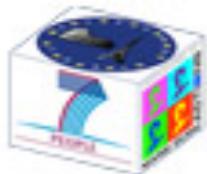




# European/International Joint PhD in Social Representations and Communication International Summer School 2015



European Commission REA-Research Executive Agency  
FP7 - PEOPLE Initial Training Networks  
So.Re.Com. Joint-IDP  
(PITN-GA-2013-607279)



Funded by the European Union

**Mapping the impact and dissemination of the social representation theory across different geo-cultural contexts around the world: from Europe towards other continents**

at the European/International Joint PhD in Social Representations & Communication  
Research Center and Multimedia LAB

18<sup>th</sup> - 25<sup>th</sup> July 2015



SAPIENZA  
UNIVERSITÀ DI ROMA

# **The mutual benefits of the secondment in an interdisciplinary research organisation from the perspective of the supervisors and of a young researcher for his career within and outside academia**

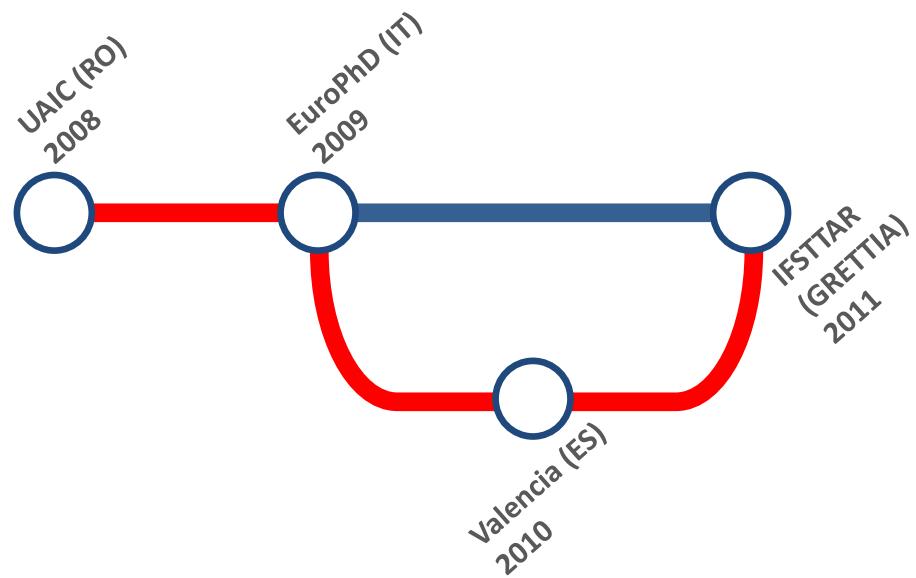
Sylvain Lassarre (IFSTTAR, Paris, France)

Grigore Havârneanu (International Union of Railways, Paris, France)



# Career train map

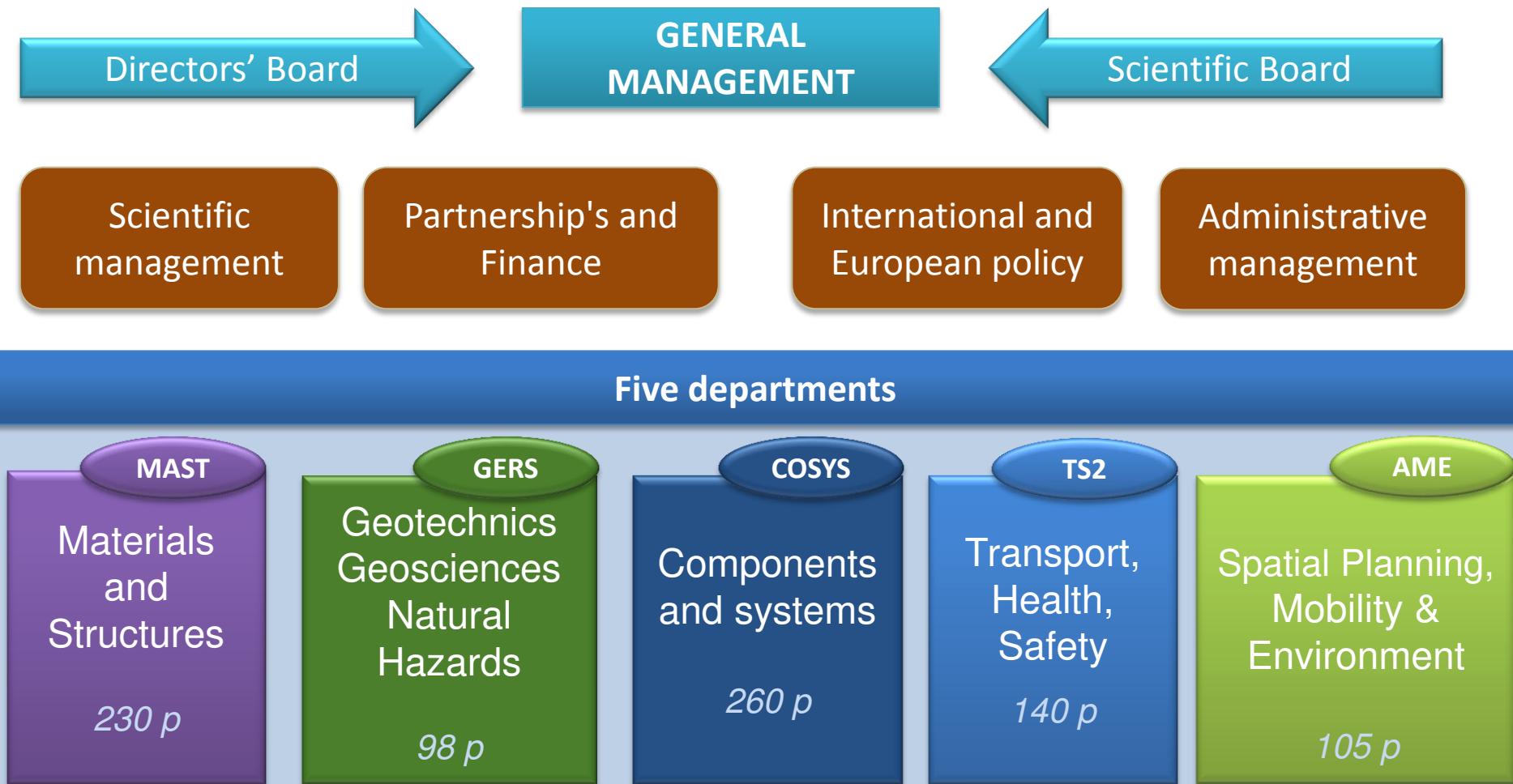
- Within academia
- Outside academia



# Short history of the interdisciplinary organisation

- **IFSTTAR**
- **French institute of science and technology for transport, spatial planning, development and networks** (*Institut français des sciences et technologies des transports, de l'aménagement et des réseaux*)
- Merger of The French National Institute for Transport and Safety Research ([INRETS](#)) and the French Central Laboratory of Roads and Bridges ([LCPC](#)) in 2011
- INRETS = Merger of the french Transportation research institute (IRT) and the french national road safety Agency (ONSER) in 1981.

# Governance and organization



A department merges research laboratories and joint research units

# Short history of the host laboratory

- **GRETTIA** (Génie des Réseaux de Transports Terrestres et Informatique Avancée) Land transportation network engineering and advanced informatics
  - By merging in 2010 of GRETTIA, New technology lab and EPUR-Rir team of *GARIG* (Groupe d'Analyse du Risque routier et de sa Gouvernance) with five units among them **Usage and acceptability**
  - Multimodal passenger transportation
  - Belongs to the COSYS department Components and systems
- Five units merge in two teams in 2015 :
  - Data and mobility
  - Simulation and regulation

# The team in 2011

- Farida Saad (retired in 2013) psychologist
- Sylvain Lassarre (retired in 2014) statistician
- Corinne Dionisio
- Pierre-Alain Hoyau
- Antoine Tordeux Phd student (2010)
  - Étude de processus en temps continu modélisant l'écoulement de flux de trafic routier
- Marina del Sarto Phd student
  - Représentations sociales et Pratiques liées à l'usage d'un deux-roues motorisé
- Sonia Adelé (arrived in 2013) psychologist

# Link with the SoReCom network

- Jean-Claude Abric LPS laboratoire de psychologie sociale Aix en provence university
  - Farida Saad associate profesor
  - Carine Pianelli Phd student (2008)
    - Représentations sociales de la vitesse chez les conducteurs et pratique du limiteur s'adaptant à la vitesse autorisée (LAVIA) : genèse d'une représentation sociale, dynamiques représentationnelles et relations entre représentations
    - Pianelli, C., Abric, J.-C., Saad, F. (2010). Rôle des représentations sociales préexistantes dans les processus d'ancrage et de structuration d'une nouvelle représentation. *Les Cahiers Internationaux de Psychologie Sociale*, n° 86, pp 241-274

# Past Research Topics in road safety

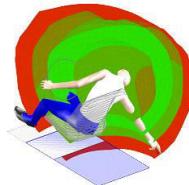
## Identification of risk factors



Building and exploitation of accident databases

- Epidemiology
- In-Depth Accident Studies (IDAS)

## Research and Solutions Assessment



- Ergonomics
- Observation and survey of drivers' and vehicles' behaviours
- Assessment of safety systems
- Evaluation of public policies (epidemiology)

## Simulations and accident reconstitution



- Impact tests
- Structures Modelling
- Biomechanical Modelling

## Distinctive approaches



- Safety of rail transport
- Persons with reduced mobility
- Vulnerable Users
- Risks at work

# New research topics in Mobility (& Environment)

## Observe, understand and forecast mobility

Mobility of persons / goods

- Mobility characteristics
- Stakeholders roles/contributions/lobbies
- Socio-economical factors
- Users' practices



## Environmental Impacts

- Environmental impacts of transport systems (greenhouse gas emissions, noise and air pollution in cities, biodiversity damages ...)
- Skills for designing, optimising and assessing solutions (technologic ones as electromobility and dedicated public policies)
- Annoying perception, acceptability and appropriation of solutions, “green” behaviours assessment
- Environmental indicators development (dedicated LCA : Life Cycle Analysis, car fleet's emissions tools...)

## Spatial Planning

- Transport systems organization (networks and services) + interaction with infrastructure and urban planning (metropolisation)
- Networks economy
- Modelling of urban socio-economics systems

# Transition time and projects

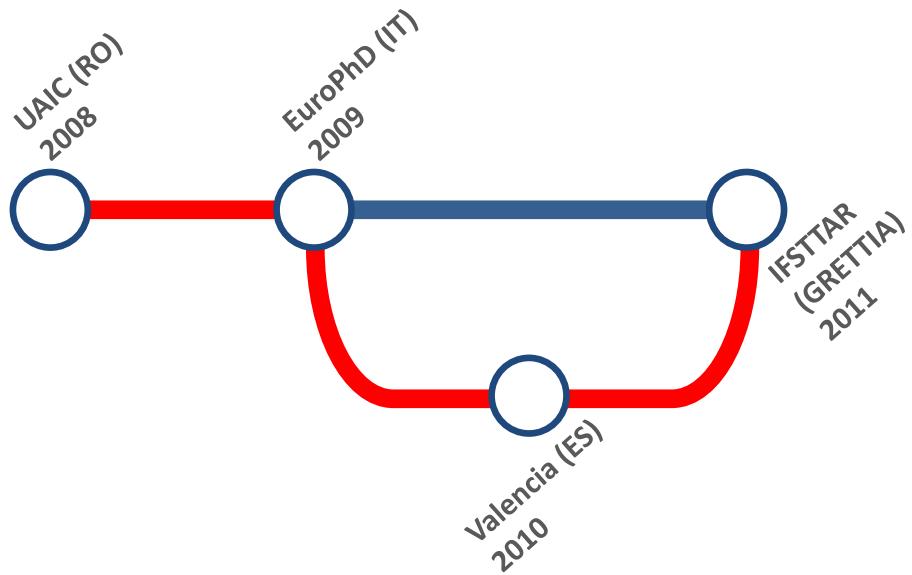
- From LAVIA Limiteurs s'Adaptant aux limitations de Vltesse Autorisées (ISA Intelligent Speed Adaptation) (french project leader Inrets with renault and Peugeot)) (2000-2009) funding DSCR
- to Instant Mobility (european project leader Thalès) (2009-2011)
  - **Demand-driven multimodal services acceptability**
- and SYSMO 2015(french project, leader RATP) (2012-2013) funding ADEME
- PFI ACTOR et le groupe de travail GT031 (GdR « Psycho-Ergo », CNRS) on acceptability
- Mission Vietnam (2011-2012) on road safety
- Enquête MARC on 3000 young drivers (2009-2012) on risk assessment and attitudes towards speed (Patricia Delhomme LPC) (funding Insurance association + DSCR)
- Mastère Sécurité des transports de l'Université de Versailles Saint-Quentin
- International Course on transportation planning and safety in Delhi
  - <http://tripp.iitd.ernet.in/>
- European project dacota (2010-2013) and ERSO observatory
  - <http://www.dacota-project.eu/>
- European project FESTA Support action for FOT field Operation Test methodology dor driving-aids in cars
  - <http://www.its.leeds.ac.uk/festa/downloads/FESTA%20-D2.4%20-%20Data%20analysis%20and%20Modeling%20%20.pdf>
  - [http://www.aide-eu.org/pdf/ieee\\_smc\\_2004saad.pdf](http://www.aide-eu.org/pdf/ieee_smc_2004saad.pdf)

# From the past

- Florent Lheureux (2009). Innovation technologique et sécurité. Modélisation et optimisation de l'acceptation des systèmes d'aide à la conduite. Doctorat de Psychologie Sociale, Université de Provence, 29 Mai 2009
- Pierre Emmanuel Barjonet
  - Représentations sociales de l'action de sécurité et de l'accident de la route 3, Rapport final [Texte imprimé] / Organisme national de sécurité routière ; [recherche effectuée pour le] Secrétariat d'Etat auprès du Ministère de l'équipement (transports), [Action thématique programmée, Socio-économie des transports] ; [réd.par] Pierre Barjonet et Jean-Pierre Cauzard ; avec Patrick Hamelin, Sylvain Lassare [et] Jean L'Hoste / Arcueil : ONSER , 1978
  - Les Acteurs de la circulation routière : étude des représentations sociales de l'action de sécurité routière / Pierre-Emmanuel Barjonet ; [sous la direction de Serge Moscovici] / [S.l.] : [s.n.] , 1983
  - BARJONET Pierre Emmanuel, SAAD Farida 1986. *La vitesse : son image et son usage. Le point de vue du psychologue*, RTS n°9-10, pp.27-32
  - European project and surveys SARTRE1 to 4 with Jean-Pierre Cauzard
    - <http://www.attitudes-roadsafety.eu/home/>

# Career train map

 Within academia  
 Outside academia

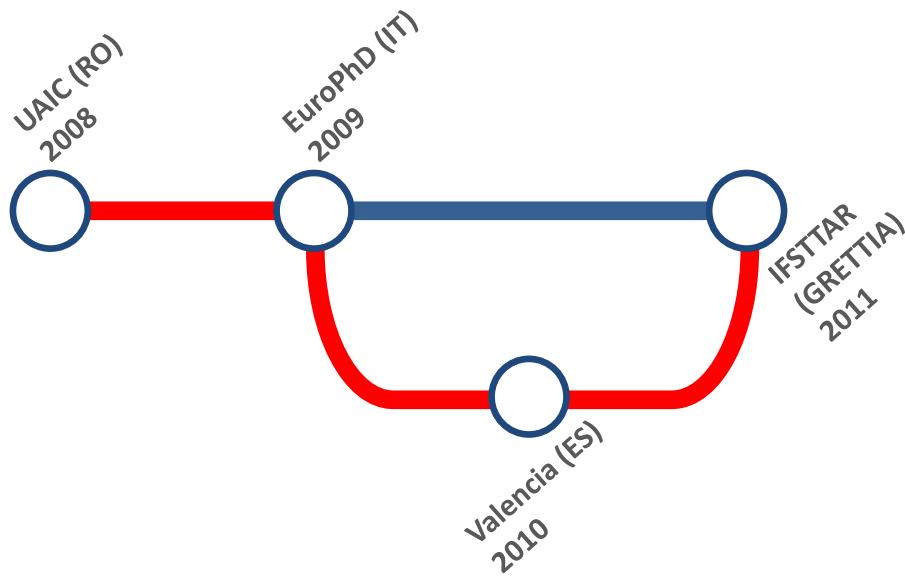


Lessons learned and acquired skills (young researcher's perspective):

- Interdisciplinary research
- Collaborative research
- Research topics
- Applying & testing theories
- Scientific writing skills
- Basic language skills in French

# Career train map

 Within academia  
 Outside academia

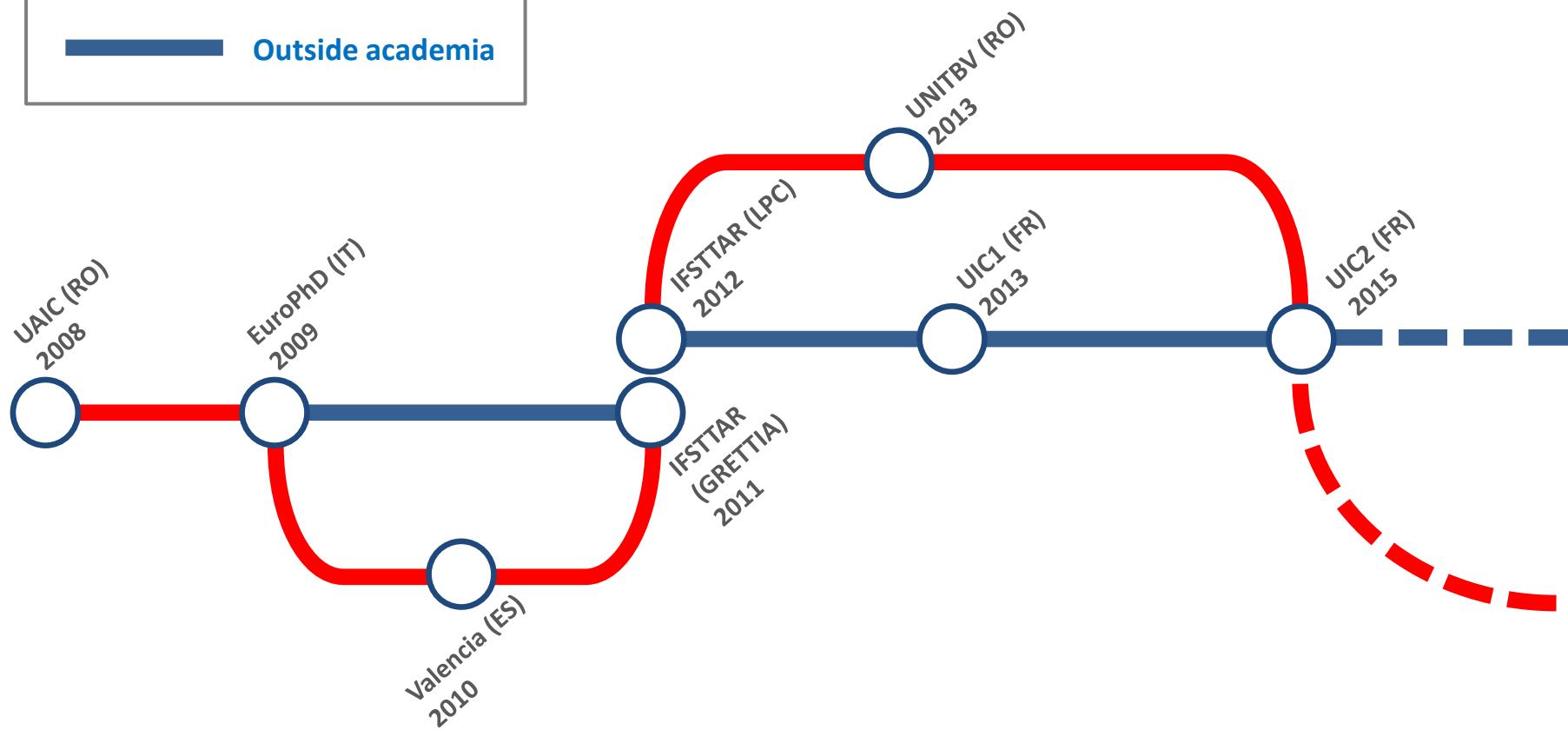


## Benefits from the institution's perspective:

- Reinforcement of the participation to the SoReCom network
- New horizon of research specific to Eastern EU countries
- Current opportunities for collaboration on research projects

# Career train map

- Within academia
- Outside academia



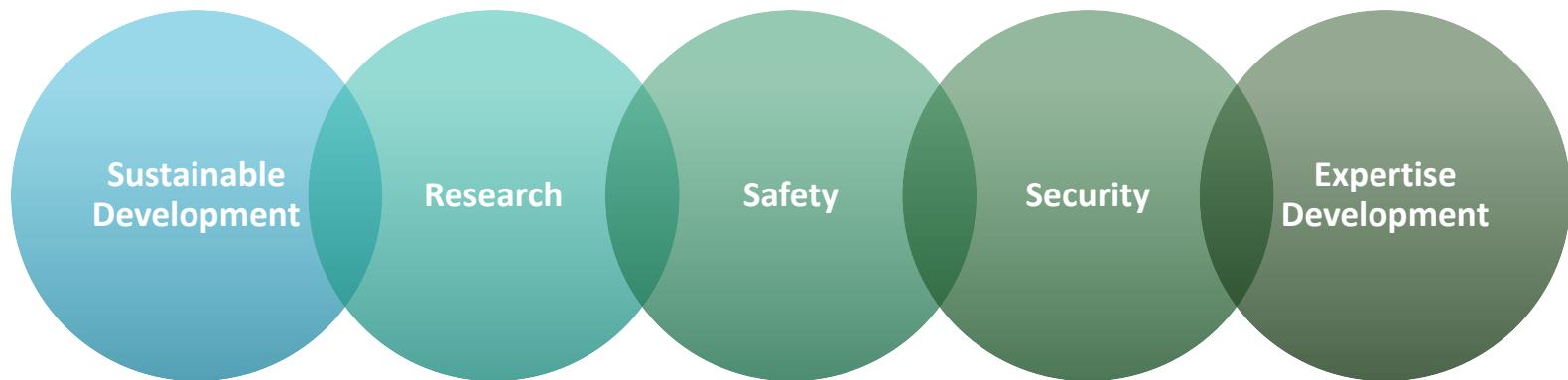
# International Union of Railways (UIC)

- Founded in 1922 in Paris
- More than 230 members worldwide
- Promotes the development of rail transport at global level
- Platform for:
  - Cooperation
  - Research projects
  - Dissemination
  - Training
  - Standards & recommendations
- [www.uic.org](http://www.uic.org)



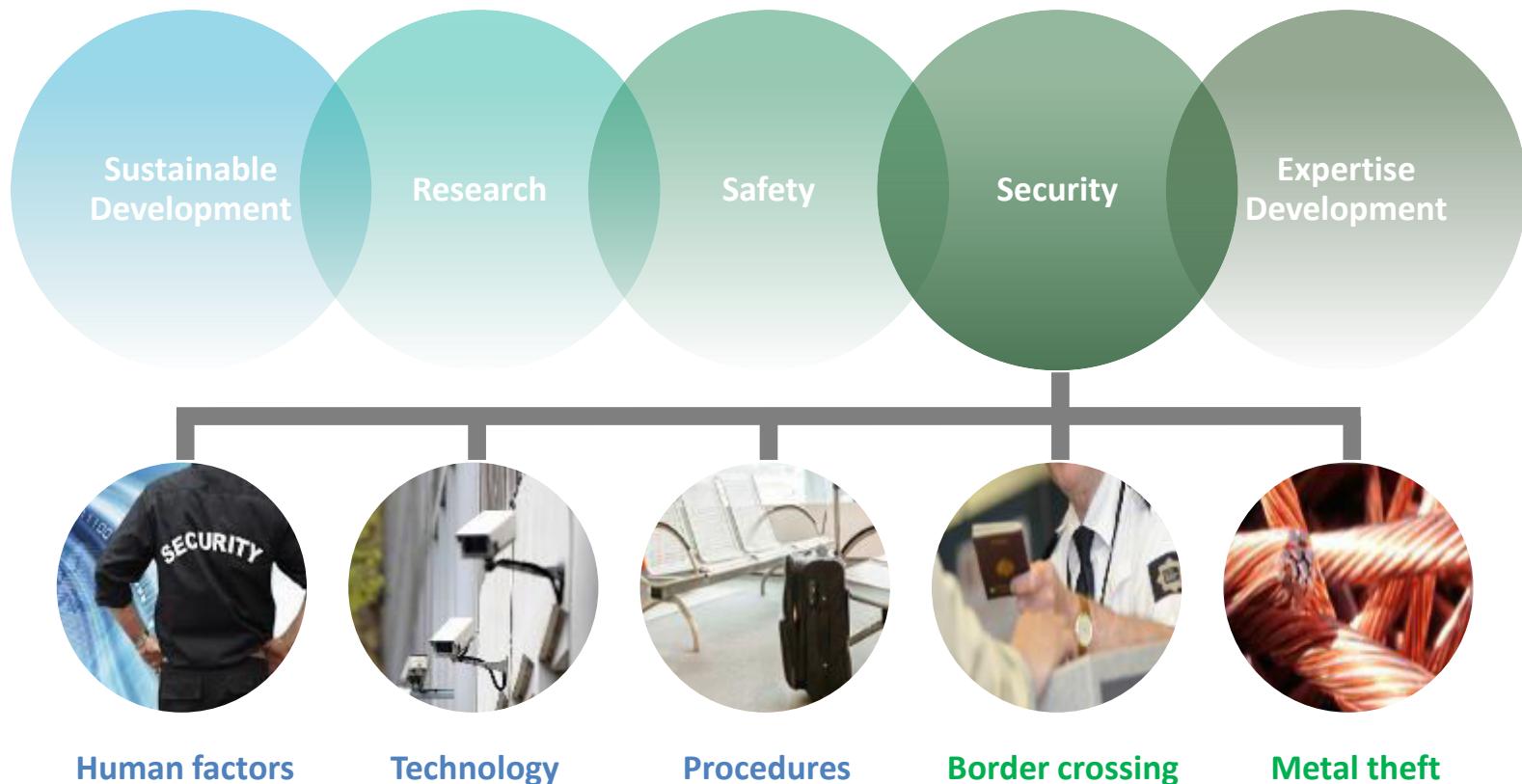
# Inside UIC

Fundamental values department



# Security at UIC

## Global Security Platform and Steering Committee



# UIC Security Division output examples

Leaflets, guidance  
documents & handbooks



World Congress on Railway  
Security (every year since  
2000)



Workshops and Seminars

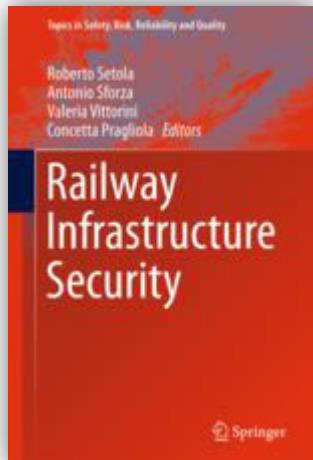


# UIC Security Division scientific dissemination

## Conferences



## Scientific publications



TRA

Transport Research Arena 2014, Paris

**RESTRAIL: Collaborative Project on REduction of Suicides and Trespasses on RAILway property**

Marie-Hélène Bermeu<sup>a</sup>, Jacques Collized<sup>a</sup>, Grigore M. Havidmeanu<sup>b\*</sup>

<sup>a</sup>International Union of Railways (UIC), Security division, Paris, France

**Abstract**

RESTRAIL is a research project co-funded by European Commission which seeks to reduce the occurrence of suicides and trespasses on railway property and the costly damage they can cause, by providing the rail industry with an analysis and identification of cost-effective prevention and mitigation measures. Through this application paper we aim to inform the rail-users about the results of the completed study: data analysis on railway suicide and trespass, assessment of preventative and mitigation measures, and the development of a toolbox of best practices. These achievements are discussed in relation to the ongoing activities of the project (a set of pilot field tests which are aimed at evaluating the effectiveness of measures).

**Keywords:** safety; security; rail; transport; mitigation measures; prevention; suicides and trespasses; inmate fatalities.

Injury, Health and Prevention 41 (2015) 40–50

Contents lists available at ScienceDirect

**Accident Analysis and Prevention**

Journal homepage: [www.elsevier.com/locate/aap](http://www.elsevier.com/locate/aap)

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**Keywords:**  
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Mitigation measure  
Transport  
Prevention  
Editor's review

**ABSTRACT**

This review covers a central aspect in railway safety which is the prevention of suicides and trespassing accidents. The paper attempts to answer the following research question: "What measures are available to reduce railway suicide and trespass, and what is the evidence for their effectiveness?" The review is based on a systematic search of the literature, and it includes a critical analysis of the available evidence and current trends in the prevention practice. By looking both quantitatively and qualitatively at the recommended measures, according to the results, there has been a constant focus on self-harm prevention, and only relatively recent literature on trespass prevention measures. The content is related mainly to train operators and managers, and also to the UIC member countries and other international organizations, and to some major European railway companies against railway suicide and trespass, and it comprises of specific measures to prevent suicides. There are only 10 studies which provide empirical support for the effectiveness of measures against suicides and trespass. The paper also highlights the need for further research, and it provides some discussion themes on the need for a unified approach to suicide and trespass prevention, and on the importance to consider the effect mechanism of the measures in order to design better interventions.

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# Research projects





# REduction of Suicides and Trespasses on RAILway property - [www.restrail.eu](http://www.restrail.eu)

- **Time frame:** 01/10/2011 - 30/09/2014
- **Budget:** 3,9 M€
- **Coordinator:** UIC
- **Partners:** 17 partners



# **BODEGA** (BOrdDErGuArd): Proactive Enhancement of Human Performance in Border Control

- **Time frame:** 01/06/2015 – 1/06/2018
  - **Budget:** 1.9 M€
  - **Coordinator:** VTT, Finland
  - **Partners:** 15 partners - UIC as rail end-users representative
- 
- Aim: to enhance the border control efficiency without side effects to the end users
  - All transport modes (land, air and maritime)
  - Traveling experience (waiting time, privacy etc.)
  - Needs and requirements for future Smart Borders (Schengen Area)



# Your way forward

