DEDICAT 6G
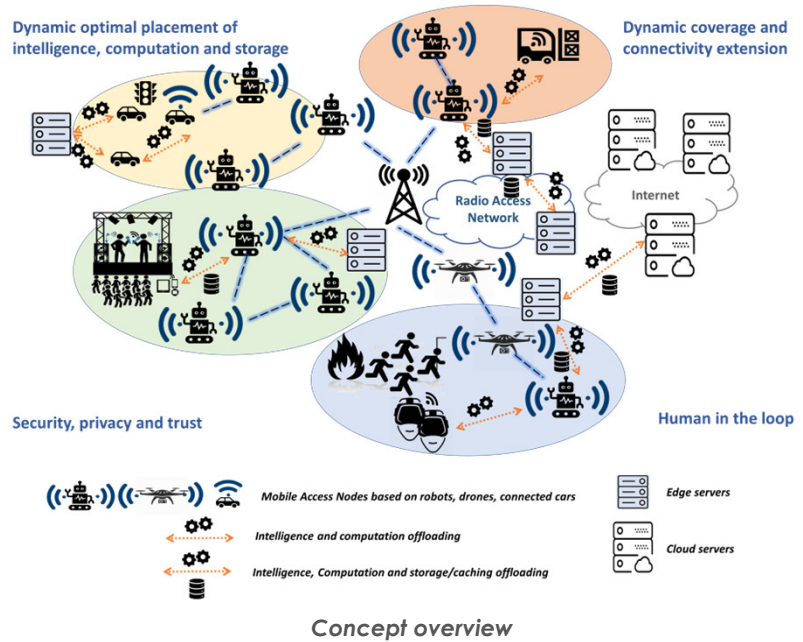
Dynamic coverage Extension and Distributed Intelligence for human Centric Applications with assured security, privacy, and Trust: from 5G to 6G
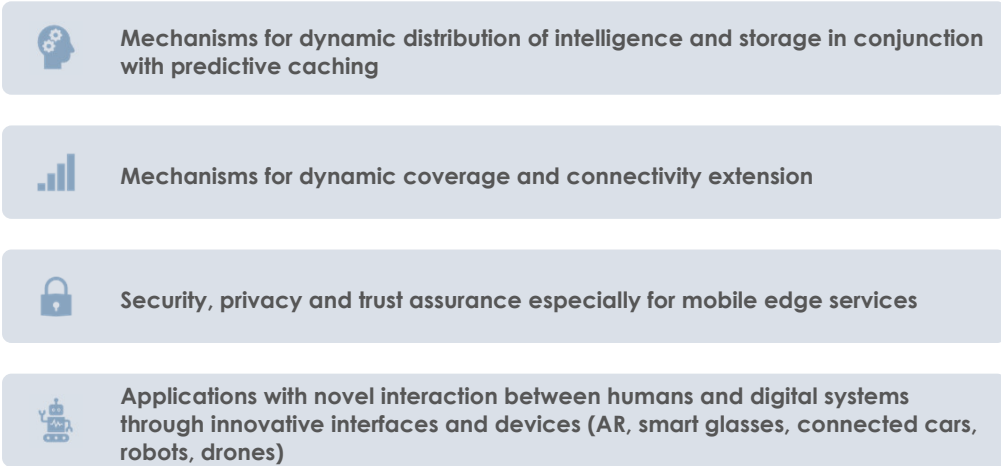
Overview

- 5G networks offer unparalleled data rates and features.
- However, these are still far from what a hyperconnected society and industry needs
  - Support for more dynamic resourcing and connectivity
  - Improved adaptability, performance, and trustworthiness
- DEDICAT 6G aims to develop a smart connectivity platform using artificial intelligence and blockchain techniques that will
  - Enable B5G/6G networks to combine existing communication infrastructure with novel distribution of intelligence (data, computation, and storage) at the edge
  - Allow not only flexible, but also energy efficient realisation of the envisaged real-time experience.

Concept overview

Key challenges and Approach

- **Dynamic distribution of intelligence and computation** for reduced energy and resource consumption
- **Dynamic coverage and connectivity extension** in support of digital inclusion
  - support service continuity also in more "remote" areas
- **Enhanced security, privacy and trust**
- **Human in the loop**

Mechanisms for dynamic distribution of intelligence and storage in conjunction with predictive caching

Mechanisms for dynamic coverage and connectivity extension

Security, privacy and trust assurance especially for mobile edge services

Applications with novel interaction between humans and digital systems through innovative interfaces and devices (AR, smart glasses, connected cars, robots, drones)

Key enablers

Project details

Project Information

DEDICAT 6G
Grant agreement ID: 101016499

DOI
10.3030/101016499

Start date
1 January 2021

End date
31 December 2023

Funded under
INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies - Information and Communication Technologies (ICT)

DEDICAT 6G consortium consists of **14 partners** in total from **8 countries**
- **1 Operator:** ORANGE
- **3 Technology vendors:** NOKIA, AIRBUS, ATOS, OPTIN
- **2 SMEs:** WINGS, TTI
- **1 Logistics operator:** DIA
- **5 internationally recognized universities and research centres:** VTT, VLF, CEA, UoS, IMEC and TUC

The work plan consists of 8 Work Packages (WP)