

GATE4RAIL 1ST ADVISORY BOARD MEETING

Gate4Rail 1st Advisory Board was held on the 15th October through a virtual conference instead of physical meeting as it was planned in the Grant Agreement, due to sanitary crisis of Covid-19. Main representatives of complementary projects X2Rail-2 and X2Rail-3 (THALES, SZDC, CEIT and HITACHI) together with GATE4RAIL's Project Officer and IP2 Programme Manager from Shift2Rail JU participated in conference call.

The conference call was mainly dedicated to the presentation of Gate4Rail's framework and its preliminary results/achievements and it was divided in two parts related to the two workstreams of the project. The first part of the conference call was mainly dedicated to the work packages linked with the satellite train positioning and the second part to the zero on-site-testing activity.

Alessandro Neri as coordinator of Gate4Rail presented the project overview highlighting the main goal of the project "Provision of a LABORATORY TEST ARCHITECTURE capable of simulating railway scenarios for GNSS based ERTMS applications by integrating different simulation blocks and by defining their interfaces in order to cover a global simulation chain" and explaining main objectives, impact, concepts and interactions of the project.

During the first part of the conference call related to the satellite train positioning workstream, Alessia Vennarini reported the methodology followed for scenario and test case definition, Andrea Coluccia presented the SYSTEM LEVEL ARCHITECTURE (SLA) demonstration process focusing on the phases already finished and on-going (design and implementation) and finally Juliette Marais showed the work done and results of the developed tools for GNSS errors simulation.

Olivier Desenfans introduced the foundations and methodology followed for Automated Update of Test Environment and Continuous Integration, Automated Test Repetition and Evaluation. He concluded that ARCADIA/CAPELLA and GitLAB were the most suitable approaches for the project after explaining the criteria used on the benchmarks of the state-of-art done for both activities. He informed that further demonstration will be performed with the platform using as a bases some identified use cases.

Gate4Rail and complementary projects X2Rail-2 and X2Rail-3 agreed to continue their collaboration in the coming months with a new conference call to have a deeper insight on the activity done in Gate4Rail.

1st Advisory Board finalized with the a proactive and instructive round table where the results, upcoming activities and potential benefits were discussed. Main remarks during the round table:

- Difficulty of GNSS simulation in a railway environment due to the impossibility to reproduce the infinite number of scenarios.
- Two approaches were proposed to overcome this difficulty. First one more costly and with model dependency, consisting in certifying the environment along each line. The second one consists in developing a system that will be capable to simulate the robustness.
- Gate4rail was presented as a potential candidate to cover these two approaches since it brings some error models that could be used for environment certification but at the same time it could be used for robustness simulation of the solutions developed.
- Some participants expressed their interest on the GNSS impact evaluation of the foliage (forest).
- Gate4Rail platform has been demonstrated to be a potential good candidate for GNSS performance evaluation but it can evolve considering future X2Rail-5 activity such as integration of multifrequency - multiconstellation and EGNOS V3.

You can download meeting presentations from the related News page