5G-EPICENTRE

5G PPP

5G EXPERIMENTATION INFRASTRUCTURE HOSTING CLOUD-NATIVE NETAPPS FOR PUBLIC PROTECTION AND DISASTER RELIEF
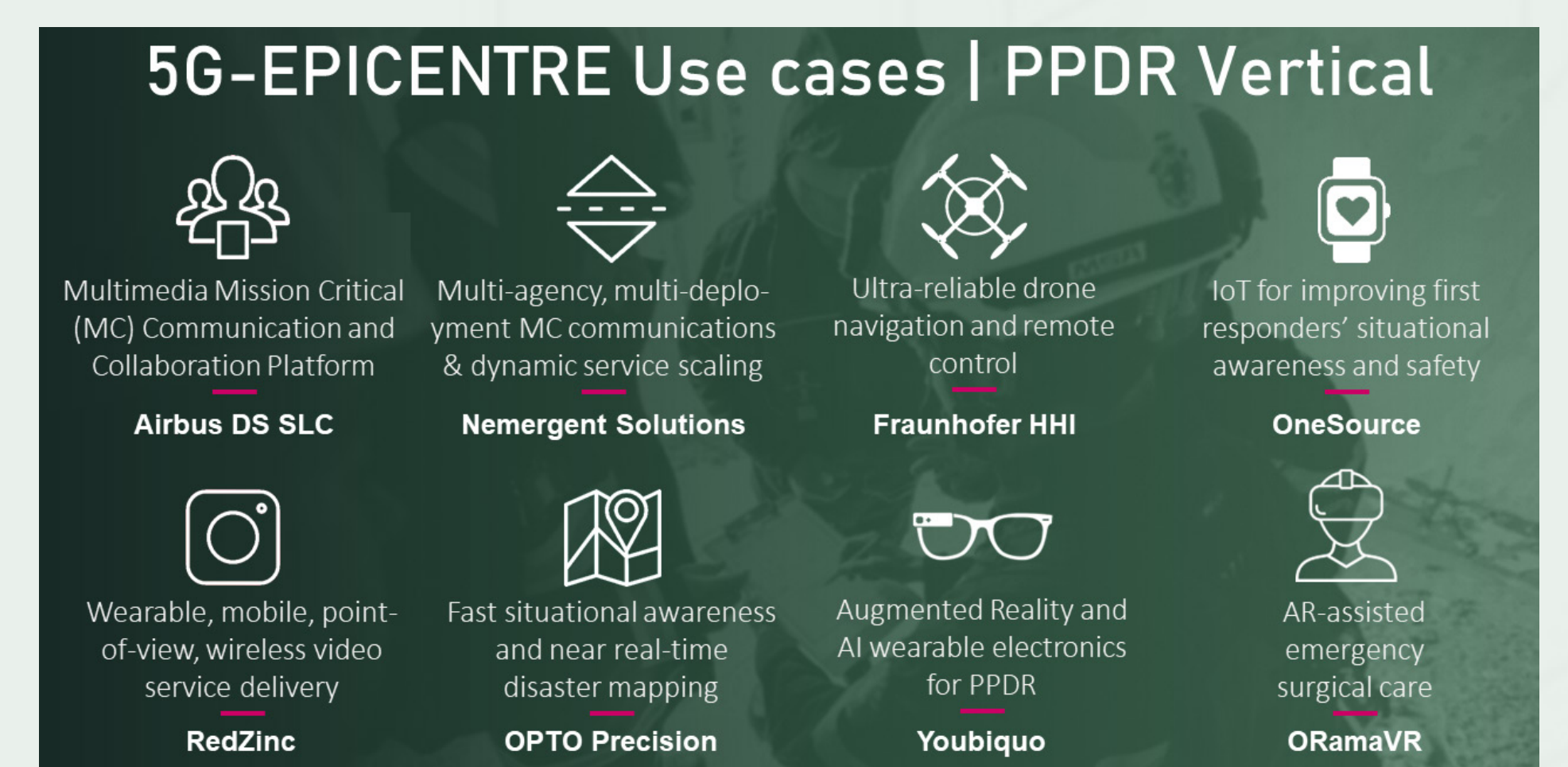
QUALITY OF SERVICE CONTROL MECHANISMS TO SUPPORT PPDR *NETWORK APPLICATIONS* IN 5G AND BEYOND

DEFINITION OF NETWORK APPLICATION UNDER THE SCOPE OF 5G-EPICENTRE

- Set of chained network functions (potentially forming Network Services)

- The combination of Network Services and Network Functions may form complex entities (originating Network Applications)

5G-EPICENTRE USE CASES

- Each UC includes 2+ Network Applications

- PPDR Network Applications acting as trusted Application Functions may interact directly with the 5GC to request specific policies

5G-EPICENTRE Use cases | PPDR Vertical

Multimedia Mission Critical (MC) Communication and Collaboration Platform — **Airbus DS SLC**

Multi-agency, multi-deployment MC communications & dynamic service scaling — **Nemergent Solutions**

Ultra-reliable drone navigation and remote control — **Fraunhofer HHI**

IoT for improving first responders' situational awareness and safety — **OneSource**

Wearable, mobile, point-of-view, wireless video service delivery — **RedZinc**

Fast situational awareness and near real-time disaster mapping — **OPTO Precision**

Augmented Reality and AI wearable electronics for PPDR — **Youbiquo**

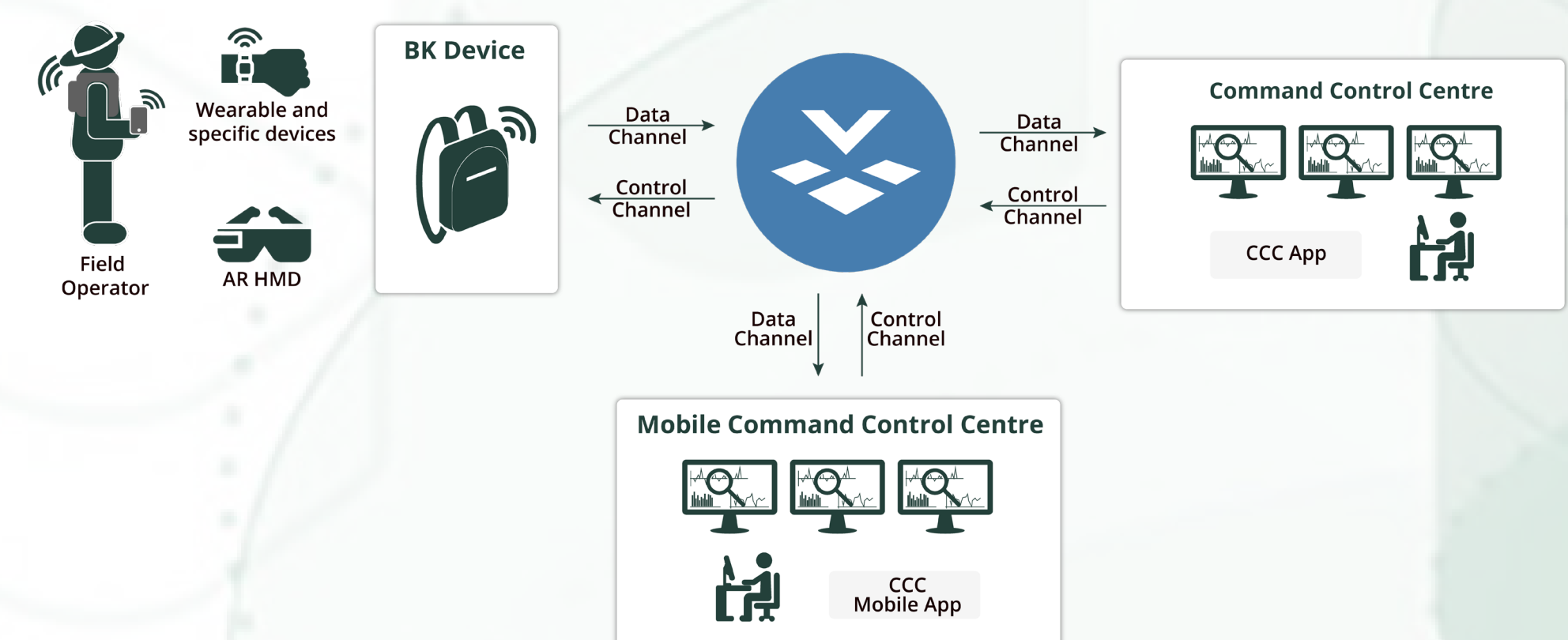AR-assisted emergency surgical care — **ORamaVR**

VICTORIA NETWORK (MÁLAGA TESTBED)

The integration tests were carried out in the Victoria Network testbed located at the University of Málaga. The testbed provides an NSA/SA 5G private network that includes outdoor and indoor coverage.
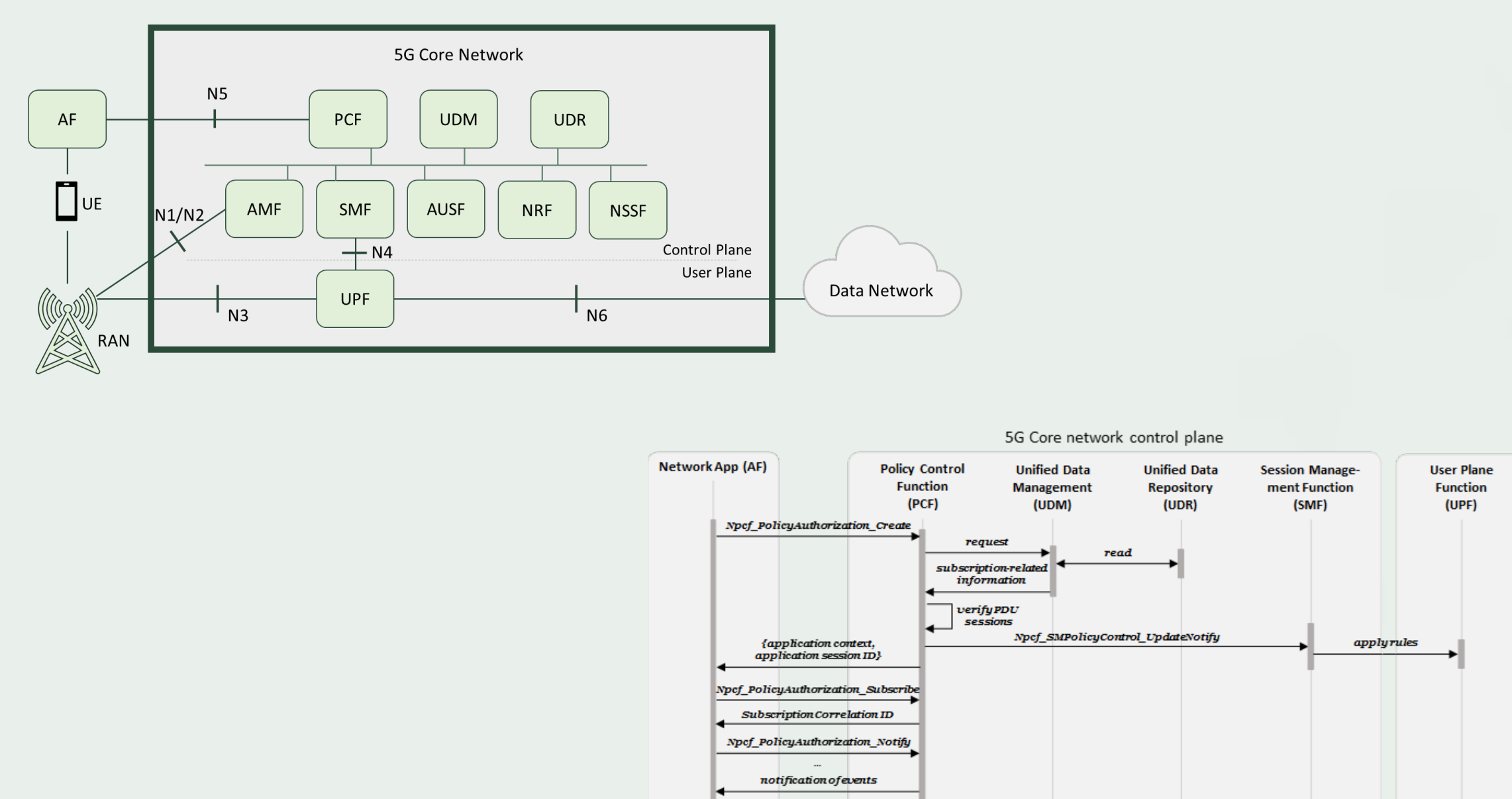

MOBITRUST SITUATIONAL AWARENESS

- Improves safety of first responders in the field

- Reduces the need for human intervention in PPDR decision-making by leveraging IA

- Increases the effectiveness of mission critical operations through MCX services over 5G
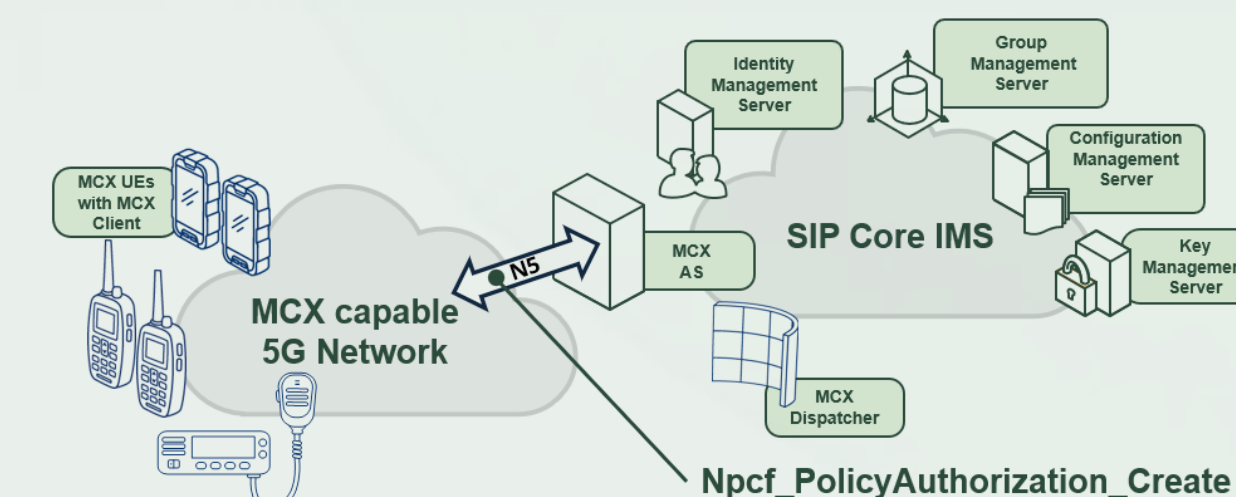

INTERACTION WITH THE 5GC

NEMERGENT OVERALL MCX SOLUTION

- Offers a standardised MCX Client/Server for critical communications in PPDR

- Interacts with the 5G to ensure specific QoS

- Npcf_PolicyAuthorization_Create process is triggered trough N5 when each MCX communication starts

CONSORTIUM

AIRBUS · NOVA · FORTH · eBOS

iq · athonet · altice labs · Fraunhofer HHI

RedZinc · UNIVERSIDAD DE MÁLAGA · nemergent solutions · ORamaVR

CTTC · ONESOURCE · Opto Precision · istella