



- ❖ **5GRAIL** started on the 1st of November 2020, and will finalise on the 31 October 2023.
- ❖ 5GRail consortium is working on prototyping the entire FRMCS ecosystem by developing and testing the first prototypes based on the **first set of FRMCS specifications, included in the CCS – TSI2022.**
- ❖ **First prototypes of the On Board FRMCS are available, including FRMCS 1900 MHz modules and other 5G frequencies enabled ones, currently in Lab Testing phase.**

### 5GRAIL consortium

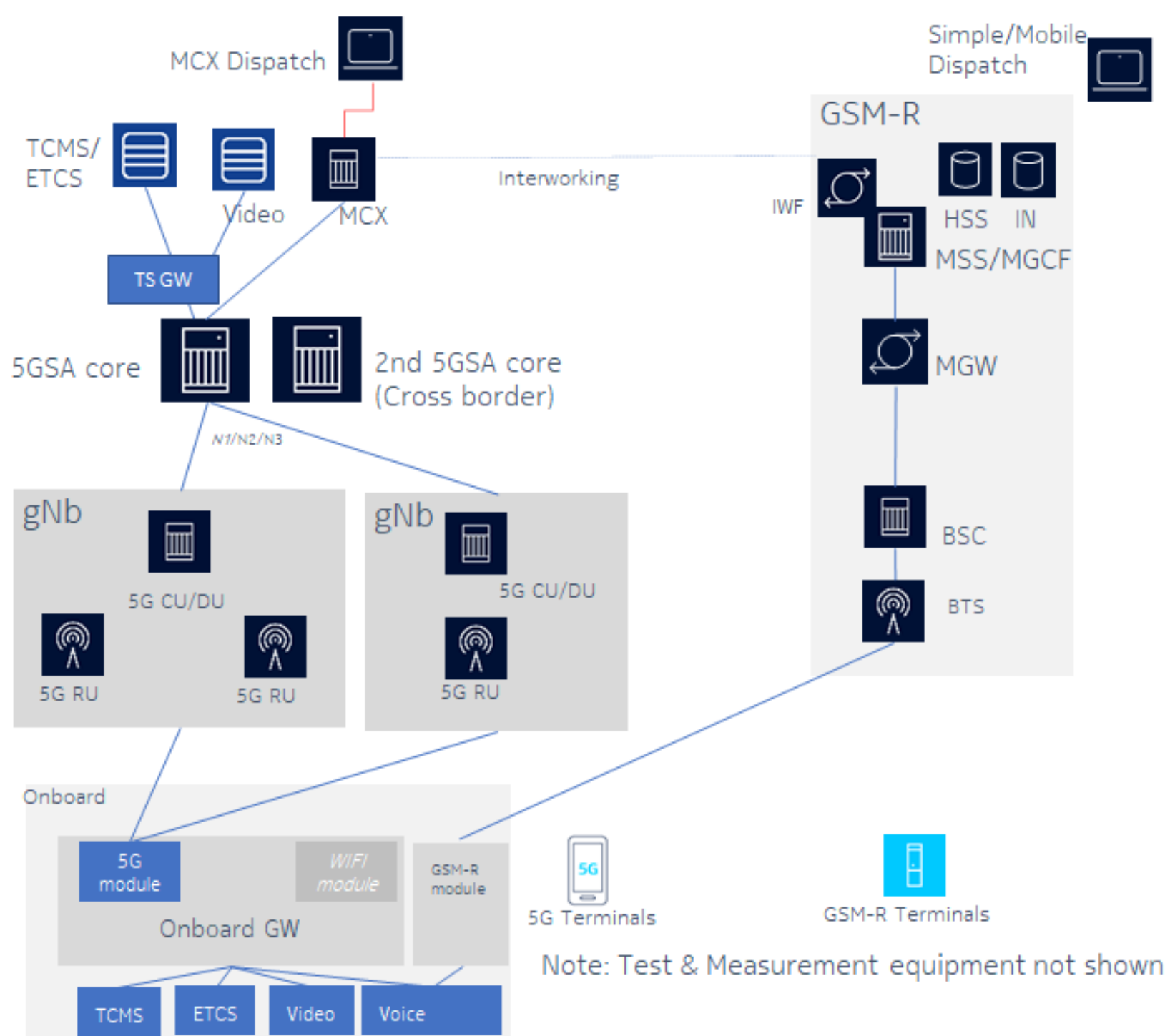


This project has received funding from the European Union's Horizon 2020 research and innovation program, under grant agreement No 951725.

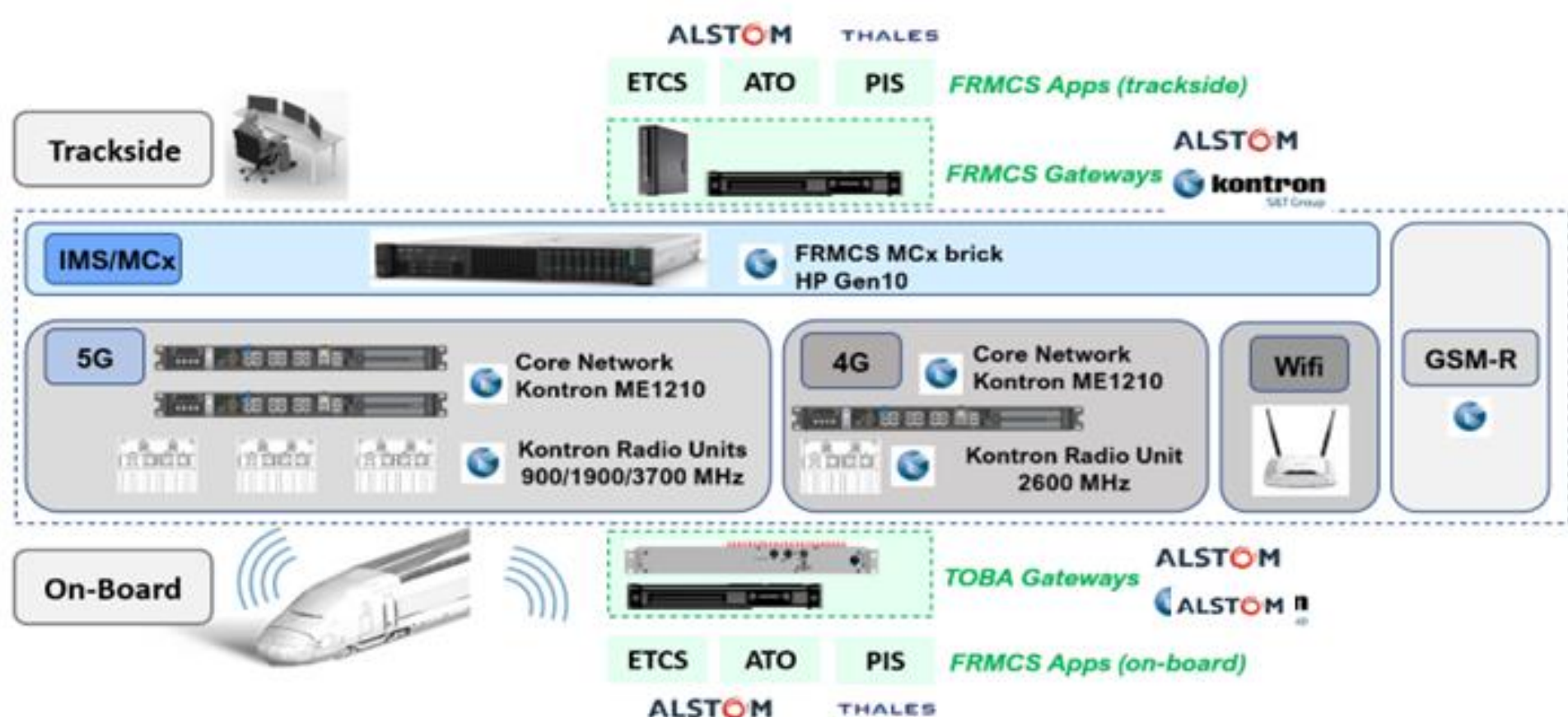


Visit us on: <https://www.5grail.eu>

### 5G FRMCS lab hosted by Nokia (Hungary)



### 5G FRMCS lab hosted by Kontron (France)



# POSTER SESSION

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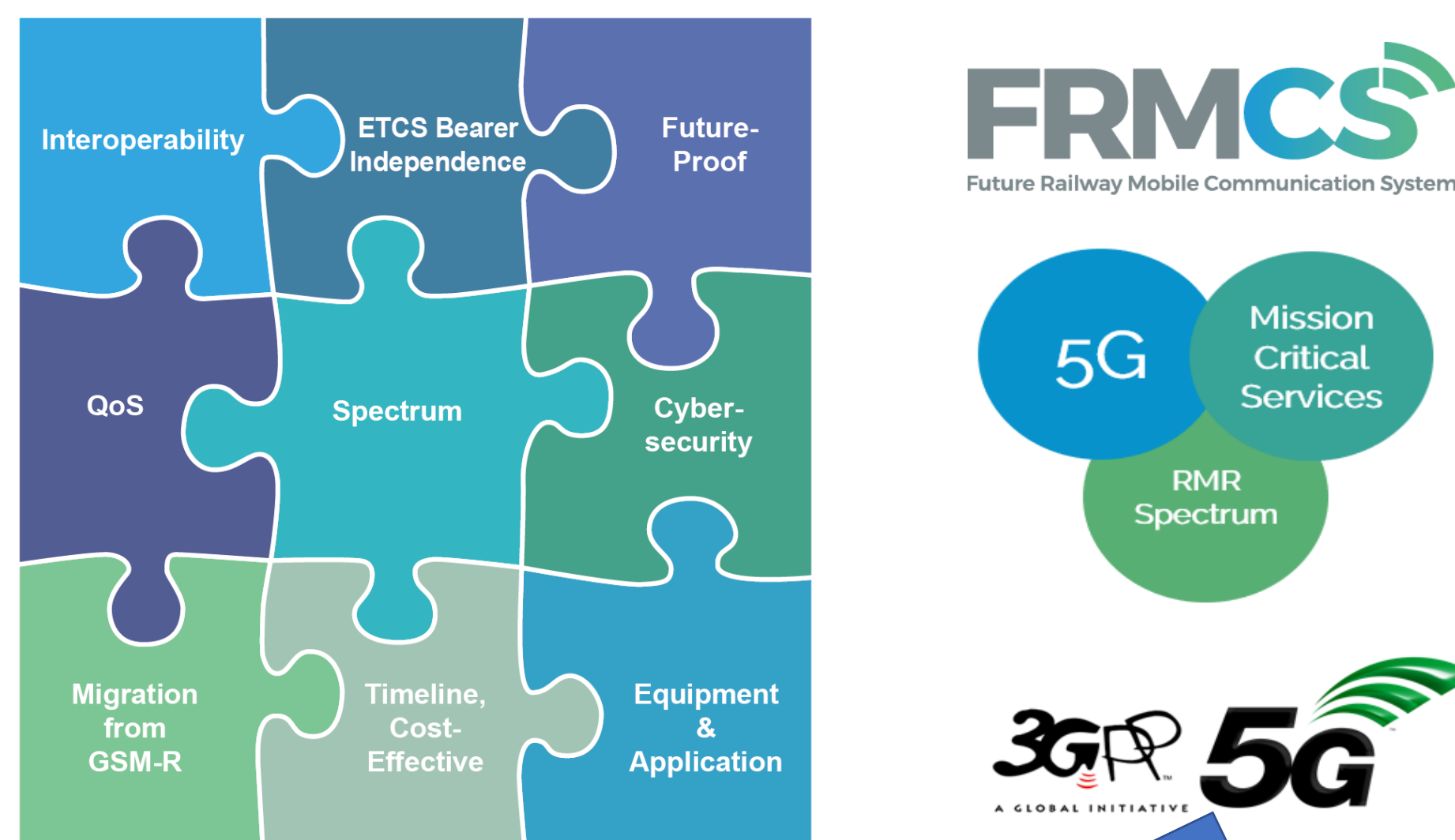
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## 5GRAIL paves the way to the Future Railway Mobile Communication System Introduction

FRMCS answers to the following elements of strategic importance for the future of the railways:

- **Obsolescence of GSM-R system** (based on 2G radio technology), which is a key component of the European Railway Traffic Management System (ERTMS), a long-life successful border-crossing interoperable system. It supports critical applications, deployed on more than 120.000Km in Europe and 250.000 worldwide.
- **Being a 5G technology, it is an enabler of Railways Digitalization**, answering to an ever-increasing need of transmitting and receiving increasing amounts of data, supporting introduction of ATO, On Board Video, Intelligent infrastructure, Preventative maintenance, etc.
- **5GRAIL is a critical step of FRMCS introduction**, delivering prototypes especially for On-Board, tested in Lab and Field.



### FRMCS challenges



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