FACTS AND FIGURES

Call

H2020-S2RJU-2019
Call for proposals 2019 - H2020 -
SHIFT2RAIL Joint Undertaking

Topic

S2R-OC-IP2-01-2019: Demonstrator
development for the use of formal methods
in railway environment and support to
implementation of CSIRT to the railway sector

Type of Action

RIA: Research and Innovation Action

Acronym and Title

4SECURail - Formal methods and CSIRT for
the railway sector

Grant Agreement

Grant Agreement (GA) No: 881775

Start Date

December 01, 2019

Duration

24 Months

PROJECT MEMBERS

PROJECT COORDINATOR

TECHNICAL LEADER

PROJECT PARTNERS

This Project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 881775

FORmal Methods and CSIRT for the RAILway Sector

CONTACT US

Project Coordinator:

Albert Ferrer-Bonsoms

albert.ferrer@ardanuy.com

+34 932 063 300

www.twitter.com/4securail

www.linkedin.com/in/4securail-shif2rail-project/

PROJECT WEBSITE

https://4securail.eu

This Project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 881775

https://4securail.eu

OBJECTIVES

The 4SECURail proposal addresses the Open Call S2R-OC-IP2-2019 which takes a two-fold perspective by working on the Demonstrator for the use of Formal Methods (FM) and on the implementation of Computer Security Incident Response Team (CSIRT) for Railways.

The following overall objectives will be targeted:

Demonstrator development for the use of formal methods in the railway environment

- Development of the demonstrator

- Identification of a railway signalling subsystem, described by means of standard interfaces

- Specification and evaluation of the cost/benefit ratio and learning curves for adopting the demonstrator in the railway environment

Support for implementation of Computer Security Incident Response Team (CSIRT) in the railway sector

- To define stakeholder requirements for a European Rail CSIRT collaborative activity

- To test and validate the draft CSIRT model

- To identify relevant platforms to support CSIRT and adapt to meet CSIRT needs

- To test and update the CSIRT collaborative environment so as to ensure meeting user needs

AMBITION

Demonstrator development for the use of formal methods in the railway environment

Reduction of cost and time-to-market for software-based railway signalling systems

Increased market competition and standardisation

Demonstrator for formal development using standard interfaces

Clear cost/benefit analysis for applied formal methods

Clear description of learning curve required

Support for implementation of Computer Security Incident Response Team (CSIRT) in the railway sector

Sustainability in degraded situation by increasing in a significant way the cooperation reaction time and quality between all stakeholders in case cyber threat occurrence

Significant increase in security

PROJECT ORGANISATION

4SECURAIL is being developed through four work packages (WPs); the diagram presented below represents a first contact point with the methodology developed for this project.

WP1: Project management and coordination
ARDANUY INGENIERIA S.A.

WP2: Demonstrator development for the use of formal methods in the railway environment
CONSIGLIO NAZIONALE DELLE RICERCHE (CNR-ISTI)

WP3: Support for implementation of CSIRT in the railway sector
HIT RAIL BV

WP4: Outreach and networking
ARDANUY INGENIERIA S.A.