The European-funded Project, PROTECTRAIL, is holding its final conference on 27 and 28 May in Paris UIC HQ

(Paris, 27 May 2014) The European-funded Project, PROTECTRAIL, is holding its final conference on 27 and 28 May in Paris at the International Union of Railways (UIC), where the UIC Security Division is leading the dissemination subproject. They are welcoming around 100 participants.

The project is led by Ansaldo STS Spa, and the other partners involved in the project are security solution suppliers, universities and research institutes, the Association for the European Rail Industry (UNIFE), and five railway companies that act as end-users: Lithuanian Railways (LG), Polish Railways (PKP PLK SA), French Railways (SNCF), Turkish Railways (TCDD) and Slovakian Railways (ZSSK) and UIC who represents the other railway end-users. Over 46 months (42 planned before extension) 28 various partners from 11 countries (railway end users, security providers, consultants and research structures) have been working together to integrate the existing security solutions in the rail environment to meet the future security challenges in order to find and demonstrate the right solutions to improve rail security or beyond that, rail protection.

With a 21 million € budget (13 million € from the EU) the objective was to develop a global framework, taking existing solutions, making them interoperable, testing them in demonstrations with real-life scenarios.

The beneficiaries of the project will be the security staff of the operators and infrastructure managers at different levels, crisis management structures run by authorities or police officers and finally the “end users” of railways, passengers and citizens.

Mr Jean-Pierre Loubinoux, Director-General of the International Union of Railways (UIC) opened the conference declaring: “This project is an important project for the railways (infrastructure manager and railway undertakings): in the case of crisis or negative event due to delinquency or terrorism, or in the case of any other event due to the rail environment (other hazards, climatic conditions, natural disasters ...) the control rooms will be able to react in the best way:

PROTECTRAIL will have demonstrated that all the necessary and relevant information can reach the control rooms in an appropriate and standardised way: information on any event, scenarios developed as help for the decision, modularity of the technical devices enabling to take into account the technological evolutions. Of course the main railway companies have already built their own structure of security management and emergency management. But the solutions developed validated and tested in PROTECTRAIL can help them to improve their own organisation by addressing both: technological aspects and human/organisational
factors. For other railway companies PROTECTRAIL will give a relevant framework, not to reinvent the wheel but to implement relevant solutions at the best cost efficiency ratio.

PROTECTRAIL is also an important project for UIC: its involvement in such projects can benefit all its members by sharing the costs and disseminating the relevant information. Of course it will be done at first for the UIC members of the consortium, but we'll go beyond that and in accordance with the consortium’s rules, we’ll disseminate the main results and choices within a white paper to be produced and in a future UIC leaflet of recommendations prepared at global level, as it’s the vocation of UIC. Perhaps we also have to think of a possible continuation of PROTECTRAIL in some topics within the framework of other future projects.”

Vito Siciliano, Ansaldo, coordinator of the project, then presented the results of the PROTECTRAIL experience: “at the end of the project, comparing expectations and findings, it appears that the project structure was quite efficient in planning; it faced changes in scope of the mission but no significant deviation and was always able to refine some missions.

Indeed, the system integration is complex but feasible, and it demonstrated during the project that it is adequate for the scope of the objectives; it is interoperable, simple and able to evolve.

There still remains a gap to get sensing and mitigation technologies at a reasonable price, and usable in an open railway context. Besides, privacy and ethical legislation are still a significant obstacle. But security is still a fundamental value in our system even if, due to the current lower level of terrorism, European stakeholders concern about rail protection seems to be reduced.

But the findings are ready to be exploited and able to produce several improved tools for the different stakeholders involved in rail operation and security. So it is necessary to follow on from PROTECTRAIL experience and continue the fruitful cooperation and relationships between stakeholders. The PROTECTRAIL project could be an “incubator” for new and further initiatives in railway security.

Integration – Interoperability of capacities and technologies in an Open System Architecture was the key factor to get results, and the commitment and integration of competences were the most relevant key success factors.

PROTECTRAIL was a great example of European Project and successful international cooperation.”

Over the two days, devices and tools are displayed in the room, and in direct connection with Italy for a third demonstration: after Zmigrod in Poland in October 2013, the Villecresnes tunnel in France in February 2014, a direct link is established with Italy for demonstrating in real time a protection of wide infrastructure in the Palermo area (ASTS and RFI demonstration on tracks protection). The PROTECTRAIL Project video launched and distributed during this conference contains the official video of the project, as well as the “behind the scenes” and the scenarios of the above demonstrations. It will be available on the PROTECTRAIL website.
In addition, eight High Probability Low Impact (HPLI) solutions that have been integrated in the interoperability framework designed by PROTECTRAIL are being presented:

1. Door blocking (in real time - with a real door) – Bombardier Transportation
2. On-board crowd density detection - Bombardier Transportation
3. Privacy protection for CCTV (technology enabler - integrated in both above) - Bombardier Transportation
4. On-board to ground protocol for emergency and situation assessment (enabling technology) – Alstom and Thales TCS
5. Sherlock solution to relocate perpetrators and suspects post incident - TNO
6. People flow measurement - Multitel
7. Reporting of events from the field (from the handheld) – Thales Portugal
8. Trespassing/restricted area encroachment – Aitek

By establishing this framework with standardised events and SOA (Service-Oriented Architecture) principles in security and rail infrastructures, not only does the industry achieve better interoperability, the integration time of new capacities and the cost to develop, test and integrate new security solutions is reduced drastically, and security stakeholders understand each other for efficient decision-making during security events and crisis situations.

All in all, PROTECTRAIL, with its future-proof methods and recommendations is clearly a success for its railway members and the European Commission can be thanked accordingly for its effective financial commitment.

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