VISION ON RAILWAY SECURITY

PROTECTRAIL
Project kick-off meeting

Andrej GREBENC
Project Adviser

Research Executive Agency
S3- Security Research

Paris
06.10.2010
1. Background

2. Main Challenges

3. Stakeholders

4. Research focus

5. Approaches

6. Security scenario

7. Conclusion
1. Background

- Until 09/11/2001 Europe was considered secure, no special focus on railway safety except petty crime and vandalism.

- Railway safety has a long tradition, while security came into picture rather recently.
2. What to address in the railway security research

- Security of persons (passengers, staff, other)
- Security of goods has coming into picture rather recently
- Security of infrastructures
  - stations and surrounding, bridges, tunnels
  - open railways
  - traction and energy supply
  - signalling and safety systems
  - cyber and telecom networks
3. Stakeholders to be involved

- European Union
- Member states
- Railway operators and their associations
- Infrastructure owners
- Passenger associations
- Freight forwarders and logistics providers
- Security researchers and academia
- Railway security services (specialized)
- Infrastructure maintenance organisations
- Standardisation bodies
4. Research focus

- Security by design for pan-European railway infrastructure
- Integral security approach
- Bridging railway security gaps
- EU railway border crossing
- Special railways terrorism scenarios
- Security at the borders to intermodal transportation
- Addressing the issues on the edge
data protection/personal security
- Synergies with other past/existing security research projects
5. Approaches

- Proactive rather than reactive railway security
- Special security/threat/vulnerability/resilience analysis methodologies for railways
- Concertation of
  - technology
  - organisational rules and procedures
  - human factors
6. Security scenario

- Place: Channel tunnel
- Date and time: 22.12. 23:37
- Incident: Blast in Eurotunnel
- Cause: Explosion in Eurotrain due to terrorist attack
- Consequences: Massive water inflow into the tube, 4 trains flooded with 1250 casualties, goods of ca. 500 mio € lost
- Analysis: A well organised terrorist chain has been smuggling during 5 months period the explosive materials with the help of tunnel maintenance technician into not-CCTV supervised storage, where the bomb was assembled and put into the bogey of the train
7. Conclusion

Fp7 Security Research Project PROTECTRAIL shall give the answer how to minimize the threat/risk/impact/vulnerability in such and similar scenarios

GOOD LUCK
Thank you very much for your attention!

REA – Research Executive Agency
http://ec.europa.eu/research/rea

REA-Security-Projects@ec.europa.eu

@ REA-INFO@ec.europa.eu
✉ COV2 • 1049 Brussels • Belgium
site 16 Place Rogier • 1210 Brussels
📞 +32-2-299 11 11
✉️ +32-2-297 96 09

Photo: C. Pouret. Architects: ART & BUILD / MONTOIS PARTNERS

06.10.2010