



**Sand Mitigation around Railway Tracks**

[www.smart-eid.eu](http://www.smart-eid.eu)

a H2020 / MSCA / ITN / EID project

## Workshop / ESRs short secondment

**Hitachi Rail STS Offices**

Via Volvera 50

Piosasco (TO) - Italy

February 5<sup>th</sup> 2020



Oxford University, UK



Politecnico di Torino, IT



OptiFlow Company, FR



Hitachi Rail STS



Astaldi S.p.A.



Reco – Salcef Group



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Marie Skłodowska-Curie Action - Innovative Training Networks - European Industrial Doctorate  
**Sand Mitigation around Railways Tracks - SMaRT**

**SMaRT Workshop / ESRs' short secondment at Hitachi Rail STS**



**February 5<sup>th</sup> 2020**

Via Volvera 50- 10045 Piossasco (TO) - ITALY

## **Agenda of the Workshop**

Hitachi Rail STS meeting room

- 09:30 – 10:30 Hand shaking and welcome to participants**  
*Claudio Mason, Principal Signaling Integrator Automation at Hitachi Rail STS*  
*Maurizio Pichierri, Control Centers Integration & Advanced Services at Hitachi Rail STS*
- Overview of the SMaRT past activities:** *focused on science, addressed to industrial needs*  
*Luca Bruno, SMaRT scientific coordinator*
- 10:30 – 12:00 Technical short course: Fundamentals of Signalling and Transportation Systems along railway**  
**First training unit. STS: devices and their Working Principles**  
Lecturer:  
*M. Bianchi - Senior Signaling Design Engineer at Hitachi Rail STS*  
*M. Vercelli - Principal Commissioning Manager at Hitachi Rail STS*
- 12:00 – 13:00 Technical short course: Fundamentals of Signalling and Transportation Systems along railway**  
**Second training unit. STS: Lesson learned from Etihad Rail Stage 1, design requirements for forthcoming Etihad Rail Stage 2**  
Lecturer:  
*F. Giachino - Senior Signaling Design Engineer at Hitachi Rail STS*  
*M. Resta - Senior Signaling Design Engineer at Hitachi Rail STS*
- 13:00 – 14:00 Lunch break**
- 14.00 – 15.00 ESRs' short presentations on current and forthcoming R&D activities**
- *Conceptual design of Sand Mitigation Measures (SMM) for STS devices and other point-wise railway equipment (e.g. turnouts) – Speaker: Marko Horvat*
  - *Preliminary performance assessment of the SMM by means of computational simulations - Speaker: Roberto Nuca*
  - *Final performance assessment of the SMM by means of field tests - Speaker: Ciaran Nash*
- 15.00 – 17.00 Open Discussion of the joint working team SMaRT – Hitachi Rail STS**  
*Shared R&D perspectives and development lines*

Specialists at Hitachi Rail STS:

*Claudio Mason, Principal Signaling Integrator Automation*  
*Maurizio Pichierrì, Control Centers Integration & Advanced Services*  
*M. Bianchi - Senior Signaling Design Engineer*  
*M. Vercelli - Principal Commissioning Manager*  
*F. Giachino - Senior Signaling Design Engineer*  
*M. Resta - Senior Signaling Design Engineer*

SMaRT Early Stage Researchers attending the Technical Short Course:

*Marko Horvat (ESR1) – Politecnico di Torino*  
*Roberto Nuca (ESR2) – Optiflow Company*  
*Ciaran Nash (ESR3) – University of Oxford*

SMaRT Tutors attending the Workshop:

*Luca Bruno – Politecnico di Torino*  
*Luigi Preziosi – Politecnico di Torino*  
*Nicolas Coste – Optiflow*

SMaRT scientific staff members attending the Workshop:

*Lorenzo Raffaele – Politecnico di Torino*  
*Andrea Lo Giudice – Optiflow*



SMaRT Workshop at Hitachi Rail STS. Hitachi Offices in Turin



SMaRT Workshop at Hitachi Rail STS.

Tour de Table (counterclockwise direction): L. Bruno (Politecnico di Torino, standing), M. Pichierrì, M. Resta, M. Bianchi, M. Vercelli, F. Giachino, C. Mason (Hitachi Rail STS), L. Raffaele, L. Preziosi (Politecnico di Torino), A. Lo Giudice (Optiflow), R. Nuca (Optiflow, behind the camera), C. Nash (University of Oxford), N. Coste (Optiflow), M. Horvat (Politecnico di Torino)





SMaRT Workshop at Hitachi Rail STS.  
Technical short course, first training unit. *STS: devices and their Working Principles*  
Lecturer at the white board: M. Bianchi



SMaRT Workshop at Hitachi Rail STS.  
Technical short course, second training unit. *Lesson learned from Etihad Rail Stage 1, design requirements for forthcoming Etihad Rail Stage 2*