



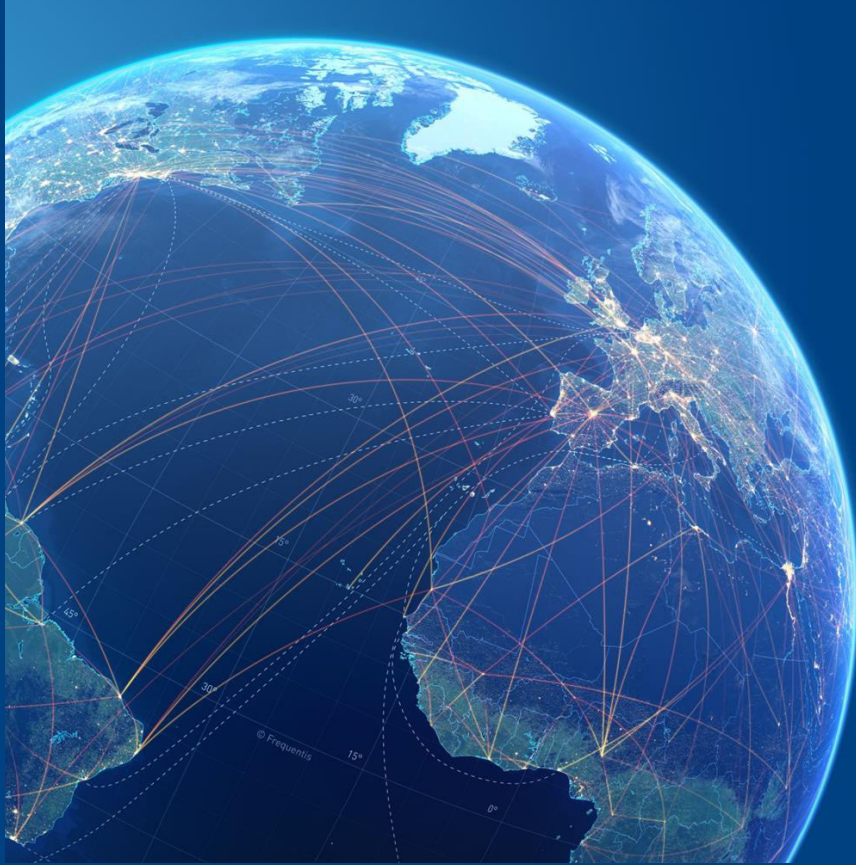
FREQUENTIS

FOR A SAFER WORLD



BroadWay
BroadPort

Mission-critical services
in broadband communication across Europe



FREQUENTIS

FOR A SAFER WORLD



Charlotte Rösener
Programme Manager BroadPort



charlotte.roesener@frequentis.com



www.frequentis.com



<https://at.linkedin.com/company/frequentis>

Our journey in accessing to new ways of safety-critical communication

The BroadPort consortium: Gathering a team that is unique in its expertise

Growing: 13 organisations in phase 2



Mobiles & apps

Mobile operation. NWs

Mission critical services

Domain know how

Dispatching solutions

Access & legacy NWs



Gathering a team that is unique in its expertise



10/19

Phase 1: Design

Phase 2

+
more
info

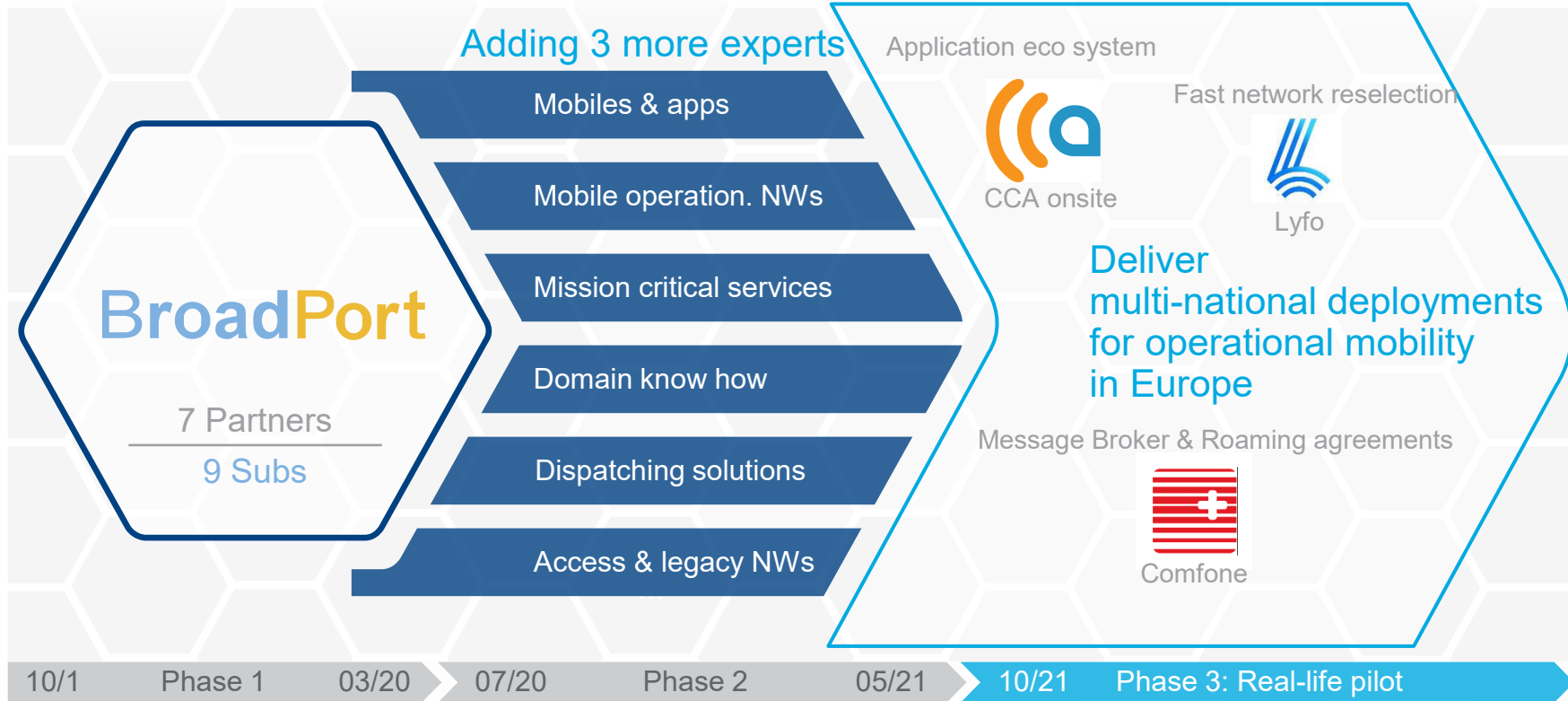
Our journey in accessing to new ways of safety-critical communication

The BroadPort consortium in phase 2: Gathering a team that is unique in its expertise



Our journey in accessing to new ways of safety-critical communication

The BroadPort consortium: Gathering a team that is unique in its expertise



+ more info

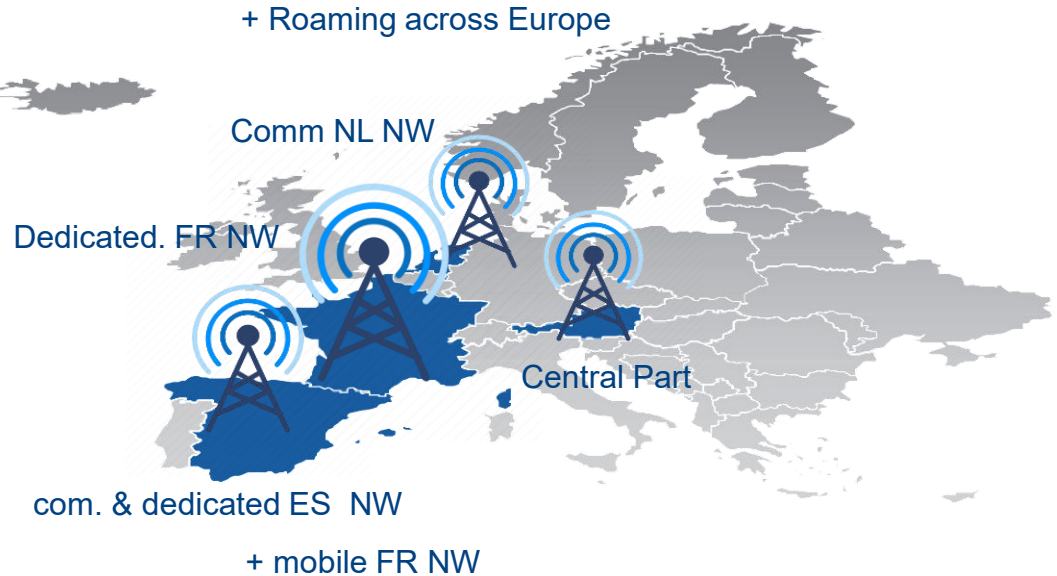
Covering four countries
(Spain, France, NL, Austria)

Dedicated network and
overlay networks including
satellite backhaul network

Integration of TETRA legacy
networks

Relying on SpiceNet architecture

Phase 2: A concept is coming to live!
in only 8 months



Prototype demonstration

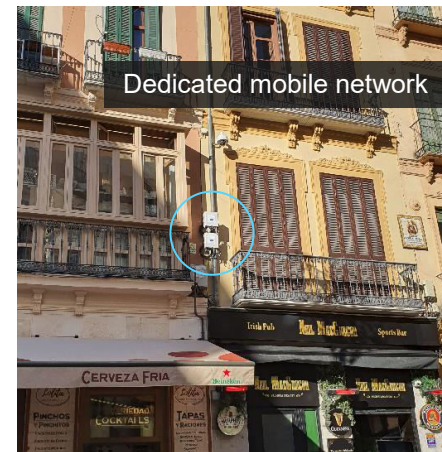
April 2021

Technical set up

- 32 test cases with 4 LTE networks across EU tested at University
- 16 test cases repeated in LTE setup Malaga city (with commercials Users) together with 2 LTE more Network roamers (French and Dutch)



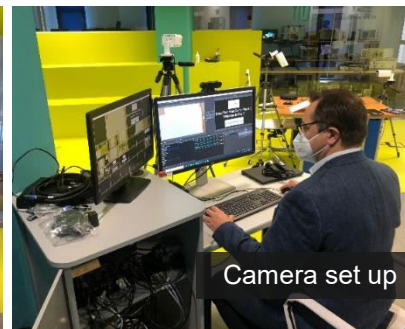
Field tests



Dedicated mobile network



Lab test



Camera set up

Phase 2's most important inheritance +

What's new:

Phase 3: The challenge is on! Moving to live systems within 6 months



- ✓ Hardening of overall BroadPort solution – TRL increment

Operational Mobility and Interoperability

- ✓ Support of cross-connection with Airbus Consortium
- ✓ Roaming agreement with Telefonica Spain and T-Mobile NL for users (SIMs) of private networks
- ✓ Enhanced cross-MNO handovers - Lyfo.net solution included

Application ecosystem and integration (also 3rd party) solutions

- ✓ Integration of Incident Management System - CCA integration of MCX rights management
- ✓ Extended integration of Control Room - Local and remote LifeX added
- ✓ Extended & New EMM for better remote management and analysis

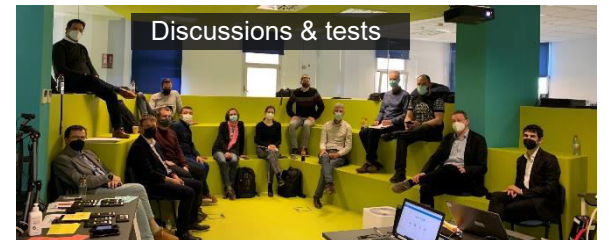
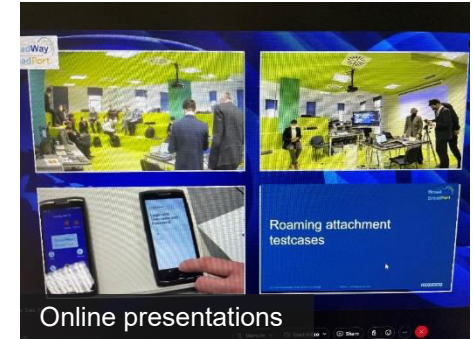


Preparations for TVC in March 2022

- ✓ 5 weeks preparation incl. onsite in Malaga
- ✓ 104 Test Cases in total in phase 3
74 executed in validation before

Involved consortium members & TVC

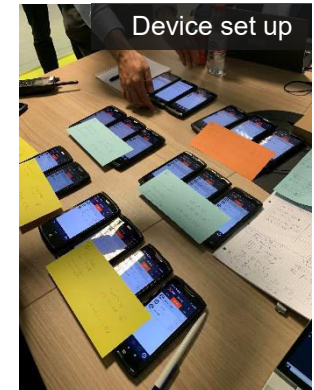
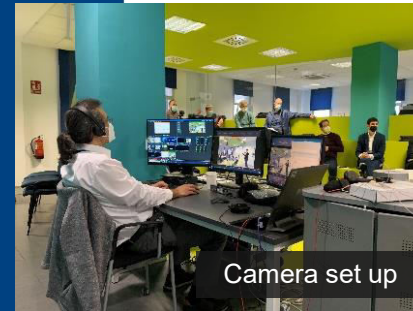
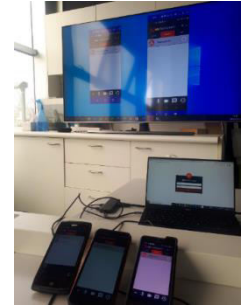
- ✓ Consortium members: 10 on site – 11 remote
- ✓ TVC Participants: 12 onsite – 12 remote



Pilot systems: Technical validation & demonstration

March 2022

- ✓ 40 Testcases accomplished + repeated on 3rd day (training)
- ✓ 3 Topic-related presentations
- ✓ 3h System Overview & Detail (Workshops)
- ✓ 2h Trainings for TVC & 3h out door trails

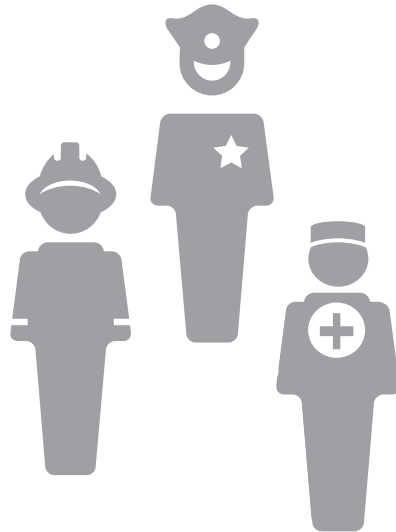


The success story of BroadWay will continue...

The live Pan-European mission critical broadband solutions will be under operational trails in June/ July 2022

3 Use cases

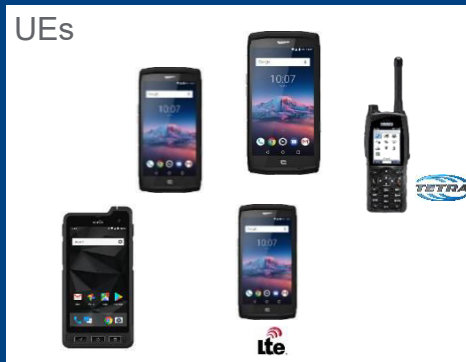
- Forest Fire
- Drug chase
- Ferry Fire



50 First responders across Europe

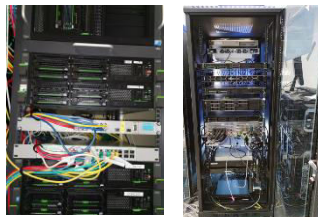
- Will receive devices and trainings
- At several European locations: 3 main sites plus several supporting sites across Europe
- Following operational trails using the live communication systems themselves
- Evaluating the solutions regarding the several goals of the BroadWay project

The live systems



Hardware

NFVI and routing



Dispatcher



Software

MCS system	EPC
nemergent solutions	Halys
Special mobile apps	Dispatcher
cc	FREQUENTIS
IPX intersite routing + roaming	
pfsense	comfone
LTE via Sat	LTE / TETRA radio
eutelsat	telm
Fast Network handover	Network analyzer
Lyfo	WIRESHARK
MNO + sVMNO + EPC	
PrioCom <small>The Mission Critical Service Provider</small>	T-Mobile
	Telefonica <small>Telefonica Investigación y Desarrollo</small>
	FREQUENTIS

The major functions & capabilities of live system



- ✓ Interoperability / cross connecting with foreign solutions (Airbus)
- ✓ Audio / Video Group Calls across authorities and countries including chat, with late entry, emergency and reconnect when network reselect – also in cross connecting
- ✓ Access of specific data from anywhere in Europe (3rd party sources like drone video streams) and extended application eco system
- ✓ Fully standardised and certified systems, that are reliable (e.g. redundant, secure...) and interoperable – including TRL8
- ✓ Extending operational mobility, where user of dedicated networks can roam into commercial solutions in foreign countries
- ✓ Integration of Satellite- and TETRA networks together with mobile setup LTE (dedicated network can be moved to another country)
- ✓ Using (EMM managed) tablets, handhelds with various apps (communication, DB access, incident management).
- ✓ System maturity and scalability increased

BroadNet

will change
pan-European
operations
profoundly



The lessons we have learned in past 2.5 years on operational mobility:

- ✓ Standardisation is key for interoperability and eventually mobility – especially 3GPP MCS: certification is needed.
- ✓ The usage of different LTE/5G networks (dedicated/ comm) with roaming and handover are no obstacle.
- ✓ Organisational and legal framework for this pan-European system needs to be shaped.

→ **The technical path to BroadNet is paved!**

FREQUENTIS

FOR A SAFER WORLD

BroadWay

BroadPort

Let's talk



Charlotte Rösener
Programme Manager

charlotte.roesener@frequentis.com

