unity-6G

UNified archITecture for Open RAN-enabled Distributed, Scalable and SustainabilitY-enhanced 6G Networks

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6GSNS

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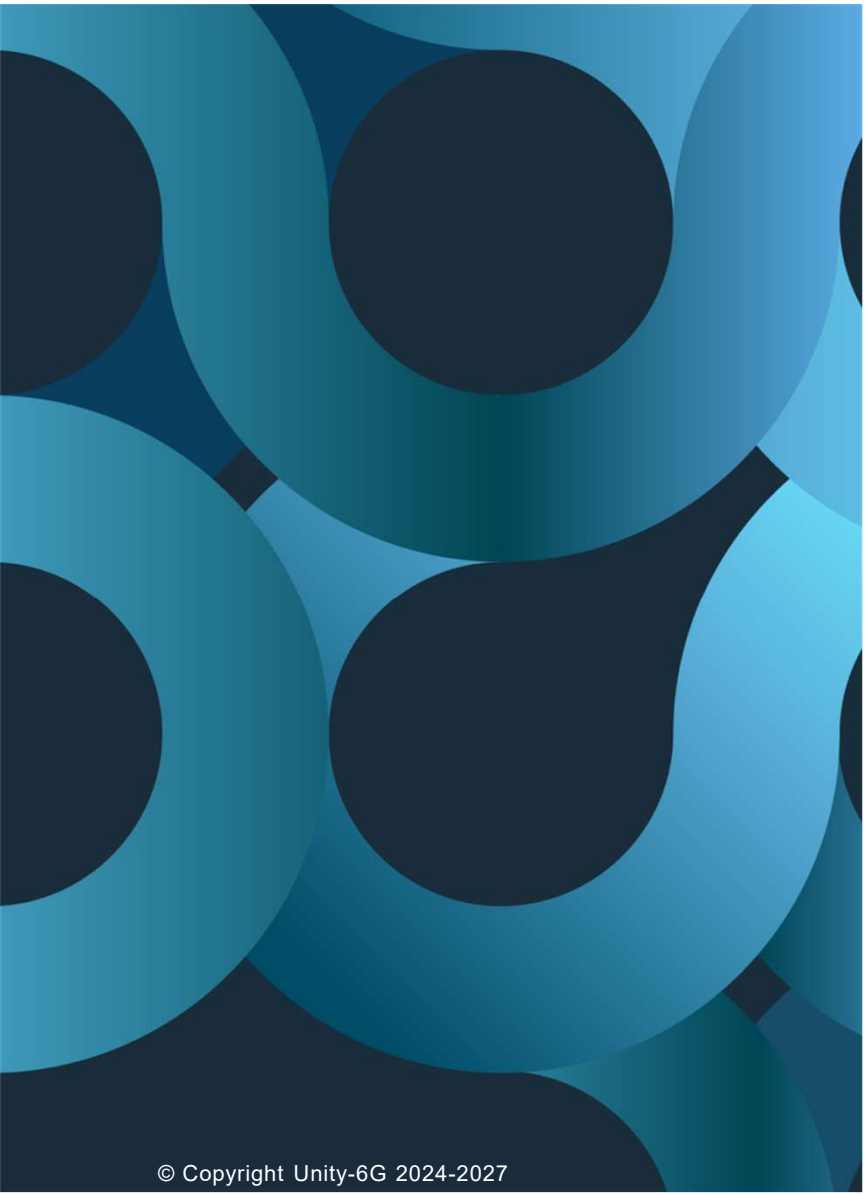


Project Overview

UNITY-6G in a Nutshell

Pioneering Sustainable, Scalable, Intelligent and Integrated 6G Networks

HORIZON-JU-SNS-2024-STREAM-B-01-01

Project Coordinator:

Dr. Engin Zeydan (CTTC)

Technical Manager:

Dr. Luis Miguel Contreras Murillo (TID)

20 partners**, 11** countries: **7** LO, **7** RTOs, **6** SMEs

Start Date: 01/01/2025

End Date: 31/12/2027

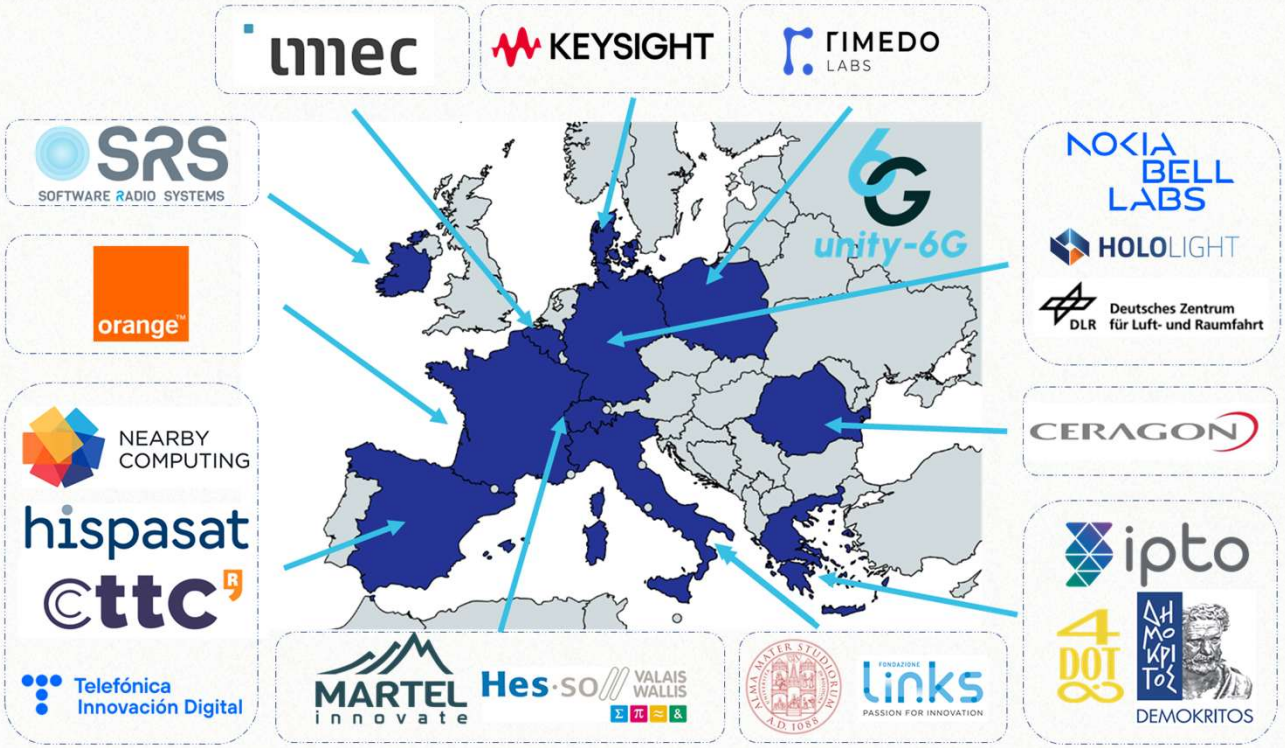
Duration: 36 months

Effort: 1015 PM

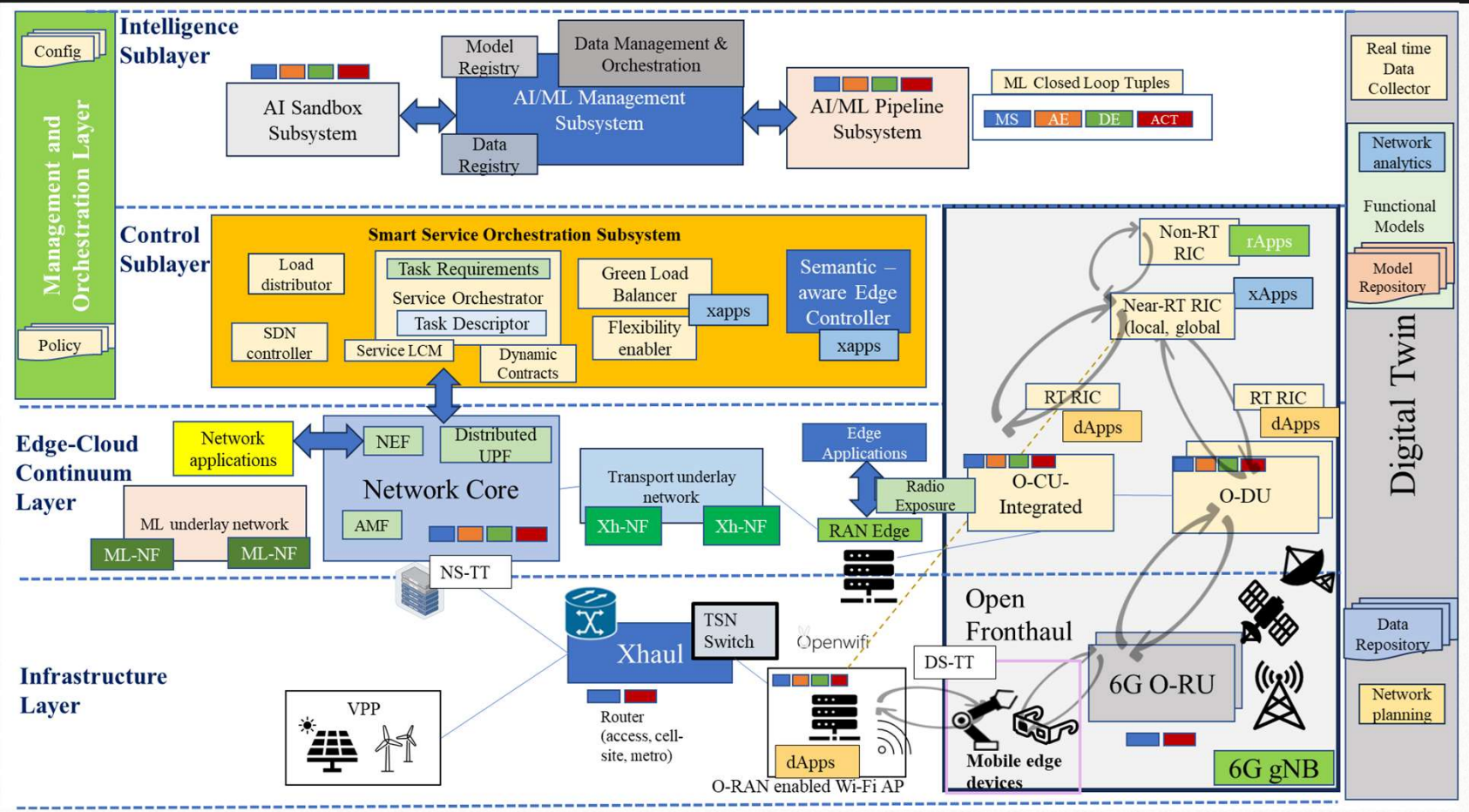
Total Budget: ≈10M €

EC Contribution: ≈ 8M €

Swiss Contribution: ≈ 1.5M €



UNITY-6G Architecture



Main Objectives & Challenges

- Create a highly sustainable and scalable integrated AI-native architecture that can support the diverse requirements of 6G networks by relying on advanced technologies, such as:
  - distributed ledger technology
  - semantic communications
  - digital network twinning

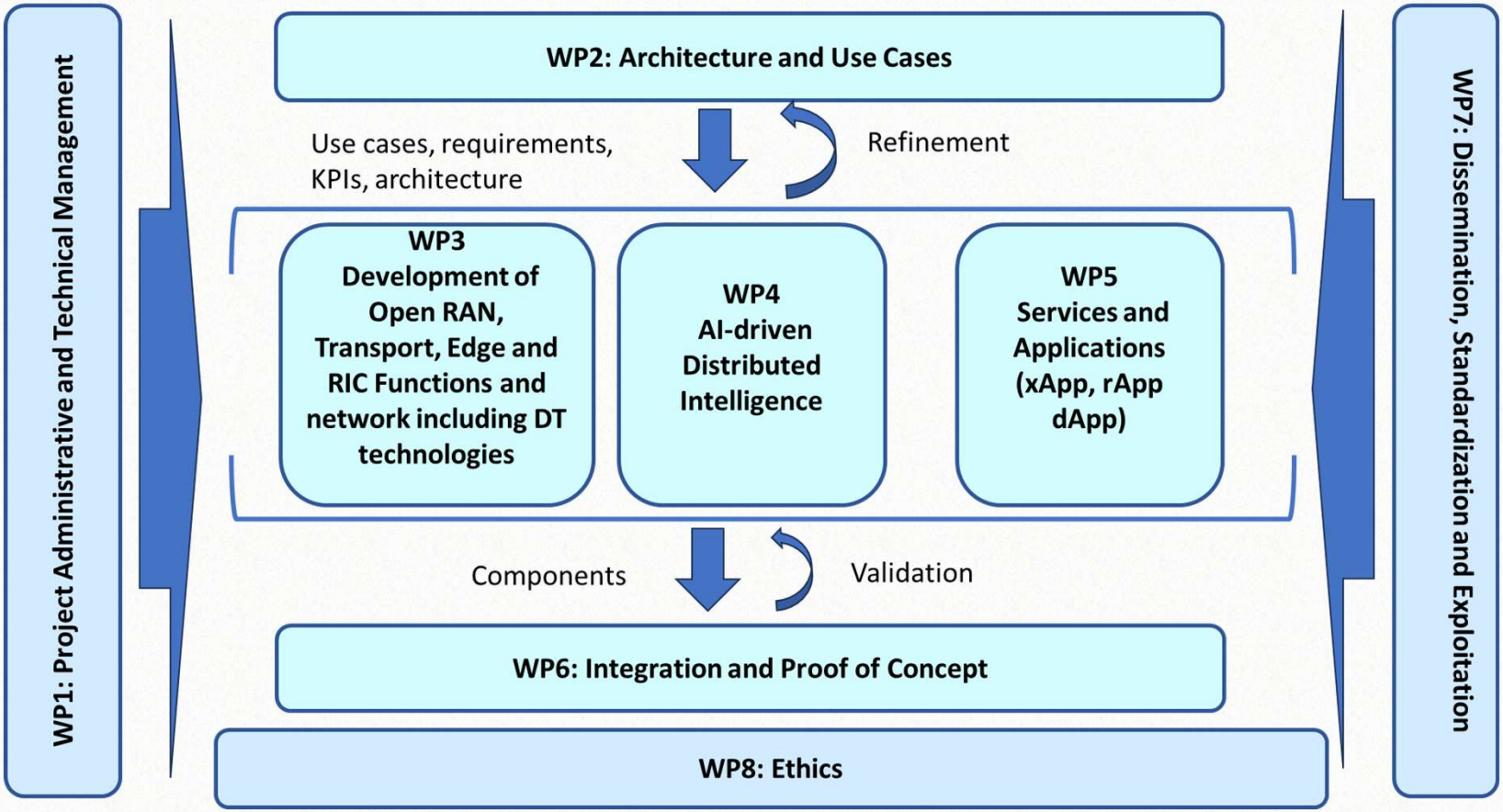
to enhance the performance, cost-efficiency and trustworthiness of integrated 6G network services and applications (TRL 4/5).

Use Cases

- UNITY-6G considers four use cases targeting:
  i. Sustainable networks for disaster handling
  ii. Immersive Experience with Real-time XR/holographic communications
  iii. Digital Twin for Integrated 6G Network Evaluation
  iv. Multi-RAT O-RAN enabled NPN for supporting time sensitive applications for Industry 4.0.

- **Two experimental platforms** for the PoCs to demonstrate the UNITY-6G specific use cases.
  - **CTTC(ES)**
  - **IMEC (BE)**

UNITY-6G Work Packages



The Consortium

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Thank you!

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