



TTSRL – Policy Brief

Number 1 – October 2008

Preface

Dear reader,

After having published several deliverables, working papers and newsletters¹, we are proud to now present to you our first TTSRL policy brief. Whereas our newsletters provide a general overview of our deliverables, our policy briefs give specific recommendations to policy makers and other involved parties. At least one policy brief will be sent out for each TTSRL workpackage.²

This policy brief focuses on the recommendations made in the framework of Workpackage 5, titled "The negative economic impact of terrorism and means of consequence minimization. Protecting European Vulnerabilities." For a quick review of the contents of this workpackage we refer to our [newsletter](#) on the subject. Obviously, the recommendations are best read in the context of the entire full-text deliverable, where these recommendations are listed as well. The deliverable can be read [here](#).

We would be honored to hear your ideas on our recommendations. If you have any remarks or questions, feel free to [e-mail us](#).

We sincerely hope that this policy brief will help create a new awareness of the important issues discussed, and that it will give incentives to implement new methods in order to reduce the economic impact of terrorism.

Kind regards,

On behalf of the entire TTSRL-consortium,

Professor dr. U. Rosenthal and professor mr.dr. E.R. Muller
Chairman and director of the COT, Institute for Safety, Security and Crisis management.

¹ All of the TTSRL publications can be found on <http://www.cot.nl/ttsrl/publications.php>.

² An overview of the TTSRL-workpackages can be found on <http://www.cot.nl/ttsrl/research.php>.





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THE NEGATIVE ECONOMIC IMPACT OF TERRORISM AND MEANS OF CONSEQUENCE MINIMIZATION

Protecting European Vulnerabilities

KEY POLICY RECOMMENDATIONS FOR THE COMMISSION:

- To adopt a directive, which sets a common procedure for the identification of European Critical Infrastructures (ECIs) and a common approach for the protection of ECIs;
- To take a comprehensive approach in this protection of ECIs by including all relevant and responsible parties and all protection measures available in the security chain;
- To establish platforms at a European level in which all relevant parties will equally participate and cooperate in order to execute and enforce guidelines to protect ECIs;
- To balance the scope of policies on the actual threat of terrorism and avoid outrageous and/or ineffective response policies;
- To develop and implement in close cooperation with the ECB financial measures to abort direct and indirect economic impact of terrorist attacks;

1 INTRODUCTION

The ongoing globalization of economies and societies make certain aspects of the European economy more vulnerable to terrorist attacks than others. The (partial) destruction or disruption of European macro- and/or sectoral economic features has serious negative economic consequences for both the member state *and* the member state(s) relying on the targeted sectors resulting in a so-called spill-over effect. We have to protect our economy from these economic effects, which for example are the result of terrorist attacks. Therefore our research has examined what the vulnerable sectors are in Europe, how they currently are protected, and how they should be protected.

In sum, we determined that the following list contains the most pivotal issues that need to be addressed in order to minimize the negative economic impact of terrorism.

- The multitude of different laws, policies and approaches that exist in different Member States addressing the minimization of economic consequences of terrorism, hampering an EU wide standardized and adequate approach and sharing of information;
- The absence of "benchmarking" efforts of adequate and executable measures in the *European Programme of Critical Infrastructure Protection* (EPCIP);
- The means of determining the set of European Critical Infrastructures (ECIs) and the absence of some infrastructures that should be addressed by the EPCIP;



- The emphasis on the national member states as primarily responsible actor in the protection of ECIs;
- The small number and scope of PPPs in ECI protection and the problems associated with creating PPPs;
- Differentiation in measures to protect against macro-economic consequences.³

We realize that security issues for a long time have been the exclusive responsibility of national public actors. However, the changing cross-border economic interdependency force member states to allow and actively involve other parties in securing our economic interests and protect our critical infrastructures, which importance is also stated by the European Council of Ministers.⁴ If member states refuse to cooperate in such a way they risk (more) negative economic consequences from terrorism in their own country, but also those stemming from the spillover effects of terrorism in other member states.

In the recommendations we, therefore, take a European-based approach to minimize the negative economic effects from terrorism. The recommendations are based on the conclusions of our research, from which the most relevant are briefly repeated first. We differentiate between macro-economic and sectoral-economic recommendations, from which the latter focus on the European critical infrastructures.

2 MACRO-ECONOMIC PROTECTION

Terrorism can negatively affect macro-economies including those in the EU. The size of the impact can be measured per macro-economic indicator. These indicators are GDP, investment, public spending, consumption and trade.

Investment and trade are expected to drop as a consequence of terrorist attacks, therewith negatively affecting the GDP. The increase of public spending first leads to a rise of GDP. Yet, in the end unproductive counterterrorist measures are likely to reduce governmental productive investments and thus lead to a negative indirect effect on the GDP. The effect on consumption is ambivalent making it harder to draw conclusions.

The macro-economic effects are primarily the result of campaign terrorism, which attacks last over a longer period of time. However, the past shows that the impact remain rather domestic and hardly results in spill-over effects. In addition, although it can be concluded that the direct macro-economic costs remain comparably low in relation to the indirect costs of terrorist attacks, in general, it appears that the negative economic effect of terrorism on the macro-economy or economic growth is quite small. Nevertheless, the unpredictability of future terrorist attacks and their possible transnational effects urges us to develop plans to guarantee a healthy and resilient macro-economy.

There is only little information available on the measures taken to minimize the negative macro-economic consequences from terrorism and the effectiveness thereof. However, besides some general financial measures, it can be concluded that a better protected sectoral economy also enhance the resilience of macro-economies.

3 CRITICAL INFRASTRUCTURE PROTECTION

³ The full-text of the deliverable can be read [here](#).

⁴ See Council of the European Union, Press Release, 5 June 2008, PRES/08/146, available at <http://europa.eu/rapid/pressReleasesAction.do?reference=PRES/08/146&format=HTML&aged=0&lg=en&guiLanguage=en>.



From the empirical study it can be concluded that terrorism is more likely to hit the sectoral economy, consisting of critical infrastructures (CIs) like energy, ICT and transport. This research is especially concerned with the protection of those CIs that cross borders or are otherwise interlinked with the economies and infrastructures of other member states, so-called European critical infrastructures (ECIs).

The effect of terrorism on these sectors has primarily been researched for the finance, tourism, and transport sectors. However, in general it can be concluded that the greatest impact is mainly the result of single terrorist attacks. As a consequence the effect tends to last for a short period of time. In addition, the effect can follow from direct or indirect attacks, making the ECIs not only transnationally interlinked but also across the various sectors. ICT, for example, cannot function without the supply of energy.

It appears that not all parts of the European sectoral economy are identified, and if they are identified that they are hardly or insufficiently protected.

The European Commission and Council have initiated the *European Programme of Critical Infrastructure Protection* (EPCIP).⁵ Although this draft directive contains a suitable definition of ECIs, the protection as proposed lacks comprehensiveness, depth, clarity, and hardly contains effective and enforceable protection measures that cover all stages of the security chain. The transnational character of ECIs and the increasing private ownerships of these ECIs change the traditional security policies. Whereas the emphasis of the EPCIP is still on the national public bodies, other member states, private actors, and academic experts are needed for their knowledge, expertise and financial resources.

4 RECOMMENDATIONS

The recommendations consist of two parts. The first part is focused on general financial measures, which has to protect both macro- and sectoral-economies. The second set of recommendations is primarily focused on protection the European sectoral-economy, which ultimately enhance the resilience of the macro-economy. We strongly advise to implement and effectively execute the following recommendations.

FINANCIAL MEASURES

- 1 The ECB, national financial institutions and economic experts have to carry out further research into the negative economic consequences;
- 2 The ECB, national financial institutions and economic experts should develop measures to minimize the direct, short-term economic effects, including:
 - a. Monetary measures such as liquidity injections;
 - b. Fiscal policy measures like providing direct grants or federal loans for those sectors most severely hit, including insurance companies;
- 3 The ECB in close cooperation with national financial institutions and economic experts should develop measures to minimize indirect, long-term costs and consequences, for example downsizing interest rates.

⁵ See Draft Directive, 12 December 2006, COM (2006) 787 final.





For the protection of the sectoral-economy we have chosen to use the basic outline of the Commission's draft directive on ECI protection.⁶ All recommendations should, thus, be seen as additions to or elaborations of the existing EPCIP.

We call upon the EU, its member states and all CI-owners to increase cooperation in this field. The main recommendations are addressed to European institutions. These recommendations are focused on the harmonization of regulation, by adopting a directive that set a common procedure for identifying ECIs and a common approach for protecting these ECIs. Continuity and clarity of approaches will contribute to the minimization of the negative economic impact of terrorism. The indicated recommendations for parties other than the European institutions are aimed at the effective execution of the European based program. To be effective, implementation of the guidelines for such protection should be mandatory for member states and other relevant bodies.

SECTORAL-ECONOMIC PROTECTION MEASURES

The Commission (or an authoritative European (sub-) institution) is advised to:

- 1 Adopt draft directive (COM (2006) 787 final), which sets a common procedure for identifying ECIs and common approach for protection of ECIs *and* address in this directive the subsequent recommendations;
- 2 Make the current list of ECIs more comprehensive by expanding the list with the following sectors that require effective ECI protection:
 - a. Government/Public Service, and the accompanying sub-sectors: the systems for adequate Rule of Law and Good Government, and European Defense infrastructures;
 - b. Tourism;
 - c. Banking and Insurance as part of the financial sector;
 - d. Fuel Supply as part of the energy sector;
 - e. Surface Water Structures and Dams as part of the water sector;
- 3 Ensure that the list of ECIs based on the ECI-definition is frequently – but at least annually – updated along the information retrieved from the sector-specific PPPs (see below) or from member states, ECI-owners and scientists;
- 4 Make the EPCIP more effective by including:
 - f. A general outline that consist of general relevant (protection) measures for all stages of the security chain, i.e. pro-active, preventive, preparatory, response and recovery measures, and other measures to minimize the negative economic impact;
 - g. The following specific measures:
 - i. Create alternatives for continuance of proceedings of CIs;
 - ii. Execute frequent risk analyses on vulnerabilities;
 - iii. Carry out continuous research into previous responses after terrorist attacks in order to develop a benchmark based on "best practices";
 - iv. Adopt and execute operation protection plans including programs to test, educate and train (security) personnel for a direct or indirect attack on CI or an interdependent CI;
 - v. Develop and execute initiatives to safely exchange classified information between the EU, Member States and PPPs and to

⁶ The EPCIP also foresees in the minimization of other effects of terrorism or other disruptions.





- exchange information without compromising too much of the competitive position of some CIs (companies);
- vi. Develop initiatives to enforce these protection measures;
 - vii. Carry out regular evaluations of the protection measures and review if they are in line with the current level of threat. Threats do not necessarily come from terrorism, but also are the result of sabotage or natural disasters like earthquakes and floods, etc. Make sure that measures taken are implemented based on risk assessments that also include other threats;
- 5 Establish and promote European public-private partnerships (PPPs) for each ECI-sector, consisting of all relevant parties (EU, MS, private actors, and scientists) to execute and further develop the protection measures as formulated in recommendation 4 based on the sector-specific needs;
 - 6 Rank the most vulnerable CI-sectors to start with the establishment of PPPs along the lines of the earlier initiatives of the European Council;
 - 7 Encourage implementation of the EPCIP measures by PPPs, member states and ECI-owners develop means to enforce this implementation at a European or sector-wide level by, for example, providing subsidies or foreseeing in operational means, like offering technical information;

Member states are advised to:

- 8 Implement and actively enforce the regulations as put down in the EU directive on ECI protection at a national level;
- 9 Assist the EU in the review of the list of ECIs by continuously researching national (critical) infrastructures based on the ECI-definition;
- 10 Assist the EU in establishing and/or promoting per ECI-sector PPPs;
- 11 Assist the EU in encouraging and enforcing the implementation of the EPCIP measures at national level and developing means to enhance implementation;
- 12 Inform civilians about the possible terrorist threats and make them aware of the microeconomic consequences on their households and means to minimize these consequences by, for example, building up stocks, and saving (some) money to cover financial losses;

Public-Private Partnerships (PPPs) are advised to:

- 13 Merge existing national, bilateral or sector-specific PPPs in European platforms to combine forces and make the protection measures more effective;
- 14 Include – based on an equal representation – all relevant parties, i.e. the EU, MS, ECI-owners and scientists, and look for and implement “best-practices”;
- 15 Customize the general EU outline for protection measures as formulated in recommendation 4 for each ECI-sector based on sector-specific information and requirements;





- 16 Continuously review the criticality of various national and European CIs and the accompanying relevancy of inclusion or exclusion of that CI in the ECI-list and inform the member states and EU about the results;
- 17 Assist the EU in encouraging and enforcing the implementation of the EPCIP measures at national level and developing means to enhance implementation;
- 18 Assist the EU in developing and implementing ways to safely exchange information on security issues between the parties of the PPP and between the various PPPs in order to come to "best practices";

ECI-facility owners are advised to:

- 19 Implement the sector-specific ECI protection plan as developed by the relevant sector-specific PPP and actively act upon this outline;
- 20 Assist the PPP (plus the EU and the member states) in their various tasks by providing relevant information and (technological) developments and contribute therewith to the improvement of ECI protection plans.

5 Further Research

In addition to the continuous research into the economic vulnerabilities there is a need for further research into more specific issues in this regard. In addition to the research and development opportunities as formulated in the recommendations, there is more that needs to be done. In our view, research that will contribute to the effectiveness of the means to minimize the negative economic effects of terrorist attacks includes:

- More detailed research into the economic consequences of terrorism, especially on (specific) critical infrastructures;
- Research into potential response policies (at macro-economic and sectoral-economic level) that can be implemented to minimize economic consequences after a terrorist attack;
- Research into the effectiveness of these response policies;
- Research into the interdependency of critical infrastructure within and outside European borders.

With the results the approaches to minimize the economic consequences of terrorist attacks can be further improved.

6 CONCLUSION

Taking the European interdependency into consideration we strongly urge to focus on a European set of (enforceable) mandatory guidelines. However, when such regulations are still in the process of creation or for any reason are not developed by the EC/EU, member states should take responsibility and act by implementing national legislation and actively search for bilateral or, preferably, multilateral cooperation. If all member states have, more or less, a unified approach and establish networks to expand and promote that approach, effective protection across borders is very feasible. This sort of approach will then, when proven effective, most likely turn into common practice, which makes it easier to be adopted by the EU.





The TTSRL project

The project entitled Transnational Terrorism, Security and the Rule of Law (TTSRL) is a research project, conducted by a consortium of research institutes for the European Commission in Brussels. The project is part of the 6th framework program specifically that of priority 7 entitled: 'Citizens and Governance in a Knowledge-based Society'. More information about this program can be found [here](#).

TTSRL

Transnational terrorism is one of the most substantial threats to security and the Rule of Law within the European Union. Approaches towards this problem, however, diverge. As Member States implement different policies based on differing basic assumptions, a structured, univocal strategy towards transnational terrorism is absent. Considering the continuing integration within the European Union, a Union-level strategy with regards to terrorism is imperative. In order to support the formulation of such a strategy, this project will study both the conceptual nature of the problems identified here, and the possible measures flowing from these assumptions.

This project will entail the conducting of a structured, well-founded survey into the various response options towards transnational terrorism and the theoretical assumptions on which they are based. A holistic approach has been chosen in which policy-areas specifically dealing with terrorism as well as affected policy-fields are taken into account. In this respect, this project is unique in that it integrates diverse aspects of the issue into one comprehensive and multidisciplinary project.

The TTSRL project proposes to start bridging the gap between the new daunting challenges posed by transnational terrorism and our current conceptual and policy deficiencies. It addresses what we see as the key issues involved: new notions of security and the role played in it by transnational terrorism; the definition and etiology of terrorism; the societal impact of terrorism; its economic impact; and - last but not least - the policy options available to deal with it.

The main added value of the project will lie in the benchmarking of approaches and policy-options in use in the various Member States. Combined with the conceptual underpinnings of this benchmarking exercise, the project will yield insights into the appropriateness and effectiveness of various approaches and measures from a national and a European perspective, the ethical issues related to this field, and cost-benefit considerations.

For more information on the recommendations in this policy brief of the TTSRL project at large, visit our [website](#) or contact the COT:

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