

5GMEDE

5GMEDE PROJECT CELTIC-NEXT DEC 2018-DEC 202

Project impact

Objectives and innovations

Study and design and enhanced MEC system taking into account PHY and network data to improve QoS and energy consumption performances.

Innovations:

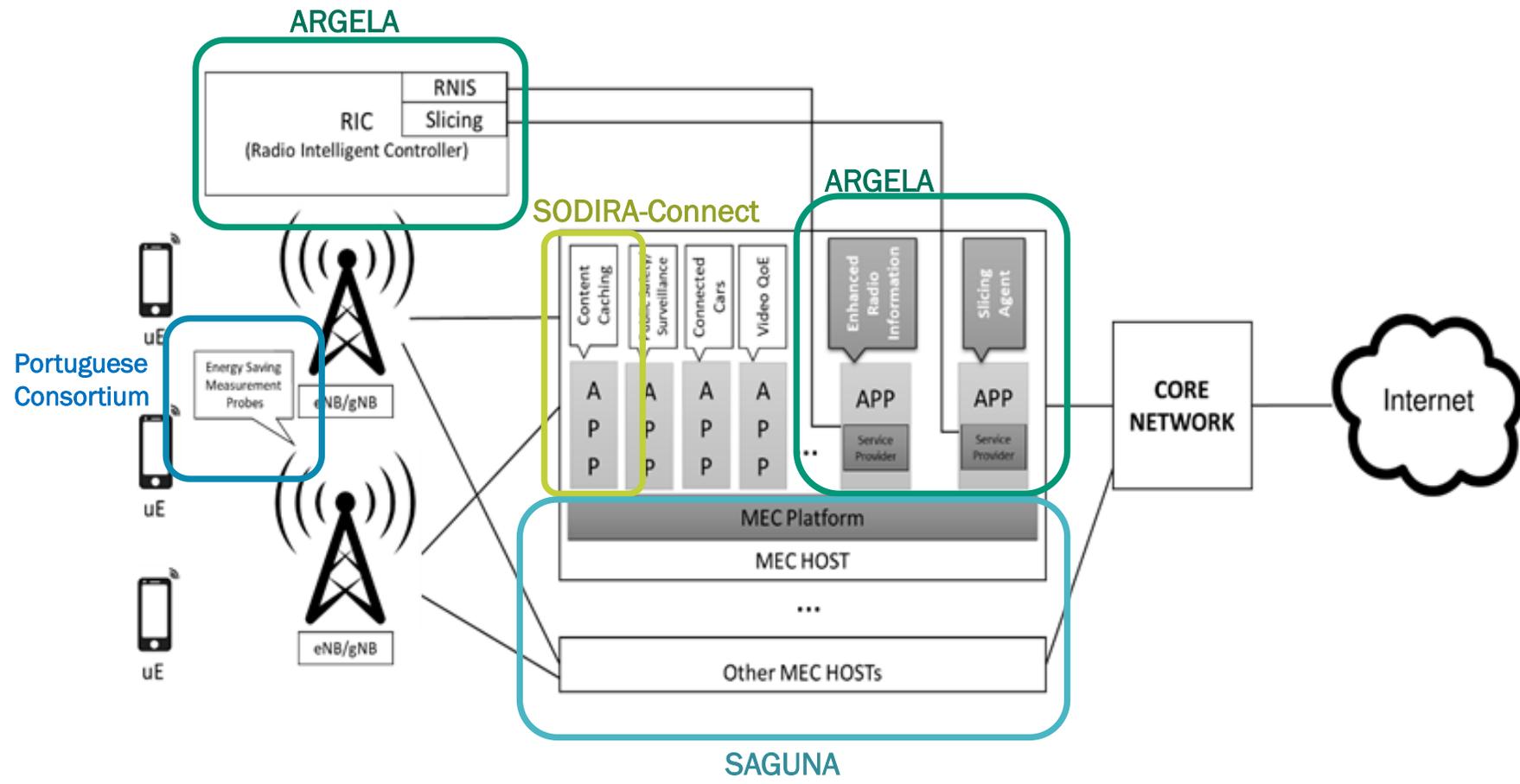
- Constraint based mobile edge selection by considering virtual resource requirements, latency requirements, on location requirements, etc.
- Using data analytics and forecast technologies to enrich real-time radio network information on the base station side, and providing refined radio information data to ME services and predicting network behaviour
- Utilizing SDWN concepts Utilizing SDWN concepts to improve MEC resource allocation services to meet mobility, flexibility and application requirements such as low latency, higher throughput

The Roles and Responsibilities of Partners

5GMEDE Consortium expertise:

- ARGELA provider of radio infrastructure (including Base Station)
- SAGUNA is a worldwide leader in MEC solutions and applications
- JCP-Connect (->SODIRA-Connect) is an expert in edge computing and caching
- CELFINET is an expert in Mobile Networks Energy Efficiency and a provider for the VISMON platform
- ALLBESMART is expert in wireless communications and high-performance software for QoS / QoE monitoring.
- 2 academic Institutions, IPCB and Univ. Aveiro bring the required expertise in network simulation and data analytics.

The Roles and Responsibilities of Partners



Full demonstrator was implemented in a real 4G network in Ankara

Project Exploitation

■ ARGELA

Provider for 4.5G and 5G base-station and RAN Intelligent Controller solutions

- enhance its 4.5G and 5G base-station and RAN Intelligent Controller solutions, adding innovative 5GMEDE MEC features
 - ARGELA focuses on adding O-RAN RIC applications utilizing the 3GPP 5G based MEC architecture to make its O-RAN RIC solution more competitive.
- filing patents on programmable and virtualizable base stations and is planning to file further patents in the related areas.
- license the O-RAN RIC solution, and the 5GMEDE innovations.

■ SAGUNA

Saguna Edge-Cloud solutions are used by MNOs to deliver a wide variety of applications that require low latency, privacy and a cost-effective mass-connectivity.

- to integrate 5GMEDE outcomes in its MEC products offering
- SAGUNA has a rich set of patents in 5GMEDE related areas and currently evaluating the addition of new patents to its portfolio.

■ *Purchased by COMSOVEREIGN, VC for high tech and niche markets to pursue their activities*

Project Exploitation

■ JCP-Connect -> SODIRA-Connect

Expert in audio-visual technology and content delivery solutions

- integrate the developed MEC compliant Cache Controller and vCache in its NaviConnect solution (<https://jcp-connect.com/naviconnect>)
- evaluate possible synergies with the IoT market use-cases that would benefit from a MEC solution (IoT mobile data collection and delivery for Smart Cities, Smart Industries and Smart Transports)

■ *Funding capital raised to concentrate on edge computing, moved to IoT*

■ *Changed to SODIRA-Connect, purchased Advanten to move to 5-6G*

■ CELFINET

Global Mobile Networks Solution and Services Provider.

- *already commercializing the energy monitoring solution as part of the VisMON product line, bringing added value to the company's reference product (<https://www.celfinet.com/vismon-energy>)*

Project Exploitation

■ ALLBESMART

Provider of customized outsourcing services and technology expertise on IoT, wireless communications and high-performance software development for various industries.

- already commercializing the developed software and hardware, UXPERT – *a user experience analytics framework for mobile networks* (<http://uxpert.allbesmart.pt>).
 - UXPERT is commercialized as an added value for MNOs, regulators and academic/research institutions
- current PoCs are being run with ALTICE and VODAFONE

■ University of Aveiro and Instituto Politécnico de Castelo Branco Public Higher Education Institutions

- improve the competitiveness of local/regional industry through knowledge transfer actions
- shape curriculums or foster new courses, and also attract new students and researchers
- foster the creation of spin-off companies in emerging technological areas
- use the knowledge to further increase involvement in new national and international research challenges

Summary

- Impact quite concrete on the short and middle term:
 - *Full acquisition of Saguna by a technology fund on the project realisations*
 - *Fund raising on JCP-Connect and focus on Edge Computing; completion of an acquisition to enter 5-6G markets*
 - *Products enhancements by all industry partners*
 - *Capitalisation by IP production and introduction in products by other partners.*

- Advice for fruitful project:
 - *Focused consortium with clear product objectives from the project start*
 - *Complementarity between partners*
 - *Limited number of partners... Less than 10 ideally.*

Overview of 5GMEDE Project

