ProtectRail presentation

Marrakesh, 16-17 March 2009

MH Bonneau - UIC
Framework of the project

• Call for Proposals for Security Research (FP7-SEC-2009-1) under the Seventh Framework Programme for Research and Technological Development (FP7) published on 3 September 2008. (FP7 Security Budget call :1.4 billion euros)

• Technical content / scope:
The task is to develop an integrated system to improve the security of rail transportation through better protection of railways and trains, and to reduce disparity in security between European railway systems. This will include the immunity of signal and power distribution systems against electromagnetic terrorism, the detection of abnormal objects on or under ballast; clearance of trains before daily use; control of access to driver’s cabin, detection of unauthorised driver; new methods/tools to isolate and secure luggage; as well as a study and tools to reduce disparity of European railway systems’ security. The action will demonstrate the potential of the European rail transportation systems for improved protection and homogeneity.
Timing of the Security Research Call 2

- 3 September 2008 Publication
- 4 December 2008 - Submission of the proposal
- January/February 2009 Evaluation
- Invitation to hearing on 17 February 2009
- Avril / May 2009
  - Invitation to negotiate
- September 2009
  - Beginning of the project
  - Duration: 40 months
Consortium

• Leadership: ANSALDO (ATSF – IT)
• 30 partners
  • AT, BE, DE, FR, IT, IL, LT, NL, PL, SK, TR, UK
  ▫ Industry:
    • Alstom, Areva, Bombardier, Sagem, Smiths, Thales, TNO...
  ▫ Research institute:
    • CEA, Eppra, Kingdom University, SODERN,...
  ▫ Rail companies:
    • LITRAIL, PKP, RCA, RFI, SNCF, TCDD, ZSSK
  ▫ Associations:
    • UIC, UNIFE
The scope of PROTECTRAIL is to develop an integrated system to:

- improve the security of rail transportation through better protection of railways (infrastructures) and trains,
- reduce disparity in security between European railway systems

The protection of railways will include the following sub-missions:

- fixed assets
  - stations & buildings
  - structures (tunnels, bridges, embankment, yards)
  - tracks
  - signalling, interlocking, control & command
  - power distribution
  - communications & information systems
  - rolling stock clearance
  - staff clearance

- transported assets
  - passengers clearance
  - luggage clearance
  - freight clearance
Figure 3 - PROTECTRAIL SP structure
<table>
<thead>
<tr>
<th>SP</th>
<th>leader</th>
<th>co-leader</th>
<th>size (m/m)</th>
<th>Budget (MC)</th>
<th>EU Budget (MC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP0 Project management</td>
<td>ASTS</td>
<td>DAPP</td>
<td>150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP1 Dissemination and exploitation</td>
<td>UIC</td>
<td>UNIFE</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP2 Security requirements specification</td>
<td>ASTS</td>
<td>THALES</td>
<td>181</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP3 Integration at Sub-Mission Level (physical &amp; operational assets)</td>
<td>ALSTOM</td>
<td>TNO</td>
<td>352</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP4 Integration at Sub-Mission Level (transported assets)</td>
<td>THALES</td>
<td>ELSAG DATAMAT</td>
<td>212</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP5 Global integration</td>
<td>BOMBARDIER</td>
<td>SSI</td>
<td>335.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP6 Future design for security</td>
<td>TNO</td>
<td>SARAD</td>
<td>99.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>920</strong></td>
<td><strong>2 200</strong></td>
<td><strong>1 314</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Rail participation

- UIC
  - Security competence center as leader of dissemination packages
  - Security platform working groups as end users
- Polish railways
  - Final demonstration
- Lituanien railways
- RFI
- Slovak railways
- SNCF
The ProtectRail project offered us the opportunity:

- To get state-of-the-art of latest security technologies
- To study applicability to railway infrastructure
- To provide the industry with railway recommendations & definition of needs
- To bring the “operational” point of view and to enhance accuracy between industry developments and railway needs
- To obtain funding to study some existing and potential railway security issues
RAILPROTECT

- **Framework**
  DG-TREN/J: Security-Protection of persons, assets and facilities
  Unit: Security of surface transports and transport of dangerous goods

- **Objective**
  Make available a simulation tool to investigate the vulnerability of train/metro vehicles and infrastructures

  Assure the European public that security measures are also being taken in the rail transport

  possibly provide the European construction and rail manufacturing industry with a competitive edge
Thank you for your attention

All information available on http://extranet.uic.asso.fr/