COUNTERACT

Cluster Of User Networks in Transport and Energy Relating to Anti-terrorist ACTivities

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Deliverable 1

GLOBAL BACKGROUND ASSESSMENT

A Brief Report of the Current Terrorist Threat to
PublicTransport, Freight and Energy at the European Level

The contents of this report do not necessarily reflect the official views of EU Institutions

"The global reach, capability, resilience, sophistication, ambition and lack of restraint of Al Qaida and associated groups from around the world – place the current threat on a scale not previously encountered"

UK Centre for Protection of National Infrastructure

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1   INTRODUCTION

The aim of this paper is to provide a brief overview of the current terrorism threat to the European Union and its Member States and how this threat might impact on the transport, freight and energy sectors at the European level.

The paper, however, is not and should not be construed as a formal threat assessment. The Union and individual Member States make their own such appreciations and whilst there is a general consensus that a credible terrorist threat exists, it is far from even throughout the Union.

It is also important to note that the major providers in the sectors under discussion in this paper, including public transport, freight and energy, are responsible at a local level for interpreting risk and the possibility of a terrorist threat, more often than not in cooperation with national authorities.

Nevertheless, for the purpose of the COUNTERACT project, the assessment below can be considered an appropriate platform for the more detailed and substantive exercises to follow, including the State of the Art Review and the anticipated Targeted Studies.

Finally, the contents of this assessment were briefed to the COUNTERACT partners and the members of the four Thematic Users Groups.

2   THE NATURE OF THE THREAT

Europe is no stranger to terrorism. At various times and in various parts of the continent, terrorists have been actively engaged in campaigns against authority. In more modern times, European citizens have been suffering at the hands of terrorist groups in the United Kingdom, Spain, Italy, Germany, France and Turkey. Isolated incidents have occasionally taken place in many others, ranging from Sweden to Belgium.

However, the current threat is arguably very different. Unlike the terrorist threats of yesteryear, (some of which have not entirely disappeared!) the current threat is more global in nature and arguably more difficult to manage.

Although the media has a certain image of the modern global terrorist, heavily influenced as it is by the iconic visions of the 9/11 catastrophe, the truth is that the Authorities in the United States and the EU are still trying to establish the precise nature and ultimate direction of the threat. Unlike many in the media, they do look for answers in both the actions of the terrorist and their words.

Can we quantify the level or scale of the threat? A recent speech by the Director of the UK Security Service on 9 November 2006 indicated that in the UK alone, her service was dealing with 200 groups or networks, comprising 1600 known individuals who were plotting or facilitating terrorist acts. Additionally, as the thwarted attacks in August 2006 on transatlantic flights demonstrated, many of the cases under investigation are not simply acts of domestic terrorism but have a global dimension.

There is sufficient reason to believe that similar potential threats exist across Europe and judging by the number of anti-terrorist arrests in France, Italy, the UK, Germany, Spain and most recently Denmark, we have to conclude that the level of terrorist threat in general has increased and could conceivably increase further in the future.

This increase is likely to be linked to the main ideological driver which is seen as a catalyst for violent terrorist action. Whilst many commentators rightly point to radical Islamist beliefs as the key driver, several specialists in and out of government believe that the current terrorist threat is equally linked to quasi-political ideological motives. Both Osama bin Laden and his key deputy, Ayman Zawahiri, skilfully blend the message of religion with more traditional political concepts of their group being a self-appointed 'Vanguard' which is acting on behalf of a much wider Muslim community. Political scientists will note the similarities of such language to European concepts of communism and fascism where similar 'vanguards' were created to seize political power and maintain it for the public good. Under this scenario, the ideological-religious thought of Sayyid Qutb – which is distinctly anti-Western, is distilled with historical political grievances and related concepts of humiliation to create an explosive cocktail of resentment and revenge.

This artificial synthesis is certainly contributing to the radicalisation of Muslim youth around the world and notably within our own societies. Subtle and not so subtle propaganda encourages individuals to demonstrate extreme forms of religiosity but also a deep hatred for our democratic social norms and life choices. Sadly, we have seen how potent a driver such radicalisation and hatred can be, most notably in Madrid and London but also globally in New York, Bali and Mumbai. Furthermore, this blend of religion and politics is clearly reflected in the modus operandi of the global neo-Jihadist terrorist.

One of the most obvious features of the global Islamist terrorist is the urge to cause violent death and destruction. There are no warnings of impending attacks (a facet of most modern European forms of terrorism) and no distinction made between so-called 'legitimate' and 'illegitimate' targets. Indeed, the terrorist seems to have built an internal parody of the 'just war' theory and can, in their terms, justify the indiscriminate murder of women and children.

The consequences of this trend must surely point to further attacks against 'soft targets', especially in locations where great numbers of citizens congregate. By definition this will include our mass passenger transport systems which, everyone agrees, are totally vulnerable.

Linked to this development is another technique which currently finds favour with the Islamist terrorist, namely suicide terrorism. Although technology provides ample scope for creating stand-off weaponry which can be used by terrorists, our societies must now come to terms with a terrorist who wishes to demonstrate faith and commitment through self-destruction whilst inflicting death and destruction on those around him or her. Although not the originator of such a tactic, the current neo-Jihadist has rapidly adopted the methodology as a badge of honour.

The problem facing European law enforcement authorities is that we do not yet have an adequate deterrence to suicide attack, a fact which is recognised by the terrorist and is regularly exploited by them. The efforts and emphasis placed on de-radicalisation strategies by individual Member States and the European Union bears testimony to the fact that deterrence is not feasible and our ability to detect, disrupt or defeat an attack, is similarly limited. Sadly, history shows, 'the bomber will always get through.'

If the bomber does get through, we have to hope that they are not armed with weapons of mass destruction (WMD). Current global terrorist movements have stated repeatedly that they are actively trying to acquire WMD and will not hesitate to use them. Indeed, thwarted terrorist attacks and terrorist trials in the UK, France, Jordan and the United States have provided an insight into their willingness to create and manufacture crude biological, chemical and radiological weapons for use against the general public.

It should also be borne in mind that to date, global terrorist have shown themselves to be far from the unhelpful media picture of lightly-armed men sitting in distant caves. Their organisation, so far as one can judge from the evidence available is both sophisticated and innovative. Their operational planning and logistics are notable for their attention to detail. Any organisation with the capacity to launch attacks simultaneously either locally or internationally must be respected as an opponent. The deliberate attack by terrorists on 'iconic' targets makes good headlines and it also makes a political message. However, the key message is professionalism.

Another feature of the present terrorist threat has been the mutation of the original Al Qaeda movement which now represents more of a global network of decentralised and fragmented communities who are inspired by what Al Qaeda represents. The importance of this development is that less emphasis is being given to traditional forms of terrorist recruitment and the Authorities are witnessing increased radicalisation of young men and women in our own communities who are becoming self-appointed terrorists or sympathisers. The great fear is that an element of this decentralisation and fragmentation is the emergence of a more radically-minded pool of potential disaffected young men and women that are both willing and able to commit acts of suicide terrorism. It also creates a difficult intelligence target, where evidence is never sufficient to pre-empt or prevent all likely attacks.

Undoubtedly, the developments above and the 'blowback' which is being cited as a result of events such as Afghanistan, Iraq and Lebanon would appear to be sustaining those individuals and communities which harbour grievances against our existing political and social order and who are prepared to take direct terrorist action against us. Close monitoring of cyber space clearly demonstrates that the internet is being exploited to inculcate hatred and resentment of 'western' policies and arguably more worryingly, attacking western values such as secular law, the rights of women or homosexuals and social inclusion. The darker side of the world wide web is being exploited to coordinate and facilitate terrorist planning and operations.

Whilst much time and effort has been invested in trying to understand and appreciate the drivers of Islamic Fundamentalist terrorism, the authorities in the European Union also have a duty to protect the lives and property of the citizen, including their fundamental human rights. As a civilised community based on respect, tolerance and shared values, we rightly seek ways to protect those values and today, a key task of modern anti-terrorism in Europe is to protect our critical infrastructure networks which underpin our modern society, two of which are transport and energy.

In conclusion, we think we are right to consider this threat as being of a scale and nature not previously encountered. It is not likely to disappear any time soon and our societies could conceivably come under attack for decades to come.

3 TERRORISM AND THE THREAT TO PUBLIC TRANSPORT

It is a sad fact that public transport has, in the past 60 years, been seen as an appropriate target for terrorists. The logic is easy to follow: passenger transport networks are relatively 'soft targets', they afford easy access and they provide suitable cover for escape. They also provide concentrations of civilians and their slaughter never fails to generate high levels of public interest, both national and international.

The attacks on the Spanish railway network in Madrid in March 2004, the Metro and Bus strikes in London in July 2005 and most recently, the Mumbai train attacks all point to public passenger transport networks as being suitable terrorist targets.

The weapon of choice to date has been conventional explosive, although of the locally manufactured variety as opposed to conventionally manufactured explosive material of the sort which is commercially available but under greater control and scrutiny. When packed with nuts, bolts, nails or sharp metallic objects, the effect on people and infrastructure of these crude but effective weapons is considerable.

Can such atrocities be prevented? The truthful answer is probably not entirely. The attraction of the passenger transport network to the terrorist lies in several directions. As mentioned above, access is virtually guaranteed without hindrance, although in the wake of Madrid and London, new technology is being deployed to assist in searching passengers and to detect certain types of object. However, such systems are unlikely to be deployed everywhere on the network – the financial investment would be too great a burden for the transport industry alone to bear.

Another feature of these current security systems is their inability to identify all the possible forms of terrorist bomb. The recent aviation security scare in the United Kingdom highlighted the threat from so-called 'liquid bombs' a cheap and rudimentary form of binary weapon.

Yet even if such a system of scanners and 'sniffers' could be deployed to regulate and control access to the transport network, the impact on operational services on the network could be difficult to sustain, in terms of access times and timetables. Furthermore, the introduction of additional control and security systems is likely to be challenged by individuals or communities who fear that individual human rights are being eroded or compromised. This would be particularly relevant if the transport providers were to mimic aviation security regimes and introduce biometric controls and passenger profiling.

The purist will argue, however, that irrespective of the nature and volume of security measures which might be deployed, 'the bomber will always get through'. The purist is certainly right, accepting that the times terrorist attacks have been prevented cannot be quantified. However, if we are to maintain the integrity of our passenger transport networks and the confidence of the travelling public then sensible and cost-effective measures will have to be tried.

Fascinated as we are by the individual acts of terrorism on the passenger transport network, we have to move beyond simple analysis and consider the wider implications.

Perhaps the most important point to note is that no terrorist group has effectively targeted the public transport system in a sustained and systematic way so as to bring the network to a state of collapse. Historical examples abound of the use of terrorism or 'guerrilla' tactics to seriously degrade transport networks including derailment, destruction of rolling stock, blocking tunnels and murdering transport staff. Today, however, there has been little evidence that terrorist have a strategic view of transport at the European level, aiming to disrupt or destroy national systems or cross-border trains such as Eurostar.

One explanation could be that there is no intent to attack public transport networks at the European level, with no serious linkage planning to coordinate attacks in cities as far apart

as Riga, Budapest, Palermo and Dublin. Another explanation is that such coordination takes time and that sometime in the future we can anticipate such actions. Such considerations are important when it comes to determining if solutions can be found at the European level.

Arguably, the greatest fear for the passenger transport network, particularly the rail and metro system must be the threat of a sustained assault by terrorists deploying weapons of mass destruction (WMD). The recent trial and conviction of a terrorist in London highlighted the aim to do just this.

The threat of a chemical, biological or radiological attack on an underground station or central metropolitan railway station has become more real since the Aum Shinrikyo chemical attack on the Tokyo subway in 1995. The lessons learnt propelled many European Governments to examine the implications for similar attacks in their own capitals and a regular feature of central government emergency response exercises has been the management of a terrorist event arising from the detonation of a radiological dispersal device on a Metro station.

Targeting such stations is logical for a terrorist. The results could range from mass casualties not only from the initial attack but also from mass panic to a genuine fear of using the system. Depending on the nature of the attack and the substances used, the attack could have effects lasting longer than the immediate crisis. The anthrax scare in the USA in the wake of 9/11 demonstrated that the dispersal of contaminated material could be considerable, some public systems facilitate dispersal (such as a postal network) and the denial of use of contaminated facilities could take many years and cost much in terms of public finances to rectify.

The dispersal of even a crudely-manufactured biological pathogen or the detonation of a conventional explosive-based radiological device must remain the greatest threat the public transport network faces in the future. How likely this is to happen is difficult to gauge. If one accepts the statements of some of our governments, it is not a question of if it might happen but when!

Sadly, one must conclude that for the foreseeable future and despite the best efforts of the public transport sector and government, the passenger transport network will suffer from further terrorist attacks. They might appear random and stretch over several months between strikes. However, in terms of potential future threats, two forms stand out as distinct possibilities. The first would see the network subjected to severe and sustained attack, not only on platforms but across the network, to disrupt or deny access to the system and possibly even to bring the system to a halt. This strategic level threat could manifest itself at both Member State level or at the European level.

The other major concern is the single or multiple attack, using WMD. Such an event would have long-lasting consequences, certainly beyond the confines of the transport network but would strike at the core of our democratic societies and seriously call into question the ability of our governments or the European Union to protect us.

4 TERRORISM AND THE THREAT TO FREIGHT TRANSPORT

The terrorist threat to Europe's freight network gains far less attention than its sister sector, public transport. Perhaps this is understandable, given that few terrorist organisations have made a serious attempt to target major freight networks,

However, any serious attempt at assessing the risk must look beyond past experience and if necessary consider vulnerability against terrorist intent. Additionally, one must recognise that the freight sector routinely assesses its own risk and has in many cases adopted robust security regimes.

The key issues concerning the freight sector lie, it is considered, in understanding the key components, which includes the means of freight delivery, freight contents and the operational system that controls and regulates it. It is also worth noting that the different forms of freight transport bring unique security issues. For example aviation and maritime freight are closely linked to other, non-transport related security regimes such as port security and airport security, anti-piracy and general anti-organised crime protection systems.

However, it could be argued that rail and road freight are more likely to be exposed to sustained terrorist attack than air and maritime forms. The reasons for this are obvious: the safety of transport routes on land and by rail are not generally subject to any specific form of security other than for health and safety reasons: access to them is guaranteed and the terrorist can more or less choose the time and place of any attack if they are sufficiently informed of movement.

However, why attack the freight system? There are two main reasons why the system might be attractive to terrorism. The first is that our society functions largely through the smooth and efficient transit of everything from basic foodstuffs to domestic appliances and certain types of fuel. A concerted terrorist effort to paralyse, disrupt or destroy the economic and social fabric of our society would have to target the freight system of Europe.

The second reason why the freight network could prove attractive is the nature of some of the consignments it regularly carries. It has long been recognised that particular cargoes, such as noxious chemicals, poisons, flammable fuels, radioactive materials and nuclear waste are regularly transported along both roads and railways. The theft or diversion of any such freight could lead to a situation where it could be 'weaponised' and immediately or ultimately exploited by terrorists, either as a form of blackmail over the threat to use it or its actual use against specific civilian targets. Similarly, if a terrorist were able to identify the high-value cargo, locate it and control it to a certain location, then the possibility exists of it being used as part of a terrorist attack to cause maximum damage and loss of life. A possible scenario for how an attack took might look, took place in North Korea in 2004 when a freight train exploded as it passed through a passenger train station resulting in approximately 3000 casualties.

The freight industry and government and local authorities are only too aware of the potential damage that access to potentially dangerous cargo could bring. All parties go to great lengths to protect high-value cargo and have well-developed civil emergency drills for managing an accident. However, the real security actually lies in the denial of information about such cargo, which means limiting access to and knowledge of cargo manifests, type of containers, transit routes and timetable schedules. However, such protective systems are not universally applied and are not infallible. Dedicated terrorists, using simple surveillance techniques will very quickly be able to distinguish dangerous or potentially dangerous cargo from less important freight.

For the time being, the threat to the freight network at the European level is difficult to assess. If past behaviour is anything to go by, then we might not see attacks similar to

those of Madrid or London. However, the potential for increased attacks of the network would largely depend on a number of factors. The first would be the aim of the terrorist. If Europe were to come under sustained terrorist attack, it is very likely that the system would be subject to attacks to degrade the service and deny access to regular supplies. There would be an undoubted economic penalty to pay were this to occur.

A more likely future scenario could focus on specific attacks against specific cargos. The urge to acquire material to cause significant and large-scale death and destruction could lead to either a consignment being hi-jacked or deliberately controlled and weaponised as part of another major attack. The dual-use function of rail infrastructure as a carrier of freight and the travelling public, offers the potential for certain types of cargo to be exploded to cause maximum collateral damage.

Finally and linked to this, we must give some consideration to the notion of cargo tampering. The ability to gain access to specific types of cargo, for example food stocks, even for a short space of time, could afford the terrorist an opportunity to instigate a crisis and instil panic in the civilian population through poisoning or the deliberate leakage of hazardous substances. Examples abound of food products been tampered with in production and which find there way onto supermarket shelves – why not tamper on route which circumvents food protection regimes?

In conclusion, the freight sector, whilst being less attractive to the terrorist than the public transport sector, demands equal attention. Indeed the consequences of an attack on certain cargo in the freight sector could pose a greater threat than a bomb on a metro.

5   TERRORISM AND ENERGY SECURITY

When one addresses the notion of energy security, it is surprising to note that there is a variety of interpretations as to what it actually means. Some commentators like to focus on the issue of access and reliability of supplies. For others, it relates to a wider issue of national critical network infrastructure, which is particularly true in relation to nuclear and electricity supplies.

Yet when one explores the subject deeper, it soon emerges that many of the threats that we might be exposed to regarding the security of the energy sector relates to circumstances which lie outside the European Union's borders. So long as most states of the European Union rely on imports of foreign oil, gas and electricity, it is crucial that we recognise that what happens or might happen within the Union is only part of the story.

In terms of a terrorist threat, it has to be noted that few serious or concerted attempts have been made to target Europe's energy infrastructure, although that is not to say that no attempts have been made to damage infrastructure, including pipelines, pylons and routing stations. Why should this be so?

Part of the answer might lie in the fact that for many years now, the energy sector has been seen as an obvious terrorist target and therefore subject to regular security appraisal and reappraisal. Regular training scenarios for law enforcement and anti-terrorist units have featured threats to energy installations, ranging from offshore oil and gas production rigs to land-based refineries. Interestingly, the civil authorities are just as worried about the environmental consequences of any terrorist attack as the political and economic consequences. The signature of these exercises also focuses on the control systems of the energy sector and regular checks are made to ensure that the management and communication information technology is regularly protected from both physical and cyber disruption or attack.

Another part of the answer might lie in the fact that, as noted above, a more effective method of disrupting Europe's energy could more easily take place outside the Union than in. Attacks on oil installations in Saudi Arabia or the restriction the supply of Russian gas supplies through Ukraine earlier this year were indicative of the precarious security of much of our energy supplies.

However, when assessing vulnerability in the Union, there are a number of discrete parts of the system which could be vulnerable.

In terms of nuclear power plants, the key target might be regarded as being the reactor itself. Admittedly, security around such sites is reasonably tight and physical access is tightly controlled. Very little could be done to prevent attack from stand-off weaponry, such as mortars or improvised tube-launched artillery but even if very accurate, it is inconceivable that such weapons could penetrate the reinforced sarcophagus of a reactor plant, such is the degree of safety built into the specifications for the protective shields with these reactors. Security specialists have also given consideration to attack from airborne platforms, a hijacked airliner for example but again nuclear reactor defences are built to withstand even this type of attack. Predictions as to the likelihood or success of such an attack may vary, but nevertheless it cannot be ignored, as the disruption and political implications of such an attack would be considerable. A more fruitful potential target for the terrorist is more likely to be a storage site for nuclear waste. Since suicidal actions are not unlikely, a determined assault on such a site to obtain even a small quantity of high or medium level nuclear waste for use in a so-called 'dirty bomb' is far from impossible.

It would appear that sufficient attention has been given to physical security and there is greater concern today over the question of someone managing to infiltrate the system by proxy or remotely through computer hacking. Whilst enough fail-safe systems might be in

place to partially thwart such an attack, significant damage could still be done to disrupt or deny supplies for a lengthy period of time.

Such considerations also apply to electricity generating stations and gas terminals. The potential for limited disruption has always existed as a result of an accident but one cannot discount that a terrorist strike on such a facility, many poorly protected or entirely unprotected, would have a considerable impact on the supply of energy. Given the number of such facilities Europe wide, numbers running into the thousands, there seems to be little that can be done, at least in a cost-effective way, to adequately guarantee either their safety from attack or more worrying, their ready replacement if destroyed.

However, it can be contended that selected targeting by terrorists of key oil refineries and gas facilities, particularly in sea or river ports or storage depots in large urban conurbations would bring the desired effect of mass casualties and disruption and denial of energy. Determined and well-prepared terrorists could, more often than not, breach security at many of these installations throughout Europe and cause untold damage.

The problem again, in terms of security, is getting the balance right between the likelihood of a threat materialising against the cost of several layers of sophisticated security measures. These can range from CCTV and sensors to dogs and foot patrols by security staff, not to mention personal security including vetting and personal searches. For the time being, the threat level and scale of security is considered to be balanced.

Many other commentators have noted the relative insecurity of the means of energy distribution, ranging from pipelines to tankers. This cannot be ignored and Europe is already aware of the threat posed by potential attacks against pipelines in Slovakia or the Czech Republic for example. Energy companies, however, have to balance the cost of protecting vast stretches of unprotected pipelines and compressor stations against the ability to quickly react and manage the consequences of an attack and any subsequent leakage. For the time being, consequence-management, appears to offer a balanced form of 'security' in relation to the guarantee of stable supplies.

As is always the case in such overviews, there is always a poor relation. In the case of energy, we should perhaps give some mention to hydroelectric dams and coal mines. Whilst we do not think these constitute strategic targets in current terrorist thinking, their attack and possible destruction by terrorists could have a notable local or regional impact. Additionally, both are attractive in the context of publicity. Images of large swathes of land under water and the resultant damage have the potential to shock television audiences globally. Similarly, the plight of people trapped below the ground and the concomitant rescue efforts never fails to grab viewers' attention.

For how long can energy supplies remain immune to attack in Europe? We fear not long. Close scrutiny of Al Qaeda associated web sites and broadcasts by key officials have regularly called for attacks on energy supplies and facilities. In the Middle East, there have been several physical attacks on installations, pipelines and personnel. There is no reason to believe that such attacks could not be carried out in Europe and successfully. The satellite images of a large black plume covering miles around the targeted area beamed worldwide is in its own way, an iconic marker.

More troublesome for Europe might be a more strategic and concerted effort to disrupt its energy supplies by non-state actors associated closely with states of concern such as Iran, especially if Europe were to become involved in more determined efforts to prevent that country acquiring nuclear weapons. As was pointed out earlier, the European Union is very dependent on imported oil and increased tension in the region could have severe consequences for the European domestic market.

6   HORIZON SCANNING AND THE TERRORIST THREAT

One of the more difficult tasks in threat assessment is trying to determine how threats or risks will mutate in 10 or 15 years from now. The importance of doing so is to ensure that our concept of security remains fluid and not stale, that we are not preparing for the last war so to speak and crucially to give adequate lead time to those researching and developing technological tools to support that security policy.

Is there anything that can be said with any authority or certainty about the future of the terrorist threat?

The first point to make is that the use of terrorism to force political change will not disappear. Indeed, it is suggested that it will grow in intensity and become the weapon of first resort for many existing and future non-state actor terrorists. Furthermore, as the state struggles to find adequate responses, there will be an increasing reliance on key industrial and service industry providers to create their own solutions. The rise of non-state corporate private security providers will become more evident as the years pass.

Another point worth noting is that mass casualty terrorism will not only increase but terrorists, armed with their own media production facilities, will increasingly try to exploit virtual images of mass death and suffering. Part of the rationale for this is an effort to 'improve' and 'better' previous atrocities. Another factor is the recognition by the terrorist that seizing and holding the global media's attention for more than a brief news cycle is becoming progressively harder to do.

A rise can be expected in serious attacks on critical network infrastructure, to cause death and destruction and to manipulate, coerce or blackmail governments, companies or civilian populations.

Much has been spoken about in recent years of the connectivity between organised crime and terrorism but other than in relation to narco-terrorism, there have been few concrete examples. However, it can be suspected that this phenomenon become more prevalent as organised crime begins to recognise the potential for targeting individual corporations and industrial sectors. The banking and finance sector has already been under sustained pressure in relation to blackmail over information theft and computer hacking but it should not be surprising when such pressure seeps into sectors such as medical supplies and energy.

Although this is by no means an exhaustive list, it does reinforce the point that horizon scanning would suggest that living in an unstable world plagued with terrorism is not an unreal proposition. Yet what can be said about the implications of this for the transport and energy sectors?

Further and perhaps more Europe-wide coordinated attacks can be expected on our public passenger transport networks. The ability to deter such attacks, particularly by individual or multiple suicide bombers will be severely restricted by the cost and human right implications of trying to hermetically seal the system, not to mention the known limitations of technology.

Similarly, parts of the freight network will also become more attractive to the terrorist as security enhancements limit the freedom a terrorist can have on the more traditional open passenger network. For the time being, such an attack is likely to focus on a high-value cargo, such as hazardous chemicals or radioactive waste and could be linked to a more ambitious scheme to cause a mass casualty event in a large mainline railway station.

More disruptive influences can perhaps be expected on the critical command and control networks of the energy sectors to ensure a more widespread disruption of supplies rather than the physical destruction of key plant or infrastructure. Indeed, the greatest threat to

supplies would probably take place outside the European Union where effective security measures are probably less and influence of the Union weaker.

Finally, whilst one cannot be certain where terrorists will strike next, one factor should be borne in mind- the terrorist likes to succeed. There is little satisfaction in failure. This leads us to believe that we might eventually see a shift in terror targeting away from better protected transport, freight or energy platforms and infrastructure to less well-secured sites in the newer Member States of the EU. Even a cursory glance at the relative security measures in say Budapest or Latvia in comparison to the UK or Germany simply underlines the stark fact that security is not constant at the European level.

Whilst it might not be feasible to see solutions at the European level, given the set of security variables within Member States across the European Union, there should be no barriers to encouraging those lagging behind to improve their security and resilience capabilities in order to afford levels of public confidence across the European Union.

7   RECOMMENDATIONS FOR FURTHER FOCUSSED STUDY

Several issues are emerging which could lend themselves to further study. Additionally, when looking at the potential threat, it would be folly not to consider some issues which offer synergy between the three COUNTERACT clusters.

RECOMMENDATION 1:

THREAT   AND   VULNERABILITY   ASSESSMENT   AND   THE   LEVEL   OF RESPONSIVENESS IN NEW MEMBER STATES

The first recommendation relates to the fundamental question of threat assessment and vulnerability. This study has shown that there would appear to be a gulf in the conduct of assessment and preparedness between the more established members of the European Union and those Members who have joined recently.

Several factors contribute to this. First, many of the former Soviet States and those in the old Soviet sphere of influence where, by and large, immune from the terrorism encountered in Western Europe over the last forty years. As a result, both the national and regional authorities and the public transport, freight and energy sectors within many new Member States have not had the same level of experience in assessing and preparing for attacks by dedicated terrorists.

Second, strategic planning for managing such crises within the new Member States is considered to be under-developed. This is not to say that the issue is being ignored, it is simply a recognition of the fact that new structures for centralised anti-terrorism, crisis management and consequence-management have yet to be adequately developed and tested. Linked to this, is the issue of how well or otherwise the providers in passenger transport, freight and energy are able to cope with localised terrorist attacks which might have national or regional consequences. The available public information does not appear to answer this question with any degree of certainty.

It is therefore recommended that COUNTERACT consider further examination of the state of anti-terrorism preparedness across all three sectors in the new Member States taking account of established arrangements in other Member States. In particular, any such study should recognise the importance of there being evidence of sound threat and risk appreciation, the deployment of adequate and proportionate counter-measures, professional planning and preparation for handling such emergencies, including the costs associated with security incidents and some review of the competence of staff based on current levels of training.

RECOMMENDATION 2:

PUBLIC PRIVATE INFORMATION SHARING

A notable feature of the research for this study and which is clearly relevant to all three sectors is the benefit of having the right information upon which to make threat or risk assessment and receiving it regularly and in a timely fashion.

All three sectors related to the study have security regimes which are, by and large, reactive to events or at a minimum, restricted to providing close proximity security. Information concerning potential targeting of their facilities is provided by other agencies, particularly government agencies.

However, this flow of information, particularly as relates to risk or vulnerability assessment is far from uniform throughout the Union or indeed the three sectors in questions. It is evident that larger and perhaps more strategically important companies, facilities or systems receive more information and in a more structured fashion.

Whilst this public-private partnership on information flow is mature in some states, it is recommended that again, such methods are reviewed and where appropriate, enhanced, especially within the newer Member States. There needs to be a more robust method of cascading security-related information down to smaller independent operators across passenger transport, freight and energy in these states to facilitate the crucial process of making adequate security strategies based on informed threat assessment.

RECOMMENDATION 3:

SECTORAL SECURITY ENHANCEMENT ASSESSMENT

The volume of terrorist attacks globally is undoubtedly increasing. There has also been a commensurate rise in the development of new policies and the introduction of new technologies to combat the threat.

However, making sense of the volumes of data and identifying what is relevant and what might be sensible to invest time, energy and scarce resources is complicated, particularly for smaller operators in mass passenger and freight transport and energy sectors. These operators would benefit from access to some preliminary assessments of such new policies, new equipment or even training methodologies.

Similarly, the European Commission, when it seeks to keep abreast of security-related developments in these three sectors needs to know what the sectors themselves are thinking about new security developments and if new measures are identified, what the implications could be at the European level.

COUNTERACT, through the State of the Art Review will identify and offer up a number of issues which require further study. However, this process is not well-equipped to provide more rapid responses to time-sensitive issues, such as the implications for passenger transport on the use of so-called 'liquid bombs' or the deterrence value of new CCTV systems which are hardened to survive blasts.

It is therefore recommended that COUNTERACT make available a small facility for providing a regular up-date and assessment of any new developments on security for the three sectors and on the suitability or applicability of new security technologies. This information can both be offered to the sector through the COUNTERACT web site or on a more confidential basis to EC officials.

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