Council of Ministers

SECURITY IN TRANSPORT

Note on Security and Terrorism in the Transport Sector
-- Key Issues and Actions --

This document relates to item 3 "Main discussion blocks: Security in Transport" of the draft Agenda for the Ljubljana Council of Ministers.

It is submitted to Ministers as a reference document.
1. INTRODUCTION

Transport has long been a preferred means of terrorists for exacting maximum damage to targeted infrastructure, vehicles and human lives. Following the tragic events of 11 September 2001, transport decision-makers moved quickly to re-assess and take stock of the implications for the transport sector brought about by the unprecedented use of transport vehicles for terrorist purposes. Measures taken to enhance transport security since that time have built on an existing counter-terrorism policy framework, established over many years in response to previous traumatic events involving transport such as the explosion of Pan Am flight 103 over Lockerbie, Scotland in 1988 and the numerous terrorist acts to notably public transport infrastructure and vehicles in Europe and elsewhere in the latter decades of the last century.

Recent events have served to reinforce fear of terrorist action in transport: two terrorist truck-bombs exploded near the British consulate and a British bank in Istanbul in November 2003, killing at least 27 people and injuring 450. In February 2004, a terrorist bomb exploded in the Moscow metro, which carries upwards of 8 million passengers per day, killing 40 and injuring more than 100. Later the same month a terrorist entity threatened to explode bombs throughout the French railway system unless several million euros were paid by the French government. Shortly thereafter in March, ten deadly bombs exploded in commuter trains and in three of Madrid’s rail stations, killing 200 people and injuring more than 1000.

These events have called Transport Ministries to the frontline to respond, requiring them to co-ordinate emergency response plans with other government agencies -- notably ministries of the Interior -- and to re-assure a traumatised public that all necessary measures are being taken to address the crisis and restore calm. The attacks have also served as reminders of how vulnerable the transport system remains to terrorism -- in spite of heightened security since 9-11 -- and how the system persists, in effect, as an attractive target for terrorist activity due to, among others, its relative accessibility and the large numbers of people using the system.

When the ECMT Council of Ministers deliberated on the topic of transport security and terrorism at their Bucharest Council in 2002\(^1\), broad-sweeping international policy responses for the aviation and maritime sectors had already been defined and were under implementation within multilateral bodies. On the inland side at that time, international road and rail organisations were examining ways to adapt their existing anti-crime and security structures to respond to anti-terrorism priorities. And national governments were assessing where adjustments needed to be made to national regulations and legislation and where further actions was needed to address the heightened security threat.

The two years since the Bucharest Council have seen considerable progress in the development and implementation of policies to respond to the new transport security climate. They have also seen the emergence of a number of fundamental questions concerning, for example, the balance between tighter security measures -- for example, those now in place in the aviation and maritime sectors -- and their costs, (e.g., delays in travel time of air travellers as a result of tighter security procedures in airports and hold-ups in freight movements caused by more stringent port security requirements). Where tighter security measures can on the contrary provide benefits in terms of trade facilitation is also a question under debate at this time.

Ministers recognised in Bucharest the need to reach a balance between enhanced security measures and their costs, while also acknowledging the need to respond to the unprecedented level of perceived terrorist threat that has characterized the transport policy climate since September 2001.

At the same time, methodologies enabling comprehensive assessment of the actual risks of terrorist action as well as the costs and benefits of measures to mitigate the threat of terrorist attack are not yet fully developed. Consequently, transport-sector measures are in many cases being defined and implemented without the refinement that comes from solid ex-ante assessment.

And whereas transport authorities are called to the forefront in cases of crisis, they do not have all of the legal and regulatory tools at their disposal to take action to mitigate threat or respond to attack. Ministers in Bucharest recognised this, agreeing that a co-ordinated approach to security was essential, both within governments and among countries in a multilateral framework. This multilateral forum exists for both maritime transport and aviation, but has yet to be fully established for inland transport modes and more generally, for the transport chain as a whole.

This summary note proposes to examine the main developments in transport security since the last Ministerial debate on the subject. Using key elements of the 2002 Ministerial agreement as a guideline, the paper will address where policy and institutional progress has been made, and highlight areas where further attention by Transport Ministries is needed.

The note is organised as follows: Section 2 examines policy developments in transport security since 2002; Section 3 points to some of the key policy questions that have emerged during this time; and Section 4 proposes key conclusions for Ministers.

2. KEY POLICY DEVELOPMENTS IN TRANSPORT SECURITY SINCE 2002

The 2002 report to Ministers described in some detail the key security aspects of each of the main transport modes and outlined main areas of international and national action within these modes. Building on that information, this section will focus on policy initiatives since that time in each of the sectors, focusing on those concerning passenger transport.

2.1 Aviation and Maritime

First, regarding aviation and maritime transport, if policy developments have continued to take place based on well-established multi-lateral consultation, national initiatives of the United States in these sectors have, to some extent, set the agenda for policy debate among countries.

2.1.1 Aviation

Aviation, the initial area of focus in the immediate aftermath of September 11, has undoubtedly received the most focus and most funding for security enhancements since the September 11 attacks. As detailed in the 2002 report to Ministers, measures were immediately taken following the attacks to significantly increase scrutiny of passengers and baggage.

Efforts to improve aviation security have continued since that time. In June 2002, the International Civil Aviation Organisation (ICAO) adopted a Plan of Action to enhance aviation security, which includes a Universal Security Audit Programme (USAP), designed to be carried out in co-ordination

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2 CEMT/CS/(2004)11 includes more detailed descriptions of most of the freight security policy initiatives.
with the European Civil Aviation Organisation (ECAC)’s AVSEC audit programme. According to ICAO, approximately 20 countries underwent USAP audits in 2003 and 40 more are to be audited in 2004.\footnote{Address by ICAO Council President Dr. Assad Kotaite to the ECAC Plenary Session, Strasbourg 8 July 2003 in Strasbourg.}

In the United States, the Aviation and Transportation Security Act of November 2001 set forth requirements for specific enhancements to aviation security within the United States accompanied by ambitious implementation deadlines. Under the responsibility of the Transportation Security Administration, efforts to improve security have focused to date on bringing all responsibility for passenger baggage screening under the wing of the TSA to be carried out directly by federal TSA employees (by November 2002); overseeing security measures at airports to limit access to restricted areas, securing perimeters around airports and conducting background checks for airport personnel.

In a similar move, the UK Government tightened in August 2003 the control of validation of known consignors of air cargo, with UK Department for Transport-appointed agents carrying out the validation instead of regulated agents and airlines as previously was the case.

In 2003, the World Customs Organization (WCO), the International Air Transport Association (IATA) and the International Civil Aviation Organization (ICAO) updated the WCO/IATA/ICAO Advanced Passenger Information Guidelines (API), a set of guidelines for administrations and industry which cover the technical aspects of API as well as their operational costs and benefits. API systems are used to help identify individuals posing potential security risks in advance of their arrival in a country.

The API issue has also been taken up in the Asia Pacific Economic Co-operation (APEC), which in 2002 adopted common standards for implementation of API systems in the so-called APEC STAR Initiative. Feasibility studies in six economies are to be undertaken under this Initiative in 2004.

Most recently, the US Department of Homeland Security and the European Union reached an agreement in December 2003 on the sensitive issue of Passenger Name Record (PNR) data transfer to enhance air passenger screening in advance of entry to the United States. The European Commission and the European Parliament had objected to the US request for use of passenger data collected through an airline reservation system, citing breach of EU privacy laws.

Following a year of difficult negotiations, the EC found that US privacy protections are legal and sufficient to protect passenger privacy. Under the terms of the agreement, the 34 data elements to be used for screening passengers for possible involvement in terrorist activities or other serious crimes will be retained for no longer than three and a half years.\footnote{In March 2004, however, the European Parliament’s Citizens’ Rights Committee opposed the agreement, citing lack of sufficient privacy safeguards. Should this opposition find resonance in the European Parliament as a whole, the Parliament could request that the agreement be re-negotiated. (http://www.euractiv.com) and http://usinfo.state.gov}

On the freight side, US requirements for advance cargo information on all flights to the US by no later than four hours before arrival came into effect in March 2004 for Europe.

In the European Union, EC Regulation 2320/2002 -- building on ECAC’s Document 30, which provides a policy framework for aviation facilitation -- establishes common basic standards for civil aviation security measures in EU countries. These include access control to sensitive areas of airports and aircraft, control and monitoring of passengers and cargo, and enhanced training and physical security measures (i.e. reinforcement of cockpit doors).
Also in the EU, a new Commission Regulation (EC) No 68/2004 was signed in January 2004 proposing a detailed list of articles prohibited on European airlines. There are also discussions under way for a Regulation on technical specifications for screening equipment.

2.1.2 Maritime

Maritime transport security initiatives are examined in detail in the ECMT-OECD report on Container Transport Security across Modes [CS/CCT (2004)1] presented to Deputies alongside the present report. They are therefore not examined in detail in the present report.

Of particular policy note in Europe, however, is the European Parliament and Council Regulation COM(2003)229 on enhancing ship and port facility security. The proposed Regulation fully aligns the EU with IMO security requirements, transposing the International Ship and Port Facility Security Code (ISPS) into law. Specifically, it presents rules on ship security assessment, security plans, introduction of security officers on ships and equipping ships with enhanced security devices (e.g., Automatic Identification Systems). Also a proposed Directive of the European Parliament and Council COM(2004)76 Final on Enhancing Port Security will extend coverage of the Regulation beyond areas covered by the ISPS (only port facilities) to adjacent areas with direct or indirect impact in the port (e.g. rail facilities, warehouses). The Directive also sets out provisions for port security assessments and measures; a distinction of security levels based on the concentration of threat, and establishment of security officers to train staff and monitor the implementation of port security measures.

Also of significance is the recent agreement between the EC and the US to intensify container security co-operation, including expansion of the US Container Security Initiative (CSI) – including its so-called “24-hour before loading” rule, which requires advance cargo information to be supplied to the US 24 hours before loading of any cargo destined for the US -- to all ports in the EC. The agreement, set to enter into force in June 2004, will end EU infringement proceedings against eight EU countries that had adhered bilaterally to the CSI. Further agreements of this kind are anticipated between the EC, Canada, and countries in Asia.

2.2 Inland transport

The events of September 11 were not the beginning of policy actions to improve security in inland transport. In place already at that time were a number of anti-crime and security measures that have served as a springboard for further, more stringent terrorism-focused initiatives. In this way, 9-11 was a catalyst for focusing the existing transport security policy agenda on terrorism.

In Europe, for instance, international carriage of dangerous goods internationally and nationally by rail, road and inland waterways has been governed respectively by Regulations concerning the international carriage of dangerous goods by road (the ADR) by rail (the RID) and by inland waterways (ADN). These regulations are now under review by a joint meeting of the RID/ADR/ADN to consider new security provisions including:

5 This regulation amends previous Commission Regulation 622/2003 « laying down measures for the implementation of the common basic standards on aviation security »


− Proper identification of carriers before shipment;
− Securing temporary storage sites, vehicle depots, marshalling yards used for dangerous goods;
− Photograph identity cards for all transport crew members;
− Broadening of safety inspections to include security considerations;
− Training of staff involved in dangerous good transport to extended to include security.

In addition, the long-standing TIR system, defined in the UN ECE TIR Convention of 1975, devised to ensure that goods may travel by road with “minimum interference” while offering maximum safeguards to Customs administrations, has been under review to increase its applicability to security concerns. Currently a paper-based system, the TIR will gradually be computerised, according to a February 2004 decision within the UN-ECE Working Party 30 to facilitate the transmission of advanced cargo information and additional data related to security controls not yet included in the TIR procedure.

Individual transport sector modes have since 2002 made efforts to facilitate multilateral exchange on security issues, though an inter-modal framework for inland transport security remains for the moment an objective. A couple of steps in that direction, however, have recently come from both within the UN-ECE, which is currently developing a security approach for the entire supply chain -- including drafting of an International Shippers and Freight Forwards Security Code -- and the EU, as described in the Freight Transport Security Consultation Paper, December 2003. The latter proposes measures to secure key transport infrastructure and minimum security standards for transport service providers while ensuring the functioning of the transport system, leading to not only an increase in freight transport system security, but also enhanced safety and security for passengers as well.

Security developments within inland transport modes since 2002 include the following:

### 2.2.1 Rail

The March 11, 2004 bomb explosions in commuter trains and rail stations in Madrid served as grim reminders of the vulnerability of rail infrastructure and vehicles to terrorist attacks. Protecting railway stations, trains and infrastructure is complicated by their relatively easy accessibility. Many countries have – particularly in the aftermath of the Madrid attacks – stepped up police controls in stations and trains as well as in rail yards and along tracks.

More generally, cooperative, multilateral initiatives appear to have grown in number and developed over the last two years in the rail sector.

The World Security Forum organised by the International Union of Railways (UIC) in Rome in October 2002 concluded that security is now a key strategic issue in the management of railway companies and in the delivery of quality rail services.

In this context, the UIC has recently established a permanent security structure within the organisation, the function of which is to monitor rail security issues and co-ordinate security discussions within UIC.

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8 The TIR Convention sets out technical requirements on securing vehicles, containers and sealing, controls access to the system by transport operators and national associations based on criteria including sound financial standing and absence of serious or repeated offences against Customs or tax legislation.
Via its Ad Hoc Security Group, the UIC has increased in recent months its focus on providing this forum for multilateral dialogue on rail security issues, specifically, on developing a comprehensive security strategy for the rail sector. Key objectives of the Group include the following:

- to facilitate exchanges of experience and cooperation on security issues among all actors in rail transport;
- to foster sharing of best practice in such areas as protection of sensitive infrastructure, station design and management, measures to prevent terrorist acts on rail infrastructure and vehicles; organisation of rescue plans;
- to define guidelines for dealing with illegal immigration and crisis communication, among others.9

The working group’s 2003 work programme focused on a number of topics including security in stations, and prevention of terrorist acts.

COLPOFER, the organisation for railway police and security services that holds UIC Special Group status, continues to provide a forum for railway police organisations to share information and experience on crime and security issues, notably by fostering personal contacts among railway police organisations in order to minimise formal bureaucratic procedures. Their agenda includes the following aims:

- to agree on joint measures to fight crime on the railways;
- to share experience on the methods and systems used to prevent railway crime;
- to exchange information on security risks and incidents;

Formalising their existing cooperation on rail security issues – under way since the September 11 attacks -- the International Union of Railways (UIC) and the US Federal Rail Administration (FRA) signed an agreement in November 2003 to further develop their cooperation on rail security, specifically as concerns information exchange, technological research, crisis management, and transport of dangerous goods.

The signing of this agreement followed the organisation of a joint UIC-FRA conference in October 2003 in New York entitled Inter-modal Security in a Global Environment, designed to facilitate exchange on security initiatives on both sides of the Atlantic. The conference proceedings highlighted the necessity of a global and multi-modal analysis of security problems in both passenger and freight transport.

Cross-border bilateral cooperation on rail security is also growing. A bilateral accord between Deutsche Bahn AG and the Polish Railways PKP was signed in October 2003 aimed at improving this cooperation. The agreement includes:

- exchange of information on security incidents and risks in international rail traffic;
- joint patrolling by PKP and DB AG security services on selected trains particularly at night.10

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2.2.2 Road

As described above, anti-crime and security initiatives have been underway in the road sector for many years, notably via the conventions on the carriage of dangerous goods (ADR) and the TIR.

The UN’s revised rules for the ADR referred to above come into effect 1 January 2005 (subject to a six-month transition period). The International Road Transport Union (IRU) has developed “Guidelines for Road Transport Security” clarifying how the new ADR rules will affect safety advisors, records, operations, employees, reporting and confidentiality. The IRU is also producing a “Standard Security Plan” to help transport operators meet the new requirement for them to develop a security plan when transporting “high consequence dangerous goods”.

International Road Transport Union

Building on long-standing work in road transport security\(^{11}\), the General Assembly of the International Road Union adopted a Resolution on Security in Road Transport in November 2002.\(^ {12}\) The Resolution covers a wide range of road transport crime issues; however a number of elements relate to terrorism in particular.

The IRU Resolution emphasises that security cannot be imposed by decree; rather the most effective mechanism for maximising security is a public-private partnership, in which government provides the regulatory framework while capitalising on private sector developments and initiatives.\(^ {13}\)

2.2.3 Public Transport

The high ridership of public transit in some urban areas and the difficulty in securing public transport infrastructure and vehicles continue to make it an attractive target for terrorist activity. This has been most recently reinforced by the terrorist bombings in Moscow and Madrid in February and March 2004.

Local public transport companies in many countries have over the last two years carried out enhanced vulnerability assessments, developed and implemented a variety of training and emergency response measures to ensure effective response in case of attack, and conducted drills to ensure emergency preparedness.

A recent US Government survey of local transit agencies showed that further support at a federal level was needed for enhanced information transmission and funding of additional security measures.\(^ {14}\)

Co-ordination among levels of government and public transport stakeholders is in fact essential for the sharing of important information, and to provide financial support to the system. Whereas transport security policy is largely the domain of national governments, terrorist attacks call first into play the actors

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11 Further information regarding IRU initiatives to combat crime are included in the ECMT-OECD Joint Report on Container Security Across Modes (CEMT/CS/(2004)11).
12 IRU: http://www.iru.org/Presenting/Welcome.E.html
at a local and regional level. Efficient interagency co-ordination is therefore of paramount importance, though not always easy to achieve.

In Paris, security forces for the public transport company RATP operate 24 hours a day in collaboration with dedicated police services. A special transport police for the region was recently established to enhance prevention of terrorist attack. And contingency measures via the national “Vigipirate” threat evaluation and response plan are also in place. Similarly in Moscow, inter-agency cooperation between transport operator personnel and passengers of the system has been established: a Metro Police Agency ensures collaboration between the Chief of Police and the Metro Administration. A commercial Metro Security Agency has also been set up. In New York, the transit authority has established co-operation with FBI, State and local police, which includes a website for information-sharing and regular inter-agency meetings.15

Financing of measures to improve public transport security, including better communications systems and surveillance equipment, remain a stumbling block for many public transport authorities and operators however. Already tight budgets with competing priorities (notably for enhancing quality of services) mean that funding for additional security measures is often drawn from budget lines attributed to initiatives to improve the quality and overall competitive status of public transport. This is examined further in Section 3 below.

2.2.4 Inland Navigation

In early 2002, organisations dealing with transport on inland waterways had not yet begun a multilateral discussion to examine terrorism issues. At that time, both Inland Navigation Europe (INE) and the Commission Centrale du Rhin (CCNR) indicated that they were observing developments in other transport sectors to decide how to proceed.

Since that time, the CCNR has formed a working group to address security issues related to inland waterway transport among its membership.

3. KEY QUESTIONS EMERGING FROM THE CURRENT POLICY CONTEXT

The last two years have seen the emergence of terrorism and security in transport as one of the key priority areas for transport policy. Whereas security in terms of the prevention and mitigation of criminal behaviour has long been an important aspect of transport policy, security in the counter-terrorism sense has emerged at or near the top of the transport policy priority list in many countries and for most transport modes since the events of September 2001. The magnitude of human and physical loss brought about by the unprecedented use of transport vehicles as bombs in the New York and Washington attacks have caused governments to make avoidance of a repeat scenario a necessity at almost any cost.

Clearly, in the immediate aftermath of crises such as the 2001 attacks in New York and Washington and the recent public transport and commuter rail bombs in Moscow and Madrid, costs of measures are not the principal priority for decision-makers. First and foremost is the need to address the crisis -- reassure the public that everything possible is being done to respond to the attacks and to ensure their safety as they continue to travel on the transport system. Times of crisis are without a doubt not the appropriate moments to bring forth -- publicly at least -- questions of proportionality.

But over time, in a medium-to-long term perspective, the public needs to be helped to understand that a 100% secure transport system is not possible to achieve. And questions do arise as to how to assess the risk of tragic terrorist scenarios such as these. To what extent are existing policies able to respond – even with some adjustment -- to heightened risk of terrorist action? Where are additional measures needed? And how to accurately evaluate their benefits in terms of threat mitigation against the costs that will be incurred? This is particularly important given the need for measures that are proportional to resource availability and perceived risk. What institutional adjustments are necessary to respond to security needs as efficiently and effectively across transport modes as possible?

These are perhaps just some of the questions that governments – transport ministries in particular – have had/continue to wrestle with in this post-September 11 policy framework.

3.1 Seeking efficiency in transport security

3.1.1 Weighing the costs of tighter transport security against their benefits

The costs of increased security measures and who is to bear them are two of the most important questions emerging from the current policy context. For the moment, however, answers to these questions remain elusive pending better understanding of the nature of these costs and refinement of the methodologies to assess them.

The OECD identifies two general types of security costs: first, the investment required to put in place the requisite security measures, and second the negative impact that security arrangements may have on transport operations, as well as on the economy as a whole.\(^\text{16}\)

Measures to improve transport security have proven costly in several cases. The initial cost of the IMO security measures, for example -- borne by ship operators -- is estimated at over USD 600 million.\(^\text{17}\) Who will pay for the longer-term operating costs brought about by enhanced security measures (e.g. government or business) and whether these costs should be borne by one or more countries is as yet undetermined, however.

The costs of additional aviation security measures for European airports on airline companies alone is estimated in the hundreds of millions of euros.\(^\text{18}\) However, again, who shoulders the burden of higher operating costs due to tighter security measures (e.g. governments, airline companies, users, taxpayers), remains a question.

On this particular topic, there has been considerable debate in European aviation organisations regarding financing for civil aviation security. The US TSA announced in February 2004 additional funding of USD 185 million to US airports to cover installation costs for permanent explosives detection systems. Since July 2003, TSA and Federal Aviation Administration funding has reached USD 1.5 billion in assistance for meeting enhanced security requirements.\(^\text{19}\) European airports have likewise faced significant costs for increased security since the September 2001 attacks; however, European governments

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\(^{17}\) Ibid.

\(^{18}\) ACI Europe, http://www.aci-europe.org/

\(^{19}\) ACI Europe: http://www.aci-europe.org/ecommunique
vary in their coverage of these costs, tending to be less prone to defraying costs for enhanced security measures in airports. This has led to some fear of competitive distortions among EU states, between the US and the EU and among modes. With this in mind, the EC is currently examining differentiation in airport security funding.  

The negative impacts of passenger security measures (e.g. delays in air travel for additional security controls) have been shown to engender significant costs as well– particularly as concerns losses to tourism.

On the freight side, more restrictive security measures can lengthen delivery times, disrupt global supply chains and hinder just-in-time delivery systems. Trading companies have faced additional costs including those related to transport, handling, insurance and customs. These so-called “frictional” costs can make trade more expensive and reduce trade flow. The OECD estimates that measures introduced following September 11 may increase business “friction costs” in daily operations by one per cent, engendering welfare losses of approximately USD 75 billion per year.

Whereas security measures should by no means obstruct legitimate trade – and this, again, is important for Transport Ministers who play an important role in facilitating trade – security and trade facilitation is not necessarily a zero-sum game. Evidence shows that measures such as the WCO Advance Cargo Information Guidelines or other measures employing the “Single Window” concept -- which streamlines procedures for information provision on consignments for traders -- provide faster clearance and release of consignments (thereby reducing delays and their associated costs), and increase transparency and integrity – all of which can facilitate trade.  

Assessing where that optimal balance lies between tighter security measures, their impact on efficiency in transport sector operations in the short and medium term, and the benefits that they accrue for a more secure transport system and for trade facilitation in general may, however, be easier in some cases than others; and assessment tools currently available are not adequate in all circumstances to measure the effectiveness and efficiency of measures to improve security.

3.1.2 Balancing security v. other transport policy priorities

Another factor in the efficiency equation involves balancing enhanced security prerogatives with other priorities for transport policy. The need to mitigate terrorist threat in urban public transport -- a prime target for terrorist action because of the opportunity to inflict mass casualties and economic damage -- is one illustration of this.

Most public transport authorities and operators seek to offer accessible, affordable, reliable services for their clients in order to remain competitive with the private vehicle for urban travel.

For the reasons cited above, however, public transport authorities and operators are also obliged to have tight security measures and emergency response plans in place in case of a terrorist scenario. Competition for limited resources can lead to a funnelling of funding away from initiatives to improve the service quality of public transport and into enhanced security measures. These measures -- while necessary -- can also be constraining for public transport service providers in a variety of ways: they can limit access, engender delays, and possibly lead to increases in fares. This could serve the purpose of inconveniencing transit riders just enough to push them back into their private automobiles. And this represents in a larger
sense a compromise to objectives for more sustainable travel practices in urban areas, the meeting of which public transport has an important part.

A recent US Government survey has in fact revealed that balancing transport system clients’ need for quality public transport with security measures is a significant problem. For this reason, security questions might best be addressed over time as one aspect of an integrated quality approach to public transport provision.

3.2 Assessing and managing the risk

Limited resources in transport sector budgets require that resources be linked with the highest priority budgetary needs. In the transport security context, evaluation of risk is essential in order to efficiently allocate limited resources to actions of the highest importance.

Managing risk involves systematic analysis of security threats, vulnerabilities in the system and the relative importance of assets and functions based on specific criteria, for example, the economy, public safety etc. An example of decision-making using this approach might be the following: an airport that is determined to be an important or critical asset, vulnerable to terrorist attack and a likely target for attack could be determined to be a higher priority for funding than an airport that is only vulnerable to attack.

With this in mind, airport security measures that would reduce the level of risk to the most important or critical airport assets would provide the greatest level of security protection for the cost.

The question arises: what are the acceptable levels of risk in a given terrorism scenario involving transport? In some transport sectors and in some countries, it would appear that the fear of another cataclysmic event such as that of 11 September 2001 has been so great that efficiency considerations have been considered only after costly policy responses – considered adequate for perceived threat levels – have been defined.

The principles behind risk management hold that while risk most likely cannot be entirely eliminated, it can be assessed so that properly aligned policy responses can help mitigate the threat. In this way, use of this type of risk analysis-based approach could provide the proper underpinning for more efficient decision-making on transport security issues.

With this in mind, distinctions have to be made between different levels of risk. For example, risk is no doubt higher for transport of dangerous goods than of other kinds of goods. It follows that security measures needed to combat terrorism may be distinct from those needed against other forms of transport crime (though this does not preclude the need to capitalise on existing anti-crime measures in transport terrorism policy planning).


24 The recent Proliferation Security Initiative (PSI) was launched by 11 countries including Australia, France, Italy, Japan, Germany, Netherlands, Portugal, Poland, Spain, UK and US in 2003 as a cooperative initiative to fight against the proliferation of weapons of mass destruction (WMD). A “Statement of Interdiction Principles” identifies practical steps aimed at interdiction of WMD, their means of delivery and related materials. It is intended that this initiative address proliferation of WMD not only by State, non-State entities and terrorist organisations.
Further, threats may vary between different countries, Europe-wide or world-wide; measures handed down in one country or within one geographical context may not be appropriate in all cases. Whereas measures for counter-terrorist security need to be aligned with and proportionate to the threat level -- which may vary from country to country and from time to time -- measures to combat transport crime (e.g. for transport of dangerous goods) will most likely remain constant across countries and time.

Differentiating risk among modes is also necessary. The very significant measures for aviation security may not be necessary or appropriate for all modes, and unless the threat level justifies it, there is no reason why one mode of transport should pay for costly security measures because of the threat to another mode. This being said, there may be a risk that mode-specific security measures -- sometimes carrying considerable cost -- create some level of competitive distortion among modes. This may need to be explored further.

Assessing and managing risk does entail its own funding however. As noted in Section 2, this is a particular problem for local authorities and transport operators, who must shoulder the burden in many cases for immediate response to crisis in cases of terrorist attack. Transport Ministers agreed in 2002 that they had a role in providing support for risk and vulnerability assessments for local and regional public transit as well as for training of personnel on emergency procedures within and between modes.

### 3.2.1 Institutional co-ordination

Part of managing the risk of terrorist action to transport involves carefully planned institutional co-operation. Undoubtedly, the overall strategy for transport security lies with national government, however clear delineation of the roles and responsibilities of all levels of government is essential in responding to crisis situations brought about by terrorist action in transport.

As has been mentioned earlier, the involvement of regional and local levels of government is critical in enhancing the security of the transport system. Regional and local areas often own significant portions of transport infrastructure (airports, public transport systems, motorways and ports.) As a result the responsibility for protecting the infrastructure and responding to emergencies involving transport infrastructure lies with regional and local levels.\(^{25}\)

As terrorism has risen in the list of priority areas for attention in the transport sector and throughout the economy, the need to align institutional and organisational responsibilities with actions to ensure security has become clear.

A number of countries have taken action to do this. In perhaps the most comprehensive way to date, the United States took action following the attacks of September 11 to create the Department for Homeland Security (DHS), which merges 22 different federal agencies and programmes into a cabinet-level agency with virtually singular responsibility now for all aspects related to counter-terrorism and security. Housed within the DHS is the Transportation Security Administration mentioned in Section 2, which has responsibility for all issues related to transport security.

Germany has developed a “strategy for the protection of the population in Germany”, which involves the grouping together of federal responsibilities for managing natural disasters, industrial accidents, infectious diseases and international terrorism.\(^{26}\)

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Along similar lines, the UK has set up a joint Home Office-Department for Transport-led multi-agency threat and risk assessment (MATRA) initiative, designed to co-ordinate assessment efforts among national agencies. The MATRA work has recently been applied to most airports in the UK and will be extended to maritime ports pending Ministerial decision.

Most recently and on an inter-governmental scale, the EU has recognised that better co-ordination among EU Member Countries on security issues for all sectors – including transport – is essential. The recent train bombings in Madrid incited EC Ministers of the Interior and permanent representatives to the EU to agree in principle to a proposal by EU foreign policy commissioner Javier Solana to appoint a European security co-ordinator under the responsibility of Mr. Solana.

In addition, to facilitate cooperation among national intelligence and police agencies, the Commission has proposed a “clearing house” for the exchange of information between Europol, Eurojust and intelligence services.27

4. CONCLUSIONS

4.1 Progress in adjusting to the new security environment

In examining developments in transport security over the last two years since the Bucharest Ministerial, there appears to have been some progress overall within the transport sector in coming to terms with a new transport policy environment in which security is close to – if not at – the top of the policy priority list in many countries.

Individual transport sector modes have since 2002 made efforts to facilitate multilateral exchange on security issues, though an inter-modal framework for inland transport security remains for the moment an objective, despite several initiatives underway.

Whereas the maritime and aviation sectors have continued to enhance measures employed in the immediate aftermath of September 11, 2001, inland transport has begun to define ways to build on existing regulations governing, for example, transport of dangerous goods, to meet the more stringent requirements of the current security policy context.

Many complex challenges concerning how to deal with transport terrorism remain to transport policy-makers, however. And the recent terrorist attacks in Moscow and Madrid – horrifically costly both to human lives and to transport vehicles and infrastructure -- have added heightened urgency to the need to find ways to better protect the clients of the transport system as well as the system itself from terrorism. These attacks highlight the vulnerability of commuter rail and public transport to terrorist action, even when security measures have been put in place. Recognising and doing something about the vulnerabilities in the transport system before terrorists very effectively point to those vulnerabilities with their destructive actions is, it would seem, the biggest security challenge to decision-makers at this time.

But policy-making is carried out within a framework that carries with it constraints – be they economic, financial, regulatory, legislative or others. Assessing and addressing the security threat, translating that threat into effective and efficient policy measures to mitigate the threat, while considering costs -- who will pay for the measures, how these costs weigh against their benefits, and how tighter security can be reconciled with safe and efficient transport of persons and goods throughout the economy –

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27 EurActiv: EU News, Policy Positions and EU Actors online: http://www.euractive.com/cgi-bin/cgint.exe/
these are just some of the emerging transport security policy challenges to transport decision-makers in this post-September 11 transport security policy environment.

4.2 The need to balance security measures and efficiency

Ministers pointed in Bucharest to the need for a balancing of security measures with efficiency considerations. However questions remain as to nature of these costs (e.g., investments, costs from the negative impact of security arrangements on transport operations or due to an absence of security measures, time delay costs, running and operating costs) and who (e.g., government, industry, users, taxpayers) will bear the cost burden of over time.

Whereas the costs of transport security measures have been shown to be significant in certain cases, the possible benefits for trade facilitation of enhanced security measures should not be ignored; indeed security and trade facilitation may go hand in hand, particularly in as much as certain measures can facilitate information flow and increase transparency and integrity – all of which can facilitate trade.

Assessing where that optimal balance lies between tighter security measures, their impact on efficiency in transport sector operations in the short and medium term, and the benefits that they accrue for a more secure transport system and for trade facilitation in general may, however, be easier in some cases than others.

Ministries of Transport can support the development and refinement of assessment methodologies to better ascertain the costs and benefits of enhanced security measures for the transport sector.

4.2.1 Risk assessment

Transport-sector measures to enhance security are, in many cases, being defined and implemented without ex-ante assessment of threat and vulnerability. A more comprehensive approach to risk management that takes into consideration differentiation of threat levels, geographic and modal contexts in addition to institutional arrangements and funding streams is indispensable in order to more efficiently align risk of terrorist action with policies to mitigate the threat.

Government -- Transport Ministries in co-ordination with other national Ministries and agencies - can work together to define and establish this overall inter-modal framework for risk management. Within this context, regional and local authorities as well as modal associations and industry may be better equipped to carry out specific vulnerability and risk assessment.

4.2.2 Institutional co-ordination

The realignment of the transport security priority has carried with it necessary adjustments at different levels of government, among them institutional, budgetary, and organisational. Whereas national government holds responsibility for the overall strategy for transport security, regional and local levels are called first to react in times of crisis; therefore clear delineation of the roles and responsibilities of all levels of government is essential in order to respond effectively and efficiently to crisis situations brought about by terrorist action in transport.

Ministers of Transport in Bucharest recognised the need for an inter-modal framework for transport security co-ordinated among Ministries and agencies handling national security and terrorist issues – in particular ministries of the Interior and Defence – and among levels of government.
Within this context, Ministries of Transport can continue to work towards better reconciling transport security and efficiency questions as summarised in this note by:

- defining a transport security policy framework in co-ordination with other relevant governmental bodies, intelligence services and police, assigning specific transport security responsibilities to appropriate levels of government and relevant agencies.

- supporting the development and refinement of assessment methodologies to better ascertain the costs and benefits of enhanced security measures for the transport sector.

- working together with other national Ministries and agencies to establish an overall inter-modal framework for risk management. Within this context, regional and local authorities as well as modal associations and industry may be better equipped to carry out specific vulnerability and risk assessment.

- sharing experience and good practice in these areas with other governments in order to further understanding and co-operation.