



The 5G Infrastructure Public Private Partnership

Coordinated Control and Spectrum Management for 5G Heterogeneous Radio Access Networks



Overview

EU Horizon2020 ICT-14



Project in nutshell

- Research & Innovation Action (RIA) project under EU Horizon 2020 ICT-14
- Project duration: 1.7.2015 – 31.12.2017 (30 months)
- Budget: 6 M€ from EU
- Resource: 730 person months

Consortium



VTT, Finland
(Coordinator)



EURECOM, France



CREATE-NET, Italy



Aalto University, Finland



SISC, Sweden



EICT, Germany



THALES, France



CommAgility, UK



Offen im Denken

University of Duisburg Essen, Germany



OTE, Greece



4GCellerX, Israel



Poznan University of Technology, Poland



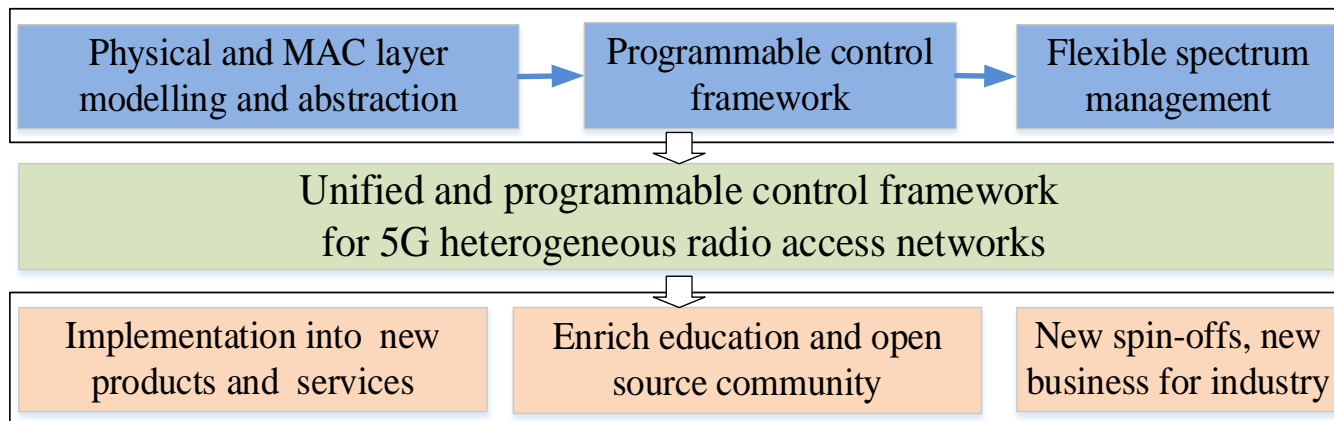
INEA, Poland



Fairspectrum, Finland

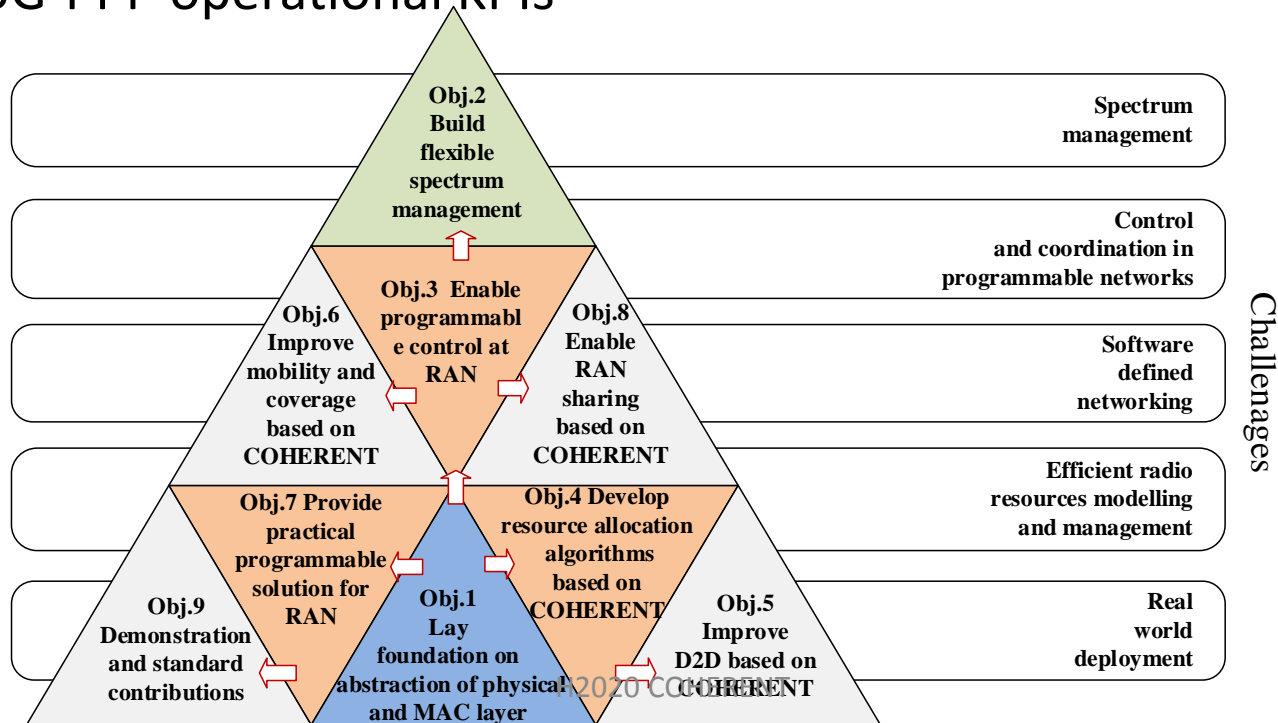
Objectives

- Research and develop a **unified control and coordination framework** for 5G heterogeneous radio access networks (RAN), with focuses on
 - software defined networking for RANs
 - efficient radio resource modelling and management in programmable RANs
 - flexible spectrum management

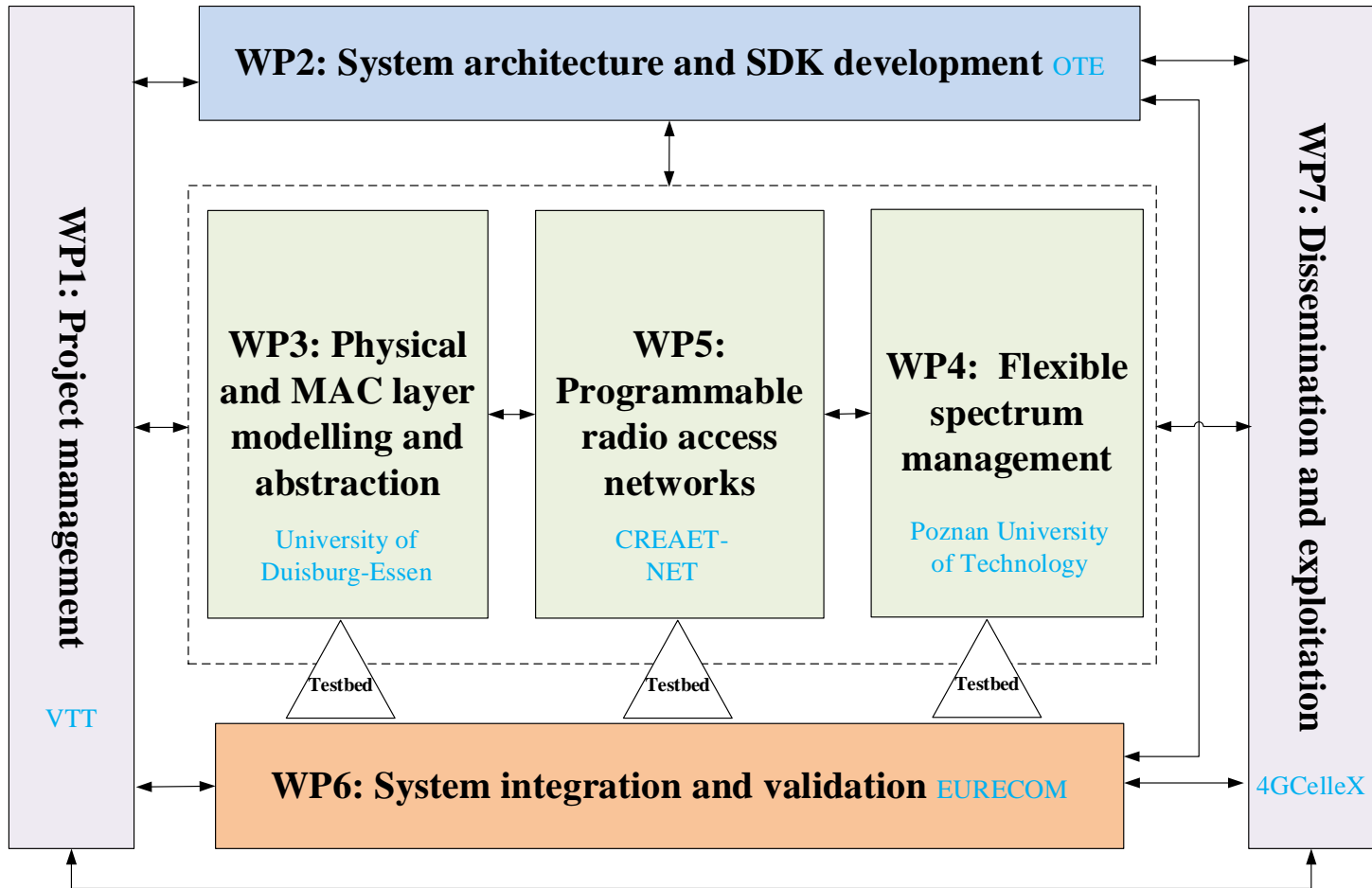


Scientific objectives

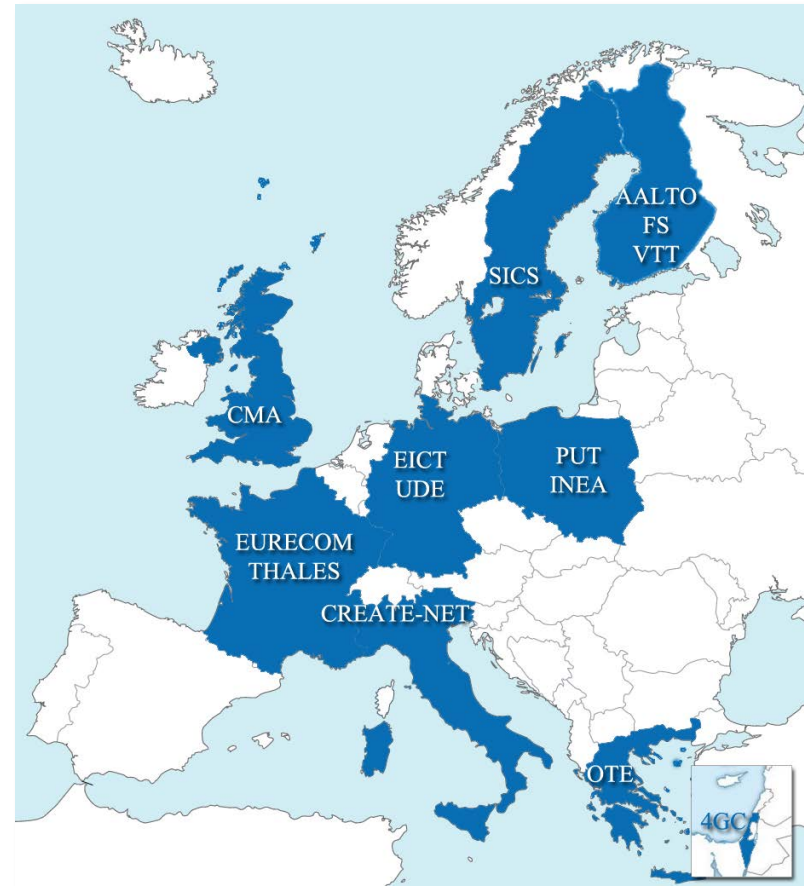
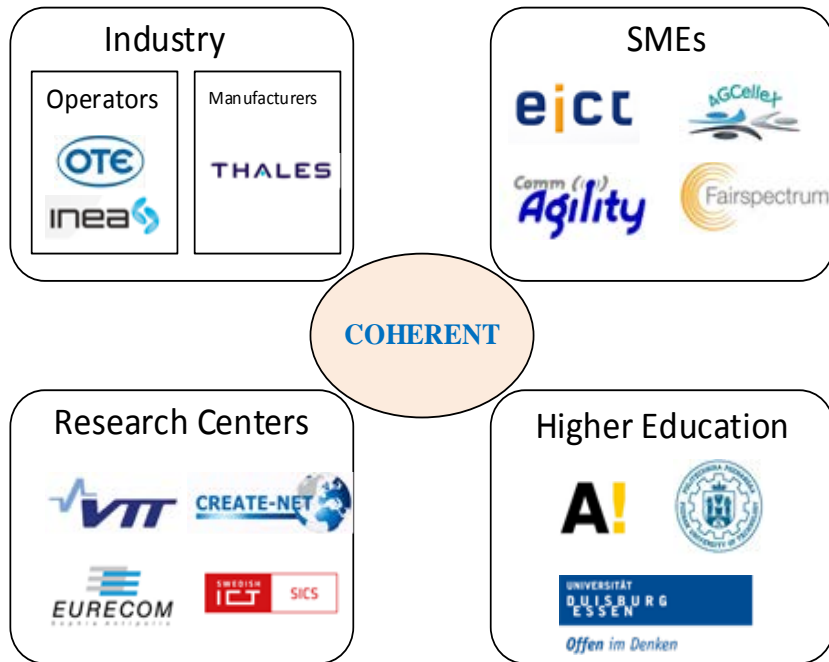
- Build theoretical foundation and practical implementation of software defined networking for 5G heterogeneous RANs
- Improve spectrum reuse, radio resource management, mobility and network management in 5G heterogeneous mobile networks
- Provide a programmable control solution for 5G heterogeneous RANs to meet 5G-PPP operational KPIs



Project structure



Consortium composition



Expected outcomes

- Concept and technology solutions to
 - improve flexibility, spectral and energy efficiency of 5G access network infrastructure
 - reduce network management OPEX in 5G networks
 - meet 5G-PPP KPIs by software defined 5G RAN solutions
- Joint testbed to
 - showcase software defined 5G RAN concept
 - verify and demonstrate new ideas in 5G RANs.
- Pre-standard and regulatory contributions to
 - 3GPP
 - ETSI
 - ECC

Contact

- Project Coordinator

Dr. Tao Chen

VTT Technical Research Centre of Finland Ltd.

Tel: +358 40 7491691

tao.chen@vtt.fi

