WHO WE ARE

- **Ineco** is a Spanish transport consultancy and engineering firm leaders in specialised ERTMS technical consultancy .
- **CEDEX** is the research body of the Spanish Publick Works and Transportation Office and holds the laboratory of Railway Interoperability.
- **MULTITEL** is a Belgian research centre highly specialised in railway activities.
- **RFI** is the infrastructure manager and owner of the Italian rail network.
- **ADIF** is the Spanish railway infrastructure manager.
- **RENFE** is the main Spanish railway operator for freight and passenger services.
- **Cetren** is the Spanish Notified Body, focused on promoting and protecting railway as a means of transport.
- **RINA** is the Italian Notified Body, in charge of certification, inspection and testing services
- **Belgorail** is a Certification Entity and Notified Body, established in order to cover the need for regulatory and voluntary certification in the railway field.
- **Oltis Group** is a Czech private group of specialized software companies mainly focused to supply services in the field of information technologies for transport and logistics.
- **DICEA** is the civil, construction and environmental department of the Sapienza University of Rome.

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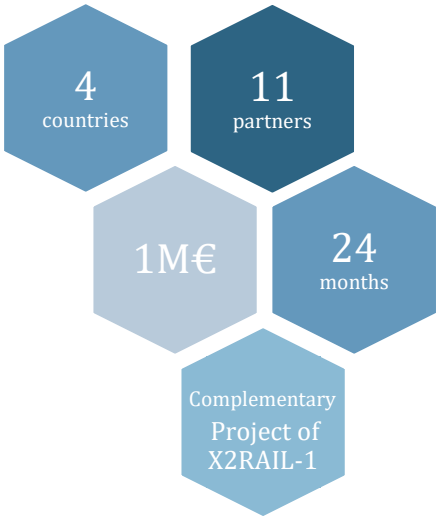
VITE

IT Virtualisation of theTesting Environment

TOWARDS A NEW TEST ENVIRONMENT

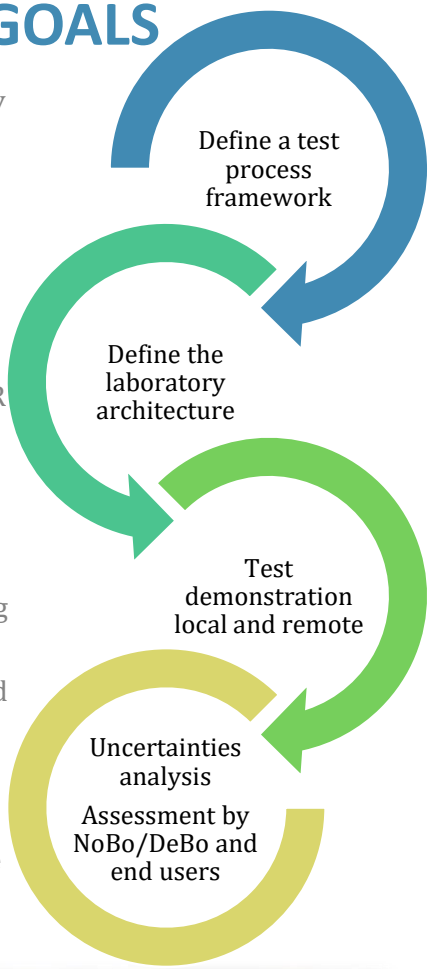
Funded by the EU Framework Programme for Research and Innovation Horizon 2020 and with the supervision of the Shift2Rail JU, the **VITE** project was launched 1st Nov 2016.



The main objective of **VITE** is to reduce the onsite testing by proving the cost-effectiveness of a baseline-independent testing strategy that will speed up the placing in service of **ERTMS** subsystems by means of performing virtual lab tests to check the interoperability, offering improved functionalities and reducing costs.

MAIN GOALS

To achieve the main objective of reducing on-site testing the work is organized in two main streams:
First, to propose a testing framework by carefully analysing user's needs and current situation and from there building a process that can be accepted by all railway stakeholders who will be able to perform as many tests as possible in the lab. An analysis of uncertainties and a simulation of GSM-R QoS as well as a proposed methodology for test protocols optimisation will also be addressed.
Secondly, to propose a standard architecture for the lab testing including the interface specifications for both the connection between real equipment and the lab tools as for the connection between different labs for remote testing. This architecture will be developed together with some software tools that will help to automate lab testing.



WHAT DO WE EXPECT TO ACHIEVE

The expected impact of VITE is to significantly contribute to the development of a Zero on-site testing environment.

The research is mainly focused on demonstrating the feasibility of executing the **ETCS** tests in a lab as well as the validity of these tests to speed up the process of placing in service a new train/line. Therefore the resulting impact will be the reduction of tests to place in service new lines and trains, the reduction and simplification of tests to upgrade or migrate an existing **ETCS** line or train, and the possibility of a neutral assessment of the interoperability or backwards compatibility issues that will appear in the future **ETCS** deployment.