



5G-MONARCH

EU H2020 5G-PPP Phase 2 Project

5G Mobile Network Architecture for diverse services,
use cases, and applications in 5G and beyond

Project Overview

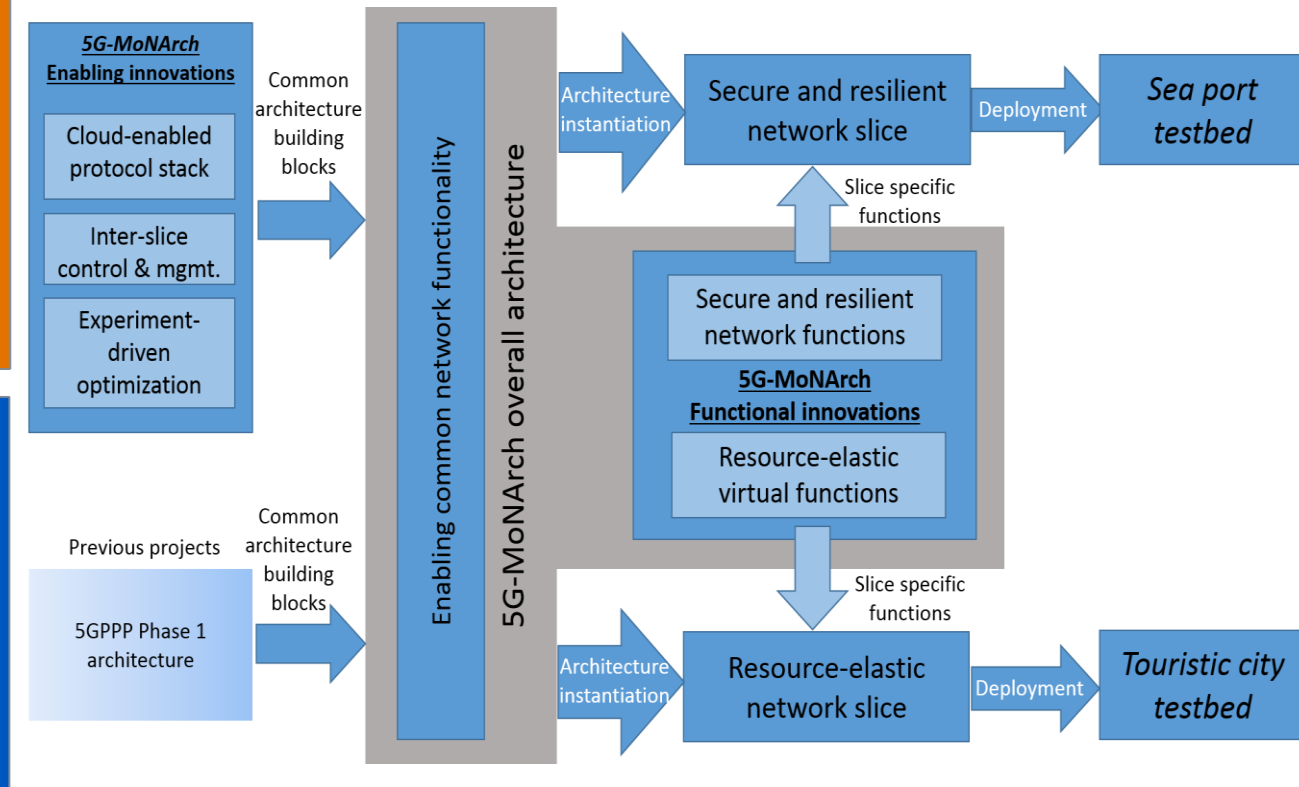
Motivation, Approach, Impact

Motivation:

- 5G architecture: Flexible, adaptable, programmable
- Proof-of-Concept through real-world testbed implementations

Approach:

- **3 enabling innovations**, which fill gaps not addressed in 5GPP Phase 1
- **2 functional innovations** (one per testbed), complementing architecture with specific functionality



Testbeds:

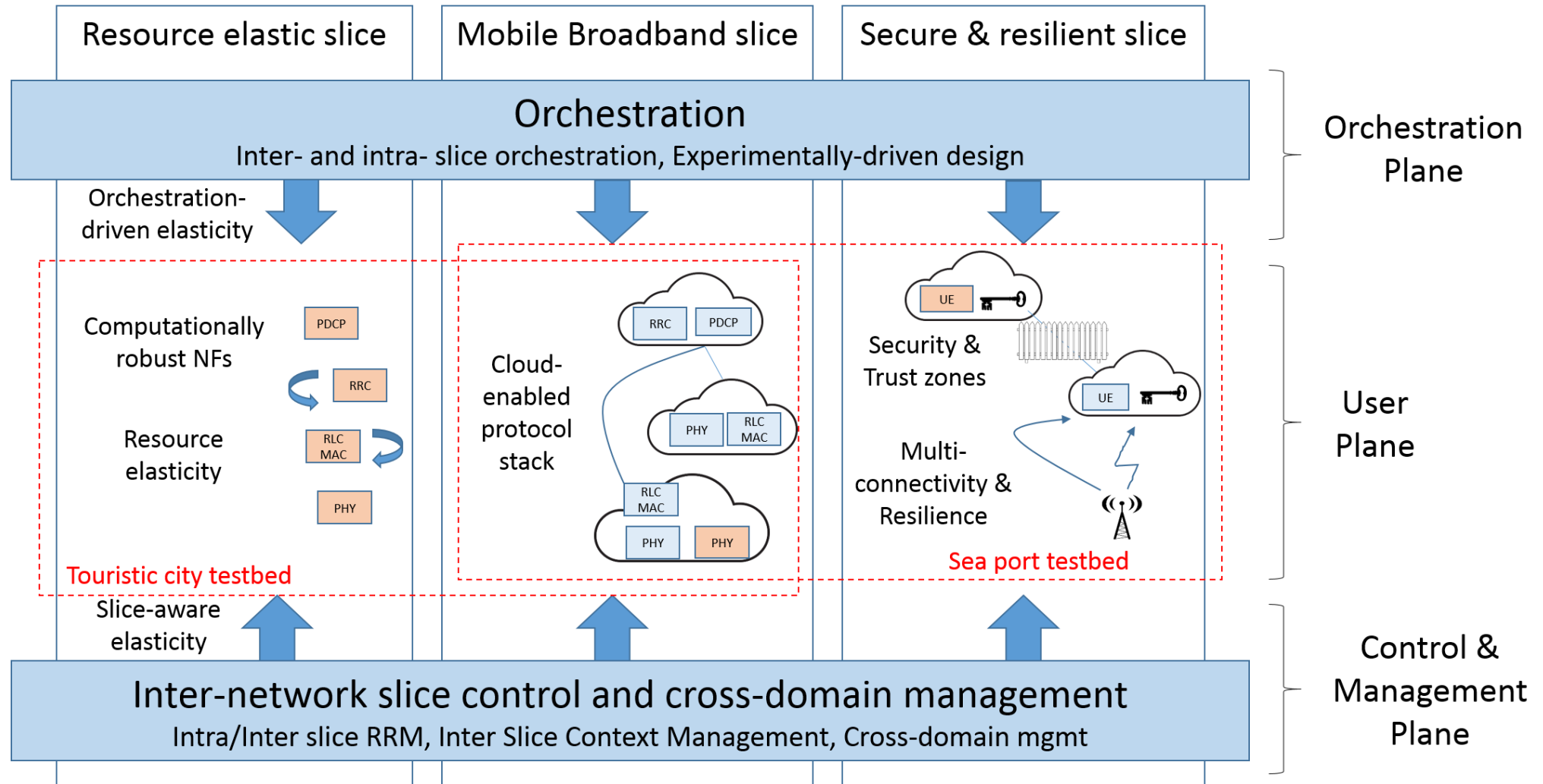
- Vertical industry use case (smart sea port)
- Mobile operator deployment (touristic city)

Impact:

- Commercial potential for enhanced products and novel services
- Paving the way for new market players

Project Overview

Innovations



Project Overview

Testbeds



Smart Sea Port
(Hamburg)

■ Applications

- Traffic light control (cMTC): Traffic lights which are connected through wireless connection; reliable and resilient; data integrity
- Video surveillance (MBB): Video surveillance required to control entrance to areas, current status of areas, etc
- Sensor measurements (mMTC); Sensor measurements on barges which must be connect through wireless terminals

Touristic City
(Venice)

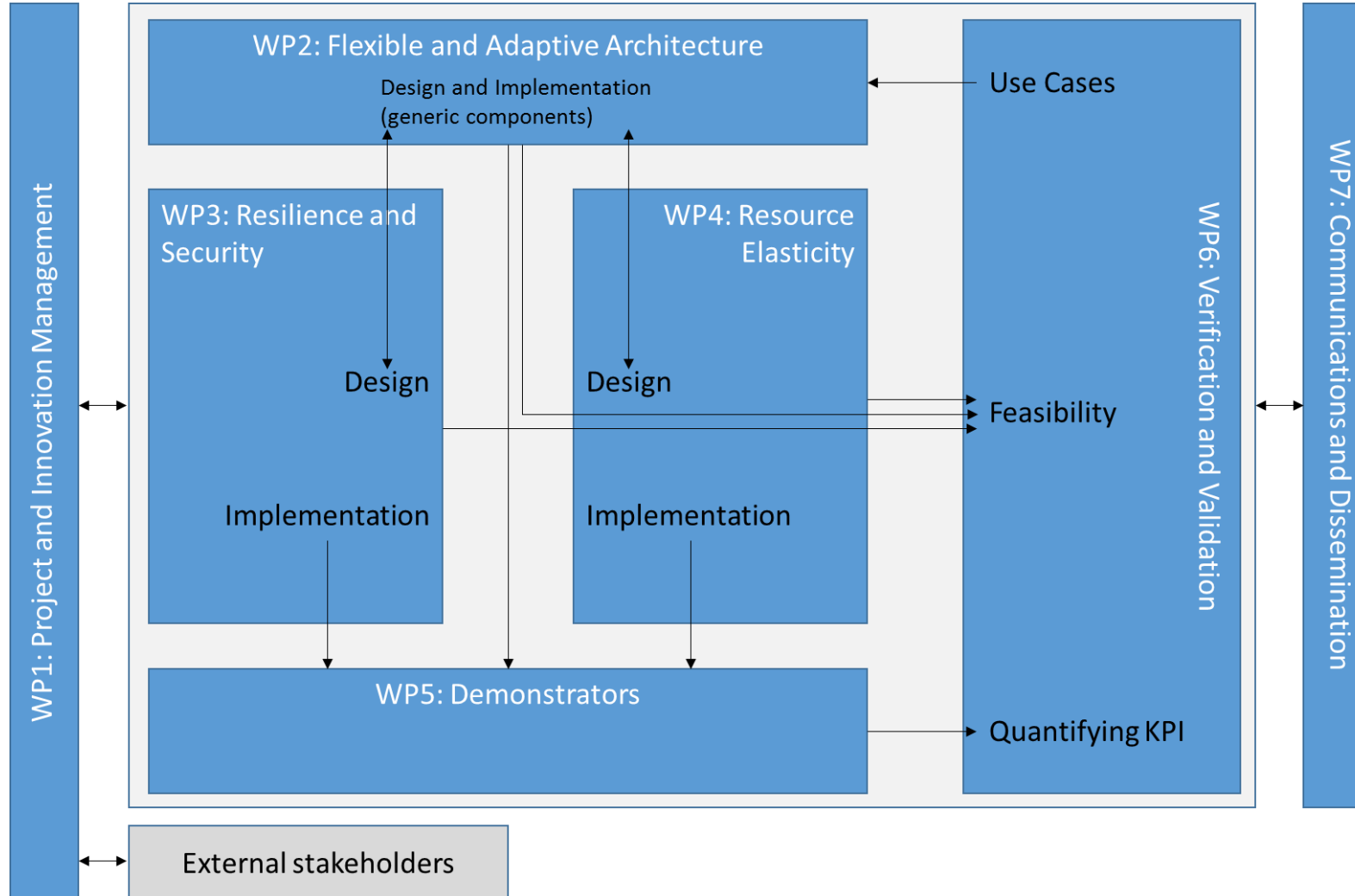


■ Focus areas:

- On-site Live Event Experience by means of VR
- Immersive and Integrated Media: People will see a part of Venice city full of real and imaginary people
- Cooperative Media Production: People will cooperate in real time with imaginary and real people who are feeling the same VR experience.

Project Overview

Project Structure



Project Overview

Key Facts

■ Project Details

- Project runtime: July 2017 – June 2019 (24 Months)
- Leadership team:
 - Coordinator: Nokia Munich (Germany)
 - Technical Management: Universidad Carlos III de Madrid UC3M (Spain)
 - Innovation Management: Deutsche Telekom, Darmstadt / Bonn (Germany)

