Architecture for Scalable, Self-*, human-centric, Intelligent, Secure, and Tactile next generation IOT

assist-iot

Introduction to ASSIST-IoT

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ASSIST-IoT information

"Architecture for Scalable, Self-*, human-centric, Intelligent, Secure, and Tactile next generation IoT"

Call: H2020-ICT-2020-1 Topic: ICT-56-2020 Type of action: RIA Duration: 36 months Start date: 1 November 2020 Partners: 15 Countries: 7

assist-iot





This Communication is part of a project that has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N^o957258

Technological concepts baseline

Multi-plane-oriented architecture

- To be integrated as:
 - Modularity and adaptability
 - Scalable
 - Decentralised
 - Human-centric
 - Interoperable ecosystem
- Supported by key enablers atop a smart network infrastructure, with low latency capabilities.
- •Transferring intelligence closer to the edge.





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5G & Lov

and trust

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ASSIST-IoT Use-cases

Tested in highly heterogeneous environments to ensure minimization of the risk.

ASSIST-IoT is working with **leading industries**.

Different vertical with **diverse market needs**.





Port automation



Improve efficiency, safety and profitability of new port processes

Smart Safety of workers

Mostosta

Make provisions for predicting potentially dangerous situations in construction

Sind

Cohesive vehicle monitoring and diagnostics



Increase monitoring capabilities in individual cars and at a fleet scale

Architecture structure



- Multi-plane reference approach:
 - Horizontal planes Provide different capabilities
 - Vertical planes Support required crossplane technologies

- Support **Innovative interactions** with a strong focus on human-centricity.
- Guarantee data governance and privacy.
- Provide **secure** tactile support for **real-time** applications.
- Facilitate distributed AI.

Transversal enablers' goals

Core enablers' goals

- Better exploit **specific functionalities.**
- Higher potential to modularity and adaptability.



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Enablers concept

Functions and capabilities are delivered as encapsulated enablers

Encapsulated enabler: (Helm Charts)

- Delivers a specific function / service containerized and used via
 K8s (or similar) orchestration
- May be plane-specific, or transversal
- Collection of interconnected *components* / internal (micro)services
 - Does not expose internals (encapsulation)
 - Self-managed internals
- Can use other enablers





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Use case example



Open Call #2 to be launched soon!

- 480k€ funding available
- 60k€ per project (lump-sum)
- Individual
- Deadline: October 14th!





