Virtual Worlds Connect Brokerage Event

II Edition

October 5–6, 2026

Industry Contact Point Digital Transformation

Industry Contact Point Industry 4.0

Ministry of Science and Higher Education Republic of Poland

XR 4EUROPE

XR POLSKA
POLSKA FUNDACJA RZECZYWISTOŚCI ROZSZERZONEJ

AVRE

CENTRO TECNOLÓGICO
ESPECIALIZADO EN TIC

Instituto Tecnológico de Informática (ITI)

Type: RTO (Research & Technology Organisation), private
Country: Spain



✓Expertise of the organisation:

- Largest Technology Centre focused on Data & AI
- Own technology stack for data Exploitation and Sharing https://www.iti.es/soluciones/wisephere/
- Own Mixed Reality platform for health and wellbeing https://www.iti.es/soluciones/iti-mind/
- Experimentation and Demonstration Labs https://www.iti.es/soluciones/the-data-room/
- 250+ companies formally linked
- 500+ companies in our ecosystem

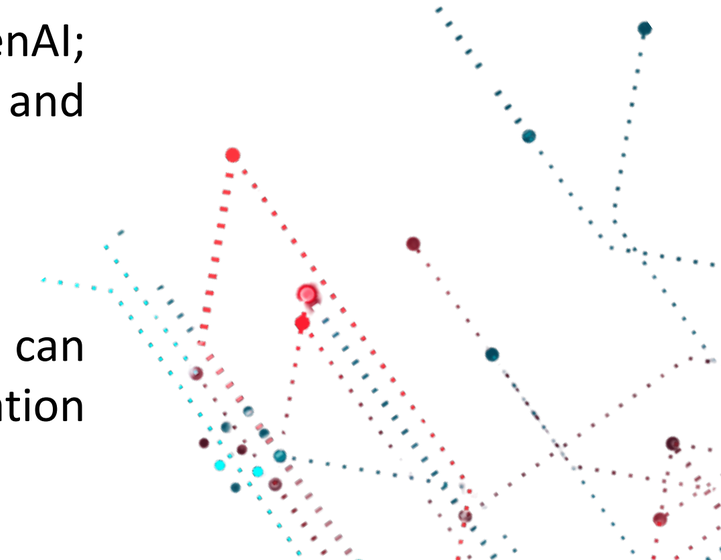
✓ITI Team involved in the proposal:

Human Computer Interaction research group

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ITI: Organisation Profile

- *Topics of interest*:
  - ❑ HORIZON-CL4-2027-04-**HUMAN-01**: Advanced and Innovative hardware components for Virtual Worlds
  - ❑ HORIZON-CL2-2027-01-**HERITAGE-04**: Culture, heritage and creative industries for health and well-being
  - ❑ HORIZON-CL4-2027-04-**HUMAN-02**: Create a thriving and competitive Virtual Worlds and Web 4.0 ecosystem
- *Our role*:
  - **Research and Technology provider** on **HCI & XR:** Human-centred XR interaction lead for Virtual Worlds/Web 4.0: design, prototype and validate immersive experiences that stay responsive, inclusive and trustworthy
- *Specific contributions to the topics*:
  - **Mixed Reality + affective computing + wearables biofeedback;** GenAI; haptics/tangible interaction; multiuser collaboration; participatory design and rigorous UX evaluation
  - **Pilot providers:** Spanish end-users from wellbeing & industry sectors
  - **Ecosystem building:** As an RTO leading a E-DIH (INNDIH AI Connect), we can facilitate the mapping of adoption barriers and support challenge identification related to our cross-domain expertise (XR, AI, Digital Twins, Cybersecurity)



CENTRO TECNOLÓGICO ESPECIALIZADO EN TIC

ITI: Technology and Expertise

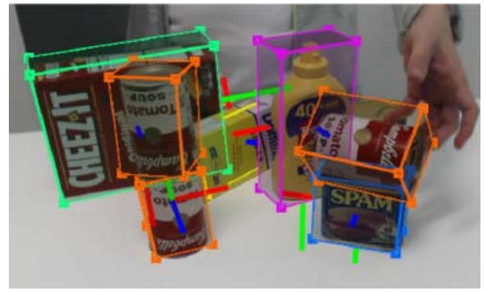
Inmersion Tech

- Extended Reality (AR/VR/MR)
- Multimodal interaction (gestures, haptics)
- Spatial computing/object detection
- Serious games with mixed reality
- Affective computing (emotion detection, biofeedback, bioresponsive avatars)
- Participatory and user-centered design

AI

- GenAI for 3D object generation
- Intrusion detection in devices and networks with GenAI
- Edge systems design for energy-efficient AI processing (Design Space Exploration)
- Responsible AI guidelines and checklist
- Neuromorphic sound/vision analysis







IoT & Comms

- Human-robot interaction
- Agile deployment of LPWAN, 5G/6G and bluetooth 5 infrastructures for vertical applications
- IoT solution for deterministic sensors agile deployment (IEEE.802.15.4E)
- HW emulation and hypervisors

Digital Twins

- Interaction and actuaction with real world
- Simulations and predictions





ITI: Experience / Cooperation

Experience

- Key player in eDIHs, AI Networks & Data Spaces
- Relevant EU projects in **DATA**:
- Relevant projects in Virtual Worlds

IRIS-XR: Immersive realism through integrated sensing and optics for XR

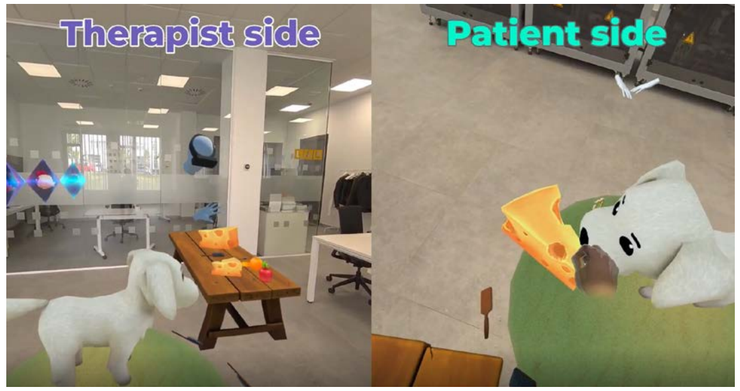
https://iris-xr.eu/

New generation of XR technologies that combine advanced displays, ultra-fast eye and gesture tracking, and AI-driven multimodal interaction to create more immersive, adaptive, and human-centred virtual experiences. Pilots in mental healthcare, aviation training, and automotive design.

CORE-MHC: CO-facilitated and REmote Mixed-Reality Mental Health Care interventions

https://cortex2.eu/oc-winner/core-mhc/

https://www.youtube.com/watch?v=KX-h3IDZW7g



Mixed-Reality Augmented Networks for Teleoperated Robotics Applications

https://spirit-project.eu/wp-content/uploads/sites/85/2025/10/MANTRApost

https://www.youtube.com/watch?v=EfVYaowrcPg

