FORMAL METHODS AND CSIRT FOR THE RAILWAY SECTOR

Fact Sheet

Project Information

4SECURAIL
Grant agreement ID: 881775
Status
Ongoing project
Start date
1 December 2019
End date
30 November 2021

Funded under
H2020-EU.3.4.8.2.
Overall budget
€ 549 875
EU contribution
€ 549 875
Coordinated by
ARDANUY INGENIERIA SA
Spain

Project description

Railway signalling subsystem on track

To minimise the time it takes to develop and deliver railway signalling systems, and to reduce high costs for procurement, development and maintenance, formal methods are needed. The EU-funded 4SECURAIL project will address the call for the use of formal methods in the railway environment and support the implementation of a Computer Security Incident Response Team (CSIRT) for railways. Among the project’s overall objectives are the identification of a railway signalling subsystem and evaluation of the cost/benefit ratio and learning curves for adopting the demonstrator in the railway environment. It will also define stakeholder requirements for a European RAIL CSIRT collaborative activity. To ensure all needs are met, the project will test and update the CSIRT collaborative environment.
Objective

"The 4SECURail proposal addresses the Open Call S2R-OC-IP2-2019 "Demonstrator development for the use of Formal Methods in railway environment- Support to implementation of CSIRT to the railway sector." The Open Call takes a two-fold perspective by working, on the one hand, on the Demonstrator for the use of Formal Methods (FM), and on the other hand, on the implementation of Computer Security Incident Response Team (CSIRT) for Railways.

Work stream 1 "Demonstrator development for the use of Formal Methods in Railway Environment" will provide a demonstrator of state-of-the-art Formal Methods and tools to evaluate the learning curve and to perform a cost/benefit analysis of the adoption of formal methods in railway industry. The following overall objectives will be targeted: 1) The development of the demonstrator; 2) The identification of a railway signalling subsystem, described by means of standard interfaces and 3) The specification and evaluation of the cost/benefit ratio and learning curves for adopting the demonstrator in the railway environment.

Work stream 2 "Support to implementation of CSIRT to the railway sector" will address TD2.11, establishing a CSIRT collaborative environment. The work stream 2 specific objectives are: 1) To define stakeholder requirements for a European Rail CSIRT collaborative activity, a 2) To test and validate the draft CSIRT model; 3) To identify relevant platforms to support CSIRT collaboration and, based on requirements and CSIRT model, specify and adapt to meet CSIRT needs and 4) To test and updated the CSIRT collaborative environment so as to ensure meeting user needs.

The 4SECURail proposal answers to both technical topics, adopting common Management and Dissemination with a well-balanced effort.

Field of science

/natural sciences/computer and information sciences/computer security

Programme(s)

Topic(s)

Call for proposal
Funding Scheme

Shift2Rail-RIA - Research and Innovation action

Coordinator

ARDANUY INGENIERIA SA

Address
Avda De Europa 34 Edif B
28023 Madrid
Spain

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

EU contribution
€ 54 875

Contact the organisation

Participants (6)

FIT CONSULTING SRL

Italy
EU contribution
€ 65 756,25

Address
Via Acciaresi Primo 8
00157 Roma

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

CONSIGLIO NAZIONALE DELLE RICERCHE

Italy
EU contribution
€ 93 025

Address
Piazzale Aldo Moro 7
00185 Roma

Activity type
Research Organisations

Website
Contact the organisation
SIRTI - SOCIETA PER AZIONI
Italy
EU contribution
€ 85 281,25
Address
Via Stamira Ancona 9
20127 Milano
Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)
Contact the organisation

HIT RAIL BV
Netherlands
EU contribution
€ 92 375
Address
Leidseveer 4
3511 SB Utrecht
Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)
Contact the organisation

UNION INTERNATIONALE DES CHEMINS DE FER
France
EU contribution
€ 86 375
Address
Rue Jean Rey 16
75015 Paris
Activity type
Other
Website
Contact the organisation

TREE TECHNOLOGY SA
Spain
EU contribution
€ 72 187,50
Address
De La Pomarada 76
33429 Siero
Activity type
Private for-profit entities
(excluding Higher or Secondary Education)
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