



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

# SAFER-LC

## Overview

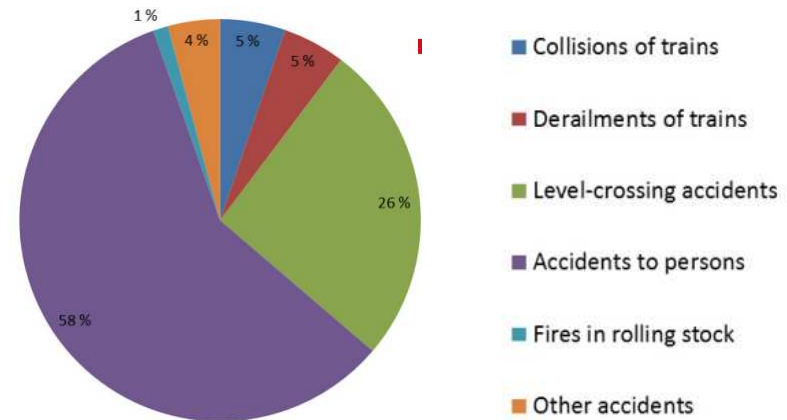
*Isabelle FONVERNE, UIC*

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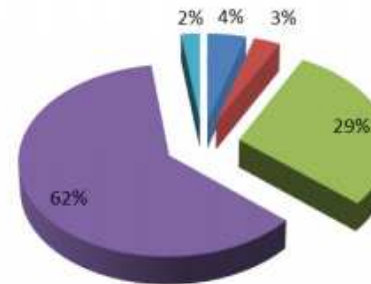


# Background

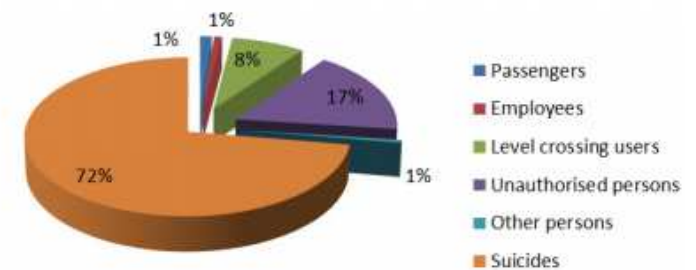
▲ Breakdown of significant accidents (2012-2014) – ERA Figures



▲ Relative share of victims per category of persons (2012-2014)- ERA Figures



Fatalities on railways disregarding railway suicides



Fatalities on railways including railway suicides



# Objectives

- ▲ Improve safety and minimize risks at and around level crossings (LCs)
  - by developing innovative solutions and tools to detect as early as possible potentially dangerous situations leading to collisions at LCs and to prevent incidents at level crossing
- ▲ Focus both on technical solutions and on human processes
  - to adapt infrastructure design to end-users
  - to enhance coordination and cooperation between different stakeholders from different transportation modes.
- ▲ Develop a toolbox which will integrate all the project results and solutions to help both rail and road managers to improve safety at level crossings.



# Key facts

- ▲ Framework : H2020 Call 2016-2017 Mobility for Growth
  - Topic: MG-3.4-2016 : Transport infrastructure innovation to increase the transport system safety at modal and intermodal level (including nodes and interchanges)
- ▲ Project submitted in September 2016 and selected in January 2017
- ▲ Starting date
  - 1st May 2017 for 3 years
- ▲ Budget
  - 4 888 927 €
- ▲ Total effort
  - 487,75 MM



# Consortium

## 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

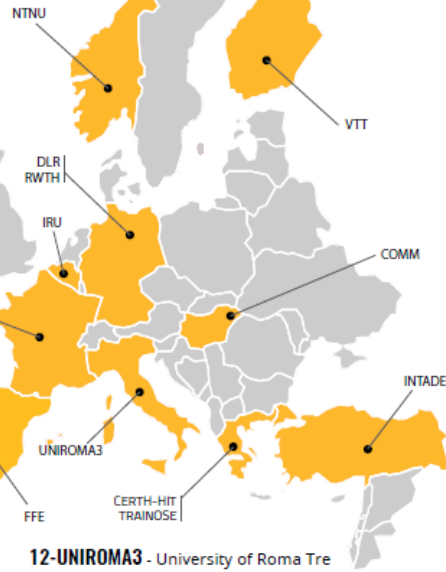
**7-TRAINOSE** - Trainose Transport - Passenger and Freight Transportation Services SA

**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** - Comsignia 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

- ▲ Coordinator : UIC
- ▲ 17 partners
- ▲ 8 European Union countries
- ▲ 2 associate countries

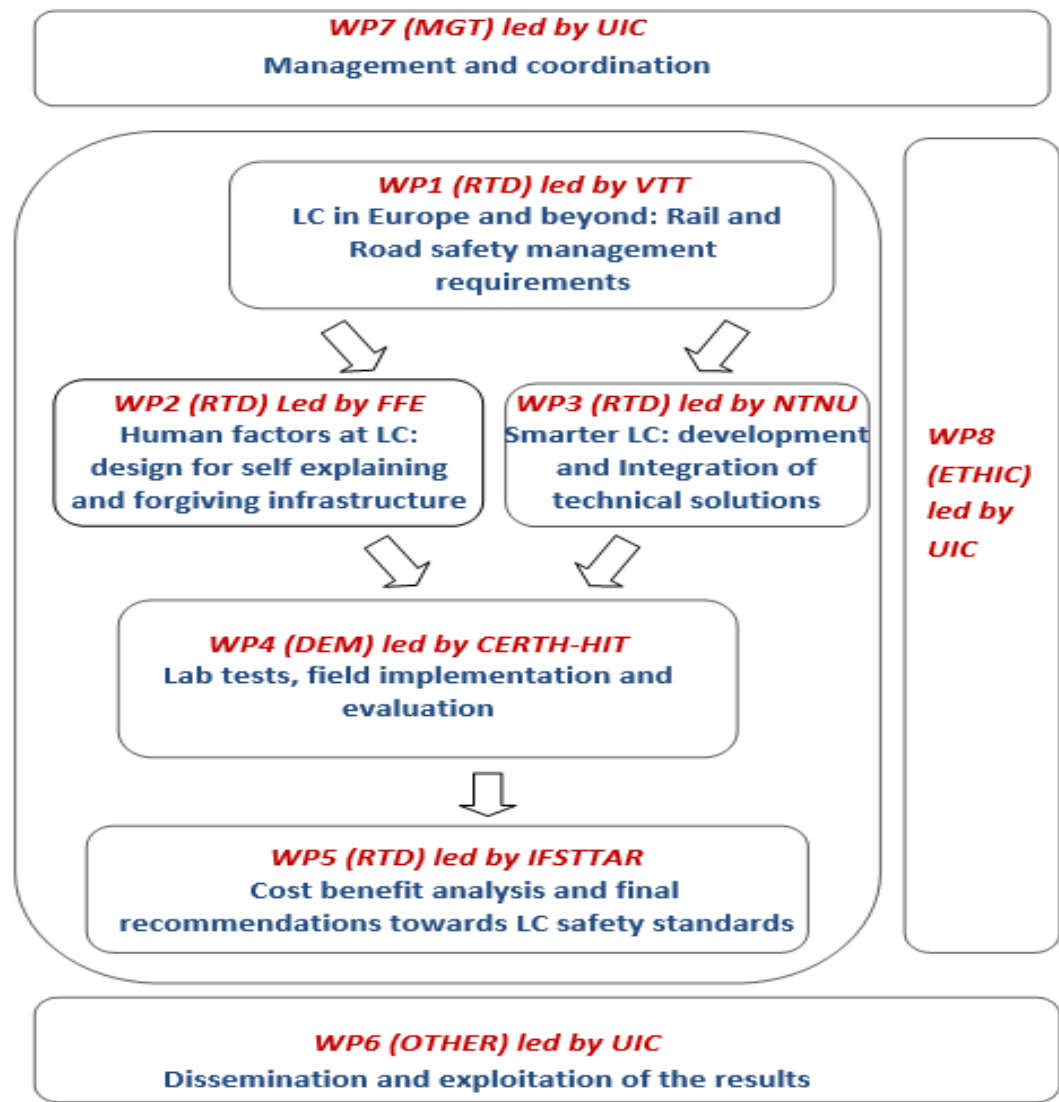


# Approach

- ▲ Analysis of LC safety systems and definition of needs and requirements of the rail and road users for safer level crossings
- ▲ Development of innovative measures
  - ▲ Human centered low cost measures
  - ▲ Technical solutions
- ▲ Field-test and evaluation of the measures
- ▲ Elaboration of recommendations and guidelines
- ▲ Collection of all results in a toolbox



# Structure



## Next Events

- ▲ September 2017 : Workshop 1 on end-users requirements in September at UIC HQ
- ▲ October 2018 : Mid term conference in Madrid







▲ Website soon available

[www.SAFER-LC.eu](http://www.SAFER-LC.eu)

▲ Contact

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