

PRIME 9 Railway Security

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Background

- Following security incident on board a Thalys train in August 2015, the European Commission was tasked with examining the impacts of a number of possible initiatives for improving rail transport security in the EU;
- The Commission contracted consultants Steer Davies Gleave to undertake a study to assess options for policy intervention at the EU level to improve security of highspeed and international rail services;
- The final report not yet been formally approved by the European Commission and therefore this presentation sets out the provisional findings.



The study:

- Investigated security measures and arrangements currently in place across the EU, drawing on:
 - stakeholder consultation
 - review of previous academic work
 - sector information sources
- Developed options for intervention at European level and assessed them in accordance with the Better Regulation Toolbox
- Made recommendations for further consideration based upon the resultant ranking of options



Formal problem definition

- High-speed and international rail services across the EU are subject to a noticeable threat of attack and that the associated railway infrastructure and rolling stock assets are subject to a high risk of loss or damage
- This has a number of adverse consequences, including risk to the security of passengers leading to the potential for diversion to other modes and a reduction in cross-border travel



This problem is linked to:

- Insufficient understanding of the security threat.
- Inadequate response to the threat to the EU rail network as a whole and weak incentives to address ill-defined and poorly understood threats.
- Different approaches to the mitigation of risks in different Member States due to inconsistent methodologies for assessing risks and due to cultural differences.
- Fragmentation / gaps in arrangements and responsibilities at both the national and EU level.



Policy objectives

- "To reduce the risk and impact of criminal acts on the European rail network", recognising both the prevention and mitigation dimensions of the security issue, and:
 - Ensure relevant stakeholders have a more thorough and shared understanding of the security threat across the EU
 - Ensure that the response to the threat adopted by the industry takes full account of the economic and social benefits of security measures
 - Ensure that mitigation of the security threat in different Member States is based on a consistent assessment of underlying risks
 - Ensure that the security threat to international and high-speed rail services is addressed in a holistic and coordinated manner



Developing the policy options

The study has taken a three-stage approach to developing and assessing the final policy options capable of contributing to some or all of the policy objectives:

- 1. A number of practical security interventions were identified and sifted which produced a shortlisted set of 22 security interventions to be retained for deeper analysis;
- 2. The retained security interventions are grouped into 18 policy measures;
- 3. The policy measures have been packaged into three policy options to address the four specific objectives at differing levels of potential EU intervention.



Shortlisted potential security interventions

	Intervention		Potential scope			May address objectives?				
Notes: • = primary objective addressed + = secondary objective addressed			Infrastructure	Stations	Trains	Shared EU understanding	Reflect EU-wide benefits	Consistent risk assessment	Coordinated approach	
Communications and external liaison										
EL1	Partnerships with third parties							•	+	
EL2	Liaison with emergency services	4	•	•	•			•	+	
Asset	Assets and equipment design									
EA6	Recording of vulnerabilities in asset register		•	•		+		•		
EA4	Station duplicate access routes and walkways			•			•			
EA1	Blast-resistant stations and trains	8		•	•		•			
EA2	Minimisation of unseen areas			•	•				•	
EA3	Facilitation of emergency egress			•	•		•			
EA9	Facial or behaviour recognition technology			•	•				•	
EA10	Static detection equipment (CCTV)	10		•	•					
EA14	Resistant radio and communications systems		•		•			•	+	
EA15	Contingency IT and communications systems		•		•			•	+	

Staff and training										
SR1	Training in risk and behaviour monitoring	6	•	•					•	
SR2	Training in incident response	7	•	•				•	+	
SR3	Staff vetting		•	•	•	•			•	
SR5	Staff deployment		•	•	•				•	
Risk assessment and planning										
RP1	Threat level protocols	1				•		•	+	
RP2	Contingency planning	2	•	•	•			•	+	
RP3	Drills and exercises	3	•	•	•			•	+	
RP4	Post-incident recovery	5	•	•	•			•	+	
Procedures and systems										
PS2	Awareness promotion among passengers		•						•	
PS3	Targeted storage of contingency reserves		•	•				•	+	
PS4	Inspection regimes		•	•	•			•		



Example - Policy measure 2B: emergency egress and access to stations

Characteristic	Details
Definition	The policy measure would mean: To define standards for emergency egress and access to stations To identify bodies responsible for implementing the standards
Security interventions	The following potential security interventions could be associated with this policy measure: EA3: facilitation of emergency egress from stations EA4: duplicated access routes and walkways in stations
Parties required to take action	We consider that this policy measure would require action primarily by infrastructure managers and station managers, depending on how responsibility for stations is allocated. Station managers in some Member States may be railway undertakings, local bodies or private parties.
Contribution to objective(s)	This policy measure was devised to contribute to objective 2, reflect EU-wide benefits. It does not appear to contribute to any other objectives.
Scope and coverage	This policy measure, by its nature, would be restricted to stations, and could be restricted to stations called at (rather than passed through or stopped in) by high-speed and/or international rail services. Excessive compliance costs might result in station calls on high-speed trains being withdrawn, or international services being broken at borders or shortened (in extremis to cross-border shuttles).
Mandatory, guidelines or best practice	We consider that this policy measure could take the form of guidelines because it would, in practice, be difficult to mandate in advance standards which would be both implementable and sufficiently inexpensive to result in the withdrawal or services.
Contingency	The policy measure could be introduced independently of other policy measures.



Potential policy options

The study adopts an approach of packaging the policy measures into three distinct packages, with progressively greater degrees of intervention compared with the baseline of no EU intervention:

- Option 1: a minimal package, designed to make at least some contribution to addressing each objective.
- Option 2: intermediate package, incorporating additional policy measures, including some which we had identified as contingent on the policy measures in Option 1.
- Option 3: a comprehensive package, incorporating all the policy measures

The packaged policy options containing the different combination of policy measures are shown in the following table:



Option 1: minimal	Option 2: intermediat e	Option 3: comprehens ive	Polic	cy measure	Mandatory/ Guidelines	Security interventions		
•	•	•	1A	Reporting and monitoring national security data	М			
		•	1B	Researching and disseminating worldwide security data	G			
•	•	•	2B	Emergency egress and access to stations	G	EA3 (stations), EA4		
		•	2A	Emergency egress and access to infrastructure	G	EA3 (infrastructure)		
		•	2C	Blast-resistant features on stations	G	EA1		
		•	2D	Blast-resistant features on trains	G			
•	•	•	3E	Threat level protocols	G	RP1		
	•	•	3A	Ensure exchange of information by relevant parties	М			
	•	•	3C	Contingency planning and incident recovery	М	RP2, RP4		
	•	•	3F	Liaison, incident response, drills and exercises	G	EL1, EL2, SR1, RP3		
		•	3B	Recording of vulnerabilities and inspection regimes	М	EA6, PS4		
		•	3D	Contingency IT, communications and spares	G	EA14, EA15, PS3		
•	•	•	4A	CCTV on stations, with recording and facial recognition	М	EA2, EA9, EA10		
•	•	•	4B	CCTV on trains, with recording and facial recognition	М			
	•	•	4C	Deploying staff where they can observe	G	SR5		
	•	•	4F	Staff vetting and access controls	G	SR1		
		•	4D	Training station/train staff in risk and behaviour monitoring	G	PS2		
		•	4E	Awareness promotion among passengers	G	SR3		



Preliminary Conclusions

- Procedure-based security measures yield results relatively quickly compared with engineering interventions;
- Security measures combine the pressure to act with appropriate freedom of manoeuvre to reflect local circumstances;
- Any recourse to mandatory requirements will be controversial, so focus in most cases should be on Member States demonstrating that suitable arrangements are in place;
- Such approaches might vary from one Member State to another;
- EU guidelines more appropriate where the sector is currently expected to take action anyway. Value would be added through consistency provided by guidelines.



Preliminary Recommendations

- Safety management systems are a known concept in the rail sector – the development and implementation of risk-based Security Management Systems could provide a complementary way forward;
- Rail sector should document planned responses to different levels of the security threat;
- Arrangements should be defined for identifying and mitigating the risks associated with third party staff;
- Sector to document arrangements for training staff in helping to prevent and respond to security incidents;
- Define standards for CCTV / monitoring equipment, blast protection and visibility of all areas on trains: initially as guidance



Next Steps

- Final study report to be approved with consultants which provides clear policy options in line with Commission Better Regulation requirements
 - Nov/December 2016
- Transport Council Meeting to take stock of current and potential future EC transport security work
 - 1 December 2016
- DG MOVE will release report to stakeholders for comment and will conduct further analysis before drafting proposals - 2017