



Contents

PREFACE	1
SUMMARY OF DELIVERABLE 9	3
UPCOMING EVENTS	6
THE READING CORNER	7

Preface

Dear readers,

Hereby you receive the fifth newsletter of the FP6-project Transnational Terrorism, Security and the Rule of Law (TTSRL). The full-text of the four previous newsletters and a selection of research papers can be found on our website ([click here](#)).

It is in this newsletter that we proudly present the next set of results, focusing on the research findings of Deliverable 9 – Workpackage 5 – entitled: “*The negative economic impact of terrorism and means of consequence minimization. Protecting European Vulnerabilities*”.

This newsletter contains an abstract of the report and highlights some of the potential EU and national policy implications. The full set of policy recommendations will be published in the forthcoming policy brief.

Our research is the first comprehensive study into the specific European economic vulnerabilities, determining the most prominent direct and indirect economic consequences of terrorist attacks and the threat of terrorist activity. One of the main outcomes is the identification of new Critical Infrastructures and the charting of the complexity surrounding their protection. Regarding this complex protection it is mainly the spillover effects that make for difficult security issues, especially considering the member states’ ‘local’ responsibility. Also the obstacles in creating good Public-Private-Partnerships (PPPs), that are essential in this respect, are hampering adequate protection. Potential security solutions addressing these difficulties are discussed in the policy brief, as well as in the full version of this research paper that can be found on our website, or by clicking [here](#).

The research results have already been discussed with the Dutch institute for the protection of Critical Infrastructure (NAVI). Together we came to the conclusion that enhanced international cooperation between national initiatives like the NAVI is very much needed to reduce the chances of significant economic impact from terrorism. In that sense we feel that creating Europe-wide PPPs is the best way forward. As overarching institutes they can bring together national PPPs and coordinate their actions in protecting critical infrastructures against terrorist attacks and the economic consequences thereof. Such a renewed structure that functions as a European protection program will have the additional benefit of harmonizing national legislation on critical infrastructure protection. The harmonization of European and national laws will make it easier to protect the European Critical Infrastructures (ECI).





In light of the success of the previous newsletters we also hope to provide you with a good overview of the main body of the research. We look forward to receiving your comments and would like to discuss the findings with you during our TTSRL conference in Brussels, which will be held in February 2009.

On behalf of the entire TTSRL-consortium,

Frédérique Petit

Project Leader TTSRL

Jan Dobbelaar

Researcher TTSRL

Freeke Heijne and Eric van Um

Assistant researchers TTSRL





Summary of Deliverable 9

The full text of this deliverable, including literature annotations and sources is available on the TTSRL-website; click [here](#).

Our world has changed quickly over the past decades. Today, the world economy is characterized by increasing interconnectedness and interdependency. The European Union (EU) is perhaps the most tangible result of this change. Integration of EU members brought prosperity and peace throughout the continent. However, recently terrorist attacks have shown that without sufficient protection measures this may change. In our study we have examined which sectors in Europe are vulnerable, how they are currently protected, and how their security can be improved.

Throughout the world, and especially so in the EU, terrorists are not bound by borders, nor is the impact of their deeds. One of the results is that it is harder to stop terrorists. Additionally, if terrorists eventually succeed, the consequences may be different as well. Of course, the loss of human life as well as psychological and physical harm are most tangible consequences of terrorism, and these may not change much because of the open borders. The economic effects of terrorism however do and they are worrisome as well. Depending on the target, the economic impact of a successful attack can cover many countries, and in some cases even be global.

Episodic and Campaign Terrorism; Direct and Indirect Costs

Broadly, two basic categories of terrorist activity can be distinguished. On the one hand, terrorists can act by using episodic single attacks, like the 9/11 attacks or the bombings in Madrid and London. On the other hand, so-called campaign terrorism returns on a regular basis. Famous examples of the latter are the IRA and ETA campaigns.

Regardless of the category, terrorist activity causes direct costs as an immediate consequence of the attack as well as indirect costs, for instance for implementing preventative measures or for longer-term consequences of terrorism. In general, the costs of episodic terrorist activity seem to be smaller and easier to overcome than the costs of campaign terrorism.

Regarding the cost schemes of direct costs, anecdotic evidence suggests that – at a macroeconomic level – self-regulatory market-forces can deal with the direct economic impact of terrorism, both after single terrorist attacks and in phases of campaign terrorism. Only very large attacks, such as the attacks of 9/11 make invasive measures necessary in order to deal with the impact. After 9/11, immediate monetary and fiscal measures helped mitigating the economic impact of the terrorist attacks.

Critical Infrastructure

Certain aspects of the European economy are more vulnerable to terrorist attacks than others. The disruption of some economic assets or industrial sectors will entail serious negative direct and indirect costs for both the member state in question and member states relying on the targeted sectors. A spillover effect to many other EU member states is a likely consequence.

The EU has developed a definition for these critical infrastructures (CIs) and identified CI sectors accordingly. Important criteria for being identified by the EU



as CI are that a successful attack would lead to cross-border effects and would have a serious impact on economic life. A list of CIs was the result. Thorough research of the EU criteria and the ensuing CI list has led to our conclusion that the list established by the European Council is incomplete. Therefore, it is currently inadequate to provide optimal protection of the critical infrastructure of the EU. The table below shows an updated list based on the results of our study. The sectors listed in bold are the sectors that, according to our research, should be added to the EU list. The others were already indicated as CIs by the European Council. Obviously, throughout our study our arguments for adding the new sectors to the list are discussed in detail.

Sector	Sub-sector
I. Energy	1. Oil and gas production, refining, treatment, storage and distribution by pipelines 2. Electricity generation and transmission 3. Fuel supply (oil, gas, or both)
II. Nuclear industry	4. Production and storage processing of nuclear substances
III. Information, Communication Technologies, ICT	5. Information system and network protection 6. Instrumentation automation and control systems (SCADA etc.) 7. Internet 8. Provision of fixed telecommunications 9. Provision of mobile telecommunications 10. Radio communication and navigation 11. Satellite communication 12. Broadcasting
IV. Water	13. Provision of drinking water 14. Control of water quality 15. Stemming and control of water quantity 16. Surface water structures and dams
V. Food	17. Provision of food and safeguarding food safety and security
VI. Health	18. Medical and hospital care 19. Medicines, serums, vaccines and pharmaceuticals 20. Bio-laboratories and bio-agents
VII. Financial	21. Payment and securities clearing and settlement infrastructures and systems 21a. Banking and insurance 22. Regulated markets
VIII. Government and public service	23. Systems for maintaining Good governance 24. Systems for maintaining Rule of law 24. European defense
IX. Tourism	26. Tourism
X. Transport	27. Road transport 28. Rail transport 29. Air transport 30. Inland waterways transport 31. Ocean and short-sea shipping
XI. Chemical industry	32. Production and storage/processing of chemical substances 33. Pipelines of dangerous goods (chemical substances)
XII. Space	34. Space
XIII. Research facilities	35. Research facilities



CI Protection

75 Percent of CIs are privately owned. This means that private parties are now essential for protecting national security. National security is not solely a government task. Therefore, CI protection demands a comprehensive approach, aiming at relevant actors, both public and private. It is necessary to not only define the relevant actors, but to define the relationship between the actors as well. This can be done using Public Private Partnerships (PPPs). Of course there are several obstacles making this a difficult task. For instance, due to the episodic nature of terrorism – even campaign terrorism – cost-benefit calculations are not likely to give a favorable result for protective measures. After all, security investments are rarely generating more profit, especially on the short run. Additionally, there is not always a sense of responsibility for protection among private companies, and governments are not eager to share classified information with private partners.

In a European context, these issues are even more significant. Member states are reluctant to transfer powers to European institutions when it comes to security matters, like the protection of critical infrastructures. Sharing intelligence with other member states is in many cases still seen as a hazard to national security, and intelligence sharing with foreign private actors even more so.

Recommendations

Our protection framework aims at improving the current program by expanding the areas that need protection and by addressing all relevant actors, before, during, and after attacks. Based on our theoretical and empirical findings, we have formulated a set of specific recommendations. With these recommendations protection can be improved, both on the macro-economic level and on the level of CI. These recommendations can be found in the complete deliverable, and will be published in our policy brief for this workpackage as well. Both can be found on the TTSRL website.





Upcoming Events

There are several interesting and relevant events in the next few months:

- Conference on Port Security; Identify Risks and Mitigate Threats, 1-2 October 2008. Location: Barcelona, Spain
<http://www.smi-online.co.uk/events/overview.asp?is=1&ref=2927>
- International Terrorism Conference 2008, 2-3 October 2008. Location: London, United Kingdom
<http://www.rusi.org/events/ref:E48454859CD2CD/>
- Challenge International Conference on Data Exchange and Retention, 10-11 October 2008. Location: Sciences Po Paris University, France
<http://www.libertysecurity.org/article2224.html>
- How Terrorism Ends Conference, 5-6 December 2008, Location: Aberystwyth University, United Kingdom
<http://users.aber.ac.uk/mys/csr/news.htm>





The Reading Corner

W. Enders and T. Sandler (2006) *The Political Economy of Terrorism*, New York: Cambridge University Press.

Since 9/11, the study of terrorism has become an even more active field of research, with many books appearing each year. Hence, one must wonder why another book merits one's attention. This book presents a widely accessible political economy approach that combines economic methods with political analysis and realities. In so doing, the book provides both a qualitative and a quantitative investigation of terrorism in a balanced, up-to-date presentation that informs students, practitioners, policymakers, researchers, and the general reader of the current state of knowledge. Most books on terrorism focus on historical, cultural, factual, and conceptual details and shy away from rational-choice-based analyses backed by statistical inference. This book presents not only the historical and conceptual issues, but also the scientific-based analyses of the behavior of terrorists and government policymakers. Moreover, it is concerned with knowing how these adversaries make rational decisions in a strategic interactive framework. That is, how do the choices of the terrorists influence governments' counterterrorism policies, and how do these policies affect the choices of the terrorists? The strategic interactions among targeted governments are also investigated. To establish the relevancy of the theories presented, we display data and review statistical findings from a variety of studies. Although the book particularly reviews rational-choice models and their empirical verification, it deals with the history of terrorism, the causes of terrorism, and the dilemma faced by liberal democracies as well.

Brian A. Jackson, L. Dixon and V.A. Greenfield (2007) *Economically Targeted Terrorism. A Review of the Literature and a Framework for Considering Defensive Approaches*. Santa Monica: RAND Corporation.



The economic consequences of terrorism has, after 9/11, come not only from individuals and organizations responsible for combating terrorism who want to understand how to reduce the economic damage that terrorist action can cause to a nation, but from terrorists themselves as well. This document examines the economic consequences of terrorism, focusing on understanding the elements that might shape terrorist decision-making if inflicting economic damages is a primary goal. Additionally, it lays out the range of defensive approaches that might be taken to protect nations from economic targeting. The report should be of interest to federal and state policymakers, insurers, commercial organizations, and others who have a stake in ensuring the economic security of the United States in the face of the terrorist threat.

