GNSS Automated Virtualized Test Environment for RAIL

Fact Sheet

Project Information

GATE4RAIL
Grant agreement ID: 826324

Project website

Status
Ongoing project

Start date
1 December 2018

End date
30 November 2020

Funded under
H2020-EU.3.4.8.2.

Overall budget
€ 1 019 993,75

EU contribution
€ 1 019 993,75

Coordinated by
CONSORZIO UNIVERSITA INDUSTRIA - LABORATORI DI RADIOMUNICAZION I
Italy

Objective

GNSS Automated Virtualized Test Environment for Rail (GATE4Rail) deals with tasks TD2.4 and TD2.6 of the Shift2Rail Multi Annual Action Plan with the goals to:

i) achieve a realistic characterization of the GNSS in the railways environment assessing the performance and properties of typical fail-safe train positioning components in nominal and fault conditions;

ii) implement a common test process framework for zero on-site testing to minimizing cost and time.

GATE4RAIL will implement a geo-distributed simulation and verification platform connecting GNSS centres of excellence, and ERTMS/ETCS laboratories to evaluate the GNSS performances in the railway environment with agreed methodologies and tools. This approach offers the advantage to stress the global system in presence of very rare fault events instead of long and expensive tests on field, developing a standard methodology for representative test cases. GATE4RAIL will develop
methodology and tools for an automated update of tests, through Model-Based System Engineering philosophy to ensure that the simulation infrastructure can be maintained and extended reducing the need for re-assessments to increasing the test environment efficiency. The entire process will be reviewed by an independent Notified Body already engaged on GNSS assessment for rail applications and a demo on railway line in Italy and Spain is included. GATE4RAIL’s team is very competent bringing together expertise on the GNSS and rail sectors necessary for the exploitation of GNSS that is one of the Game changer of the ERTMS.

Field of science
/social sciences/social and economic geography/transport/navigation systems/satellite navigation system/global navigation satellite system 
/humanities/philosophy, ethics and religion/philosophy

Programme(s)

Call for proposal
H2020-S2RJU-OC-2018

Funding Scheme
Shift2Rail-RIA - Research and Innovation action

Coordinator

CONSORZIO UNIVERSITA INDUSTRIA - LABORATORI DI RADIOTECNICA E RICERCA

Address
Corso D Italia 19
00198 Roma
Italy

Website
Contact the organisation

Participants (8)
UNIVERSITE GUSTAVE EIFFEL
France
EU contribution
€ 66 096,25
5 Boulevard Descartes
Campus De Marne-la-vallee
77454 Marne-la-vallee
Activity type
Higher or Secondary Education Establishments
Contact the organisation

M3 SYSTEMS BELGIUM SPRL
Belgium
EU contribution
€ 178 953,75
Chemin Du Stocquoy 1
1300 Wavre
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
Contact the organisation

RETE FERROVIARIA ITALIANA
Italy
EU contribution
€ 50 173,75
Piazza Della Croce Rossa 1
00161 Roma
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
Website
Contact the organisation

UNION DES INDUSTRIES FERROVIAIRES EUROPEENNES - UNIFE
Belgium
EU contribution
€ 54 000
Avenue Louise 221
1050 Bruxelles
Activity type
Other
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<td>BUREAU VERITAS ITALIA SPA</td>
<td>Italy</td>
<td>€ 56 750</td>
<td>Viale Monza 347, 20126 Milano</td>
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<td>CENTRO DE ESTUDIOS Y EXPERIMENTACION DE OBRAS PUBLICAS - CEDEX</td>
<td>Spain</td>
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<td>C/ Alfonso Xii 3-5, 28014 Madrid</td>
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<td>INGENIERIA Y ECONOMIA DEL TRANSPORTE SME MP SA</td>
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<td>Paseo De La Habana 138, 28036 Madrid</td>
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<td>GNSS USAGE INNOVATION AND DEVELOPMENT OF EXCELLENCE</td>
<td>France</td>
<td>€ 38 157,50</td>
<td>3 Avenue Didier Daurat, 31400 Toulouse</td>
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Secondary Education Establishments

Contact the organisation

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