SAFER-LC

SAFER LEVEL CROSSING BY INTEGRATING AND OPTIMIZING ROAD-RAIL INFRASTRUCTURE MANAGEMENT AND DESIGN

AIM

Over the past few years, one person has been killed and close to one seriously injured every day on level crossings. Therefore, SAFER-LC aims to improve safety and minimize risk by developing a fully-integrated cross-modal set of innovative solutions and tools for the proactive management and design of level-crossing infrastructure.

MAIN OBJECTIVES

DEVELOP
innovative solutions to enhance the safety of level crossings for road- as well as rail users

DEMONSTRATE
how these new technological and non-technological solutions can be integrated, validate their feasibility and evaluate their performance taking into account, the level crossing user's perspective and behaviour

DELIVER
a bundle of recommended technical specifications, human processes and organizational and legal frameworks for implementation.

DEVELOP
a toolbox accessible through a user-friendly interface which will integrate all the project results and solutions to help both rail and road managers to improve safety at level crossings

PROJECT STRUCTURE

WP1 - LC in Europe and beyond: Rail and road safety management requirements
Led by VTT
T1.1: Analysis of LC safety in Europe and beyond
T1.2: Identification of typical factors behind LC accidents
T1.3: Summary of needs and requirements for safe LC management

WP2 - Human Factors at LC: Design for self-explaining and forgiving infrastructure
Led by FFE
T2.1: Analysis of Human Factors in LC safety systems
T2.2: "Human Factor" methodological framework
T2.3: Design and evaluation of human centred low cost measures

WP3 - Smarter LC: Development and Integration of technical solutions
Led by NTNU
T3.1: Risk evaluation
T3.2: Smart detection system
T3.3: Monitoring and remote maintenance
T3.4: Communication systems for cross-modal information sharing

WP4 - Lab test, field implementation and evaluation
Led by CERTH
T4.1: Testing framework
T4.2: Pilot executions
T4.3: Evaluation of pilots

WP5 - Cost-benefit analysis and final recommendations for Safer LC
Led by IFSTTAR
T5.1: Harmonized Cost Benefit Analysis approach
T5.2: Business Models for the deployment of the suggested solutions
T5.3: Recommendations and guidelines

WP6 - Dissemination and exploitation of the results
Led by UIC
T6.1: Communication and Dissemination Strategy
T6.2: Involvement of the Stakeholders
T6.3: Toolbox development
T6.4: Exploitation Strategy
T6.5: Clustering and liaising with other relevant RDI projects

WP7 - Management
Led by UIC
T7.1: Scientific and technical coordination
T7.2: Administrative and financial management
T7.3: Quality assurance

WP8 - Ethical Requirements
Led by UIC
T8.1: Ethical framework for humans
T8.2: Ethical framework for data protection
T8.3: Follow up of the ethical requirements

CONSORTIUM

COORDINATOR: 1-UIC - International Union of Railways

2-VTT - Technical Research Centre of Finland Ltd

3-NTNU - Norwegian University of Science and Technology

4-IFSTTAR - French institute of science and technology for transport, development and networks

5-FFE - Spanish Railways Foundation

6-CERTH-HIT - Centre for Research and Technology Hellas - Hellenic Institute of Transport

7-TRAINOSE - Trainose Transport – Passenger and Freight Transportation Services SA

8-INTADER - Intermodal Transportation and Logistics Research Association

9-CEREMA - Centre for Studies and Expertise on Risks, Environment, Mobility, and Urban and Country planning

10-GLS - Geoloc Systems

11-RWTH - Rheinisch-Westfaelische Technische Hochschule Aachen University
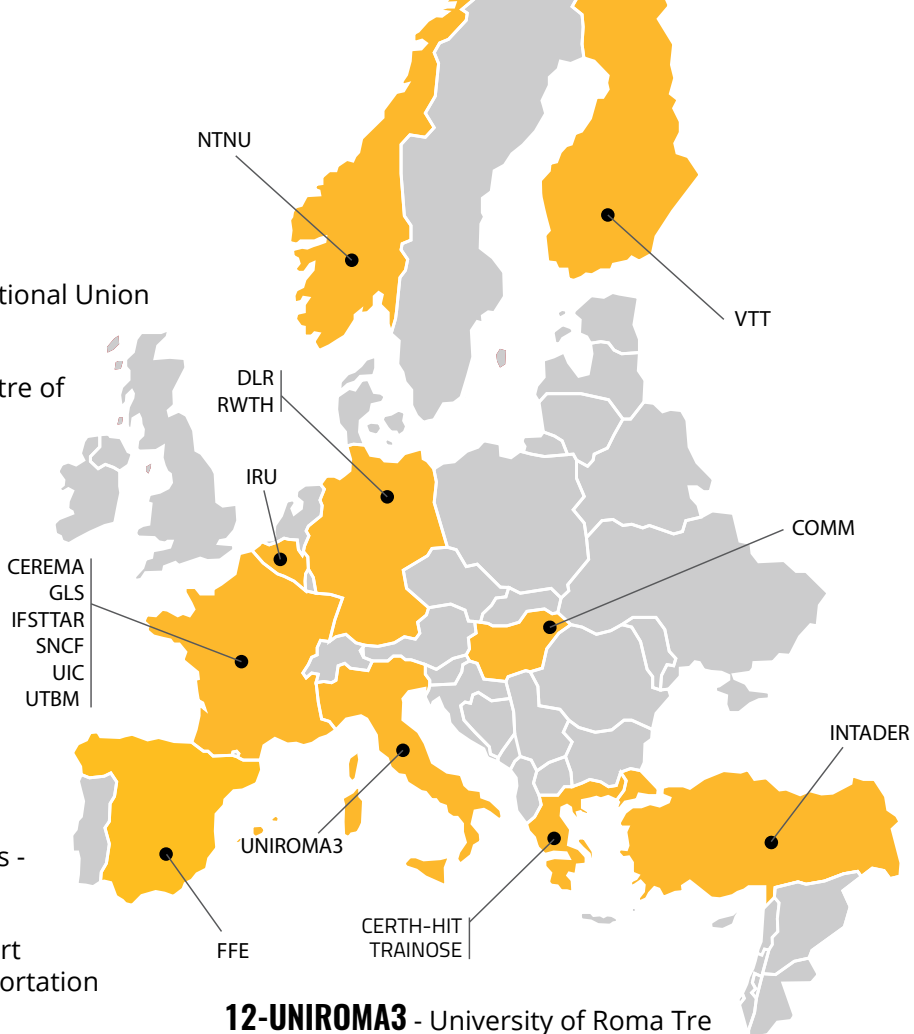
12-UNIROMA3 - University of Roma Tre

13-COMM - Commsignia Ltd

14-IRU - International Road Transport Union - Projects ASBL

15-SNCF - French Railways

16-DLR - German Aerospace Center - Institute of transportation Systems

17-UTBM - University of Technology of Belfort-Montbéliard

ADDED VALUE

SAFER-LC will combine state-of-the-art safety monitoring systems and advanced mobile communication technologies, including the use of CCTV and cooperative communications to develop innovative solutions.

SAFER-LC will develop a "human factor" methodological framework based on existing data sources and analytical tools that will be used to evaluate the efficiency of LC layouts and safety measures from the users' point of view.

While each solution will by itself mark an advance in its own field of application, the significant step forward will be achieved when the technologies are integrated and combined into one road-rail anti-collision warning system.

SAFER-LC will provide recommendations on technical specifications, human processes, as well as on the organizational and legal framework when implementing the proposed solutions.

The most relevant and practical information collected and produced during the project SAFER-LC will be available publicly in the SAFER-LC toolbox. The content will be assembled in several stages, with systematic evaluations at each stage by experts from inside and outside the consortium.
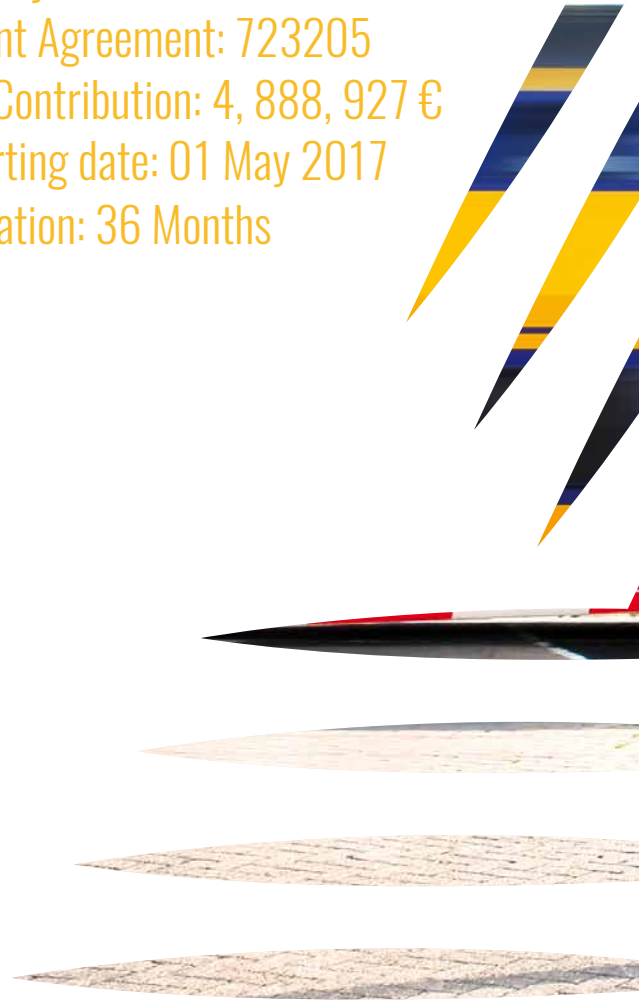
Acronym: SAFER-LC
Grant Agreement: 723205
EU Contribution: 4, 888, 927 €
Starting date: 01 May 2017
Duration: 36 Months

MIXTE
Papier
FSC   FSC® C022177

Website: www.safer-lc.eu
Coordinator: UIC (International Union of Railways) - Marie-Hélène Bonneau
Contact: info@safer-lc.eu