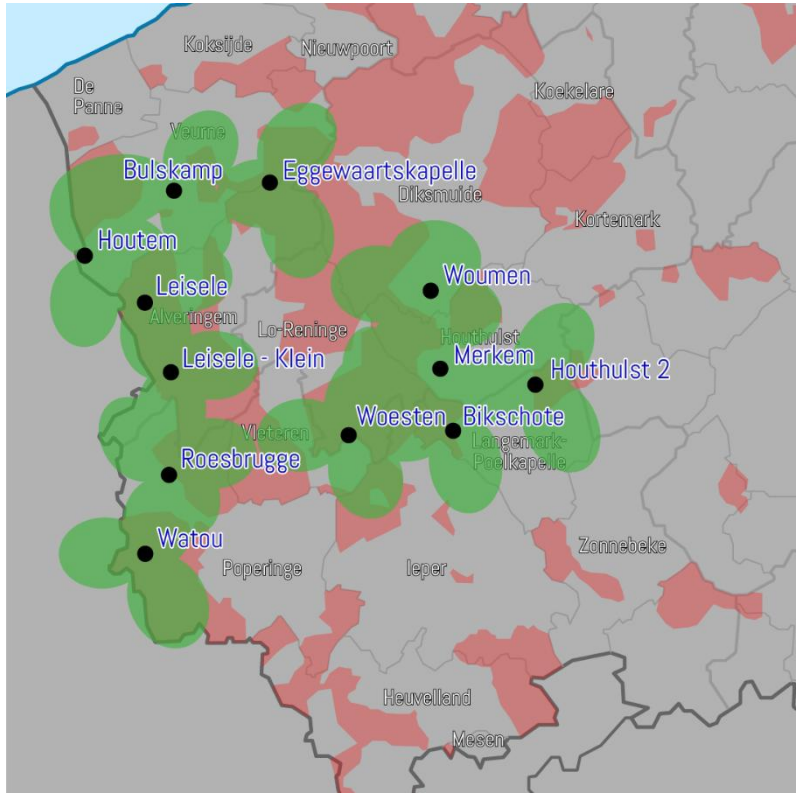
Digitally unlocking « Westhoek » by realizing 5G SA

New 5G SA Infrastructure is being installed



Simulation of possible blind spot coverage with 12 sites
Final location and coverage is subject of the ongoing site surveys

Flanders Smart Fields network :

- 12 sites to cover maximum of “blind spots”
- 5G Standalone Mobile Private Network
- Seamless roaming with public operators
- Deployment 2024 – 2025
- Field testing is very positive

Some technical details

The 5G SA network infrastructure contains the following advanced characteristics (not available on 4G or wifi) :

- uRLLC ultra-reliability & Low Latency Communication
- eMBB enhanced Mobile BroadBand : high bandwidth for streaming video, HD Upload
- MCPTT : mission-critical push-to-talk; also for first responders & other emergency teams connected
- Network slicing (more details in the deck by Stefaan later)
- IoT-layer : support for Internet of Things connectivity (eg. a.o. headset; 360° view camera, lidar, radar, …)

The goal :

- Development of reliable communication between the remote operator control center and the semi-autonomous / automated ship. The preciseness & stability of the communication channels are important, as the ship is managed and steered remotely, from a distance (> 100 km's away).
- Compare 4G/LTE with / versus 5G SA uRLLC-component (ultra-Reliable Low Latency Communication).
- Compare 4G operator / VHF / satellite communication (current set up before this project) en operability (costs, easiness, control, legal, ...) with technical capabilities (Availability, Latency & Cyber security) of 5G SA
- Proof that 5G SA connectivity can support all ways of network traffic (inclusive business critical); and become an enabler for deployment and adaptation of semi-autonomous transport over the water ways.

Full flow ‘PIT’

0. PIT-care worker needs advice during PIT-intervention

1. PIT-care worker starts call

2. Call request calls in hospital

3. Doctor accepts call & livestream starts

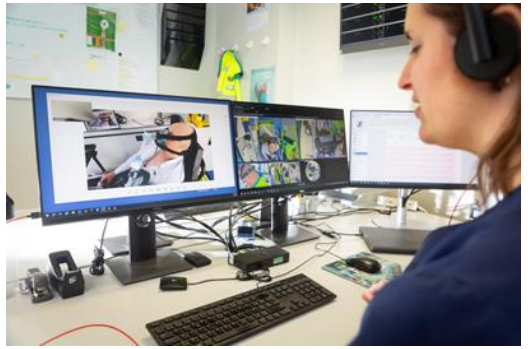
4. Acceptance call accepted in PIT

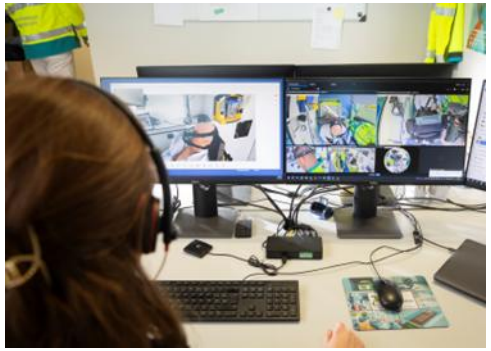
5. Remote assistance is given

6. PIT-care worker closes call

- PIT care worker accepts via button on smartglasses

- Audiovisual connection between doctor & PIT care worker; advice is given





Full flow ‘Improved Care : from injection, pick-up to analysis’

0. Patient → 1. **Blood sample** → 2. Check-in → 3. Flight → 4. Landing → 5. Check-out → 6. Analysis