



INTERNATIONAL UNION
OF RAILWAYS

DIGIM II : CONNECTED LEVEL CROSSING

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Chief Digital Officer

DIGIM II

DIGIM II project was launched in 2019

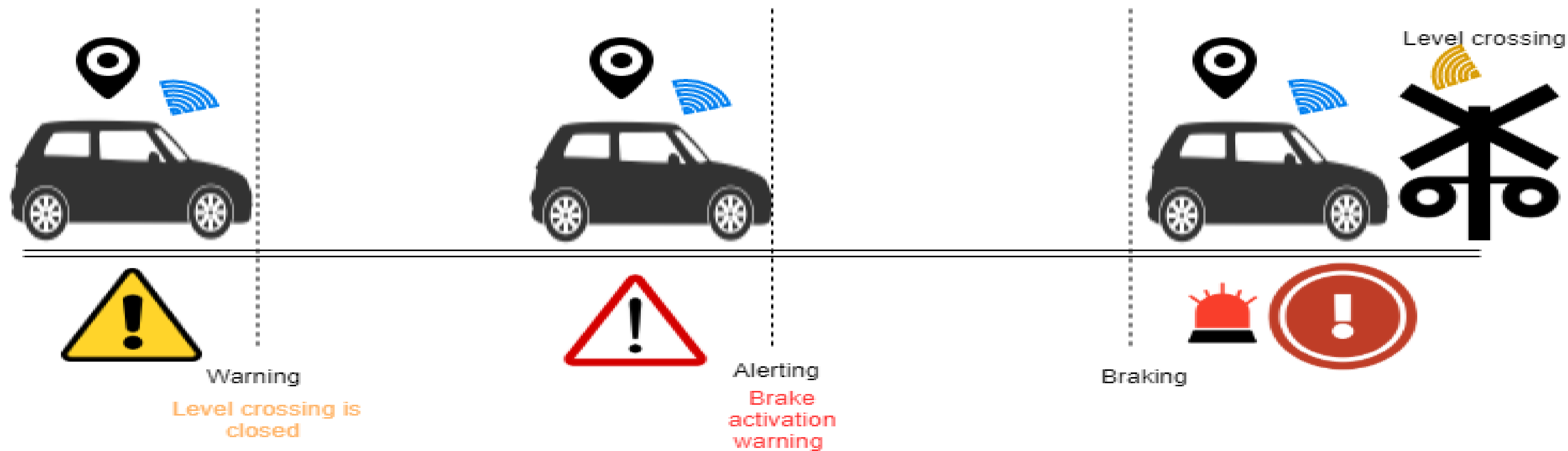
The eight participating members: SNCF, SBB, Network Rail, RAI, Via Rail Canada, Ferrovie dello Stato Italiane, CARS and Infraestruturas de Portugal and partnership with Dassault Systèmes.

The aim of the project is to improve safety and efficiency at level crossings by designing a **proof of concept** to connect level crossings to the surrounding cars.

Introduction

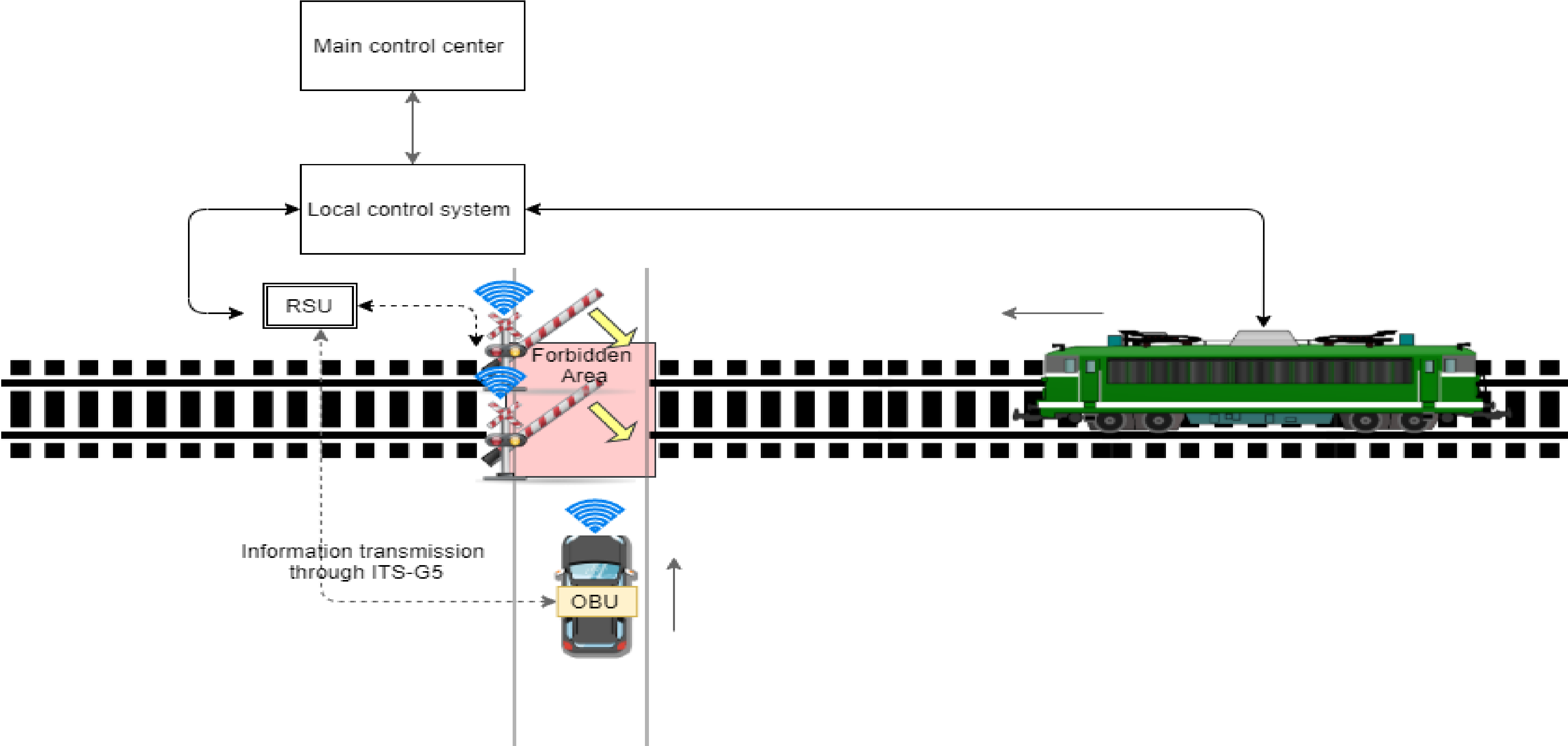
In this project, level crossings will be connected to the surrounding cars to transmit them the level crossing's status.

If no action or insufficient action is taken by the driver in case of a closed level crossing, the car will take control of the system, slow down the car and stop the car safely before the barrier.



Introduction

The aim of this POC is to design the concept and to evaluate it by simulating in the 3Dexperience software.



Scenario overview developed with DASSAULT SYSTEMES

Phase 1: Innovation Portfolio Ideation → New feature regarding Railway Crossing.

Phase 2: Conceptual Architecture Definition → Concept definition and development regarding the new feature.

Phase 3: Sub-systems & components development → Associated model for such new feature (i.e.: software).

Phase 4: Continuous Integration & Validation → Integrate & Test to validate the new system.

Project progresses until now

The following items have been achieved:

- Stakeholders identification
- General POC requirements definition
- Concept definition and Safety Analysis
- Requirements simulation in STIMULUS software

Concept definition

And now the Dassault Systèmes team are designing the new concept in the 3DEXPERIENCE simulation software.



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