

The logo for 6G-XR is displayed in a large, white, stylized font. The '6' and 'G' are bold and rounded, while the 'XR' is more angular and modern. The background of the top half of the slide features a dark purple and brown color scheme with abstract geometric shapes like circles, lines, and a cube, suggesting a network or data environment.

# 6G-XR

## 6G-XR

# Open call 3 Information

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The image features a dark purple background with a faint grid pattern. In the upper left, the text '6G XR' is displayed in a white, bold, sans-serif font. To the right of the text is a white line-art illustration of a VR headset. Below the headset, there is a white line-art illustration of a cube. In the bottom left corner, there is another white line-art illustration of a VR headset. The overall aesthetic is clean and modern, suggesting a focus on technology and virtual reality.

**6G XR**

**General information**

- Overview
- Objectives
- Test facilities
- Use cases

# Overview of the project



## 6G-XR - eXperimental Research infrastructure to enable next-generation XR services

- SNS JU Phase 1 Stream C – SNS experimental infrastructures
- 15 partners from 8 countries
- 4 research infrastructures
  - North Node:
    - UOULU 5G Test Network (Oulu, Finland)
    - VTT 5G Test Network (Oulu, Finland)
  - South Node:
    - i2CAT (Barcelona, Spain)
    - 5TONIC (Madrid, Spain)
- Three application areas with five use cases
- Three open calls: <https://6g-xr.eu/open-calls/>
  - **Upcoming Open Call 3: Vertical Replicability enablers**
- Project website: <https://www.6g-xr.eu/>



# 6G-XR objectives



## Build a multisite Research Infrastructure

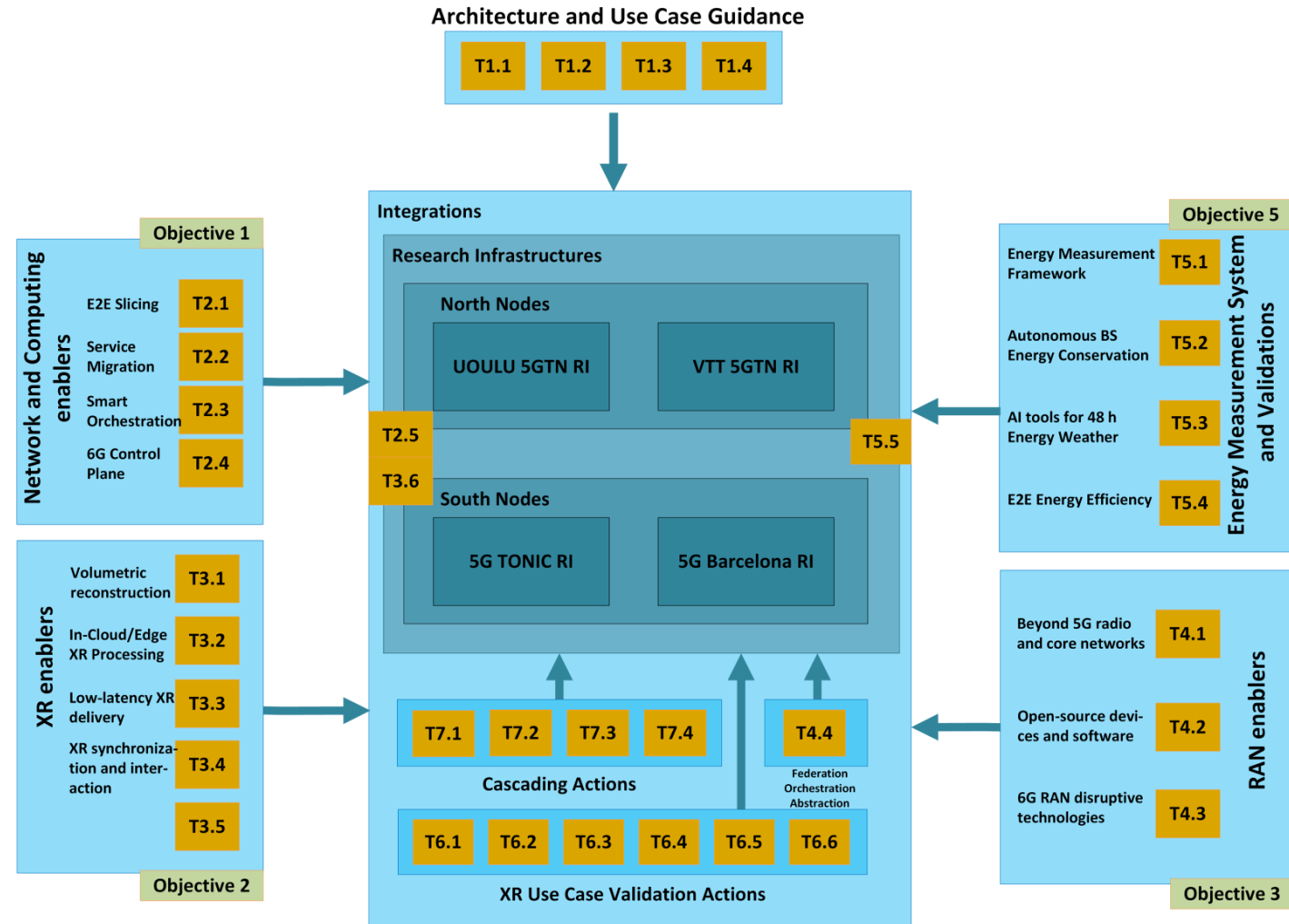
- Enablers for networking and computing
- Enablers for XR services
- Beyond 5G Radio Access Network
- Energy measurement framework

## Validate multi access edge computing scenarios

- Five internal use cases
- Third parties projects

## Demonstrates and validates performance of innovative 6G applications

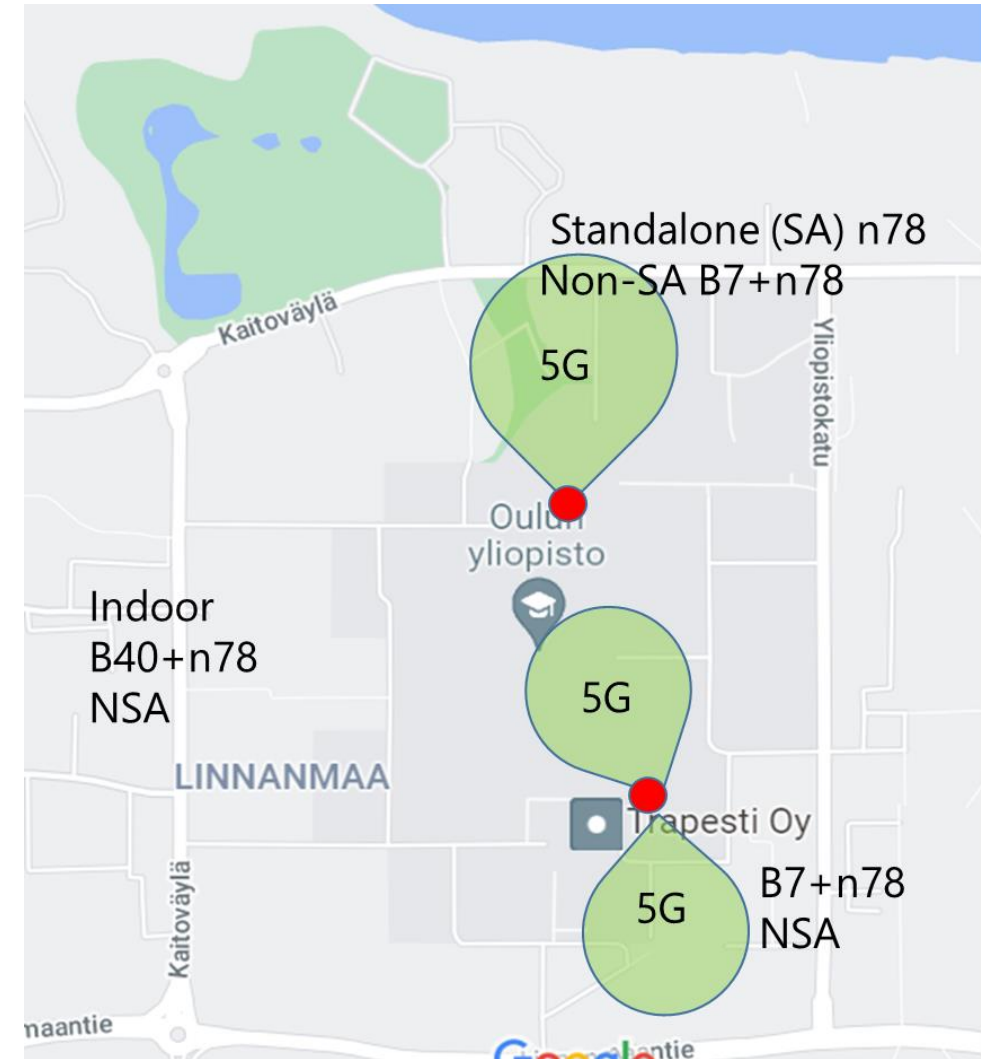
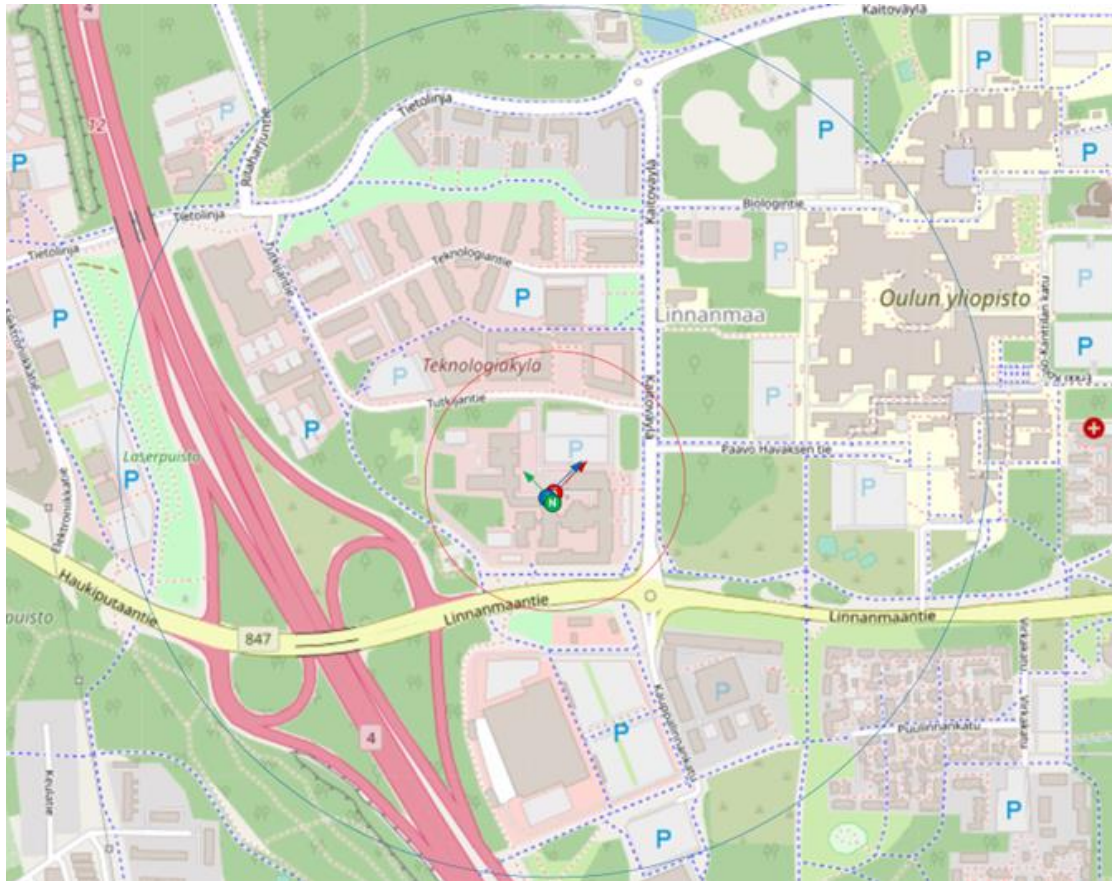
- Holographic communications (AR/VR)
- Digital twin



# North Node (Oulu, Finland)

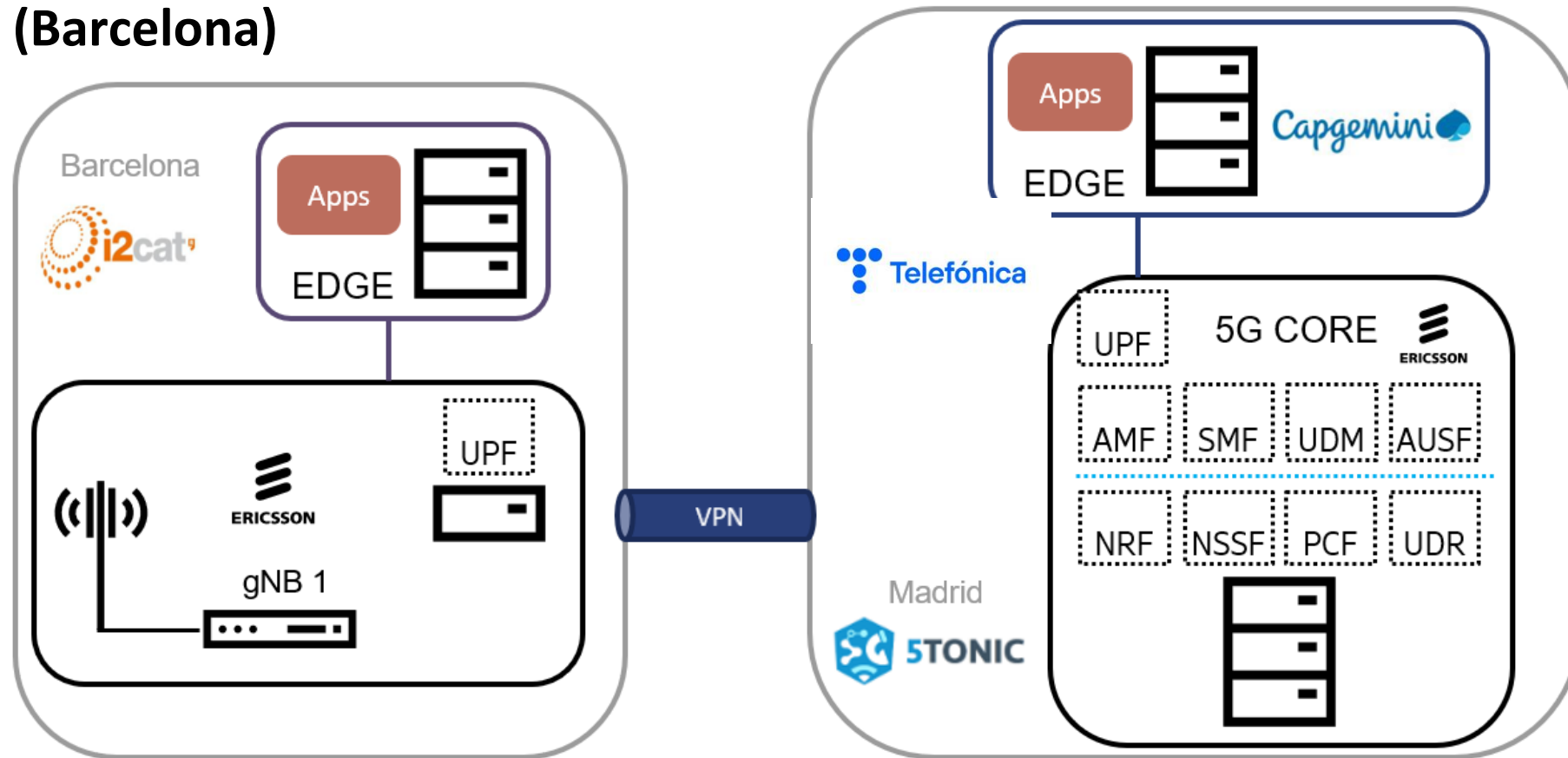


1. University of Oulu 5G Test Network (UOULU 5GTN)
2. VTT 5G Test Network (VTT 5GTN)



# South Node (Madrid & Barcelona, Spain)

1. 5TONIC (Madrid)
2. i2CAT (Barcelona)

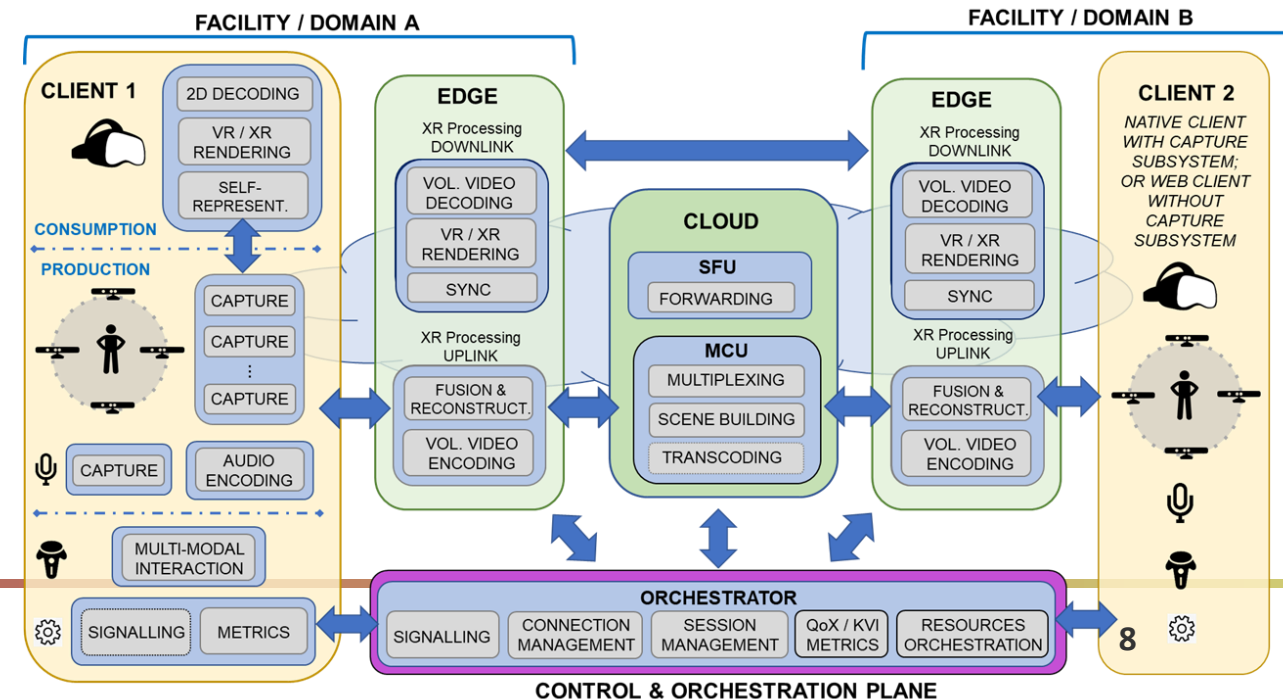
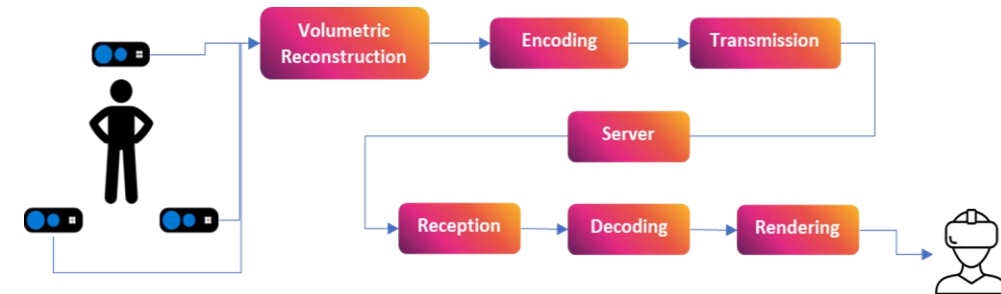


- **Real-Time Holographic Communications (South Node)**
  - UC1 - Network-assisted Rate Control (VR / user plane)
  - UC2 - Edge Selection and Lifecycle Management (VR / user plane)
  - UC3 - Control Plane Optimizations (AR / control plane)
- **Collaborative 3D Digital Twin-like Environment (North Node)**
  - UC4 - Collaborative 3D Digital Twin-like Environment
- **Energy Measurement Framework for Energy Sustainability (North Node)**
  - UC5 - Energy Measurement Framework for Energy Sustainability

# Real-Time Holographic Communications (VR / user plane)



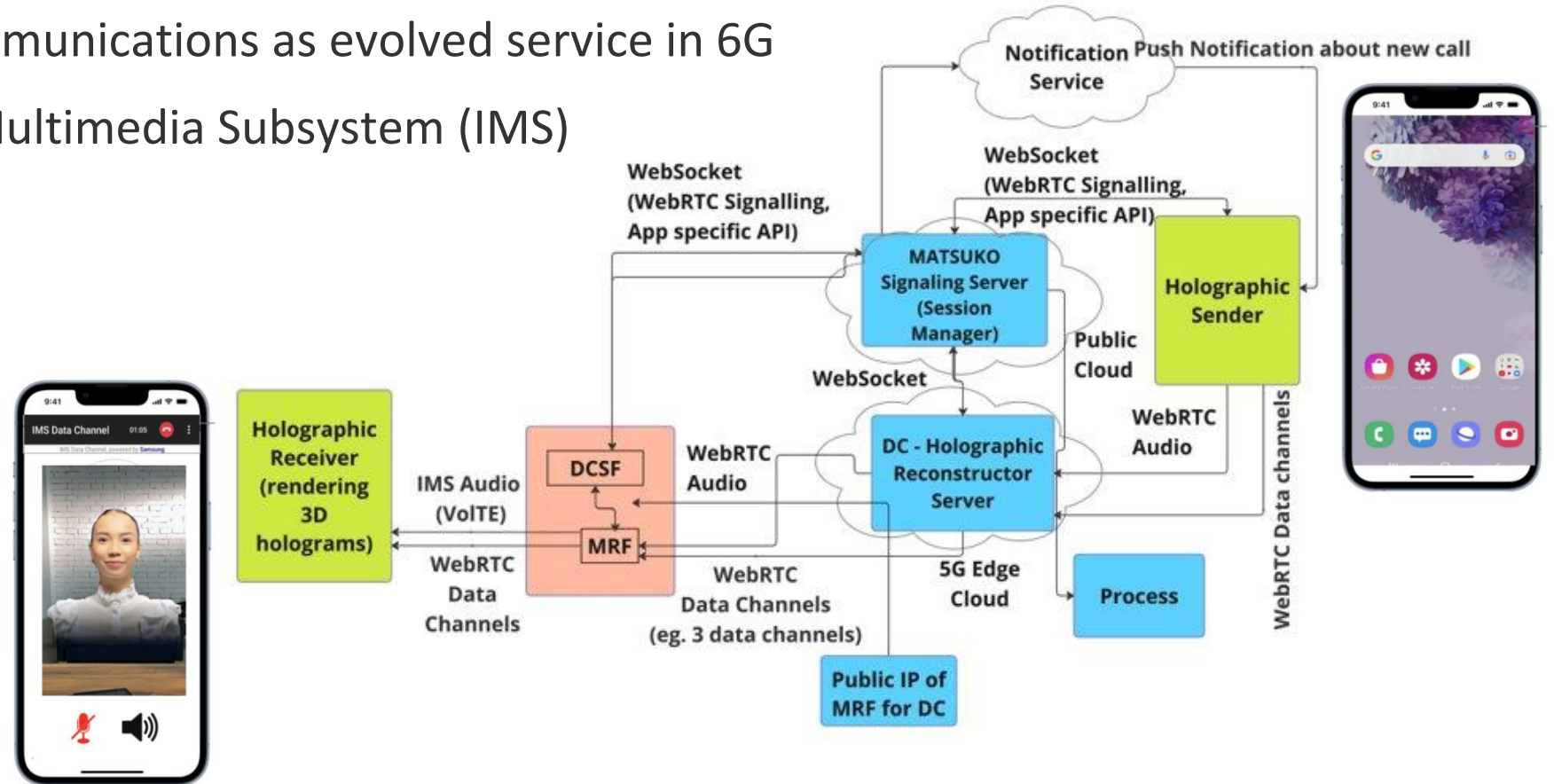
- UC1 - Network-assisted Rate Control
- UC2 - Edge Selection and Lifecycle Management
  - Multimedia Functions deployed at Cloud/Edge
  - Multimedia Rate Control vs Quality on Demand
  - Holo Orchestrator vs Edge Orchestrator





- **UC3 - Control Plane Optimizations**

- Holographic communications as evolved service in 6G
- Evolution of IP Multimedia Subsystem (IMS)



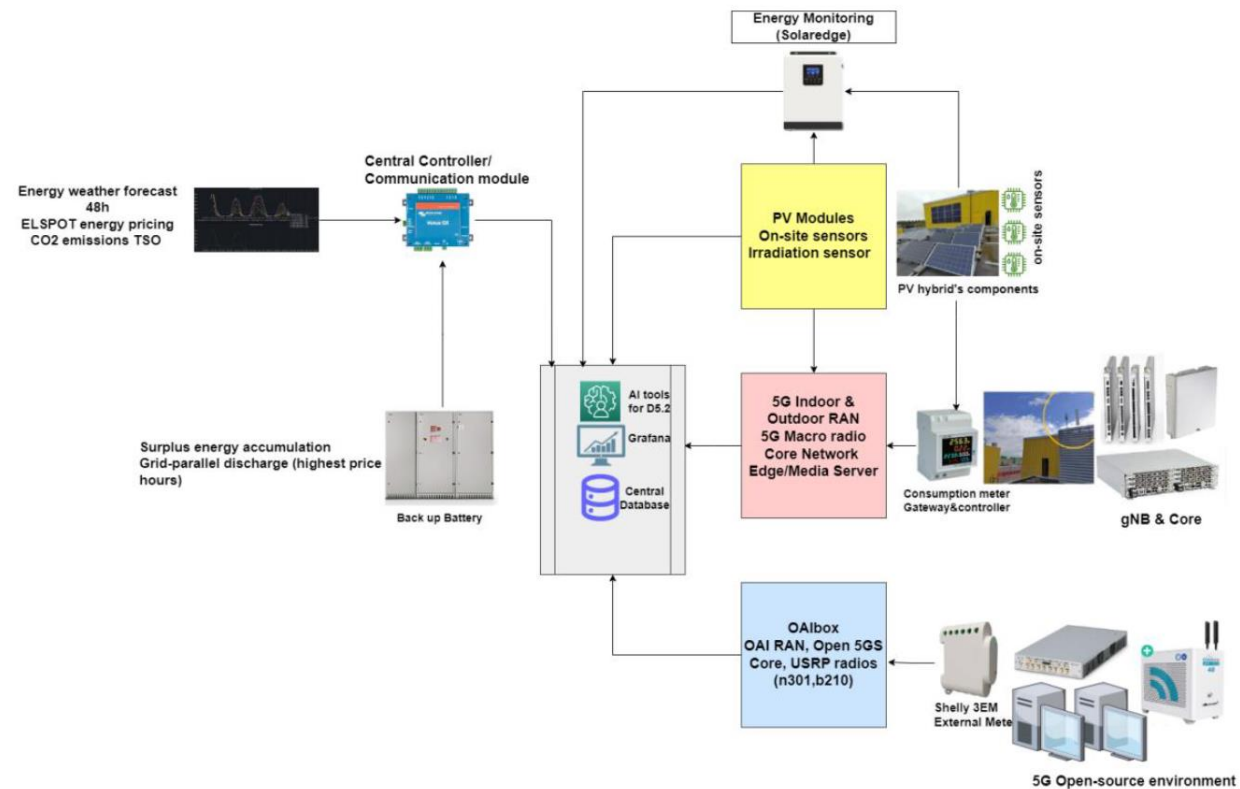
# Collaborative 3D Digital Twin-like Environment

- **UC4 - Collaborative 3D Digital Twin-like Environment**
  - Interconnection of physical and digital worlds
  - Use action in digital world are executed in real one



# Energy Measurement Framework for Energy Sustainability

- **UC5 - Energy Measurement Framework for Energy Sustainability**
  - Monitor energy storage and consumption
  - Time series analysis to predict energy generation based on weather forecast



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**6GXR**

**Open Call information**

Targeted participants

- SME
- Industry
- Research/scientific organisation
- Academia

All organisations eligible for participation in HE programme can participate

- 6G-XR Open Call 3 “**Vertical Replicability Enablers**” invites third-party participants to leverage the project’s technological infrastructure and testbeds for **deploying, replicating, and validating their own verticals and use cases**
- English language
- Submission through project website tool
- Two-steps submission: mandatory feasibility check & final submission
- All proposals passing the feasibility checks are sent for evaluation by 6G-XR project external experts and to receive an independent scoring
- All proposals are then ranked based on the points they receive out of that evaluation

# General terms



# Project budget & payments



Open Call	Project duration	Max funding per project	No of projects	Total funding
6G-XR-OC3	6 months	60 000 EUR	12	720 000 EUR

- 1 payment of the awarded amount at the end of the project.
- Final report (financial & technical) within 15 days after completion (by using the provided template).
- Assessment and approval by consortium.

# Key dates (approximate timeline)



<b>ACTION</b>	<b>DEADLINE</b>
<b>Open call 3 opening</b>	<b>2 December 2025</b>
<b>Open call 3 webinar</b>	<b>11 December 2025</b>
<b>Submission deadline for Feasibility Check</b>	<b>10 January 2025</b>
<b>Final Submission deadline</b>	<b>7 March 2025</b>
<b>Notification of the result</b>	<b>April 2025</b>
<b>Start of the Experiment</b>	<b>April 2025</b>
<b>End of the Experiment</b>	<b>October 2025</b>

# Areas of interest for OC3



- 📢 **Real-Time Holographic Communication:** Driving ultra-immersive interaction.
- 👥 **Collaborative 3D Digital Twin-Like Environments:** Enabling industries with synchronized virtual spaces.
- 🌿 **Energy Measurement Framework for Energy Sustainability:** Supporting green innovation in XR and beyond.
- 🥽 **Immersive Services:** Enhancing engagement with next-gen XR experiences.
- 🚗 **CCAM (Connected, Cooperative, and Automated Mobility):** Powering connectivity for smart transportation.
- 🤖 **Artificial Intelligence:** Unlocking the potential of AI-driven applications.
- 💡 **Open Topic:** Bring us your game-changing ideas!



- Deliverables: <https://www.6g-xr.eu/deliverables/>
  - D1.1: Requirements and use case specifications
  - D2.2: Orchestration, AI techniques, End- to-end slicing and signalling for the core enablers – design
  - D1.3: Test infrastructure specification
  - D4.2: Intermediate deployment of beyond 5G RAN, core, and open-source networks, disruptive RAN technologies and trial controller
  - D5.1: Description of sustainability experimentation framework

# 6GXR

# Thanks



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**6G SNS**

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