eNewsletter #1

Distributed Artificial Intelligence-Driven Open & Programmable Architecture for 6G Networks

June 2023

Co-funded by the European Union

ADROIT6G project has received funding from the Smart Networks and Services Joint Undertaking (SNS JU) under the European Union's Horizon Europe research and innovation programme under Grand Agreement No 101095363.

Welcome to the 1st ADROIT6G's eNewsletter!

The ADROIT6G partners are delighted for the release of the 1st eNewsletter of the project. With this edition of the eNewsletter, our partners aim to present an overview of the ADROIT6G Project.

ADROIT6G is an EU-funded project that aims to tackle the following core potential challenges. As the world moves from the 5G towards the 6G era, 5G application types need to be redefined by morphing the classical service classes of URLLC, eMBB, and mMTC and introducing new services. ADROIT6G radical technological innovations, functionalities and performance will be validated through 3 representative extreme 6G use cases.

Our consortium is composed of a multidisciplinary group of 13 partners from 9 EU countries and one associated party. The consortium composition involves industry heavyweights from EU telecom and ICT industries and renowned research organisations, with a vast expertise in complex and highly challenging endeavors, as well as experience in 5G and beyond technologies, such as the next generation of services that will be developed in the 6G era.

For more information about the project, please visit our website **adroit6g.eu**

Introduction to ADROIT6G

ADROIT6G (Distributed Artificial Intelligence-Driven Open & Programmable Architecture for 6G Networks) is a Smart Networks and Services Joint Undertaking (SNS JU) project supporting the European Commission's 6G policy by implementing the first phase of the 6G SNS roadmap towards the evolution of a 6G architecture.

Project's Objectives

ADROIT6G's overall project goal is to provide revolutionary research foundations for low TRL technology advancements in preparation for the upcoming 6G network architectures.

In particular, to evolve the existing service-based architectures of 5G mobile networks, and design, implement and validate a fundamentally new approach for a future-proof, cognitive, next-generation 6G architecture by adopting a fully distributed AI-driven dynamic paradigm, with functional elements automatically deployed on-demand as virtual functions in cloud-native environments, across the far-edge, edge and cloud domains, operated by different stakeholders. This will ultimately lead to improved performance, a higher level of control, increased transparency in interactions with digital services, support of future-looking applications and social acceptance.

ADROIT6G's Consortium

ADROIT6G is a Smart Networks and Services Joint Undertaking (SNS JU) project supporting the European Commission's 6G policy by implementing the first phase of the 6G SNS roadmap towards the evolution of a 6G architecture.

All 13 partners from 10 countries will join forces for 36 months, in order to develop disruptive innovate extreme future-looking applications, within the architecture of emerging 6G mobile networks that will make fundamental changes to the way networks are designed, implemented, operated and maintained. Innovations include artificial intelligence (AI) and machine learning (ML) for high performance and automation.

Envisioning the built-up of the future architecture of mobile networks and services, the ADROIT6G project will participate in a series of events, conferences and research affairs committed to spread innovation in the 6G landscape across Europe.

The Consortium is composed by 13 partners: ISI/ATH (ATHINA Research Center) and NOVA from Greece, eBOS and CYENS from Cyprus, NETWORKS and CNIT from Italy, SIEMENS from Germany, EURECOM from France, IQUADRAT from Spain, OULUN YLIOPISTO from Finland, CAFA from Estonia, ORANGE from Romania and NVIDIA from Israel.

Stay tuned and follow the news on our website and social media to learn more about ADROIT6G for tracking the emerging trends in the 6G era.

ADROIT6G Kick-off Meeting

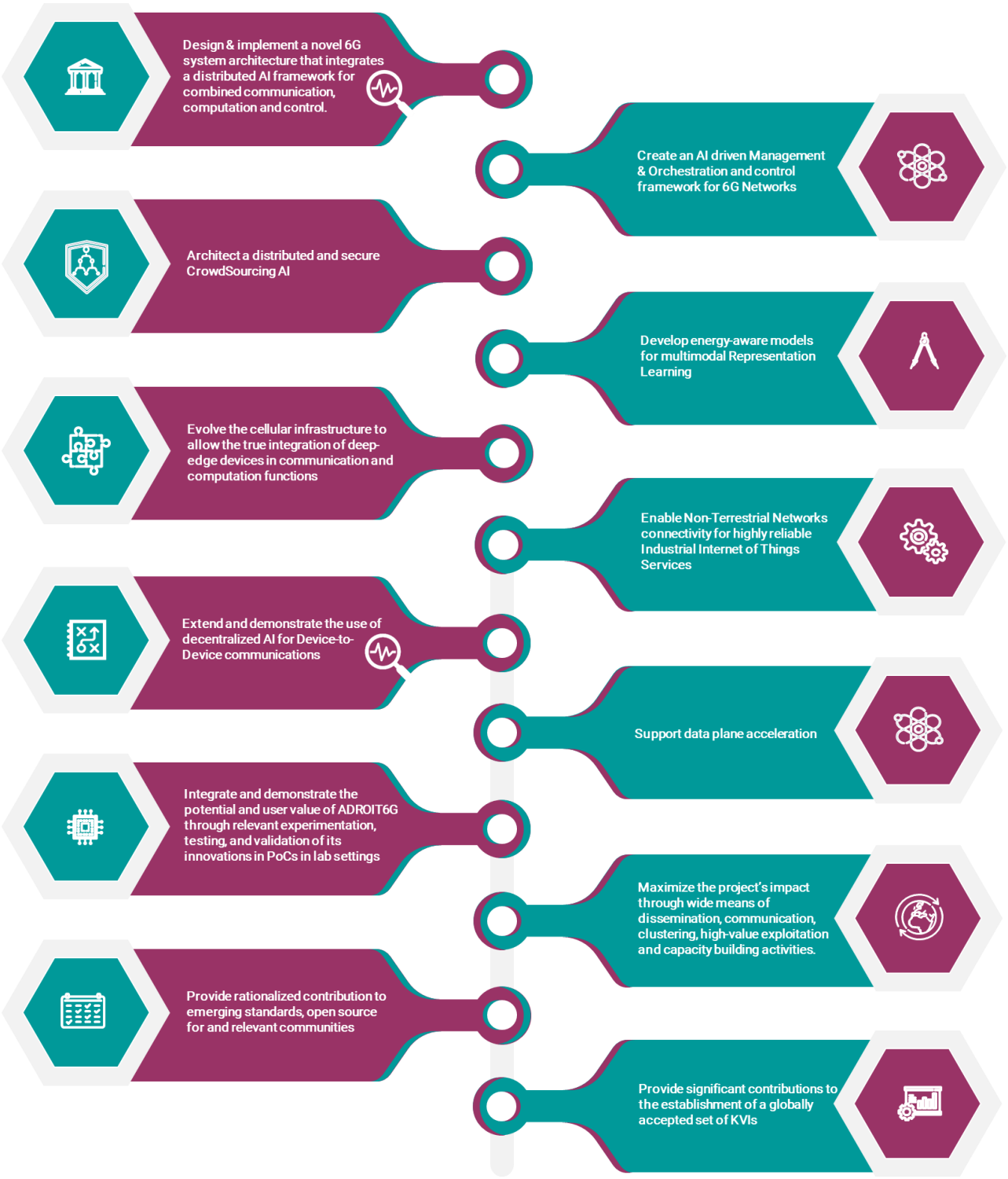
On 26th of January 2023, the ADROIT6G project “Distributed Artificial Intelligence-driven open and programmable architecture for 6G networks”, held its physical kick-off meeting in Athens, Greece. The meeting was chaired by the Project Coordinator **Dr. Christos Verikoukis**, who represents ATHENA Research (Greece).

This 36-month EU-funded Research and Innovation Action funded under the HORIZON Europe SNS programme officially started on the 1st of January 2023. ADROIT6G proposes disruptive innovations in the architecture of emerging 6G mobile networks that will make fundamental changes to the way networks are designed, implemented, operated, and maintained.

The meeting was attended by 13 partners and included partners’ presentations of the vision and objectives of the project, as well as an overview of the project’s expectations and guidelines by the European Commission’s Project Officer. Partners also discussed the project’s work plan, challenges and risks identified, and its implementation schedule. More specifically, all aspects of the project were analyzed, including the roadmap, processes and organized the actions undertaken were co-decided.

For more information and updates about future activities stay tuned here!

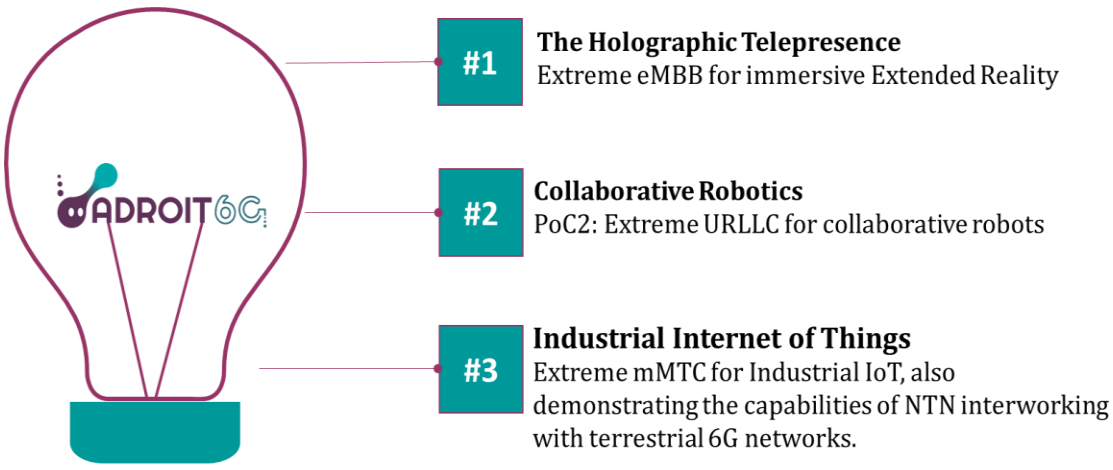
Representation of ADROIT6G's Technical Objectives



Innovation & Pilot Proof-of-Concepts

ADROIT6G targets the development of disruptive innovations in the architecture of emerging 6G mobile networks that will make fundamental changes to the way networks operate. Its agile and multidisciplinary approach aims to the reformation of the architecture and operations for three highly sophisticated pilot use cases. The targeted innovations are the following:

- AI/ML empowered optimizations across the entire networks, for high performance and automation.
- Transforming the cellular network to a fully cloud-native network software, throughout the implementation of edge-cloud platforms, including Non-Terrestrial Networks, with security built integrally into the network user plane.
- Software-driven, zero-touch operations and ultimately automation of every aspect of the network and the services it delivers.



More information about the ADROIT6G's PoCs, can be found **here**.

Project's News

ADROIT6G M6 Plenary Meeting
The ADROIT6G project held its 1st physical plenary meeting in Barcelona, Spain. Read more here.

ADROIT6G Project Presented at 6G SNS Call
The project coordinator, Christos Verikoukis, presented the ADROIT6G project at 6G SNS Call. Read more **here**.

ADROIT6G in the EuCNC2023
ADROIT6G participating in 2023 EuCNC & 6G Summit, supported by the European Commission and hosted at 6G-BRICKS. Read more **here**.

ADROIT6G at MWC 2023 in Barcelona
Active participation of ADROIT6G in MWC Barcelona, the largest and most influential event for the connectivity ecosystem. Read more **here**.

ADROIT6G in the SNS JU Journal
The Smart Networks and Services Joint Undertaking (SNS JU) Journal for 2023 has been released. Read the Article on page 44 **here**.

March Press Release is ON Air!
Get to know the ADROIT6G 36-month project! Read the March Press Release **here.**

Project's News

ADROIT6G in IOT Solutions World Congress in Barcelona
Active participation of ADROIT6G in the 2023 IOT Solutions World Congress in Barcelona. Read more **here**.

ADROIT6G Kick-off Meeting
The ADROIT6G project held its physical kick-off meeting in Athens, Greece, hosted by ATHENA research centre. Read more **here**.

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