharing, **academic partners** in other relevant areas of research.

**Work to be performed:** Research, Prototyping, deployment and evaluation/validation of solutions in real/simulated scenarios.



## EXPERTISE OFFER

- Artificial Intelligence to address issues like **edge computing, energy-efficiency, real-time decision-making, online learning, lifelong learning, federated learning.**
- Main area of expertise is **neuromorphic computing** and other forms of **bio-inspired AI.**
- LU provides infrastructure for high performance computing, industrial robotics (intelligent automation centre, SMART manufacturing) and sports equipment (Sports Technological Institute) and aerial robotics (LUCAS).
- Proposed activities: Writing, Brainstorming, Reporting, Leading research (dissemination and exploitation) and other necessary activities (except coordination).

# Koçtaş Yapı Marketleri /Koçtaş

## *Smart Retail Robotics*

### Hilal Özdemir

T: +90 536 359 91 51

E: [hilal.ozdemir@koctas.com.tr](mailto:hilal.ozdemir@koctas.com.tr)



## PROJECT IDEA

**Topic:** *HORIZON-CL4-2022-DIGITAL-EMERGING-02-07-Increased robotics capabilities demonstrated in key sectors (AI, Data and Robotics Partnership)*

**Type of project:** IA

**Project objectives:** Help customers during their shopping experience  
smarter recommenders for customers  
conversational AI ----**Virtual Smart Clerk**  
digitalization of the routine operations in stores

## WANTED

### Competences & Skills wanted

Use Case partners conducting e-trade and owning the bulk of related data

R&D partner working in AI and big data processing

Research Partners (Universities and Research Institutes)

Technology Providers (Large Industry Firms, Research Institutes and SMEs)

### Types of partners sought

Industry, SME, RTD center, University, User-groups, etc

### Work to be performed

Prototyping, Programming, System Integration, Dissemination, Engineering, etc



# Horizon Europe Info Day and Brokerage event

Cluster 4 AI, Data and Robotics

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## EXPERTISE OFFER

Retail company in Home Improvement Sector

280+ stores and 1 Research and Development center in Istanbul

90+ Researchers

100 K+ customers

Software Developers in Robotics

AI Solutions

Mobile Application Development

Prototyping, dissemination, engineering

## Partners





# Horizon Europe Info Day and Brokerage event

Cluster 4 AI, Data and Robotics

17 June 2022, 9:30am to 1pm CEST

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SESTEK

Tuba ARSLAN KIR

T: + 90 212 286 25 45

E: [tuba.arslan@sestek.com](mailto:tuba.arslan@sestek.com)



COMPANY SNAPSHOT  
(SME)

22

YEARS OF TRACK RECORD IN CONVERSATIONAL TECH

+200

CLIENTS IN 16 COUNTRIES USE SESTEK SOLUTIONS

%70

70% of WORKFORCE ARE R&D ENGINEERS

100% In-house Developed Technologies

Speech  
Recognition (SR)

Text-to-Speech  
(TTS)

Voice  
Biometrics

Natural Language  
Processing (NLP)

Artificial  
Intelligence (AI)

Speech and Text  
Analytics

Sestek is a Gartner-recognized vendor  
for Speech-to-Text technology



# 2

R&D CENTERS

R & D CAPABILITIES

# % 88

OF REVENUE = R&D → COMMERCIALIZATION

# 11

PATENTS

# + 60

PUBLICATIONS

# + 35

FUNDED R&D PROJECTS

INCLUDING

- 1 ECSEL
- 1 EUROSTARS
- 1 GLOBALSTAR
- 4 EUREKA

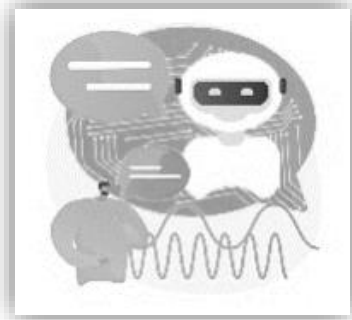
CALLS WE ARE  
INTERESTED IN

- CL4-2022-DIGITAL-EMERGING-02-05
- CL4-2022-DIGITAL-EMERGING-02-07
- CL4-2022-HUMAN-01-01
- CL4-2022-HUMAN-01-19
- CL4-2022-DATA-01-01
- CL4-2022-DATA-01-04





## Conversational AI



- Virtual Assistants
- Speech Recognition (SR)
- Text-to-Speech (TTS)
- Artificial Intelligence (AI)
- Natural Language Processing (NLP)

## Conversational Biometrics



- Active Verification
- Passive Verification
- Blacklist Identification

## Conversational Analytics



- Speech & Text Analytics
- Real-time Analytics
- Automated Quality Management



Tuba ARSLAN KIR  
R&D&I Manager  
[tuba.arslan@sestek.com](mailto:tuba.arslan@sestek.com)  
[www.sestek.com](http://www.sestek.com)

# Thank You

## REFERENCES

### PARTNERSHIP



### CONVERSATIONAL AI



### CONVERSATIONAL BIOMETRICS



### CONVERSATIONAL ANALYTICS





# Horizon Europe Info Day and Brokerage event

Cluster 4 AI, Data and Robotics

17 June 2022, 9:30am to 1pm CEST

In collaboration with the European Commission and Ideal-ist

feedgy

*Automatisation and optimisation of processes in Solar PV Value Chain*

*Laurent Thibaudeau, Innovation Director feedgy solar*

T: +33 6 40 60 42 49

Email : [lthibaudeau@feedgy.solar](mailto:lthibaudeau@feedgy.solar)





# Horizon Europe Info Day and Brokerage event

Cluster 4 AI, Data and Robotics

17 June 2022, 9:30am to 1pm CEST

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## PROJECT IDEA

Topic:

HORIZON-CL4-2022-DIGITAL-EMERGING-02-05 - AI, Data and Robotics for Industry optimisation (including production and services)

Type of project: IA

Project objectives:

*The objective is to **enhance efficiency of processes** in the PV value chain, accelerate PV project identification, optimize PV plants performance by means of **AI techniques***



# Horizon Europe Info Day and Brokerage event

## Cluster 4 AI, Data and Robotics

17 June 2022, 9:30am to 1pm CEST

In collaboration with the European Commission and Ideal-ist

## WANTED

### Competences & Skills wanted

Coordination (we have no resources for that), AI technologies specialists, users in the Renewable energy value chain in order to build a use case for this Topic.

### Types of partners sought

Industry, SME, RTD center. Any partner with strong competences in IA, data mining, Machine Learning, Geographical Information Systems, Predictive Maintenance

Possible synergies with other value chains (renewables such as wind for example)

Other partners in the Renewable Energy value chain are welcome to contact us.

### Work to be performed

Prototyping, programming, integration into user's information systems



# Horizon Europe Info Day and Brokerage event

## Cluster 4 AI, Data and Robotics

17 June 2022, 9:30am to 1pm CEST

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## EXPERTISE OFFER

Feedgy develops innovative solutions to 1/ extend the lifetime and improve the performance of existing photovoltaic power plants, and 2/ contribute to the massification of solar PV in Europe by accelerating processes

### **Our expertise :**

- Solar PV business (performance optimization, monitoring, fast identification and evaluation of potential new PV projects, repowering of existing plants, photonics)
- Artificial Intelligence: ML, algorithmics, Deep Learning, programming, integration

Strong collaborations today with French labs (CNRS, universities) and strong knowledge of the PV value chain

### **Looking for EU partners to :**

- build a use case, leverage on synergies with other value chains
- reinforce collaboration and integration in the EU ecosystem



# Horizon Europe Info Day and Brokerage event

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## Systematic Paris Region

*MoniTerra project*

Alain DINIS



T: +33 (0)6 81 68 43 21  
E: [alain.dinis@systematic-paris-region.org](mailto:alain.dinis@systematic-paris-region.org)



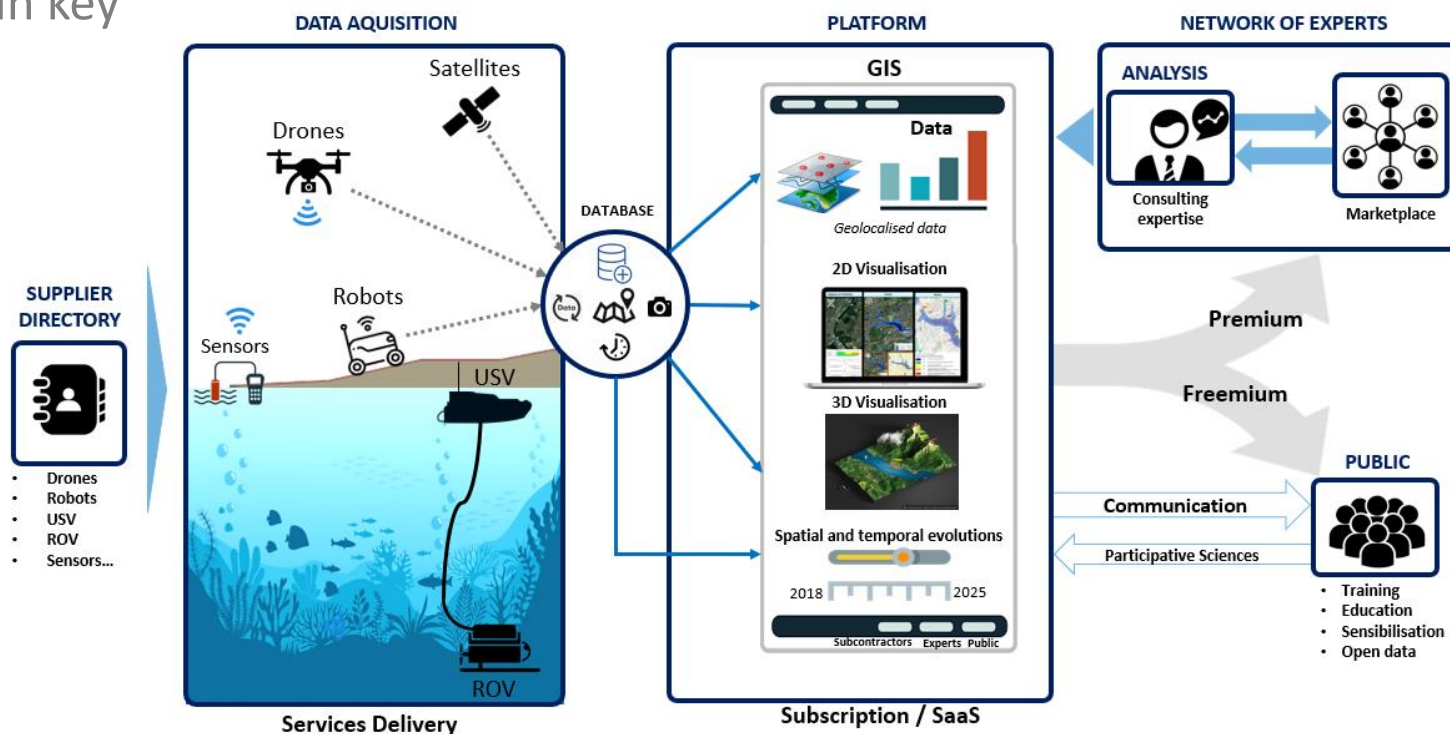
### PROJECT IDEA

**Topic:** HORIZON-CL4-2022-DIGITAL-EMERGING-02-07  
Increased robotics capabilities demonstrated in key sectors (AI, Data and Robotics Partnership)

**Type of project:** (IA)

**Project objectives:**

Monitoring human, technological and social impacts on the earth environment through smart devices and digital technologies







# Horizon Europe Info Day and Brokerage event

## Cluster 4 AI, Data and Robotics

17 June 2022, 9:30am to 1pm CEST

### WANTED

#### Competences & Skills wanted

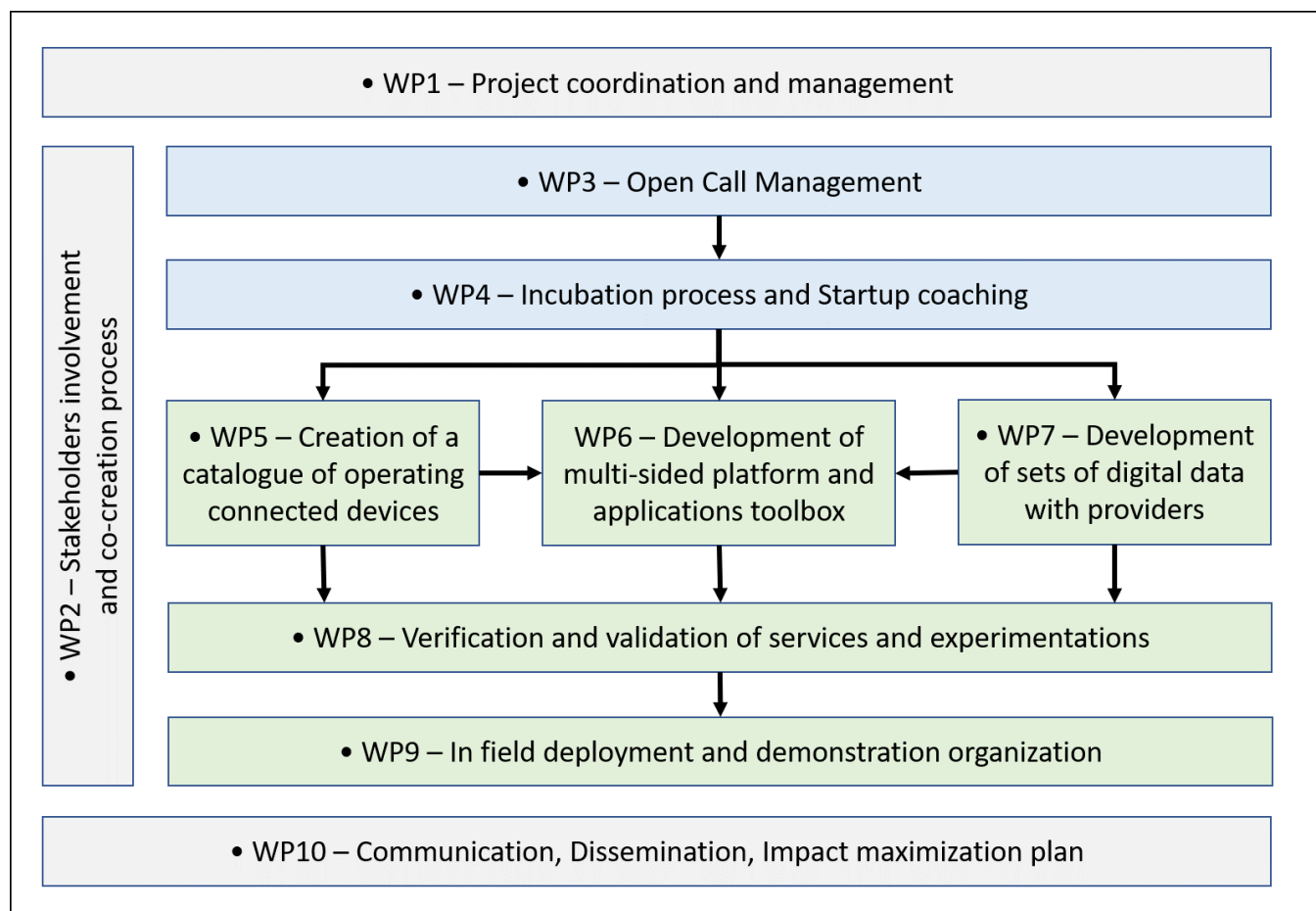
Coordinator, WP leaders, Cascade funding, multi-sided platform development

#### Types of partners sought

- Industry: Environment, sustainability, DeepTech
- SME, RTD center & University: Robotics, drones, IoT, IA, data sciences
- User-groups: Quadruple Helix (public authorities, industry, academia and citizens)

#### Work to be performed

Prototyping, Programming, System Integration, Dissemination, Engineering





# Horizon Europe Info Day and Brokerage event

Cluster 4 AI, Data and Robotics

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## EXPERTISE OFFER

**European & International  
Ambition**

Strengthening European  
innovation projects

Facilitating international  
business development

- PARTNERSHIPS with European clusters
- Reinforced INNOVATION process
- VISIBILITY at European level
- PROMOTION of the Deeptech ecosystem
- Accelerating international GROWTH
- Technological PARTNERSHIPS

**Marketing, networking, communication and dissemination**



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## NAITEC

*RESEARCH CENTER EXPERTISE OFFER*

María Pedrosa (Head of European Projects)

T: Telephone number +34 696 786 946

E: Email [mpedrosa@naitec.es](mailto:mpedrosa@naitec.es)



## NAITEC

AUTOMOTIVE AND MECHATRONICS  
TECHNOLOGY CENTRE

## NAITEC

- **Private non-profit foundation**
- 75 researchers
- 22% PhD
- 40% female, 60% male

### Main calls of interest

**HORIZON-CL4-2022-DIGITAL EMERGING-02-05**

**HORIZON-CL4-2022-DIGITAL EMERGING-02-06**

**HORIZON CL4-2022-DIGITAL EMERGING-02-07**

- Experience as WP Leaders in HE, Interreg, Eureka.....

## MEMBER OF:

- [ADRA](#)
- [CCAM](#)
- [ERRIN](#)
- [COST](#)
- [OE-A](#)



# EXPERTISE IN ARTIFICIAL INTELLIGENCE

KNOWLEDGEMENT

APPLICATIONS

SOLUTIONS

## DIGITALIZATION

- Sensor development for critical parameters control in real time
- Sensor integration and implementation
- Communications
- IoT, IIoT
- Cybersecurity

## Machine learning

- Smart management, security, governance and **data analysis**
- Design of Experiments
- Existing data study system and predictive model integration
- Analytical and computational models
- **Time series**, online learning and optimization

## Computer Vision

- **Images recognition**
- Adquisition systems (cameras, lightment)
- **Deep Learning**
- Spectral images, resolution improvement

## Digital Twin

- Digital Twins for operation and **maintenance physical and industrial processes**

## SIMULATION

- Finite element simulation
- Structural simulation
- Dynamic fluid, fluid-thermal, chemistry, electromagnetic, multiphysic simulation

- Process optimization
- Product optimization
- Process automation
- Predictive Maintenance
- Management and traceability of assets, logistics

- Anomaly detection
- People and objects detection
- Diagnostic fault in product and process
- Diagnosis and prognosis of diseases

- Industrial plants prediction
- Physical processes prediction

- MLOPS design solutions
- Cloud solutions
- Edge solutions
- Embedded IA system design and development

- Predictive models customization in embedded devices
- Methodologies and architecture design for training and export of predictive models
- Custom user interfaces (GUI) development

## INFRASTRUCTURE

### **AI and Data Analytics laboratory**

The AI and DA laboratory aim the development of methodologies that allow a new concept of workflow, based on automation, adaptation and servitization (MLOps) as a solution that can tackle the complexity and growth of machine learning in companies.

### **Digital Technologies laboratory**

The Digital Technologies laboratory aim the development of electronics devices where communications, embedded hardware and software, and mechanical integration are designed ad-hoc. A huge portfolio of laboratory instrumentation and simulation software are available to develop the IoT devices required for digitalization.

### **Cybersecurity laboratory**

The Cybersecurity laboratory aim the development of testing electronics devices and applications for the fulfilment of the IEC62443-1 norm, relative to Secure product development lifecycle requirements.

### **Autonomous System laboratory**

The autonomous system laboratory is a facility in NAITEC devoted to the use of unmanned vehicles for different applications: logistics, agriculture, industrial, inspection, safety and security, etc.

It includes simulation capabilities.

The laboratory is part of the Uspace Test Center “NAITEC- Aerodromo Lumbier”, where multi vehicle automatic use and coordination is tested (in the image for safe and security applications).

### **Urban Circuit facility**

The urban circuit is a 2.3 Km infrastructure around NAITEC. It is a highly instrumented area for checking models of traffic, implementation of elements in smart cities, and check of Autonomous vehicles.

The infrastructure is supported by a simulation and calculation knowledge. NAITEC can simulate models of mobility and checking them in real location.



# Horizon Europe Info Day and Brokerage event

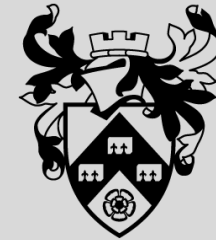
Cluster 4 AI, Data and Robotics

17 June 2022, 9:30am to 1pm CEST

In collaboration with the European Commission and Ideal-ist

## University of York, United Kingdom

Dr. Simos Gerasimou  
Assistant Professor



UNIVERSITY  
*of York*

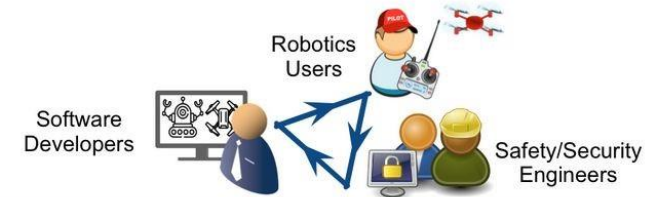
@: [simos.gerasimou@york.ac.uk](mailto:simos.gerasimou@york.ac.uk)

## EXPERTISE OFFER

- Software/Model-Driven Engineering
- Safety, Assurances, Self-Adaptation
- Institute for Safe Autonomy

[HORIZON-CL4-2022-DIGITAL-EMERGING-02-06](#)

[HORIZON-CL4-2022-DIGITAL-EMERGING-02-07](#)



Deliver an approach supporting the **systematic engineering of dependable MRS**

- **Open, modular, configurable, reusable, model-based**
- Use **public meta-models** and **configuration tools**
- Enable **reasoning about the dependability of MRS**
- MRS may **employ AI** and operate in **open configurations**
- Consider **uncertainty** during operation (including **cyber-attacks**)

Applications







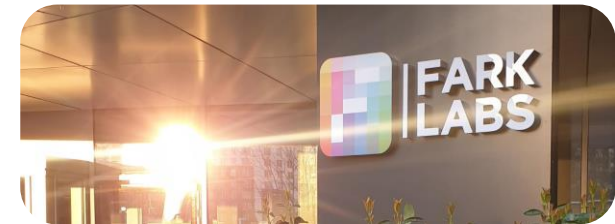
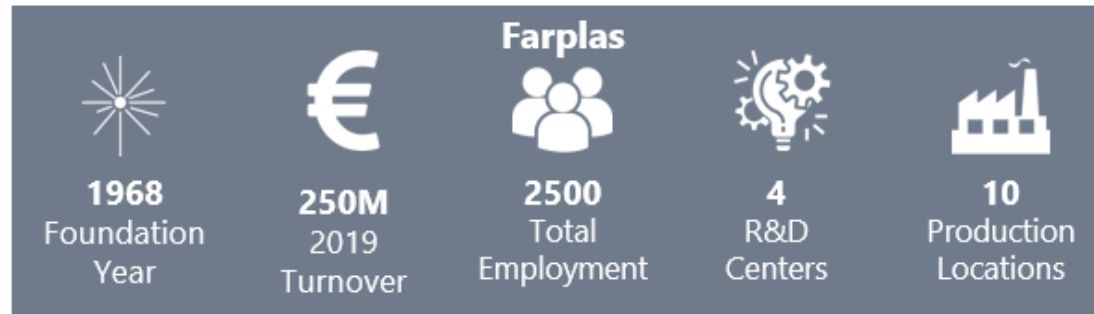
# Farplas

With its 50 years experience, Farplas is a leading automotive Tier1 company in its region and an international player in the global automotive supply industry.

Farplas

- designs,
- develops and
- manufactures

vehicle sub-assemblies.



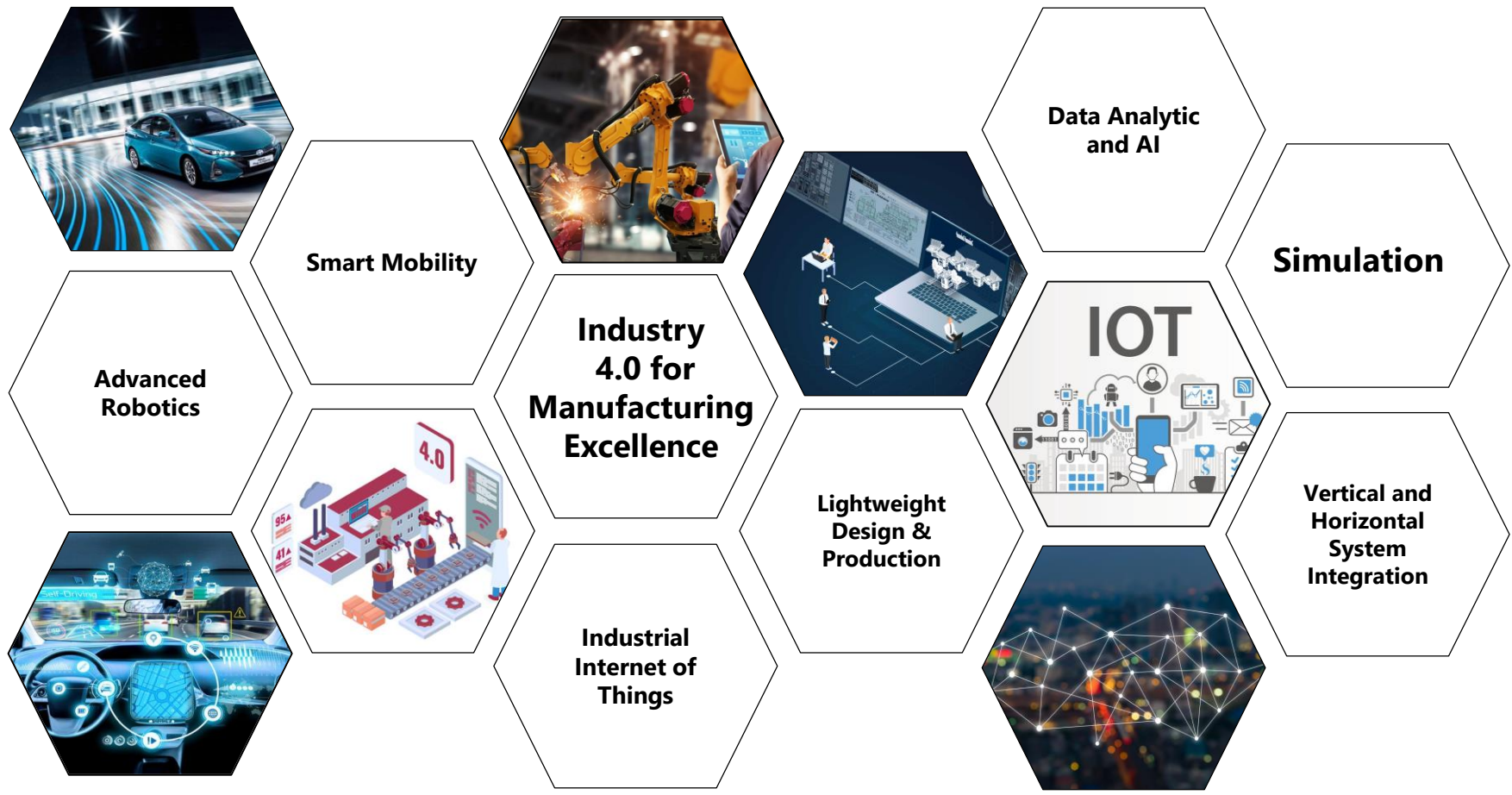
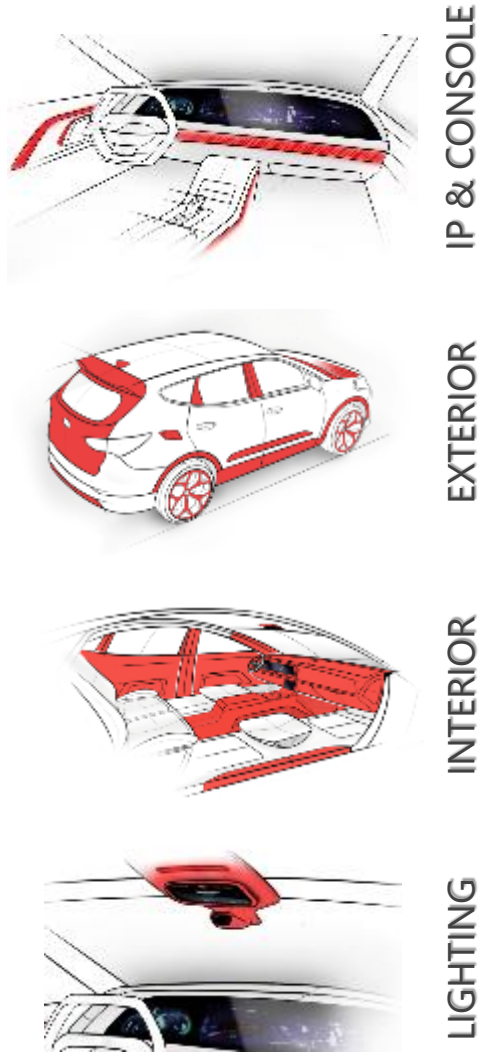
51.000 m<sup>2</sup>  
Total

# Customers



# Products

# Interested Subjects



# Industry 4.0 for Manufacturing Excellence

## Capabilities of Manufacturing Excellence R&D Center

### **Advanced manufacturing techniques**

- Research and applications on plastic material assembly
- Algorithm development for artificial intelligence and optimization techniques
- Logistic optimizations

### **IoT**

- Data send/receive application with manufacturing machines
- Digital twin

### **Advanced robotics**

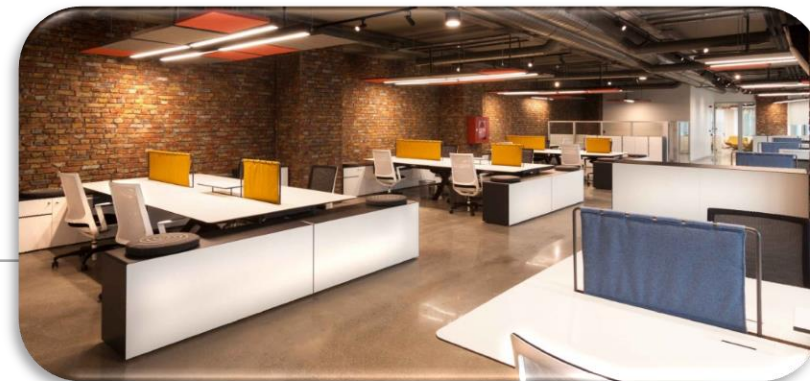
- Autonomous transport system
- Research on robot kinematics and Dynamics
- Safety guidance robots

### **Machine vision**

- Computer vision techniques and image
- AR and VR systems adaptation in production

### **AI in management**

- RPA(Robotic process automation)
- AI optimization for human resource
- AI optimization for manufacturing planning



# International Funded Project

## HORIZON 2020

**REVOLUTION**

Supporting the Electric Vehicle  
REVOLUTION through  
maximising Electric Vehicle  
Range and End-of-Life Vehicle  
Recovery through optimisation  
of recycled plastics and  
advanced light materials

**multicycle**

Advanced and sustainable  
recycling processes and  
value chains for plastic-  
based multi-materials

**teaming.ai**

Human-AI Teaming  
Platform for Maintaining  
and Evolving AI Systems in  
Manufacturing



Industrial Data Services  
for Quality Control in  
Smart Manufacturing

## HORIZON EUROPE

**VITAL**

InnoVatve processing  
Technologies for bio-based  
foAmed thermopLastics

**BIAS**

Mitigating Diversity Biases of AI in  
the Labor Market

BETTER.  
FUTURE.  
TOGETHER.

# APPENDIX

# Relevant HE Call Topics

- HORIZON-CL4-2022-DIGITAL-EMERGING-02-05: AI, Data and Robotics for Industry optimisation (including production and services) (AI, Data and Robotics Partnership)
  - HORIZON-CL4-2022-DIGITAL-EMERGING-02-06: Pushing the limit of physical intelligence and performance
  - HORIZON-CL4-2022-DIGITAL-EMERGING-02-07: Increased robotics capabilities demonstrated in key sectors (AI, Data and Robotics Partnership)
  - HORIZON-CL4-2022-DIGITAL-EMERGING-02-20: 2D-material-based composites, coatings and foams
- 
- HORIZON-CL4-2022-HUMAN-02-01: AI for human empowerment (AI, Data and Robotics Partnership)







**CATEC**

CENTRO AVANZADO  
de TECNOLOGÍAS  
AEROSPACIALES



# **CATEC (Advanced Center for Aerospace Technologies)**

**María José Peña**

**[mjpena@catec.aero](mailto:mjpena@catec.aero)**

- Research center focused on aerospace with more than 14 years of experience
- CATEC is a **leading technology center in Europe in the development of drones for civil application** and the largest private research center linked to the aerospace sector.
- More than 100 engineers and technicians working on:
  - **UAS/drones/aerial** robotics technology development
- Important experience participating in European projects
  - Involved in 25 European projects in the last 12 years
  - Coordinating PILOTING H2020 project, more of 9 M€
- 6 international awards in the last 5 years
  - MBZIRC 2020 with 250K\$ award
  - Overall Innovation Radar Prize 2017
- Direct collaboration with the major companies of the sector in Spain
- State of the art equipment and facilities including a flight test center for UAS
- Member of BoD of euRobotics

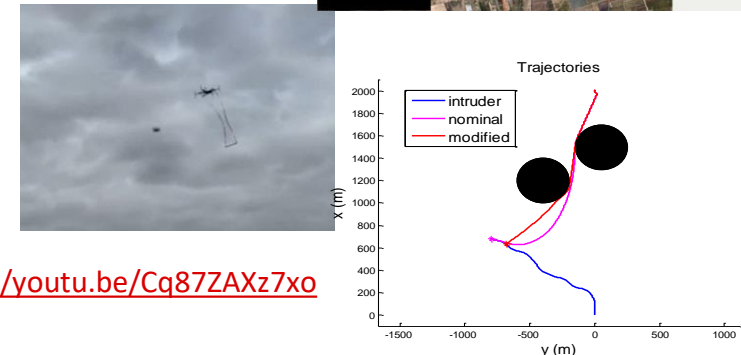
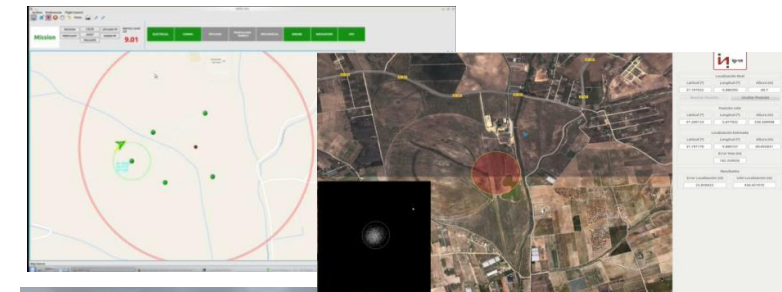


**CATEC:** Technological Center oriented to applied research, experimental development and technological innovation [www.catec.aero](http://www.catec.aero)

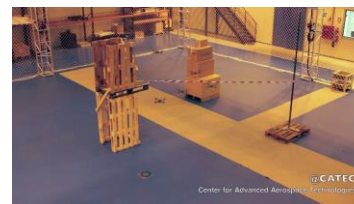
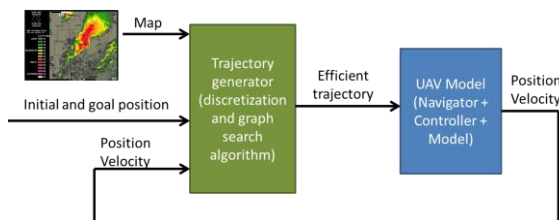


**ATLAS:** Experimental Flight Center for RPAS [www.atlascenter.aero](http://www.atlascenter.aero)

- Implementation of advanced Guidance, Navigation and Control ( algorithms)
- Customization of Control Station and Mission SW for applications
- Captor drone technologies
  - Use of autonomous drones to minimize collateral damages in neutralization operations (specially in urban environments)
- Multi-vehicle trajectory planning



Video: <https://youtu.be/Cq87ZAXz7xo>



- Swarming (flight formation)



Video: <https://youtu.be/w7F4cnbr48A>

- Artificial intelligence technologies

- Automatic detection of other aircrafts: Detect and avoid algorithms

- On-board autonomous detection and tracking of persons

- On-board and real-time processing of DNN algorithms
- Automatic guidance of the gimbal and the aerial vehicle to maintain persons in the field of view of the camera
- Embedded AI being able to autonomously handle new situations where the target is temporally lost or actively hidden to recover tracking of the objective

➔ **Surveillance  
& Security  
Applications**



Automatic detection of other aircrafts  
**Video:** <https://youtu.be/GONH09q5rvU>



Multi-objective detection  
**Video:** [https://youtu.be/rT\\_UG6ZUKKM](https://youtu.be/rT_UG6ZUKKM)



Automatic detection and tracking (gimbal and aerial vehicle movements)  
**Video:** <https://youtu.be/sXYRg9ksHWM>



**CATEC**

CENTRO AVANZADO  
de TECNOLOGÍAS  
AEROESPACIALES



**Experience and technologies  
applied to UAS**

**María José Peña Manrique**

**[mjpena@catec.aero](mailto:mjpena@catec.aero)**

## KONTOR 46 (SME)

*Applicated and integrated AI, Robotics,  
Digital Twins*

Paolo Barattini

T: +39-328-1250084 (preferably Whatsapp)

E: [paolo.barattini@yahoo.it](mailto:paolo.barattini@yahoo.it)



## PROJECT IDEA

**Topic:** *HORIZON-CL4-2022-DIGITAL-EMERGING-02-05 / AI, Data and Robotics for Industry optimisation (including production and services)*

*HORIZON-CL4-2022-DIGITAL-EMERGING-02-06 / Pushing the limit of physical intelligence and performance*

*HORIZON-CL4-2022-DIGITAL-EMERGING-02-07 / Increased robotics capabilities*

**Type of project:** *RIA/IA,*

**Project objectives:**

*Integration of AI, Digital Twins, Robotics demonstrated in at least three use case per project*

### **PROJECT IDEAS** *All include: STANDARDS, AI, Decision support systems, Digital twins*

*AI-ML-Robotics-DTs for the industry/maintenance/production of alternative energy*

*ROBOTICS ENABLED AUTOPSY.*

*DENTIST THIRD HAND Decision support system & DT to plan intervention and follow-ups.*

*AI- MACHINE LEARNING & DT for citizen empowerment with use cases: fake news, environmental impact, personal finance, cybersecurity*

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*AI, Data and Robotics for FOOD INDUSTRY optimisation OR White Goods recycling/disposal*



## WANTED

### Competences & Skills wanted

Technical

### Types of partners sought

Industry, SME, RTD center, University, User-groups, **END USER FOR USE CASES**

### Work to be performed

Prototyping, System Integration, Components development

---

## EXPERTISE OFFER

Project technical innovative concepts

Safety and risk assessment, standards & certification, verification and validation.

AI and Machine learning

Human robot interaction design

Visual ergonomics and interfaces design (AI, Robotics, Cybersecurity)

Physical ergonomics, work psychology.

Interfaces and applications for the control of connected devices (industrial, medical, technical)

Biosensors based connected monitoring devices for the environment, biomed, veterinary



# Horizon Europe Info Day and Brokerage event

Cluster 4 AI, Data and Robotics

17 June 2022, 9:30am to 1pm CEST

In collaboration with the European Commission and Ideal-ist

## EXPERTISE OFFER

We worked in many projects

ESA: HEWS, MARES, PEMS II

FP7 & H2020 : **ROBOTICS: LOCOBOT, ENRICHME, FLOBOT, APRIL, VOJEXT**

**BIOSENSORS AND SENSORS: THERAEDGE, BURBA, MARIABOX, SWINOSTICS**

ENI CBC-MED : TRANSDAIRY

We are involved in ISO working groups in AI and in Robotics



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## EXPERTISE OFFER

HORIZON-CL4-2022-DIGITAL-EMERGING-02-05 / AI, Data and Robotics for Industry optimisation (including production and services)

HORIZON-CL4-2022-DIGITAL-EMERGING-02-06 / Pushing the limit of physical intelligence and performance

HORIZON-CL4-2022-DIGITAL-EMERGING-02-07 / Increased robotics capabilities demonstrated in key sectors

- HORIZON-CL4-2022-HUMAN-02-01 / AI for human empowerment

- HORIZON-CL4-2022-HUMAN-02-02 / European Network of AI Excellence Centres:

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Expanding the European AI lighthouse



# BDVA Brokerage – ICT Standards Experts

**Prof Ray Walshe**

*ADAPT Research Centre*

*Dublin City University, IRELAND*

[Ray.Walshe@DCU.ie](mailto:Ray.Walshe@DCU.ie)





**HSbooster.eu**  
Horizon Standardisation Booster

# HSbooster.eu The EU Standardisation Booster

**Ray Walshe**

*EAG Chair HSBooster.eu*

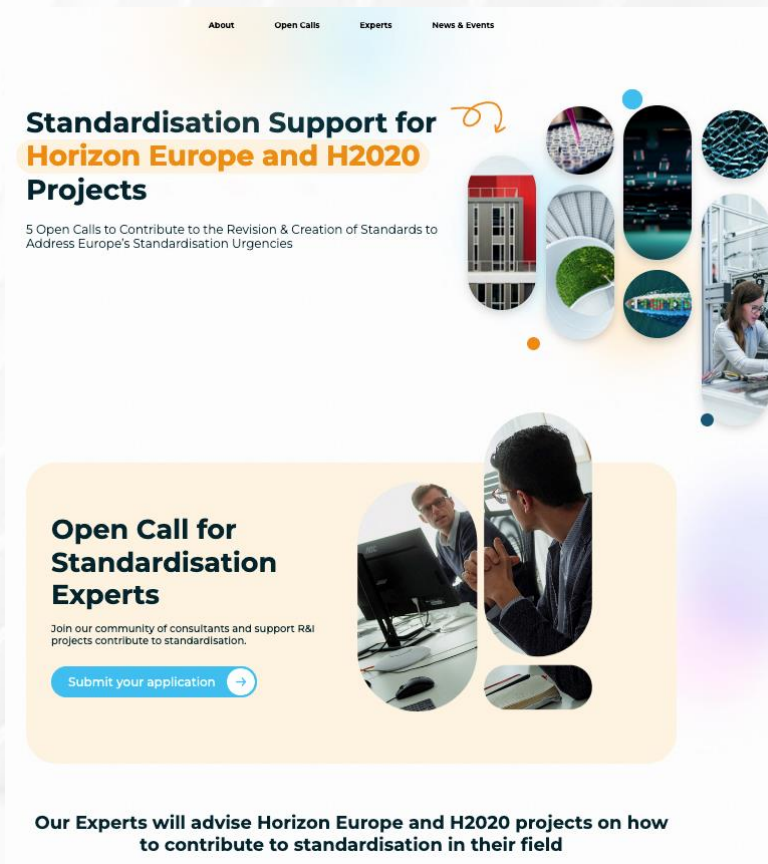
*Dublin City University*



The HSbooster.eu has received funding from the European Union's Horizon Europe Framework Programme (HORIZON) - under grant agreement no 101058391.

# HSbooster.eu – The essentials

- **HSbooster.eu - Standardisation Booster for H2020 and Horizon Europe Research Results**
- Coordination & Support Action (101058391)
- April 2022 – March 2024
- Budget €2m
- HORIZON-WIDERA-2021-ERA-01-32 - Standardisation Booster for fostering exploitation of FP-funded research results and managed by the European Research Executive Agency (REA).
- *“A new service for EU research projects that want to ensure that their results create real impact by contributing to standards development.” - Peter Droell, Director at the European Commission’s Research and Innovation Unit*
- Strong consortium with expertise and experience in standardisation, training and delivering EC Booster services



Standardisation Support for **Horizon Europe and H2020** Projects

5 Open Calls to Contribute to the Revision & Creation of Standards to Address Europe's Standardisation Urgencies

**Open Call for Standardisation Experts**

Join our community of consultants and support R&I projects contribute to standardisation.

Submit your application →

Our Experts will advise Horizon Europe and H2020 projects on how to contribute to standardisation in their field

 <p><b>COMMpla</b> Communication Platforms and Online Solutions</p> <ul style="list-style-type: none"> <li>• Project Coordinator</li> <li>• COMMpla Platform manager</li> </ul>	 <p><b>Trust-IT Services</b> communicating to markets</p> <ul style="list-style-type: none"> <li>• Automated services management</li> </ul>	 <p><b>DEU</b> Dokuz Eylül University</p> <ul style="list-style-type: none"> <li>• EAG management</li> <li>• Open calls and EPE management</li> </ul>	 <p><b>UNIVERSITY OF BELGRADE</b></p> <ul style="list-style-type: none"> <li>• Training academy management</li> </ul>	 <p><b>DS</b> DANSK STANDARD</p> <ul style="list-style-type: none"> <li>• Proactive services management</li> </ul>	 <p><b>SGS</b></p> <ul style="list-style-type: none"> <li>• Premium services management</li> </ul>
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# External Advisory Group

Backed and supported by experts with complimentary expertise and roles

- Vertical sectors
- Technologies
- Standardisation
- Advisory roles
- Market needs
- Innovation



**Ray Walshe**  
Assistant Professor & EAG Chair  
DCU

Chair – Ray Walshe,  
Dublin City University



**Emilia Tantar**  
Chief Data and Artificial Intelligence Officer  
Blar & Swin



**Emilie Bratt**  
Lead Standards Development Manager  
British Standards Institution (BSI)



**Grit Munk**  
Chief Consultant at Danish Society of Engineers  
The Danish Society of Engineers (IDA)



**Knut Blind**  
Professor for Innovation Economics  
Fraunhofer IPA



**Lindsay Frost**  
Chief Standardisation Engineer  
NEC Laboratories Europe



**Maitane Olabarria**  
Secretary General  
Small Business Standards (SBS)



**Martin Chapman**  
Director for Technical Policy & Standards  
DIGITAL D-ROPE



**Pamela Hussey**  
Senior Lecturer  
School of Nursing and Human Sciences, DCU



**Pernille Hagedorn**  
Chief Consultant  
The Danish Society of Engineers (IDA)



**Sebastian Hallensleben**  
Head of Digitalisation and AI  
VDI



**Speranta Stomff**  
Head Of Project Management Office  
ASRO (Romanian Standards Association)



**Valerie Livina**  
Principal Research Scientist  
National Physical Laboratory (NPL)



EAG provides high-level strategic guidance and provides expert input into standardisation urgencies for open calls



# HSbooster.eu in a nutshell

**Objectives**

**General Objective:** To test a “standardisation booster” programme to facilitate European results in standardisation

**Obj.1** EU Community

**Obj.2** Serve H2020/HE Projects

**Obj.3** New standards development

**Obj.4** Uptake of new technologies



HSbooster.eu reports and policy briefs can contribute to the EU Standardisation ecosystem providing live information on the activities, status and impact of projects in the standardisation field.

# HSbooster.eu Programme

**500 Consultancy services**  
Delivered by  
Standardisation Experts

**5 Open Calls**

21 June 2022 – Jan 2024

Services last up to 3 months

**Training Academy**

**Continuous open call  
Now open**

**Pool of Experts (250)**  
Standardisation  
experts

**L1 Support**  
Helpdesk | Chatbot  
Readiness tool

**Proactive support**  
Mapping &  
matchmaking

Facilitating R&I innovation related stakeholders in EU projects towards EU standardisation and ensuring two-way flow of information that can contribute to identification of new areas for standardisation.



Health



Resilience



Sustainable Digitalisation



EU Green Transition



Smart City & Circular Economy



**HSbooster.eu**  
Horizon Standardisation Booster

# 5 OPEN CALLS

Covering topics related to the standardisation urgencies highlighted in the **EU Strategy on Standardisation**.

The **1<sup>st</sup> OPEN CALL** will start on **21<sup>st</sup> June** until **30<sup>th</sup> September**

**2<sup>nd</sup> OPEN CALL** > October 2022 – January 2023

**3<sup>rd</sup> OPEN CALL** > February – May 2023

**4<sup>th</sup> OPEN CALL** > June – September 2023

**5<sup>th</sup> OPEN CALL** > October 2023 – January 2024



Funded by  
the European Union



**HSbooster.eu**  
Horizon Standardisation Booster

# First OPEN Call for EU Funded Projects

Deadline to submit applications > 30th September 2022



## Sustainable Digitalisation

- › Data quality & Artificial Intelligence
- › Access to & usage of data
- › Space
- › Data and cybersecurity
- › Quantum technology



## Health

- › Pandemics
- › E-Health & personalized services
- › Design & use of medical devices
- › AI in Healthcare



## EU Green Transition

- › Clean energy
- › Materials (raw and secondary)
- › Green & sustainable production
- › Environmental impact



## Resilience

- › Robust supply chains
- › Climate resilience
- › Hybrid civil/defence
- › Data protection & cybersecurity



## Smart City & Circular Economy

- › Circular economy
- › Transportation
- › Infrastructure
- › Green buildings

Topics based on EU Standardisation urgencies, EC call topics & focus of ESOs, NSBs, SDOs.

<https://hsbooster.eu/open-call-topics>



**HSbooster.eu**  
Horizon Standardisation Booster

# **OPEN CALL** for Standardisation Experts

Supporting Horizon Europe  
and H2020 projects address  
Standardisation priorities in Europe

**Join our pool of experts**



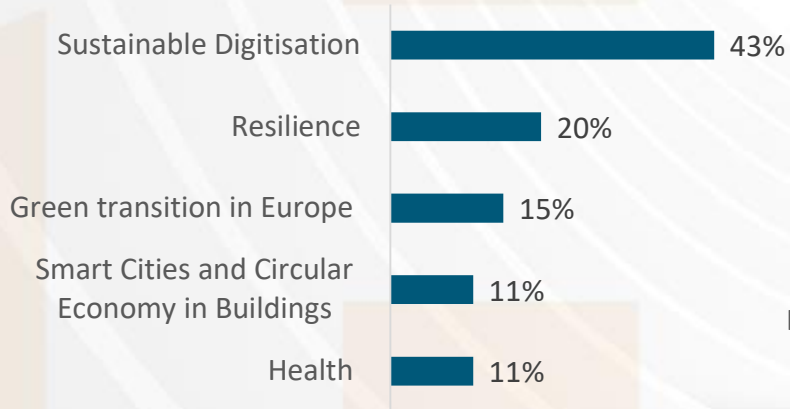
Funded by  
the European Union

# Standardisation Expert Open Call

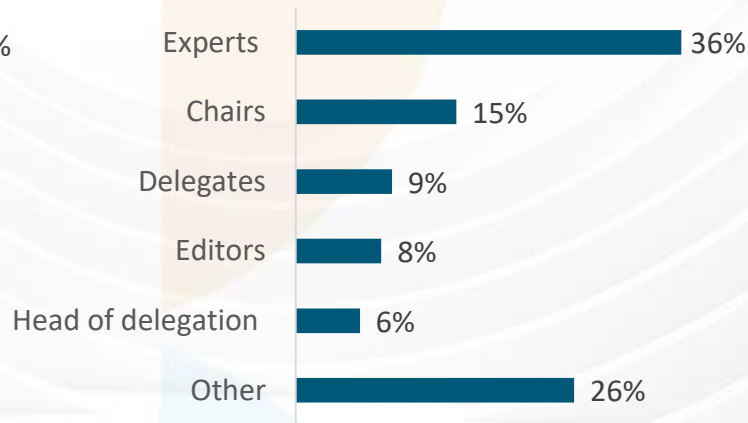
57 Standardisation Experts Recruited since 30<sup>th</sup> May 2022

Open call open until January 2024.

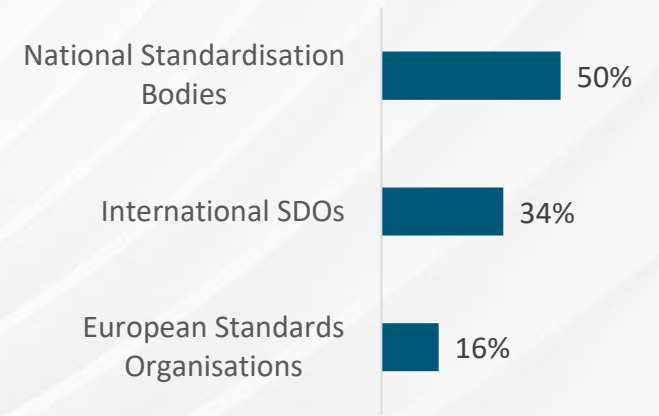
## Experts by Open Call Topic



## Experts by Role



## Representatives from



## Gender



**28%**  
Female



**72%**  
Male

Average Years of Experience in standardisation

**5.3**

Standardisation practices & procedures | State of the art | Where are revisions or new standards needed? | Optimal standardisation workflows and timelines | Unique inside knowledge to facilitate contributions

Applications open: [www.hsbooster.eu/epe/register](http://www.hsbooster.eu/epe/register)

# Next steps

- First Open Calls for projects opens 21<sup>st</sup> June 2022
  - July – August
    - Finalisation of service platform & testing
    - Allocation and notification of experts to project applications
  - 5<sup>th</sup> September
    - Service delivery commences
  - September 2022 – March 2024
    - Services delivered on first come first serve basis
-

Thank you

Ray Walshe, Dublin City University

[ray.walshe@dcu.ie](mailto:ray.walshe@dcu.ie)

[info@hsbooster.eu](mailto:info@hsbooster.eu)

[www.hsbooster.eu](http://www.hsbooster.eu) | [@HSboosterEU](https://twitter.com/HSboosterEU)





Trust-IT Services  
Communicating ICT to markets



StandICT.eu 2023  
ICT STANDARDISATION OBSERVATORY AND SUPPORT FACILITY IN EUROPE

*Ray Walshe – DCU and Director EUOS StandICT.eu 2023*



StandICT.eu has received funding from the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement **No. 951972**.

# Key-Achievements of StandICT.eu 2023 so far



**6 Open calls Completed**

**Open Call #7 now launched & running until 06 July**

**Functional Grants Platform** for applications & evaluation process (58 contractualised EPEs)

**8 Webinars** on topical subjects (AI, Cybersecurity, EU ICT Policies, Trusted Information, Education in Standardisation, Blockchain)

Participation to **33** third-party events + **9** SDOs meetings

**16** Memorandum of Understanding signed with relevant players  
Synergies with **56** Stakeholders



**EUOS Release** (March 2021) + *Publication of AI Landscape Report + Smart City Landscape Report + Trusted Information Report*

**11** EUOS TWGs on key ICT domains to work on dedicated Landscape & Gap Analysis  
**4 Landscape Reports** completed

More Landscape Analysis reports in release pipeline for 2022 (**Blockchain, IoT, EDGE, Robotics, Ontologies**)



**COMMUNITY**  
**1484** registered users  
**3165** LinkedIn Followers  
**790+** Twitter Followers

**Expert Advisory Group (EAG)** members from SDOs, European Commission & Industry (**20 members** contributing to keep topic list updated)

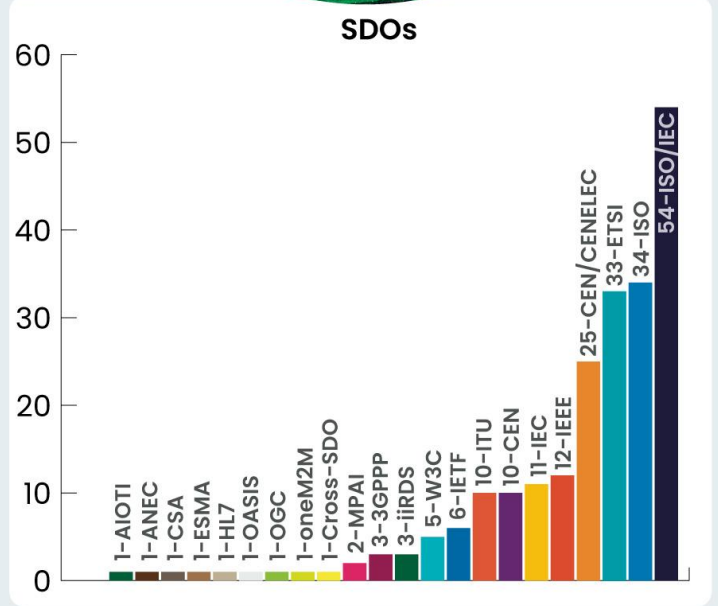
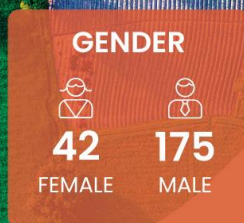
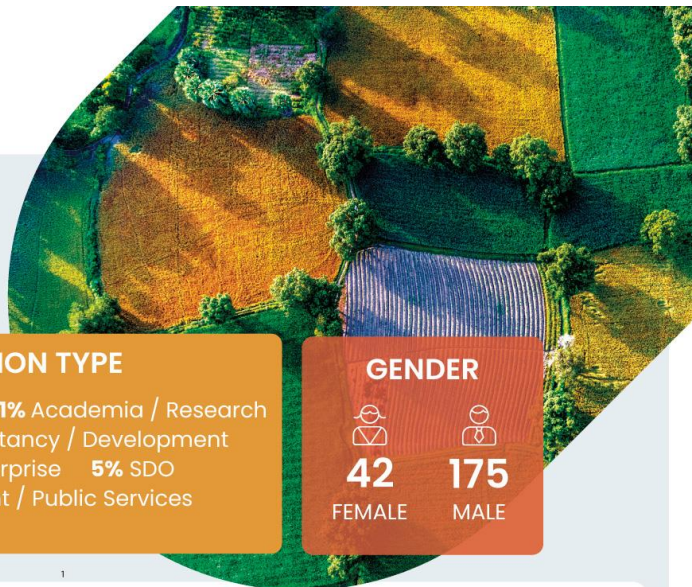
**3 Impact Reports** released to disseminate the concrete outputs of fellows funded under Open Call #1 e #2

**4<sup>th</sup>** issued in June 2022



# 1° to 6° Open Calls – Facts, Figures & Major Accomplishments

## 1<sup>st</sup> to 6<sup>th</sup> Open Call RESULTS & POPULAR TOPICS



*Consistent number of proposals coming from applicants coming from SMEs and/or IT field as well as from Academia/Research*

*Cybersecurity, 5G, Artificial Intelligence, Blockchain & DLT proved to be yet the most popular topics.*

*A wide range of different topics tackled: e-Health; Semantics; Smart Grids; Smart Cities and more.*



**A Bird's eye  
ICT  
Standardisation  
in AI**

2,643	2,316
views	downloads

[Download](#)



**A BIRD'S EYE  
ICT  
STANDARDISATION  
IN  
SMART CITIES**

1,044	701
views	downloads

 OPEN & AGILE SMART CITIES

[Download](#)



**TRUST IN  
THE EUROPEAN  
DIGITAL SPACE  
IN THE AGE  
OF AUTOMATED**

517	453
views	downloads

[Download](#)

**“Landscape of Artificial Intelligence Standards”, “Landscape of Smart Cities Standards” and “Landscape of Trusted Information Standards”** are the fruit of the dedicated Technical Working Groups.

*The Reports provide an encompassing compilation of standardisation efforts underway in the framework of European SDOs, such as CEN and ETSI, Government, Public Bodies and Agencies, Global SDOs, and initiatives.*

**11 Technical Working Groups** that encompass **+100 renowned Standards experts** in key ICT and technological domains:

1. Artificial Intelligence
2. Blockchain
3. Smart Cities
4. Cybersecurity
5. Trusted Information
6. Digital Twin
7. Big Data Interoperability
8. IoT & Edge Computing
9. Ontologies
10. Robotics
11. EUOS Academy

# #7 Open Call

StandICT.eu 2023  
ICT STANDARDISATION OBSERVATORY AND SUPPORT FACILITY IN EUROPE

Looking for funds to support  
your work on **ICT standards**?

Submit your proposal to the  
**7<sup>th</sup> Open Call**

Open Date: 5<sup>th</sup> May 2022

Closure: 6<sup>th</sup> July 2022

**APPLY NOW!**

"Artificial intelligence is a global "game changer". It will transform our lives and our societies. It is sometimes said that the best way to meet the future is to create it. Let us not leave that to others."

**[Morten Irgens, Vice-Rector,  
Oslo Metropolitan University, Norway]**

*The #7 OC will run until the  
**06<sup>th</sup> of July.***

*The leading theme will be  
"AI, Data & Robotics" and  
the list of eligible topics has  
been augmented with the  
introduction of new topics of  
the recently released ICT  
Rolling Plan and more (i.e.  
**Data Economy, 6G, U-  
Space)***

*<https://www.standict.eu/standict.eu-2023-7th-open-call>*



Thanks from

**StandICT.eu 2023**  
ICT STANDARDISATION OBSERVATORY AND SUPPORT FACILITY IN EUROPE

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24° March 2022

# Standards in ADRA- e

European Partnership on Artificial  
Intelligence, Data and Robotics

Ray Walshe





# ADRA-e

Call: HORIZON-CL4-2021-HUMAN-01

(A HUMAN-CENTRED AND ETHICAL DEVELOPMENT OF DIGITAL AND INDUSTRIAL  
TECHNOLOGIES 2021)

Topic: HORIZON-CL4-2021-HUMAN-01-02

Type of Action: HORIZON-CSA

Proposal acronym: Adra-e

Type of Model Grant Agreement: HORIZON Action Grant Budget-Based

Budget: €4,000,000





# Standardisation methods for trustworthy and ethical AI to foster AI, data and robotics industry, and **in support of the Commission regulatory framework.**

- The project will develop the **ADR online Observatory of standards** and standardisation activities, leveraging on the StandICT.eu project. After the first iteration, which will cover the **standards at European level**, further iterations will pave the way at **international level** for the sustainability of the activities in Adra-e. [Technological impact, T5.2 through the building of a feasible European regulation framework.]
- In a wider impact, the **adoption of standards** will improve the **trustworthiness** of EU industries and processes and increase their **acceptance by the civil society**. Driven by ethical principles, standards and efficient regulations will **safeguard the interests of EU citizens**.

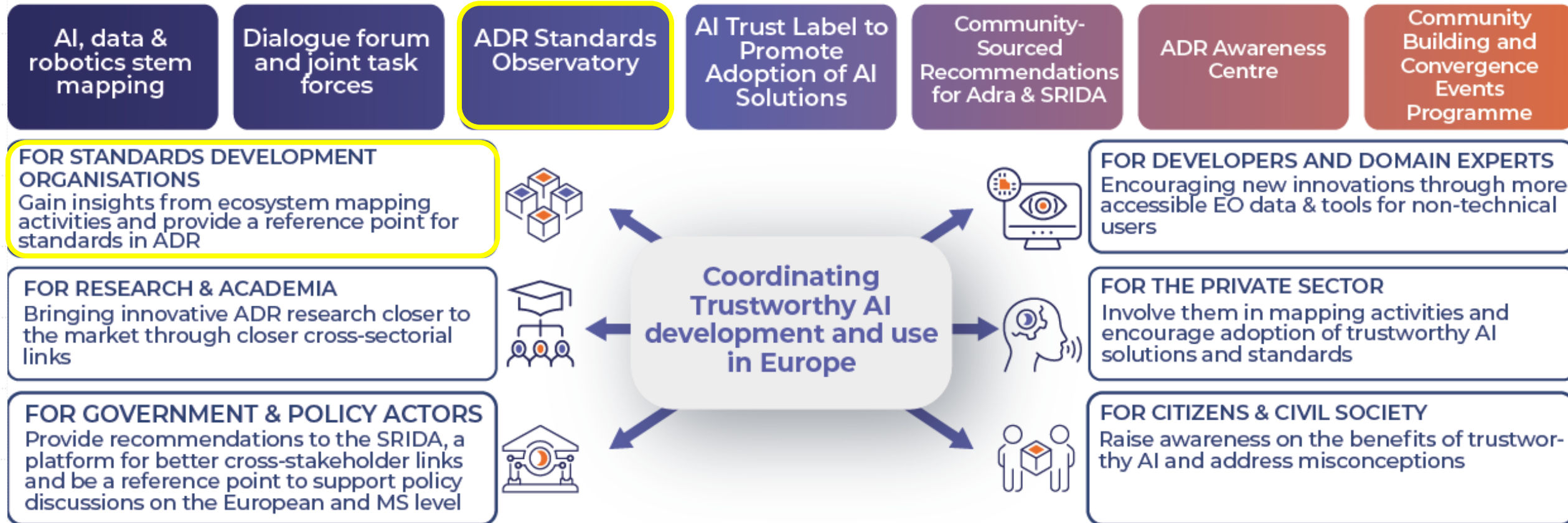


## Scale and significance of the **project's contributions to the expected outcomes and impacts**

- **50 standards** - Having the experts group supporting the **technical WG on ADR will impact on average 50 documents own to the multiplier effect typical of the TWG & TCs technical committees**. To maximize the impact on Europe needs, a focus on harmonized standards needs will be made.
- **Scale: 30% of new standards analysed**. An effect of this type immediately contributes to bringing the European standardisation community at a remarkable level of impact on international standardisation.
- **Significance:** Europe will have a **corpus of standards** harmonized with its regulation and **Europe's voice** towards standard development activities will be reinforced when Adra takes over at the end of Adra-e.

# Adra-e's Value Proposition to Target Groups

## Value proposition to ADRe target groups



# ADRA-e Standardisation and regulation

## OBJECTIVES

- Provide support and contributions for the implementation and the update of the SRIDA standardisation actions for trustworthy and ethical AI to bolster the AI, Data and Robotics market in Europe.
  - Set up a competent and authoritative Experts Group for standards.
  - Deliver a comprehensive, relevant, and inclusive AI, Data & Robotics Standards Observatory
- 
- Task 1 – Expert Group animation, state-of-the-art in AI, Data and Robotics standards, and monitoring of ongoing standardisation activities.
  - Task 2 Alignment and mapping with regulations and research recommendations.

# BDVA Brokerage – ICT Standards Experts

**Prof Ray Walshe**

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*Dublin City University, IRELAND*

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The AI Data Robotics  
Association

# Horizon Europe Info Day and Brokerage event

Cluster 4 AI, Data and Robotics

17 June 2022, 9:30am to 1pm CEST

In collaboration with the European Commission and Ideal-ist

# Thank you for joining !

[adr-association.eu](https://adr-association.eu)