

# 5G-HEART Newsletter

30<sup>th</sup> November 2022  
Issue No.11

## 5G HEART

5G Health, Aquaculture and Transport  
Validation Trials

Project website: <https://5gheart.org/>

## INSIDE THIS ISSUE

1. 5G-HEART Final Event
2. Vertical trials overview presentations
3. Final event demonstrations
4. Summary

### Follow us on social media!

Facebook: [5gheart](#)

LinkedIn: [5G-HEART EU Project](#)

Twitter: [@5gheart](#)

YouTube: [5GHEART](#)



## 1. 5G-HEART Final Event

The 5G-HEART project organised a public Final Event in Oulu, Finland on 17 November 2022. During the past 42 months, the 5G-HEART project has developed and executed large-scale vertical trials on top of European 5G test facilities focusing on the specific needs of innovative digital services from the healthcare, transport and aquaculture vertical industries. The Final Event presented technical results and key findings from the 5G trials conducted during the project by demonstrating and introducing over 20 specific use case scenarios from targeted vertical domains.

The day was divided into three special sessions, each focusing on one of the project's target verticals. The first half of each vertical specific session was dedicated to an overview presentation that summarised the key trialling activities performed during the project and highlighted selected vertical use cases with demonstrations on the main stage. The second half of each vertical specific session was dedicated to more informal discussions and networking as the Final Event audience visited the project's demo booths and discussed in more detail with the research groups that conducted the trials during the project.

This issue of the 5G-HEART Newsletter provides an overview of the 5G-HEART Final Event agenda and guides the interested readers to additional results materials presented and published during the event.

## 2. Vertical trials overview presentations

The overall agenda for the Final Event day was divided into vertical specific sessions. Each vertical sessions comprised of two parts as follow:

1. Healthcare vertical session:
  - A. Healthcare trials overview presentations at the main stage
  - B. Healthcare demonstrations at the booths
2. Transport vertical session:
  - A. Transport trials overview presentations at the main stage
  - B. Transport demonstrations at the booths
3. Aquaculture vertical session:
  - A. Aquaculture trials overview presentations at the main stage
  - B. Aquaculture demonstrations at the booths

The main stage presentation starting each session provided an overview of the trialling efforts carried out in the different verticals throughout the project. The presentations also highlighted specific vertical use case trial results that were presented in more detail at the booths.



To accompany the information provided in the vertical trials overview presentations, the project prepared and published videos, which provide a high-level summary of the 5G-HEART vertical use cases and trials. The prepared vertical overview videos are titled “5G for healthcare”, “5G for transport” and “5G for aquaculture”, and can be found under the vertical overview videos subsections at the 5G-HEART website at <https://5gheart.org/dissemination/videos/>.

The 5G-HEART Key Results booklet was also prepared and used as a handout in the Final Event. The booklet contains short introductions to the 5G-HEART project and its three target verticals as well as selected result highlights from 26 different trial scenarios. As a standalone document, the booklet provides only an introduction to the 5G-HEART trials results and full details are available in the project’s technical deliverables. The 5G-HEART Key Results booklet is available in a digital format at the 5G-HEART website at <https://5gheart.org/dissemination/key-results-booklet/>.

### 3. Final event demonstrations

In addition to the main stage presentations, a number of booth presentations were set up at the 5G-HEART Final Event venue. The participants of the Final Event were able to visit the booths during the second half of each vertical specific session and discuss with the research teams presenting the demonstrations and trial results at the booths.

The booths included variety of result materials ranging from live demonstrations and demonstration videos to slide and poster presentations from each featured vertical use case. Majority of the demonstration videos can also be found under the vertical specific subsections at the 5G-HEART website at <https://5gheart.org/dissemination/videos/>.

#### Healthcare demonstrations

The 5G-HEART Final Event booths featured demonstrations and trial results from the following healthcare vertical sub-use cases:

- H1A - Educational surgery
- H1B - Remote ultrasound
- H1C - Paramedic support
- H1D - Critical health event
- H2A - Automatic pill camera anomaly detection



## Transport demonstrations

The 5G-HEART Final Event booths featured demonstrations and trial results from the following transport vertical scenarios:

- T2S1 - Smart junctions and network assisted & cooperative collision avoidance (CoCa) - Trial track
- T2S2 - Smart junctions and network assisted & cooperative collision avoidance (CoCa) - Simulation track
- T2S3 - Quality of service (QoS) for advanced driving
- T2S4 - Human tachograph
- T3S1 - Tele-operated support (TeSo)
- T4S1 - Vehicle prognostics
- T4S2 - Over-the-air (OTA) updates
- T4S4 - Location based advertising
- T4S5 - End-to-end (E2E) slicing
- T4S6 - Vehicle sourced high-definition (HD) mapping
- T4S7 - Environmental services



## Aquaculture demonstrations

The 5G-HEART Final Event booths featured demonstrations and trial results from the following aquaculture vertical scenarios:

- Greek aquaculture trials
- Norwegian aquaculture trials
- Aquaculture site surveillance
- Network performance monitoring



## **4. Summary**

This issue of the 5G-HEART Newsletter focused on the public 5G-HEART Final Event held 17 November 2022 in Oulu, Finland, and provided a short overview of the day and its contents. This issue of the newsletter also contained links to additional project results materials in the form of the 5G-HEART Key Results booklet and vertical overview videos.