6G eXperimental Research

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www.6g-xr.eu
Project Overview

**Full Name:** 6G eXperimental Research infrastructure to enable next-generation XR services

**Stream:** C-01-01

**Project Coordinator:** Dr Jussi Haapola, *University of Oulu* (?)
**Technical Manager:** Dr Shahid Mumtaz

**Objective:** strengthen European leadership in 6G technologies by enabling next-generation XR services and infrastructures that will provide beyond-state-of-the-art capabilities towards the 6G era.
The consortium
Project Key Objectives:

• **Build a multisite Research Infrastructure (RI)** that can provide validation platform for multitude of foreseen (extreme) 6G use cases by developing enablers for networking and computing, radio access technologies beyond 5G, enablers for XR services with in-build federation, trial management, abstraction tools as well as energy measurement framework.

• **Validate multi access edge computing scenarios** and their integration into a complete cloud continuum, support innovative use cases with vertical actors, beyond 5G capabilities, and support showcasing events.

• **Demonstrates and validates performance of innovative 6G applications** with a focus on demanding immersive applications such as holographics, digital twins and XR/VR.
Methodology
Initial Use Cases

Holographic Communications
Initial Use Cases

Virtual Remote Control in 3D Digital Twins

- Fabrication: Create physical objects by digital fabrication
- Digital twinization: Create virtual 3D objects (CAD, BIM) by on top of a game engine
- Synchronization: Telepresence service by real-time synchronized digital twin
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