

# PROTECTRAIL

The Railway-Industry Partnership  
for Integrated Security  
of Rail Transport



## Project Objectives



The PROTECTRAIL objective is to provide a viable integrated set of security solutions, by considering the extent of the assets involved, the nature of the threats, the amount of requirements and constraints.

The integration will follow an innovative way and will extend the scope of the project beyond the mission addressed by the call. The PROTECTRAIL will develop mission oriented vs. asset-specific solutions and will make them interoperable by designing a modular architectural framework where each solution can be “plugged”.

This will provide the basis for a streamlined process of federation, integration and interoperability.

The project will ensure that appropriate solutions and innovations are favoured over isolated questions and solutions, and will represent a comprehensive and scalable answer to rail security.

The dissemination process will initiate a cooperation framework with the National and EU authorities and the standardisation bodies, in view of proposals for recommendations to be adopted.

## Description of the work

PROTECTRAIL will tackle the railway security problem from a layered system integration perspective.

The concept of the project is to address this main goal by dividing the global mission into a limited number of sub-missions which respond to well identified needs of railway protection, within a framework of general coherence and integration of technical and organization solutions.

Each sub-mission oriented solution will cover significant areas of interest, resulting both from risk analysis and rail operator priorities. By selecting performance goals, for each sub mission effective solutions in terms of architectures, technology deployment, procedures, tools and organizations to manage specific threat scenarios will be defined and developed. The project has been structured in 7 Sub-Projects and 38 Work Packages. The 5 technical SPs are supported by the Project Management & Technical Coordination (SP0) and Dissemination and Exploitation (SP1) sub-projects.

For each sub-mission considered, SP2 will define the functional and technical specifications for prevention, mitigation and crisis management for the selected scenarios both at the sub-mission and global integration levels.

In SP3 and SP4 (for fixed asset and transported assets respectively) the feasibility of solving the identified railway protection submissions through an efficient and cost effective integration of technologies will be demonstrated.

SP5 will then propose a coherent architectural and design framework for the submission and integrate them in a global demonstrator. Finally SP6 will consider political, economical, socio-cultural aspects besides the technological ones to drive towards future design for security strategies. The project will be carried out by considering the specificity of rail environment and by monitoring the impact of security measures on ethical issues and citizens rights as well as the positive impacts against other forms of threats and for mitigation of consequences of natural events.





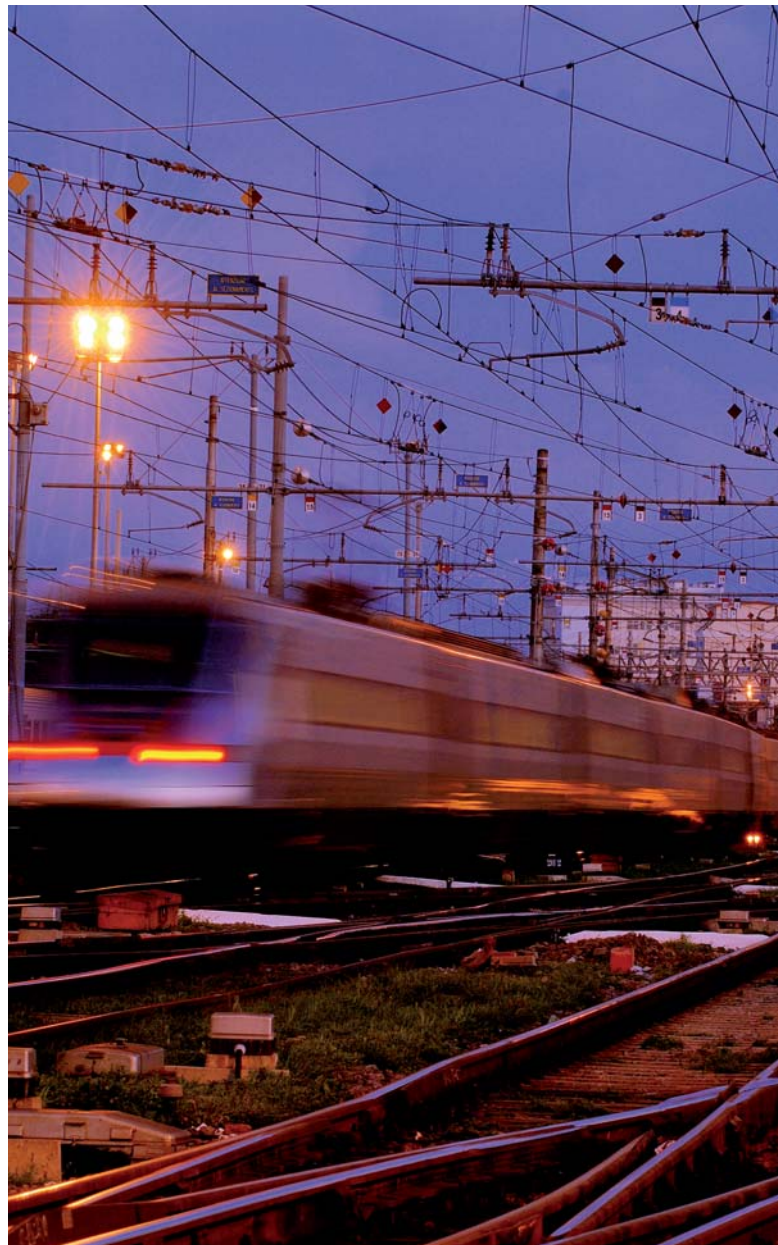
## Expected results



The project will show the implementation potential of short/medium term solutions.

It also will vision out the development of prospected solutions to match future challenges.

The market up-take potential is guaranteed by the participation of main railway and security solutions suppliers, enhancing the capability of producing standard systems and of major railway operators (undertakings and infrastructure managers), guaranteeing that project solutions will satisfy user needs and fulfil railway requirements.



**Acronym:** PROTECTRAIL

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**Total Cost:** 21,775,289 €

**Duration:** 42 months

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