

PROJECT

ERSAT GGC

ERTMS on SATELLITE Galileo Game Changer

Funding: European (Horizon 2020)

Duration: Dec 2017 - Nov 2019

Status: Complete

Total project cost: €3,834,911

EU contribution: €3,107,287



[CORDIS RCN : 212900](#)

Objectives:

ERSAT GGC is conceived for speeding up the certification process of EGNSS assets according to the ERTMS rules. It is a follow up of the ERSAT (ERtms + SATellite) program launched in 2012 by RFI in collaboration with Ansaldo STS for integrating satellite technologies on the ERTMS platform.

Primary goals of ERSAT GGC are to:

- allow RFI, recently nominated Game Changer for integrating satellite technology into ERTMS, to launch an operational line by 2020 (the same year Galileo services will be operational)
- to accelerate the standardization process at European level for including the satellite requirements into the new ERTMS STI (Standard for Technical Interoperability)

As a result of previous projects, EGNSS and ERTMS (both pillars of the European industrial policy) are becoming tightly intertwined and backed by a mutual-supportive business model - a pre-requisite to give birth to fast growing EGNSS applications and to the deployment of economical sustainable ERTMS solutions on local and regional market, which today is dominated by legacy systems most of which old and still manually operated.

ERSAT GGC will rely on the achievements of the most relevant EC and GSA funded projects such as NGTC, ERSAT EAV, STARS, RHINOS whose individual coordinators are partners of the ERSAT GGC consortium. ERSAT GGC will exploit a fully operational Test bed located in Sardinia on the 50km double track line between Cagliari and San Gavino. This Test Bed includes the ERTMS main constituents, a fully equipped train, and the EGNSS/ Wireless assets to operate with the ERTMS system based on the Satellite based Location Determination System (LDS). Other facilities, such as those of the CEDEX laboratory, DLR and RFI will be exploited for the certification process.

The ERSAT GGC consortium includes RFI, SNCF and ADIF as the main European rail stake-holders and two independent Notify body, Italcertifer and Bureau Veritas which are already supporting RFI for the certification process.

Parent Programmes:

[H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport](#)

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Lead Organisation:

Rete Ferroviaria Italiana

Address:

Piazza Della Croce Rossa
161 Roma
Italy

Organisation Website:

<http://www.rfi.it>

EU Contribution: €300,615

Partner Organisations:**Ingenieria Y Economia Del Transporte Sme Mp Sa****Address:**

Avenida Del Partenón
28042 Madrid
Spain

EU Contribution: €124,486

Centro De Estudios Y Experimentacion De Obras Publicas**Address:**

Alfonso XII, 3
28014 MADRID
Spain

Organisation Website:

<http://www.cedex.es/>

EU Contribution: €126,800

Bureau Veritas Italia Spa**Address:**

VIALE MONZA 347
20126 MILANO
Italy

EU Contribution: €161,613

Ansaldo Sts S.p.a.**Address:**

Via Paolo Mantovani 3-5
16151 Genova
Italy

Organisation Website:

<http://www.ansaldo-sts.com>

EU Contribution: €488,059

European Union Road Federation**Address:**

Avenue Louise 106
1050 BRUXELLES
Belgium

Organisation Website:

<http://www.unife.org>

EU Contribution: €100,063

Trenitalia Cargo S.p.a.

Address:

Piazza della Croce Rossa, 1
00161 ROMA
Italy

Organisation Website:

<http://www.trenitalia.it>

EU Contribution: €95,393

D'appolonia**Address:**

Via San Nazaro 19
16145 GENOA
Italy

Organisation Website:

<http://www.dappolonia.it>

EU Contribution: €275,625

Consorzio Universita Industria - Laboratori Di Radiocomunicazion I**Address:**

Via Arrigo Cavaglieri 26
173 Roma
Italy

EU Contribution: €438,375

Deutsches Zentrum Fr Luft Und Raumfahrt E.v**Address:**

Linder Hhe
12489 KLN
Germany

Organisation Website:

<http://www.dlr.de>

EU Contribution: €289,313

Italcertifer Societa Per Azioni**Address:**

LARGO FRATELLI ALINARI 4
50123 FLORENCE
Italy

Organisation Website:

<http://www.italcertifer.com>

EU Contribution: €151,813

Sncf**Address:**

2 Place Aux Etoiles
93200 Saint Denis
France

EU Contribution: €100,188

Administrador De Infraestructuras Ferroviarias**Address:**

CALLE HIEDRA EST CHAMARTIN EDIFICIO 23 SN
28036 MADRID
Spain

Organisation Website:

<http://www.adif.es>

EU Contribution: €204,250

Institut Francais Des Sciences Et Technologies Des Transports, De L'amenagement Et Des Reseaux**Address:**

2, Avenue Du General Malleret-Joinville
94114 Arcueil
France

EU Contribution: €250,696

Technologies:

Satellite navigation
Certification process of EGNSS assets

Development phase: Research/Invention

STRIA Roadmaps: Network and traffic management systems

Transport mode: Rail transport

Transport sectors: Passenger transport, Freight transport

Geo-spatial type: Other