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# Deep Programmability and Secure Distributed Intelligence for real-time E2E 6G Networks

## PROJECT

**Project coordinator:**
Chrysa Papagianni, PhD
University of Amsterdam

**Technical coordinator:**
Gergely Pongracz, MSc
Ericsson Hungary

**Duration:**
01/01/2023 - 31/12/2025

**Cost:**
6.227.919€

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## PARTNERS



## VISION

Design and develop a zero-touch control, management & orchestration platform, with native integration of AI, to support verticals with extreme application requirements over a performant, measurable and programable data plane.

## USE CASES

We focus on two representative 6G use cases targeting extreme key performance indicators.:
- Digital Twin
- Intelligent and resilient VR/AR applications with perceived zero latency

## KEY INNOVATIONS

DESIRE6G will re-architect mobile networks targeting real time autonomic networking via:

1. A hybrid architecture employing lightweight centralized management & orchestration, with distributed intelligent control.

2. An E2E programmable user plane using a generic hardware abstraction layer, supporting heterogeneous systems e.g., GPUs, TPUs, FPGAs, SOCs.

The system architecture will be complemented by pervasive monitoring system will support the data, control, management & orchestration plane.

Distributed Ledger Technology will be used as a zero-trust mechanism.

DESIRE6G will employ distributed, privacy preserving AI/ML approaches, while considering application-level requirements, communication, and compute resource constraints to support Edge Intelligence.