



**FOCUS**

FP7 - SEC - 2010 - 1

**Foresight Security Scenarios –  
Mapping Research to a Comprehensive Approach to Exogenous EU Roles**

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## ***Problem Space Report***

### **Deliverable 3.1**

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**ATOS SPAIN SA - ATOS**

**September 2011**

FOCUS is co-funded by the European Commission under the 7th Framework Programme, theme "security", call FP7-SEC-2010-1, work programme topic 6.3-2 "Fore sighting the contribution of security research to meet the future EU roles".



## Imprint

*Responsible project partner:*

ATOS

*Authors:*

Ricard Munné Caldés, ATOS  
 Antonio García Vazquez, ATOS  
 Todor Tagarev, CSDM  
 Valeri Ratchev, CSDM  
 Juha Ahokas, CBRA  
 Juha Hintsa, CBRA  
 David Sanchez García, ISDEFE  
 Rachel Suissa, U HAIFA

*Contact information:*

Ricard Munné, [ricard.munne@atosresearch.eu](mailto:ricard.munne@atosresearch.eu)  
 Antonio García Vazquez, [antonio.garcia@atosresearch.eu](mailto:antonio.garcia@atosresearch.eu)  
 Todor Tagarev, [tagarev@bas.bg](mailto:tagarev@bas.bg)  
 Juha Ahokas, [jah@cross-border.org](mailto:jah@cross-border.org)  
 Juha Hintsa, [juha@cross-border.org](mailto:juha@cross-border.org)  
 David Sanchez García, [dsanchez@isdefe.es](mailto:dsanchez@isdefe.es)  
 Rachel Suissa, [rswisa@univ.haifa.ac.il](mailto:rswisa@univ.haifa.ac.il)

## FOCUS Website

<http://www.focusproject.eu>

## Version history

<i>Version</i>	<i>Date</i>	<i>Change/Remark</i>	<i>Responsible (person, beneficiary/function)</i>
1.0	30/09/2011	Submitted version	Ricard Munné, ATOS

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## 1 EXECUTIVE SUMMARY

The Problem Space Report for Comprehensive Approach has been structured according to the Common Framework for FOCUS Problem Space Reports, as detailed in Annex 7 of D2.1, which describes the project methodology. This deliverable has been produced as the main product of task WP3.1 Problem Space. This report will be used as input for WP3.2 Scenarios for EU roles, and WP3.3 Scenarios for security research.

According to this framework, it has been prepared necessary information to operationalize the project methodology defined in D2.1, especially for use by the Future Groups. Sub-tasks are as follows:

The main components of the deliverable are:

*Precís.* This section provides a description of what is Comprehensive Approach with some background information for better understanding in the context of the foresight work in FOCUS. It includes the theme policy description and its relevance for FOCUS, and a Comprehensive Approach summary which describes what is commonly understood as Comprehensive Approach. It includes input from relevant projects, as indicatively identified in Table 1.2 b of Dow.

*Structure of the Problem Space.* This deals with a structured description of the theme, from a conceptual analysis to a detailed relation of theme related threats and challenges. It also includes some information for further discussion in the subsequent scenario foresight.

*Methods for Comprehensive Approach.* Details methods used in so far scenario foresight for this theme according to literature. Specifically it analyzes the best practices and lessons learned from the State Of The Art work done as part of D2.1.

*List of experts.* List of experts and institutions for general information and possible commitment to the Big-theme specific Future Group.

## 2 PRECÍS

This part of the document covers a description of what is Comprehensive Approach with some background information for better understanding in the context of the foresight work in FOCUS.

### 2.1 POLICY DESCRIPTION AND ITS RELEVANCE FOR FOCUS

Comprehensive approach involves not only Military Units, but Civil Security Units, Judicial and Penitentiary Units, Infrastructure Units, Political Affairs, Social Agents, Teaching and Training, Health Units.

There is a huge variability in the problems which could arise in international relationships by threats. This means there is a great variety of solutions for each specific conflict. But today there is a lack of definition in proceedings to achieve this coordination among civil and military elements participating in operations.

The main EU policy related to the Comprehensive Approach is the Common Security and Defence Policy (CSDP).

Speaking with one voice a difficult challenge. The principle of a common foreign and security policy (CFSP) was formalised in the Maastricht Treaty of 1992. EU countries have always recognised the need to act together in foreign policy and defence matters. But this has proved hard to achieve. A timid start was made in 1970 through a process called European Political Cooperation, whereby EU countries tried to coordinate their positions on foreign policy issues within the United Nations and other international bodies. But on particularly sensitive issues, or where individual EU countries had special interests, no single voice could be found because decisions had to be unanimous. The emergence of a new post-communist world order and the rise of international terrorism pushed EU countries to redouble their efforts to speak as one on world affairs.

CSDP is an integral part of the common foreign and security policy –which also covers the diplomatic field-. It includes the progressive framing of a common Union defence policy, which will lead to a common defence, when the European Council, acting unanimously, so decides. It shall in that case recommend to the Member States the adoption of such a decision in accordance with their respective constitutional requirements. Decisions relating to the common security and defence policy are adopted by the Council acting unanimously on a proposal from the High Representative of the Union for Foreign Affairs and Security Policy or an initiative from a Member State (Article 42 TEU).

CONSOLIDATED VERSION OF THE TREATY ON EUROPEAN UNION 9-5-2008

PREAMBLE

RESOLVED to implement a common foreign and security policy including the progressive framing of a common defence policy, which might lead to a common defence in accordance with the provisions of Article 42, thereby reinforcing the European identity and its independence in order to promote peace, security and progress in Europe and in the world,

RESOLVED to facilitate the free movement of persons, while ensuring the safety and security of their peoples, by establishing an area of freedom, security and justice, in accordance with the provisions of this Treaty and of the Treaty on the Functioning of the European Union,

## SECTION 2

### PROVISIONS ON THE COMMON SECURITY AND DEFENCE POLICY

#### Article 42

(ex Article 17 TEU)

1. The common security and defence policy shall be an integral part of the common foreign and security policy. It shall provide the Union with an operational capacity drawing on civilian and military assets. The Union may use them on missions outside the Union for peace-keeping, conflict prevention and strengthening international security in accordance with the principles of the United Nations Charter. The performance of these tasks shall be undertaken using capabilities provided by the Member States.

2. The common security and defence policy shall include the progressive framing of a common Union defence policy. This will lead to a common defence, when the European Council, acting unanimously, so decides. It shall in that case recommend to the Member States the adoption of such a decision in accordance with their respective constitutional requirements.

The policy of the Union in accordance with this Section shall not prejudice the specific character of the security and defence policy of certain Member States and shall respect the obligations of certain Member States, which see their common defence realised in the North Atlantic Treaty Organisation (NATO), under the North Atlantic Treaty and be compatible with the common security and defence policy established within that framework.

3. Member States shall make civilian and military capabilities available to the Union for the implementation of the common security and defence policy, to contribute to the objectives defined by the Council. Those Member States which together establish multinational forces may also make them available to the common security and defence policy.

Member States shall undertake progressively to improve their military capabilities. The Agency in the field of defence capabilities development, research, acquisition and armaments (hereinafter referred to as 'the European Defence Agency') shall identify operational requirements, shall promote measures to satisfy those requirements, shall contribute to identifying and, where appropriate, implementing any measure needed to strengthen the industrial and technological base of the defence sector, shall participate in defining a European capabilities and armaments policy, and shall assist the Council in evaluating the improvement of military capabilities.

4. Decisions relating to the common security and defence policy, including those initiating a mission as referred to in this Article, shall be adopted by the Council acting unanimously on a proposal from the High Representative of the Union for Foreign Affairs and Security Policy or an initiative from a Member State. The High Representative may propose the use of both national resources and Union instruments, together with the Commission where appropriate.

7. If a Member State is the victim of armed aggression on its territory, the other Member States shall have towards it an obligation of aid and assistance by all the means in their power, in accordance with Article 51 of the United Nations Charter. This shall not prejudice the specific character of the security and defence policy of certain Member States.

Commitments and cooperation in this area shall be consistent with commitments under the North Atlantic Treaty Organisation, which, for those States which are members of it, remains the foundation of their collective defence and the forum for its implementation.

The CSDP provides the Union with an operational capacity drawing on civilian and military assets, which it may use on missions outside the Union for peace-keeping, conflict prevention and strengthening international security in accordance with the principles of the United Nations Charter (Article 42 TEU). These tasks (known as "Petersberg tasks" under the Western European Union, now absorbed by the EU) include joint disarmament operations, humanitarian and rescue tasks, military advice and assistance tasks, conflict prevention and peace-keeping tasks, tasks of combat forces in crisis management, including peace-making and post-conflict stabilisation. All these tasks may contribute to the fight against terrorism, including by supporting third countries in combating terrorism in their territories (Article 43 TEU).

As part of the CSDP, the European Security Strategy is the document in which the European Union clarifies its security strategy which is aimed at achieving a secure Europe in a better world, identifying the threats facing the Union, defining its strategic objectives and setting out the political implications for Europe, that is, external threats to the EU security.

In FOCUS context it is a way of understanding and approaching the CSDP by the EU, in an integrated and active manner, bringing together all the instruments to increase the Union's global role, trying to control the interdependencies of all the factors, agents and processes, requiring a coordination of the actions of all the stakeholders from nations and international organizations, in different domains: military, political, institutional, structural, economic, social, etc, taking into account the nexus among security, development and human rights.

## 2.2 COMPREHENSIVE APPROACH SUMMARY

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While there is no commonly accepted definition for the 'Comprehensive Approach', there is broad agreement that it implies the pursuit of an approach aimed at integrating the political, security, development, rule of law, human rights and humanitarian dimensions of international missions.<sup>a</sup>

### Internal security dimensions<sup>b</sup>

Internal security must be seen as encompassing a wide range of measures with both horizontal and vertical dimensions:

- Horizontal dimension: to reach an adequate level of internal security in a complex global environment requires the involvement of law-enforcement and border-management authorities, with the support of judicial cooperation, civil protection agencies and also of the political, economic, financial, social and private sectors, including non-governmental organisations.
- Vertical dimension: take into account security at various levels: international cooperation, EU-level security policies and initiatives, regional cooperation between Member States and Member States' own national, regional and local policies.

### External dimension of internal security/cooperation with third countries<sup>c</sup>

A concept of internal security cannot exist without an external dimension, since internal security increasingly depends to a large extent on external security. International cooperation by the EU and its Member States, both bilaterally and multilaterally, is essential in order to guarantee security and protect the rights of our citizens and to promote security and respect for rights abroad. The

EU's policies with regard to third countries need to consider security as a key factor and develop mechanisms for coordination between security and other related policies, such as foreign policy, where security issues must increasingly be taken into account in an integrated and proactive approach.

## 2.3 REFERENCE TO RELEVANT RESULTS OF FP7 PROJECTS AND HOW FOCUS WILL MOVE BEYOND

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The security research program as part of the Cooperation topic in the European Commission's 7th Framework Program (FP7) is designed to be a truly interdisciplinary topic. It encompasses a wide array of sciences and research topics. Additionally it also addresses a multitude of subject matters which are also dealt with in separate Work Programs in FP7. With this design the Security theme is deeply integrated in the overall policy approaches of the European Commission (EC) in various fields and results security research program impact community policies in multiple fields.

Baseline previous projects related to the proposed scenarios with reference documentation useful for FOCUS project:

### **CRESCENDO** (<http://www.crescendo-project.org>)

Description: Coordination action on Risks, Evolution of threats and Context assessment by an Enlarged Network for an R&D Roadmap

Relevant results:

- Prioritization of countermeasures and its translation into policies
- Balance between civil liberties and security
- Policy recommendations to Support the evolution of the security market
- Recommendation to Regulation and Standardization
- Supply chain regulations (maritime cargo & seafarer id cards)

How FOCUS will move beyond:

In-depth analysis based on literature and the state of the art, not just oral sources.

Scenario description supplanted by proper analysis and research reports in the field of the five Big Themes and by a commonly developed method.

Extend the proposal roadmap of crescendo focusing on scenarios described under "mission areas" like:

- Security of the citizens
- Intelligent surveillance & border security
- Restoring security & safety in case of crisis

### **EUSEC II** (<http://lab.unicri.it/eusecII.html>)

Description: Coordinating National Research Programs and Policies on Major Events Security

Relevant results:

- Security at major events: EU-SEC (2004-2008) & EU-SEC II (2008-2011):
- Need for effective security policies supporting the efforts of major events organizers
- Application of advanced managerial skills to security
- Effective cooperation between both national & international entities
- Creation of a European House of Major Events
- Prevent fragmentation of ideas or duplication of efforts

How FOCUS will move beyond:

Benefits from findings on harmonization of national research policies and possibility of use information input from a broader social community based on IT Platform and tools.

Development of new tracks of security research and future research programs.

**INEX** (<http://www.inexproject.eu>)

Description: Converging and conflicting ethical values in the internal/external security continuum in Europe

Relevant results:

- Ethically based social and cultural underpinnings of contemporary security technologies and their use in EU policies.
- Challenges to European legal thinking brought by the internal/external security continuum and associated political recommendations.
- Ethical consequences of changes in the Common Foreign and Security Policy; as a result of the progressive blurring of the internal/external borders.
- Consequences in value and ethical terms of the evolution of the internal/external security continuum for
  - Three members of the Eastern European Neighbourhood: Belarus, Ukraine and Moldova.
  - The Mediterranean segment of the European Neighbourhood: Morocco, Algeria, and Egypt.

How FOCUS will move beyond:

Take up INEX findings and integrate them in its embedded scenario approach to develop foresight context scenarios under the comprehensive approach by applying its IT based combined analytical framework (predefined and then applied to Work Packages 3-7) to develop EU roles.

Integrate INEX findings as state of the art and into a concrete IT-based and participatory scenario process.

### **EU-GRASP** ([www.eugrasp.eu](http://www.eugrasp.eu))

Description: Changing Multilateralism: the EU as a Global-regional Actor in Security and Peace

Relevant results:

- How we can understand and explain the EU as a security actor
- Effective multilateralism in the field of internet governance
- EU's role and influence in the global governance architecture of the Internet development
- Effective multilateralism under political crisis and external actions in energy crisis management
- Threats that could weak EU as a global power (shift in economic gravity from the East to the West & demographic decline in Europe) and recommendations to avoid them

How FOCUS will move beyond:

To develop context scenarios where the projection EU roles can – by use of its IT based planning tool and information integration – be flexibly adapted to changing parameters in the international system beyond the specific context scenario of multilateralism.

### **EUSECON** (<http://www.economics-of-security.eu/eusecon>)

Description: A new Agenda for European Security Economics

Relevant results:

- Framework for analyzing human-induced security threats in Europe. The conceptual framework will evaluate the validity of conventional notions of security and security provision, and it will assess their relevance in the present context of insecurity
- Identify the potential of security economics to contribute to knowledge creation, as well as to complement other research disciplines both micro-economic & macro-economic level
- Economics opportunities of security industry
- Recommendations to strengthen international cooperation and to the security policy in the least developed countries (LDCs) as part of a comprehensive European security strategy

How FOCUS will move beyond:

Build upon the elaborated (human) drivers of insecurity and integrates them in its IT-based scenario-planning method and shows how EUSECON findings can be operationalized to demonstrate their impact on future planning processes

Develop foresight comprehensive approach scenarios based upon EUSECON recommendations of international cooperation and security.

**FESTOS** (<http://www.festos.org>)

Description: Foresight of Evolving Security Threats Posed by Emerging Technologies

Relevant results:

Security threats in emerging technologies.

1) Fields of interest

- Communication
- Nanotechnology
- Biotechnology
- Robotic
- New Materials
- Converging technologies

2) Scenarios for their use in malicious purposes

- Severity of the threat
- Easiness of their malicious uses
- Creation of future security threats
- Impact in the society

How FOCUS will move beyond:

Build upon FESTOS results and transcend them by integrating them into the IT Platform.

The main development lines won't be about emerging technologies, but about emerging EU roles.

**FORESEC** (<http://foresec.eu>)

Description: Europe's evolving security: drivers, trends and scenarios

Relevant results:

- Development of a survey method to gather views of the future through collecting a large number of uncoordinated assessments (FORESEC Delphi)
- Six studied countries: Austria, Bulgaria, Finland, Italy, Sweden and the United Kingdom
- Citizen's perceived threat in different risks areas (Geopolitics, Demographics & migration, Critical infra structure, etc)
- Perception of cooperation and It's value

- Security policies & research implications

How FOCUS will move beyond:

FOCUS will benefit from FORESEC results on the creation of a foresight culture yet go beyond by comprehensive approach and addressing the character and future tracks of security research as such

By using its IT support, FOCUS will ensure broad involvement in its scenario foresight.

### **SECURENV** (<https://www.securenv.eu>)

Description: Assessment of environmental accidents from a security perspective

Relevant results:

- Definition of foresight scenarios for Natural phenomena (fires, floods, etc.), industrial accidents (chemical, biological, etc.) and other possible environmental threats.
- Data Base support with past accidents and it's effects
- Definition of an strategic roadmap an recommendations

How FOCUS will move beyond:

Build upon the SECURENV results and policy recommendations in the context of natural and industrial hazards and integrate them, adding EU roles that reflect these threats.

### **SEREN** (<http://www.seren-project.eu>)

Description: SEcurity REsearch NCP network

Relevant results:

- Define coordination actions to link the different NCPs in an unified network

How FOCUS will move beyond:

Use the strengthened network of NCPs to guarantee an as broad as possible social community involvement in the scenario development.

Initial surveys necessities in most scenarios could be effectively distribute through the SEREN network

It will also benefit of a more structured network for its dissemination strategies.

### **SICMA** (<http://www.sicmaproject.eu>)

Description: Simulation of Crises Management Activities

Relevant results:

- Restoring security and safety in case of crisis: forecasting of different scenarios evolution, proposing doctrine-based solutions and evaluating the effects of alternative decisions
- Recommendations and scenarios to Intelligent decision support

How FOCUS will move beyond:

From SICMA insights into response to crisis scenarios FOCUS will move beyond by analyzing them against requirements of exogenous EU roles.

### **STRAW** (<http://www.straw-project.eu>)

Description: Security Technology Active Watch

Relevant results:

- Development of an online IT platform to perform an active surveillance of security technologies.
- Recommendations and standards technological surveillance and security research.

How FOCUS will move beyond:

Although the scope of the scenario foresight approach to be applied by FOCUS is wider than the scope covered by STRAW; its expertise on IT tools will be an asset to be taken into account.

### **STACCATO** ([www.asd-europe.org/Content/Default.asp?PageID=34](http://www.asd-europe.org/Content/Default.asp?PageID=34))

Description: Stakeholders Platform for Supply chain Mapping, Market Condition Analysis and Technologies Opportunities

Relevant results:

- Definition of a taxonomy that has been used by many other project to define scenarios or areas of interest.

How FOCUS will move beyond:

Validate the STACCATO taxonomy, using it for the purpose of sorting/classifying/structuring of scenario-output.

Validate the possibilities of use the STACCATO list items as factors in scenario development.

## **2.4 RESOURCES FOR COMPREHENSIVE APPROACH SCENARIO FORESIGHT WORK**

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This section provides a list of resources corresponding to the Comprehensive Approach scenario foresight work, and in particular identification of past foresight scenario analysis.

### 2.4.1 Literature from specialized books and relevant journals

David M. Law, "Canada in Afghanistan: Concepts, Policies, Actors, and Prospects," *Connections: The Quarterly Journal* 8:3 (Summer 2009): 25-51.

Dr. Law examines conceptual defence innovations in Canadian defence, such as the 3-D approach, the "whole of government" approach and security sector reform (SSR), seen as conceptual evolution of the "comprehensive approach". The author looks at the factors that have shaped change in Canadian thinking about security, development and governance in developing countries, including the strategic shift that occurred with 11 September 2001. The author further addresses the main features of Canada's SSR role in Afghanistan: What it has been doing in this theatre; how its approach compares with that of other countries; and how Canada's efforts have been conditioned by those of the international community in Afghanistan.

Ray Murphy, "The European Union and Developments in Crisis Management Operations and Peacekeeping," *Connections: The Quarterly Journal* 8:1 (Winter 2008): 58-91. [www.pfpconsortium.org/file/the-european-union-and-developments-in-crisis-management-operations-and-peacekeeping-by-ray-murphy](http://www.pfpconsortium.org/file/the-european-union-and-developments-in-crisis-management-operations-and-peacekeeping-by-ray-murphy)

This article addresses the developments involved in the creation of a framework for the European Security and Defence Policy (ESDP). The author examines the tools available under the Second Pillar of the EU, including the publication of a European Security Strategy supported by an attendant institutional infrastructure, to the deployment of Rapid Reaction Forces for large-scale military operations, and the introduction of battle groups that can be moved to respond to crisis situations at very short notice. He emphasises that, in order to meet contemporary security challenges, the EU must apply the full spectrum of instruments for crisis management and conflict prevention at its disposal, including political, diplomatic, military and civilian, trade, and development activities in a more comprehensive approach based on the principles of preventive strategy that goes significantly beyond the traditional "military threat assessment."

Michiel de Weger, "The Rise of the Gendarmes? What Really Happened in Holland," *Connections: The Quarterly Journal* 8:1 (Winter 2008): 92-114. [www.pfpconsortium.org/file/the-rise-of-the-gendarmes-what-really-happend-in-holland-by-michiel-de-weger](http://www.pfpconsortium.org/file/the-rise-of-the-gendarmes-what-really-happend-in-holland-by-michiel-de-weger)

This article discusses the phenomenon of gendarme forces as intermediaries between regular, civilian police forces and the military and, thus, a contributor to the comprehensive approach. The author examines the role and function of these forces; how they relate to military and civilian authorities and cooperative partners; their (dis)similarities with the police and the military; their history and current challenges; and their role in domestic security and peacekeeping operations abroad.

Christopher M. Schnaubelt, ed., Operationalizing a comprehensive approach in semi-permissive environments, *Forum Paper* no. 9 (Rome: NDC, June 2009), [www.ndc.nato.int/download/downloads.php?icode=79](http://www.ndc.nato.int/download/downloads.php?icode=79)

See in particular the chapter “Comprehensive approaches: Theories, Strategies, Plans, and Practice,” contributed by Alexander Alderon (pp. 14-34), setting the CA in a historical context and reflecting the experience of the United Kingdom. Even though the term itself has not been in used, the Cabinet of Winston Churchill followed the principles of “a proactive cross-government approach, shared understanding between departments, outcome-based thinking and collaborative working.” Discussing the Briggs plan in Malaya in 1950, Frank Kitson defines requirements for “vertical and horizontal integration to prevent separate ministries cascading information in isolation.”<sup>1</sup>

Allen Burch, Bradford R. Higgins, Christopher A. Jennings, Kirk A. Johnson, Karl-Heinz Kamp, Nadia Schadow, Christopher M. Schnaubelt, Towards a Comprehensive Approach: Integrating Civilian and Military Concepts of Strategy, *Forum Paper* no. 15 (Rome: NDC, April 2011), [www.ndc.nato.int/download/downloads.php?icode=272](http://www.ndc.nato.int/download/downloads.php?icode=272)

Whether the preferred term is “interagency” (most common in American parlance), “whole-of-government” (frequently used by the British), or “comprehensive approach” (a term typically used within the UN, EU and NATO), it is widely recognized that effective integration of military and civilian capabilities is necessary for success in contemporary missions. However, international organizations and state have generally done poorly in their attempts at putting this concept into practice. One reason is that there is a difference of doctrinal methods between civilian and military organizations, as well as between alliances and member states. There is no single ‘best’ way to address complex security problems in the contemporary operational environment. Nevertheless, it is necessary to agree on a common, or at least compatible, concepts of strategy.

J. Edward Fox, Florence Gaub, David E. Johnson, Andrew Monaghan, Christopher M. Schnaubelt, Jan Techau, and Rick Waddell, Towards a Comprehensive Approach: Strategic and Operational Challenges, *Forum Paper* no. 18 (Rome: NDC, May 2011), [www.ndc.nato.int/download/downloads.php?icode=290](http://www.ndc.nato.int/download/downloads.php?icode=290)

This report examines in detail a selection of specific cases that illuminate the challenges of integrating civilian and military challenges.

Information & Security: An International Journal vol. 27 (under print), <http://infosec.procon.bg>

This special issue under the title “C4ISR Support to the Comprehensive Approach” examines the technological underpinnings of the comprehensive approach. See in particular the article by Amleto Gabellone entitled “NATO-EU Cooperation in Crisis Management: Required C4ISR Capabilities.”

Gordon Gow, Policymaking for Critical Infrastructure: A Case Study on Strategic Interventions in Public Safety Telecommunications, Ashgate Publishing, Ltd (2005)

By weaving together three distinct fields - public policy, technology studies and management of critical infrastructure - this volume shows how public policy can help to improve the management of large

<sup>1</sup> Frank Kitson, *Bunch of Five* (London: Faber & Faber, 1977). – Emphasis added

technical systems. A much-needed analytical framework, based on approaches drawn from established work in science and technology studies, is applied to a case study of the development of a new public safety service for mobile telephones. This example of emerging growth and change in critical infrastructure allows Gordon Gow to identify current problem areas and to refine a more general set of strategies aimed at improving public policy processes in the management of technology. The work also discusses a range of contemporary issues in telecom policy and regulation, such as public consultation, technical standards, network unbundling and interconnection. This insightful work provides observations and recommendations for policy makers, regulators, industry and consumer groups alike, furthering the improved coordination of efforts across these domains of interest.

#### **2.4.2 Studies/reports carried by institutions, stakeholders and other interested parties**

Claudia Major and Elisabeth Schöndorf, Crisis Management: Comprehensive Approaches, SWP Comments 2011/C 23 (September 2011), [www.swp-berlin.org/en/products/swp-comments-en/swp-aktuelle-details/article/crisis\\_management\\_comprehensive\\_approaches.html](http://www.swp-berlin.org/en/products/swp-comments-en/swp-aktuelle-details/article/crisis_management_comprehensive_approaches.html)

Players involved in today's crisis management are becoming more numerous, duties and responsibilities are becoming more diverse and commitments more drawn-out. To achieve successful outcomes, governments and other actors involved need to coordinate their aims, activities and instruments at the earliest possible stage and ensure these are tailored to need. This is what comprehensive approaches are all about. New concepts and structures should be introduced to guarantee the coordination and cooperation of those involved at national and international levels. In practice, however, such efforts often come to grief in identifying the various different problems and approaches to resolving them, as well as in resistance to reform and inadequate funding.

Center for Advanced Defense Studies CESEDEN, De las operaciones conjuntas a las operaciones integradas. Un nuevo desafío para las fuerzas armadas (From joint operations to integrated operations. A new challenge for the armed forces) (September 2010), [http://www.ceseden.es/centro\\_documentacion/documentos/37.pdf](http://www.ceseden.es/centro_documentacion/documentos/37.pdf)

Center for Advanced Defense Studies CESEDEN, Las nuevas tecnologías en la seguridad transfronteriza (New technologies in cross border security) (February 2010), [http://www.ceseden.es/centro\\_documentacion/documentos/31.pdf](http://www.ceseden.es/centro_documentacion/documentos/31.pdf)

The Swedish Institute of International Affairs, The European Security Strategy: Reinvigorate, Revise or Reinvent? (10 June 2011)

Fredrik Söderbaum School of Global Studies, University of Gothenburg, Sweden & United Nations University—Comparative Regional Integration Studies (UNU-CRIS), The EU's Role in Global Development: Still Calling the Tune in Africa? (April 2010)

This paper focuses on the EU's role and capacity to drive a policy for "global development" and sketch out collaborative agreements with other international organisations and third countries in this field. Particular emphasis is placed on the EU's role in Africa. The main objective of the "European Consensus on Development" is said to be the eradication of poverty in the context of sustainable development, including the pursuit of the MDGs. The paper shows how intimately related the EU's internal dimensions are with its capacity to act externally (actorness). Although many European politicians and policymakers frequently emphasise that the EU is the world's biggest aid player, this can often be understood in terms of "presence" rather than a capacity to act. While, on the one hand, the EU plays a role in the international policy discussion in multilateral fora and on global development policy (e.g. Paris Agenda, MDG, budget support etc), on the other hand, the EU is not acting as one 'on the ground' in the developing countries. In fact, in contrast to its official policy the EU is not a unified actor in global development, at least when focus is placed on development cooperation in Africa. In practice the European Commission often acts as "the 28th" member state, conducting its own aid policies, rather than serving as the hub for donor coordination within the EU as a whole. The European Consensus is, as one donor official in an EU member state put it, "ice thin." The fragmented administrative responsibility within the EU's "foreign policy complex" is another factor that severely limits the EU's actorness in this field.

Wulf Reiners, Ph.D. candidate, Dr. Nadia Klein. Research Institute for Political Science and European Affairs University of Cologne, Germany. Acting multilaterally at home and abroad: The EU's institutional set-up in the cases of health and the Common Foreign and Security Policy (April 2010)

Security & Defence Agenda, The new global security landscape. 10 Recommendations from the 2010 Security Jam.

Ministry of Defence, Finland, "Seminar Publication on Comprehensive Approach Trends, Challenges and Possibilities for Cooperation in Crisis Prevention and Management Based on Comprehensive Approach (2008), [http://www.cmi.fi/files/Comprehensive Approach Trends Challenges and Possibilities for Cooperation in Crisis Prevention and Management.pdf](http://www.cmi.fi/files/Comprehensive_Approach_Trends_Challenges_and_Possibilities_for_Cooperation_in_Crisis_Prevention_and_Management.pdf)

Randolph Kent, The governance of global security and development: convergence, divergence and coherence, Conflict, Security and Development (2007)

Sven Biscop, The European Security Strategy in context. A comprehensive trend, in Sven Biscop (ed.): The European Security Strategy. Milton Park: Routledge, (2005).

Martin Gill (ed.): The Handbook of Security. Houndmills, Basingstoke: Palgrave Macmillan (2006)

### 2.4.3 Other sources

European Security Strategy (2003),  
<http://www.consilium.europa.eu/showPage.aspx?id=266&lang=en>

Report on the Implementation of the European Security Strategy (2008),  
<http://www.consilium.europa.eu/showPage.aspx?id=266&lang=en>

Communication from the Commission on Conflict Prevention.” COM(2001) 211 final. Brussels (11 April 2001), <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2001:0211:FIN:EN:PDF>

Remarks by Javier Solana, EU High Representative for the Common Foreign and Security Policy: “ESDP@10: What lessons for the future?” Brussels: Council of the European Union (28 July 2009), [http://www.consilium.europa.eu/uedocs/cms\\_data/docs/pressdata/EN/discours/109453.pdf](http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/EN/discours/109453.pdf), p. 3.

Communication from the Commission to the Council and the European Parliament, of 10 September 2003; European Union and United Nations: the choice of multilateralism [COM(2003) 526 final - Not published in the Official Journal]

## 3 STRUCTURE OF THE PROBLEM SPACE

### 3.1 CONCEPTUAL ANALYSIS

The European Union is a unique complex power. Its strength and weaknesses stem from the fact that the Union is more than an intergovernmental organization and, at the same time, a cluster of nation states. None of the other global players possess this quality. Therefore, the institutional place of the EU in global relations is a primary ingredient of the strategic challenges that the Union has to face.

EU has a responsibility and must play a crucial role for the security and stability in the area of its direct security interests. This role requires:

- full recognition of the realities in a variety of countries and regions,
- permanent screening of risk factors with technical and analytical/intelligence tools,
- clear decision making mechanism at various stages of the escalation of threats and risks, especially accounting for foresight and prevention strategies,
- diverse capacities for prevention and early action against threats,
- close communication with supporting players in the specific situation, with relevant international organizations and NGOs,
- an operational strategy based on the principle of approaching the crisis “as soon as possible, as far from the Union’s borders as possible, as supportive/communal as possible, as peacefully as possible.”

In future comprehensive approaches to addressing variety of security threats and challenges, both internal and external, EU roles may vary. These roles are not limited strictly to using available capabilities and assets. The EU may trigger action and development of relevant strategies that facilitate the involvement of various players. While particular choices and decisions will be debated and reflected in specific policies and official documents, this analysis is intended to support the exploration along several *principal dimensions*:

- *Actors* both within and outside the Union that should be seen as perspective partners in a comprehensive approach to conflict prevention and crisis management;
- *Operational instruments* that the actors should be able to provide and EU should be able to manage;
- *Achievable goals and objectives* in supporting non-EU member states;
- *Crisis Management Strategies*;
- *Mission roles*.

The particular choices on future EU roles will be shaped by:

- Structural conditions for EU decision-making;
- Trends and factors that do and will drive the respective decisions.

Therefore, this section of the report presents a study on dimensions, structural conditions, and drivers. It summarises the advances in the implementation of the comprehensive approach and outlines constraints impacting the definition of EU roles in this respect.

### 3.1.1 Advances

Beyond what is said in point **2.1 Policy description and its relevance for FOCUS**, the principal advances of EU are in its collective values, socio-economic achievements, and sense of belonging to the most liberal and successful political alliance in history.

The European Security Strategy (ESS) emphasises that “No single country is able to tackle today's complex problems on its own.”<sup>d</sup> It examines conflicts abroad in their relation to development, as well as impact on European vulnerabilities. Conflict resolution and provision of security are examined in their links to confidence building and arms control regimes, spreading good governance, trade and development policies. The strategy calls for increased responsibility of the EU in preventive engagements, development of a wide spectrum of capabilities, and a strategic partnership with NATO in crisis management. Multilateral cooperation in international organisations and partnerships with key actors are seen as indispensable in the pursuit of EU objectives. Thus, although ESS does not explicitly use the term “comprehensive approach,” the ideal of comprehensiveness in terms of actors, instruments, and phases of conflict is certainly reflected in the document.

The EU has agreed with NATO on a comprehensive framework for EU-NATO permanent relations, known as Berlin Plus. It provides for crisis consultations and, *inter alia*, provides access to NATO assets in EU-led crisis management operations.<sup>e</sup>

In addition to its more traditional military missions and efforts at developing defence capabilities, expressed most visibly through the 2010 Headline Goal and the concept of the EU Battle Groups, the Union invests in the civilian aspect of crisis management, focusing on four priority areas as defined by the Feira European Council in June 2000: police, strengthening of the rule of law, strengthening civilian administration and civil protection.<sup>f</sup>

In addition, the Council of the European Union prescribes roles of the EU and member states in using both civilian and military capabilities in emergency and crisis response.<sup>g</sup>

The term “comprehensive approach” is getting traction also with the European Parliament in discussions on future defence developments. A study by Mölling and Brune, published on behalf of EP's Directorate-General for External Policies of the Union, calls for “a more comprehensive approach to the defence sector” in order to overcome “the current piecemeal approach to the various problems” and “concentrate on the shape of an effective EU defence sector strategy during a period of austerity.” The authors of the report conclude that

[t]he character of crisis management is also drifting away from purely military tasks. Future engagements are likely to be more civilian and more geared towards managing the complex interaction of several actors to achieve an integrated or comprehensive approach. This poses also challenges to the development of capabilities, i.e. to link planning assumptions and deduce integrated or civil – military interoperable capabilities such as communication, maintenance or transport.<sup>h</sup>

Recently, the concept of the “comprehensive approach” has been applied in shaping EU policy for internal security. The draft Internal Security Strategy (ISS), approved by the Council of the

European Union in February 2010, calls for understanding the concept of internal security comprehensively.<sup>i</sup> In addition, in its ‘Strategic Guidelines for Action’ the Council mandates the application of a “wide and comprehensive approach to internal security.”<sup>j</sup> In this comprehensive approach is to encompass “a wide range of measures with both horizontal and vertical dimensions”, as follows:

“horizontal dimension: to reach an adequate level of internal security in a complex global environment requires the involvement of law-enforcement and border-management authorities, with the support of judicial cooperation, civil protection agencies and also of the political, economic, financial, social and private sectors, including non-governmental organisations,” as well as “vertical dimension of security at various levels: international cooperation, EU-level security policies and initiatives, regional cooperation between Member States and Member States’ own national, regional and local policies.”<sup>k</sup>

In its November 2010 Communication to the European Parliament and the Council,<sup>l</sup> the European Commission shied away from using the term “comprehensive approach.” Nevertheless, it referred to the cross-border and cross-sectoral nature of current security threats and challenges and the inability of individual member states to respond effectively on their own. Further, reflecting a broad understanding on security players, it came up with a shared agenda for member states, EU bodies, local authorities and civil society, supported by a solid EU security industry. The Agenda emphasises the need to ensure coherence and complementarity between the internal and external aspects of EU security and integration or security measures in “relevant strategic partnerships.” Finally, in the elaboration of the strategic objectives, the Commission examines the spectrum of preventive, protective and consequence management actions.

To summarize, in a very short time, the EU has built a solid crisis management capability and accumulated multiple practical experience, both civilian and military. Some suggest that the success of the mission is because of the small size and limited military risk. However, experience confirms that in case of spillover of a crisis situation neither pure military nor pure civilian mission may be effective.

If this is mutually recognised, the EU capacity to perform integrated missions both inside and outside Europe should be completely established. EU engagements should surmount the fact that the Union’s potential for integrated missions is hindered by internal EU politics. EU should establish policy of investing time and money in developing balanced, flexible, and effective civilian-military capabilities, adequate to foreseen requirements for crisis management, peacebuilding, reconstruction and stabilization missions.

As a preliminary conclusion, it can be stated that there is growing understanding and acceptance of the comprehensive approach in addressing various security threats and challenges, with account of the interplay between those with external origin and the ones originating within the EU. It is safe to predict that in the future the comprehensive approach will be applied in addressing additional challenges to the European security, and new ways will be explored that seek to make this application more effective and efficient. However, it less clear—and maybe impossible to predict—exactly what roles the European Union will undertake in terms of partnerships, mission roles, capabilities, and phases.

Therefore, the FOCUS project will explore alternatives of these roles of the European Union, that will be shaped by the structural conditions for EU decision-making and a number factors and trends, described in the following sections.

### 3.1.2 Dimensions of the exploratory space for future EU roles

#### D1. Actors

Actors in EU comprehensive approach to security are those official international, European, national and local authorities, international and national non-profit organisations and individuals, media and businesses, with which the EU would be able to establish partnership relations or cooperation in operations to reduce risks, prevent conflicts and manage crises.

*Partnership* is the relations between two or more actors based on formal agreement. These actors would share common goals within a comprehensive approach to risk reduction, conflict prevention, crisis management or stability and reconstruction activities and will conduct operations in a coordinated manner. *Coordination* is a form of synchronization of political or operational activities in terms of objectives, space, time, resources and rules of engagement; it could be formal or informal.

#### *Typical actors<sup>m</sup>*

*International actors* are global or regional intergovernmental organisation with which EU may establish partnership or cooperation relations and act in coordinated manner in applying comprehensive approach to security such as UN, NATO, OSCE, Arab League, African Union, Organization Islamic Conference, Gulf Cooperation Council, etc.

*Governmental actors* are governments and governmental agencies of member and not-member states, as well as provincial, local, and community authorities that could be partners in solving particular security cases.

*Humanitarian actors* are non-profit civilian organisations, whether national or international, which have a commitment to humanitarian principles and have essential capabilities to perform humanitarian or development activities.

*Military actors* are those national or coalition official military that are provided to comprehensive approach operations by their governments or an intergovernmental political body.

*Security actors* are any lawful security actors other than the military, including both public entities, such as national and boarder police and other national and international security agencies, as well as private entities, such as commercial security contractors and guards.

#### D2. Instruments

Instruments are those political, diplomatic, economic, intelligence, military, security, judicial and non-governmental capabilities and resources, which EU may generate, mobilize, collect, or provide through partnership and cooperation in order to apply the comprehensive approach to any particular security case.

#### *Typical instruments*

*Political instruments* are the related EU policies, consultations, summits, declarations, high-level visits and meetings, and other forms of political activities aimed to build political consensus on EU policy, to establish partnership relations, to intervene in international organisations or to contact the political or opposition authorities engaged in a conflict situation.

*Diplomatic instruments* are EU and member states representation, different forms of public and confidential demarches aimed to create a positive environment for a crisis resolution.

*Economic instruments* are those EU and member states policies that are focussed, from one side, to provide resources to achieve EU aims, and, from other, to limit the resources available to the opponent(s).

*Intelligence instruments* are national official sources of sharable information related to the issue, which could be supportive to the political and operational decision making.

*Military, para-military*, law enforcement, civil protection and other security instruments should be subject to a hierarchical chain of command, be they armed or unarmed, governmental or inter-governmental; they should be deployable to the area of concrete operation, trained under politically determined rules of engagement and (at least) minimal interoperability standards, accordingly equipped, and sustainable for the time of operation.

*Judicial instruments* could be different international and national justice institutions as courts, criminal investigation and prosecution services, customary and traditional justice systems and other legal institutions that work to ensure respect to constitutional arrangements, support to the rule of law supported and safeguarding human rights.

Non-profit organization, media and businesses also can provide powerful instruments, such as development, informational, etc., in partnering with EU as its member countries have the most vibrant civil society and host competitive businesses.

### **D3. Goals and Objectives in supporting non-EU member states**

Goals and Objectives in supporting non-EU member states are those EU policies, programmes and measures that are aimed to improve the security, political, economic, social, humanitarian and administrative situation in particular country/ies or region(s), thus helping local people to alleviate a crisis and achieve sustainable self-development, while respecting human rights and political freedoms.

#### *Typical objectives*

In addition to the provision of basic security, EU may pursue other objectives such as support to economic development and the establishment of good governance.

Development policy of EU - Development and Cooperation (EuropeAid) is responsible for putting into motion the European Commission's worldwide concern for development, by bringing together policy design and policy implementation covering all development countries.<sup>n</sup>

Good Governance is a concept of addressing the way power is exercised in the management of a country's affairs which core elements are public sector management, accountability, a legal framework for development, transparency, information, anti-corruption and the principle of participation.

Specifically, security sector governance (SSG) refers to the structures, processes, values and attitudes that shape decisions about security and their implementation. Security Sector Reform (SSR) aims to enhance SSG through the effective and efficient delivery of security under conditions of democratic oversight and control.<sup>o</sup>

As one example, the Stability Pact for South Eastern Europe can be examined as a model comprehensive conflict prevention strategy of the international community, aimed at strengthening the efforts of the countries of South Eastern Europe in fostering peace, democracy, respect for human rights and economic prosperity, that could be applied to other regions in need.<sup>p</sup>

## D4. Strategies

The EU may choose to pursue different strategies, or combination thereof, focusing on respectively on prevention, building resilience, pre-emption, deterrence, protection, defence, de-escalation, and consequence management.

### *Typical strategies*

*Prevention* is a strategy based on the understanding that a crisis is inevitable, but not imminent, and there is time and opportunities to apply measures and take operation in order to de-escalate tensions.

*Resilience* reflects the capacity of states and societies to recover for crises from any type using mainly internal sources like political consensus, public confidence and support for reforms, national unity and creative behaviour.

*Pre-emption* is strategy of acting on the basis of incontrovertible evidence that an enemy terrorist, military, pirates attack or mass migration wave is imminent.

*Deterrence* is an element of conflict prevention strategy based on building sense within the opponent that any kind of attack will be more costly for him than eventual win.

*Protection* is a universal norm addressed to both national governments and international community and organisation as requirement to provide security and vital human rights for the ordinary people. Responsibility to protect for EU is also a valued and moral code of conduct in the face of massive violence against civilians.

*Defence* today is a comprehensive formula of guarding allied or national sovereignty using mainly military but also political, diplomatic, economic, informational, and other non-coercive instruments.

*De-escalation* is a strategy after the crisis has reached its peak. The main aims are first, to avoid the return to coercive operations and, secondly, to build supportive environment for stability and reconstruction.

*Consequence management* constitutes actions taken in the aftermath of effects of an attack from nuclear, chemical, biological weapons of mass destruction, a natural disaster with massive consequences or an industrial catastrophe. From EU point view, it should also include more general definitions such as threat to life by destructive events.

## D5. Mission roles

The potential roles of the EU in the comprehensive approach may be explored also along the possible roles it could play in a particular mission. In such cases the EU may decide to act alone, to take a lead role, to share the leadership, to provide support, to take responsibility for a particular operational area or a type of capability. Finally, at the extreme, the EU may decide not to get involved in a particular mission.

### 3.1.3 Drivers

Drivers are those factors and developments that will affect the life of all European citizens, and in this way will shape the decisions on what roles EU will undertake in providing comprehensive security for the Europeans.

Drivers could be identified in practically every area of security. Since the EU is a unique complex institution for both member states and people, multiple drivers should be analyzed. The main argument comes from the trends of complexity, interdependence, and global nature of almost all aspects of security. The multiple drivers in turn create complicated decision-making environment, especially in the case of a rapidly escalating situation. The decomposition of drivers could make the analysis easier, but this will not serve our fundamental aim – to be maximum supportive to the security decision making in EU.

Drivers are basic instruments for building scenarios. Presenting them in a form of matrix format gives opportunity to explain scenarios through drivers and, what is very useful, to appreciate the similarities and the dissimilarities across the scenarios on a number of important points.

### *Multiple drivers<sup>2</sup>*

#### *Growth*

Economic growth is one of the key advantages of the EU. The focus here is not on annual size of the growth only, but on its range, quality and capacity for innovation. Growth, considered in this way, determines the degree of freedom EU has to take or not decisions to engage in security case, to apply costly but effective comprehensive approach to security issues of different types or to engage with a supporting, minimal or symbolic role. The characteristics of economic development also will affect decisions on generating capabilities, selecting partnership actors and designing the strategy of engagement. It will also shape respect by friends and adversaries and will continue to feed the image of the EU as the most successful political alliance in history and will make EU attractive moderator in any conflict situation.

But maintaining economic growth is also one of the key challenges for EU. The current financial crisis shows a vital need of structural reforms and different political economy. Efforts and difficult decision are still to be taken and their scope will unavoidably influence the scope and intensity of any EU future security role.<sup>9</sup>

Symmetrically, the quality of the economic growth, and especially the absence of growth or exploration of resources only based growth, will effect strongly also the behaviour of the countries within the area of immediate security interest of EU.

#### *Governance*

Principal characteristic of governance in EU, member states and outside is the connection between political powers and citizens. The level of maturity of governance in EU and any country is characterised by the factual engagement and influence of people on executive policy. If any executive power performs its business through participation and legitimacy, vision and strategy, effectiveness and efficiency, transparency, accountability and rule of law, we will witness a shift of policy-making towards effective governance. If not, the trend will be towards authoritarianism and dictatorship. Good governance principles certainly make the life of policy-makers more difficult but one of the outcomes is the increasing public support.

Governance at the global level is about the so-called world order – a division of labour, rights and obligations between countries with global reach. In the march of globalization, ambitions for taking global responsibilities flag down.

<sup>2</sup> This approach to drivers has been applied by the Strategic Foresight Group, [www.strategicforesight.com](http://www.strategicforesight.com)

EU is a champion of democratic governance at both union and national levels. Maintaining this unique quality, EU would be able to take a lead role in security affairs beyond the area of immediate security interests based on stable qualitative growth, strong and wide public support.

The level of governance strongly impacts the cohesion of the European Union.

### *Ideology*

Ideology in terms of moral code, political principals and global vision based on well rooted values makes the difference in terms of human rights and prosperity. Ideology of national dominance and ignorance of political and individual values may set up a construction of “winners” and “losers.” Each “victory” and each “defeat” in this context would be a source for new conflicts within a spiral of violence.

Religion and religious issues are provocation to political ideology and especially to the liberal democracy. Strategically, it challenges most of all the European open societies and their ability to cope with aggressive penetration without wounding painfully achieved freedoms and rights.

Political and religious ideologies are representing probably the most complex and complicated challenge to EU decision-making on security policy. These are not perspectives but recent reality and their influence will grow at all three levels – internal, neighbourhood, and global.

### *Geopolitics*

Geopolitics is about control. Control over space, not only borders. The modern states' geopolitics is equipped with variety of sophisticated instruments within the range from total information, transnational banks, intercontinental pipelines and control of maritime traffic, through terrorist networks and hybrid armies to missile technologies and nuclear weapons. Geopolitics is deeply rooted in ideology, economic growth and history (Europe has been politically established around five geopolitical centres). It closes the circle of multiple security drivers and completes the spectrum of considerations that affect decisions on EU security issues.

The geopolitics of EU is not a issue often discussed, but in reality it does exist. It relates the union with neighbours (Neighbourhood policy) and with strategic allies (transatlantic relations). Even the relations between EU and NATO fall into this category.

### **3.1.4 Structural conditions for EU decision-making and strategies**

There are several principal structural conditions for effective EU decision-making on crisis management.

The first is rooted into the principle of consensus-based decisions. As it is seen by the reality of recent crisis situations, achieving consensus is complicated, especially in cases of rapidly escalating crises. The principal issue here is the shared threat perception between the member states and the differing views on applicable strategies.

The other structural issue is the delimitation of competencies between EEAS and the European Commission. It is conditionally solved through compatibility with the positions of the High Representative of the Union for Foreign Affairs and Security Policy and the Vice President of the European Commission in one and same person. However, the issue continues to be partially opened in areas as financing of external actions, crisis management (EEAS) and crisis response (EC). Since its foundation, the European Community is involved in all phases of the crisis cycle:

from preventive strategies to post-crisis rehabilitation and reconstruction. It manages substantial resources devoted to countries in political crisis through its country programmes and specific instruments such as the Instrument for stability. The Commission attaches great importance to a coherent EU approach to crisis situations, assuring that EC instruments and ESDP actions are complementary. Both local delegations and local partners are closely involved. The portfolio of the Commissioner for international cooperation, humanitarian aid and crisis response covers functions for response to crises, which is different from the classical understanding of crisis management.

Third structural issue is subsidiarity. For EU, this is a guiding principle of federalism stipulating that decisions should be taken at the lowest level consistent with effective action within a political system. Specifically, it is the principle whereby the European Union does not take action (except in the areas which fall within its exclusive competence) unless this is more effective than the action potentially taken at national, regional or local level.<sup>†</sup>

In addition to solving structural decision-making issues, the implementation of comprehensive approach requires wide spectrum of strategies in order EU to be effective in any case and at any phase of escalation of risk factors or in the case of a natural disaster, pandemic or industrial catastrophe.

As generally crises have more or less common phases of escalation and de-escalation, any decision on EU roles would be based on specific strategic approaches to each of them. Crisis management strategies are based on the continuum of conflict and should be applied in the right time, with right instruments, while maintaining focus of the limited use of coercion, avoidance of collateral damages of any type and the necessary consequence management.

## 3.2 EXOGENOUS THREATS/CHALLENGES

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### 3.2.1 *Exogenous threats*

Identification of most discussed exogenous threats based on literature and so-far conducted expert/stakeholder consultations.

#### **From literature:**

Extracted from: LAS NUEVAS TECNOLOGÍAS EN LA SEGURIDAD TRANSFRONTERIZA CESEDEN, February 2010. Risks and threats.

Risks: activities or factors not absolutely under control, and threats: indicating a contrary will, can be grouped in:

- Aggression against national territory or violation of sovereignty territories.
- Proliferation of weapon of mass destruction (WMD).
- Terrorism as a strategy of action and political influence.
- Cyberattacks and attacks against telecommunication and information systems, that could collapse the normal life of the nation or endanger sensitive information.
- Interruption of basic resources supply chains, mainly energetic.
- Organized crime, including piracy and drugs and weapons traffic.

- Illegal immigration and human beings traffic.
- Natural catastrophes, either from human or natural origin.

From all of them, terrorism is considered the main threat in an immediate future. The most dangerous hypothesis is the possibility that transnational terrorist groups would have access to WMD.

Besides, there have been identified some accelerators, that are able to shorten the time to make this risks a reality:

- Globalization, that facilitates the interconnection of threats. This phenomenon implies also a greater dissemination of the knowledge, which could make easier the access of advanced technology.
- Financial crisis, that makes general the situation of precariousness and disconformity, which could be used as an excuse to favour ideological radicalization, justifying aggressive behaviours, which could be used as a way to deviate the attention to internal problems, affecting in a rise of disputes.
- The proliferation of nuclear installations in states with not equivalent quality control standard could create catastrophic situations, for which it is needed to be ready.

Extracted from “The new global security landscape. 10 Recommendations from the 2010 Security Jam. Security & Defence Agenda”

## THREATS

Modern security threats have an increasingly hybrid character. They emanate from different kinds of actors: states, terrorists, terrorists cooperating with states, etc. They can be intentional, symptomatic or collateral.

In the Security Jam, four main categories of threats attracted the most attention:

- Economic instability
- Failed states
- Environmental Hazards
- Technology

## CHALLENGES:

The challenges of the new security landscape do not discriminate between nations. Therefore instead of a traditional Westphalian approach, there is an urgent need for a global consensus on human security and for ambitious international synergies to tackle these threats.

- Building Trust
- Delivering security in a fragmented world

- In an increasingly multipolar world order, it will be harder to build multilateral partnerships against global security threats

#### **From experts:**

- Industrial accidents which could involve some member states. This hazard could be originated either in an EU country or in a foreign country at EU borderline.
- Social or political crisis
- Climate change
- Policy treads: War or other heavy political crisis on EU borderline countries (For example: current crisis in Mediterranean Arab countries)
- Organized crime
  - Organizations located on EU borderline countries
  - Human trade
  - Drugs and other illegal substances trade
  - Weapon trade
  - Financial Flows of criminal organizations
- Security threats posed by the abuse or inadequate use of emerging technologies and new scientific knowledge
- Infectious diseases and health crisis originated either in an EU country or in a foreign country.
- Economic instability
- EU cohesion
- Political and/or religious radicalism

### ***3.2.2 National and European programmes to enhance capabilities to meet relevant exogenous challenges through research***

Identify national as well as European programmes in place to enhance capabilities to meet relevant exogenous challenges through research.

#### **Inside Europe:**

#### **Critical Information Infrastructure The CI2RCO project: Towards a European Research Agenda**

The main objective of the Critical Information Infrastructure Research Co-ordination project was to create and co-ordinate a European Taskforce:

- to encourage a co-ordinated Europe-wide approach for research and development on Critical Information Infrastructure Protection,
- to establish a European Research Area on CIIP as part of the IST Strategic Objective to integrate and strengthen the ERA on Dependability and Security, and
- to support CIIP awareness and actions in the former EU-25 and Associate Candidate Countries (ACC).

The study concluded:

1. The majority of national initiatives are fragmented and of small economical dimension, with a short time span, with exception of very few with little involvement from CI stakeholders and little investment on R&D.
2. EU co-funded projects are more focused on technological issues with some participation from CI-stakeholders, but with the scarce participation of government entities.
3. Co-operation in the framework of the ERA initiative is difficult because it requires collaborating inside a competitive system. To collaborate means many actors around a table for pursuing the same goal. That is not easy in Europe because Europe is not a “nation” but a “set of nations”.
4. Complex Networks and Infrastructure Protection is an “emerging field” that needs much more research. There is a need to establish a “common language” to deal with these new systems of systems. A lot of work is needed on what kind of measures we should put in place to support R&D collaboration among different actors at regional, national and international level.
5. Technical collaboration is already in place through EU co-funded projects, but what is missing is a common policy among EU member states with the intent to have common calls for common projects funded with national/regional funding

The results of the study are published in a book: *Towards a European Research Agenda for CIIP: Results from the CI2RCO Project*, Uwe Bendisch, Sandro Bologna, Gwendal Le Grand and Eric Luijff, Springer 2008

### **Europe’s Strategic Research Agenda to Deliver Secure, Dependable & Resilient European ICT Technologies to Empower the Citizen and Protect Critical Infrastructure**

The objectives of the project were

- Establish EU Security & Dependability Task Force (STF) with themed-based working groups to identify and elaborate key challenges and priorities for Work programme of FP7;
- Establish Advisory Board (AB) to assist in the direction and promotion of the research;
- Development of a security and dependability strategic research agenda and roadmap;
- Follow holistic approach to security to include new and existing technologies;
- Address Socio-technical challenges;

- Liaise with the European and National security agencies (ENISA), Institutional Advisory bodies (ESRAB) and so forth;
- Create awareness amongst all stakeholders including the users

### **European technology platform SmartGrids: Strategic Research Agenda for Europe's Electricity Networks of the Future.**

The SRA proposes a framework for a future research programme which can be summarized by the following goals.

- To ensure that Europe's electricity networks develop in such a way that enhances Europe's competitive position while supporting environmental objectives and the commitment to sustainability.
- To capture the benefits of collaboration and co-operation in addressing challenges that are common across all Member States.
- To provide a clear framework, goals and objectives on which the research community can focus, encouraging innovative solutions where this will add value
- To generate the momentum and support necessary to convert good ideas to adopted products and solutions

### **Outside Europe:**

**Spatial Information Technologies in Critical Infrastructure Protection, U.S. Department of Transportation, Research and Special Programs Administration, and NASA Earth Science Enterprise, <http://www.ncgia.ucsb.edu/ncrst/research/cip/CIPAgenda.pdf>**

The National Consortium on Remote Sensing in Transportation—Infrastructure examined the role of remote sensing and geospatial information technologies in Critical Infrastructure Protection (CIP), specifically in the identification and preservation of Critical Transportation Infrastructure (CTI). The consortium involved four university consortia and a number of Technology Application Partners, working with transportation practitioners at the federal, state and local level in the U.S. and abroad. The consortium established a web-based public consultation to poll experts on high priority issues in CIP.

**Commercial Critical Systems and Critical Infrastructure Protection: A Future Research Agenda, Australian Information Warfare and Security Conference, <http://ro.ecu.edu.au/cgi/viewcontent.cgi?article=1037&context=isw&sei-redir=1#search=%22critical%20infrastructure%20research%20agenda%22>**

The study acknowledge that the majority of critical infrastructure resides under the control of the business sector and certain aspects such of the critical infrastructure such as Supply Chain Management (SCM) systems are distributed entities and not a single entity. This research paper focuses upon the security issues associated with SCM systems and critical infrastructure protection.

**Research agenda for an integrated approach to infrastructure planning, design, and management, R. John Hansman, Christopher Magee, Richard de Neufville, Renee Robins and Daniel Roos, Massachusetts Institute of Technology, Cambridge, US, [http://ardent.mit.edu/real\\_options/Real\\_opts\\_papers/Reformatted\\_IJCI\\_Hansman.pdf](http://ardent.mit.edu/real_options/Real_opts_papers/Reformatted_IJCI_Hansman.pdf)**

The research agenda highlights the need of fundamental reconsideration of how we look at system design, away from traditional disciplinary considerations, and toward a multi-domain, multi-disciplinary effort. The paper proposes following topics:

- Comparative analyses across infrastructures and political structures, that would identify commonalities and larger lessons;
- Creation of integrated socio-technical models that usefully describe the interactions between the technical infrastructure and its social context;
- Methodological efforts, aimed largely at capturing the network characteristics, both technical and social, of the infrastructure system of systems; and
- Explicit testing and evaluation of the research through programs of collaboration with practitioners and governmental organizations.

**Advances risk models for evaluating critical infrastructure cyber security threats, exploits, vulnerabilities, incidents, and responses, [http://www.nist.gov/tip/wp/pswp/upload/3\\_advanced\\_risk\\_models\\_for\\_evaluating\\_critical\\_infrastructure.pdf](http://www.nist.gov/tip/wp/pswp/upload/3_advanced_risk_models_for_evaluating_critical_infrastructure.pdf)**

The paper scrutinize following papers and studies:

- Defending America's Cyberspace: National Plan for Information Systems Protection, Version 1.0 An Invitation to a Dialogue, The White House, 2000. May be downloaded from link at [www.libertysecurity.org/article729.html](http://www.libertysecurity.org/article729.html)
- National Infrastructure Protection Plan, 2006. Links available at [www.dhs.gov/xprevprot/programs/editorial\\_0827.shtm](http://www.dhs.gov/xprevprot/programs/editorial_0827.shtm)
- FSSCC (Financial Services Sector Coordinating Counsel for Homeland Security and Critical Infrastructure Protection) Research Agenda, September 2008. Available at [www.fsscc.org/fsscc/reports/2008/RD\\_Agenda-FINAL.pdf](http://www.fsscc.org/fsscc/reports/2008/RD_Agenda-FINAL.pdf)
- INFOSEC Research Council (IRC) Hard Problem List, November 2005. Available at [www.cyber.st.dhs.gov/docs/IRC\\_Hard\\_Problem\\_List.pdf](http://www.cyber.st.dhs.gov/docs/IRC_Hard_Problem_List.pdf)
- Various NIST Special Publications (800 Series), available at <http://csrc.nist.gov/publications/PubsSPs.html> including:
  - SP 800-12 An Introduction to Computer Security: The NIST Approach, October 1995
  - SP 800-14 Generally Accepted Principles and Practices for Securing Information Technology Systems, September 1996

- SP 800-83 Guide to Malware Incident Prevention and Handling, November 2005
- SP 800-80 DRAFT Guide for Developing Performance Metrics for Information Security, May 2006
- SP 800-100 Information Security Handbook: A Guide for Managers, October 2006 1
- SP 800-39 DRAFT Managing Risk from Information Systems: An Organizational Perspective, April 2008

**The Cyber Conflict Studies Association: A Comprehensive Research Agenda,**  
<http://www.cyberconflict.org/a-comprehensive-research-agend/>

The Cyber Conflict Studies Association is a non-profit entity organized to promote and lead a diversified research and intellectual development agenda to advance knowledge in the cyber conflict field. CCSA hosted a conference on cyber conflict in Washington, DC entitled "Furthering the Field: A Comprehensive Research Agenda for Cyber Conflict Studies." At the conference, experts reviewed the progress of their research and highlighted new research questions.

**ICT Security and Dependability Taskforce,** <http://www.securitytaskforce.eu/>

Recently, based on inputs from the STF, the SecurIST Advisory Board has issued a document presenting its recommendations for a future security and dependability research framework in Europe, for the period 2007-2013. The Advisory Board is recommending the following nine key research areas:

1. Empowerment of the stakeholders: Stakeholders of the information society include individual citizens, industry and academia, non-governmental organisations and governments. Empowerment of the stakeholder is vital as there is a clear technological trend towards decentralization of technology, as well as of its management and control. Responsibility, authority and control have to move more towards the end user.
2. Europe-specific security and dependability: Europe has a very specific heterogeneous culture and history and set of attitudes to trust and society that requires specific research profiling.
3. Infrastructure robustness and availability: Further research efforts are needed for the assurance of ICT network and service infrastructures, as well as the robustness and availability of critical infrastructure, such as health, energy, transport or finance.
4. Interoperability: Research on the interoperability between security and dependability technologies and standards.
5. Processes for developing secure and dependable systems: Research on the systematic improvement of secure and dependable system development (including hardware and software) from their design phase.
6. Security and dependability preservation: In an increasingly complex world of evolving requirements, technologies and systems, maintenance of effective system security and dependability is critical and is essential for preserving user confidence.

7. User-centric security and dependability standardisation: Strengthen the structured involvement of end users and their respective representatives into relevant standardization activities involving security and dependability technologies.
8. Security and dependability of service oriented architectures (SOA): The need to establish and maintain trust and manage policy regulations and service level agreements in an SOA context, together with commensurate advances in software engineering to deliver service expectations.
9. Technologies for security: Research is needed to provide a higher assurance of trusted communication and handling of digital information. Cryptology and trusted functionality and computing need to be considered.

In addition to these nine key research areas, four future grand challenges covering a 10-20 year vision are presented by the Advisory Board:

1. Countering vulnerabilities and threats within digital urbanization: This challenge addresses open problems that we will face in security and dependability from the expansion and globalization of digital convergence by 2010-2015.
2. Duality between digital privacy and collective security: digital dignity and sovereignty: This challenge deals with future privacy issues of all the stakeholders, whether citizens, groups, enterprises or states. It addresses the problem of how to override the 'Big Brother' syndrome and 'dark security', ie, the future assurance of digital sovereignty and dignity for the various stakeholders.
3. Objective and automated processes: This challenge addresses the problem of how to attain a controllable and manageable world of complex digital artefacts by 2015 and how to inject regular, quantitative techniques and engineering to make the field truly scientific.
4. Beyond the horizon: a new convergence: This last challenge deals with the preparation of a new convergence at a horizon of 2020 and beyond, which is the bio-nano-info-quantum 'galaxy' and the new security and dependability challenges that will emerge.

### **3.3 METHODS OF COMPREHENSIVE APPROACH RISK ASSESSMENT**

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The following list are some methods used by NASA. See details in the following article - <http://www.fmea-fmeca.com/nasa-risk-management.pdf>.

- Failure Modes and Effects Analysis (FMEA)
- Fault Tree Analysis (FTA)
- Probabilistic Risk Assessment (PRA)
- Event Tree Analysis (ETA)
- Event Sequence Diagrams (ESD)
- Master Logic Diagrams(MLD)
- Reliability Block Diagrams (RBD)

Other comprehensive approach risk assessments are threat tailored like CRAMM risk analysis, best suited for Cyber threats (example: [http://www.sans.org/reading\\_room/whitepapers/auditing/qualitative-risk-analysis-management-tool-cramm\\_83](http://www.sans.org/reading_room/whitepapers/auditing/qualitative-risk-analysis-management-tool-cramm_83))

### 3.4 CHANGING BORDERLINES BETWEEN INTERNAL AND EXTERNAL SECURITY IN COMPREHENSIVE APPROACH

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- Relations with countries in near areas and their relation with other world power nations, that is:
  - Candidates or potential candidates to become EU members (eg. Turkey, former Yugoslavian and some former USSR republics), and Eastern Europe countries in general
  - Former colonies of EU members, especially those which are located near the EU (i.e. Mediterranean countries in North Africa & Middle East)
- Relations with other world leading countries (old or emerging)
  - United States of America
  - People's Republic of China and other BRIC countries (Brasil, Russia, and India)
- Relations with other global organizations, to which some or all EU countries belong:
  - OSCE
  - UN
  - NATO
  - Others ...
- International security standards, regulations and policies adopted by the EU and their impact in the Comprehensive Approach:
  - ICAO<sup>3</sup> security regulations (biometric passport (ICAO Document 9303) and the Aviation Security and Facilitation Policy (SFP))
  - Regulations for the arms trade
  - Others...
- Other non security related regulations or agreements and their impact in the Comprehensive Approach in their internal and external dimensions
  - WTO<sup>4</sup> agreements

<sup>3</sup> International Civil Aviation Organization ([www.icao.int](http://www.icao.int))

<sup>4</sup> World Trade Organization ([www.wto.int](http://www.wto.int))

- Others

### **3.5 FOOD FOR THOUGHT FOR SUBSEQUENT SCENARIO FORESIGHT**

#### **3.5.1 *Hidden scenarios behind past policy processes that will continue to drive the future***

**CBRNe–Terrorism** will continue to drive the future with dilemmas such as:

1. The implications of instability in the Arab world on hidden scenarios concerning CBRNe
2. The implications of all past arms export by European countries to third countries on CBRNe-Terrorism

**Exogenous Political Instability** will drive the future with dilemmas such as:

1. Posing new conflictual challenges on EU security and foreign policy
2. The new character of recent political instability challenges political instability in Europe

**Cyber Threats** risks to be increased. From digital discontinuity to conflict propensity between European States. This is a possible scenario due to crucial problem in intelligence communities in Europe.

**Missile Threats and Defense** in a new geostrategic global environment will drive the future with new Challenges to Transatlantic Cooperation and other issues.

**Climate Change** with implications on EU as a global actor

#### **3.5.2 *Possible key drivers for further exploration/discussion***

- Better planning processes,
- Networking approaches,
- Overcoming different cultures by common training
- EU in the global economy.
- Regionalisms
- External Dimension of the EU's Role in Global Development
  - European Development Policy after Lisbon: The European External Action Service.
- Financial Markets and the EU.
- EU and Climate
  - Climate change, international trade and development. Policy intersections. Towards EU Policy Coherence.
- EU and Development

- External and internal dynamics of EU's External Relations. EU's Development Policy.
- Europeanisation of National Foreign and Defence Policies
- EU and international law.
- The idea and practice of EU as a model
- Internal Dimension of EU's Role in Global Development
  - Towards a European Policy for Sustainable Global Development?
  - The EU as an agent for Democracy.
  - Security-Development nexus.
- The EU and International Institutions
  - International Maritime Organization
  - UN Human Rights Council
  - EUs influence on internet and telecommunications governance
  - EU in the G8
  - EU in the WHO
- European Military Crisis Management: Conceptual and Organisational Challenges – EU Crisis Management and Peace Keeping. – EU Crisis Management and Security
  - Crisis Management
  - Peace Keeping
- EU and External Representation
- EU in Africa
- EU in the Mediterranean
- EU's Comprehensive Approach to Security:
  - The EU as a Comprehensive Security Provider
  - The dynamics of Administrative Capacity Development in CSDP Civilian Crisis Management
  - Integrated Civil-Military Crisis Management within CSDP.
  - Challenges of Civil-Military Coordination.
- EU and Trade
- European leadership on energy and climate change
- Coherence, consensus and conflict in EU External Affairs

- The EU and Asia- Pacific Region
- The ENP: Focus on Europe's Eastern Neighbours
- The EU in Western Balkans
- The Performance of EU in International Institutions
- The European Neighbourhood Policy – Europe's Neighbourhood
- Small Powers, unintended consequences and depoliticization
- Human Rights and Migration
- Governing Global Markets
- Making Strategy for Europe: EU and NATO
- Climate, Energy and Human Security
- Foreign Policy
- EU Energy Policy
- Paradigm shift in Normative power Europe
- The EU, India, China and Russia
- Multilateralism
- CSDP

## 4 METHODS FOR COMPREHENSIVE APPROACH SCENARIO FORESIGHT

### 4.1 TYPICAL METHODS USED IN SO FAR SCENARIO FORESIGHT FOR COMPREHENSIVE APPROACH

This section of D3.1 Problem space particularizes the methods for scenario foresight relevant for the Big-theme Comprehensive Approach, starting from the work initiated under WP2.1 and D2.1 and complemented with the information collected from other sources<sup>567</sup>.

The WP2 and particularly D2.1- “FOCUS State of the Art Review of scenario-based research planning”, provides an in-depth analysis of foresight-based scenario methods in security research. A critical review of precedent projects and initiatives related to the foresight in security research has been made in order to avoid duplication of efforts, adapt available methods and improve the knowledge in this topic.

From the analysis of all documents found in this phase of the FOCUS project, it is possible to extract that **there is not a standard foresight methodology in the whole Europe in strategic security research.**

The methodologies used in the different projects analysed are based on a combination of several methods like brainstorming, Delphi, morphological analysis, panel of experts, driver and trend analysis, surveys, scenario building, workshops, SWOT, interviews, etc.

After the review of precedent initiatives and the analysis on their best practices and lessons learned (see D2.1), a selection of apt scenario methods to be applied in the context of the foresight process has been prepared. Annex 6 to D2.1 provides an analysis summary to these methods. The selected and studied methods are the following:

- Case study methodology,
- Strategic culture analysis,
- Swot,
- Extreme value theory,
- Cat models,
- Black swan theory,
- Dynamic modelling,
- Agent-based modelling,

<sup>5</sup> EFNM Mapping Foresight – Revealing how Europe and other world regions navigate into the future.

<sup>6</sup> European Forward Looking Activities – EU Research in Foresight and Forecast.

<sup>7</sup> FP6 FOR-LEARN project: [http://forlearn.jrc.ec.europa.eu/guide/4\\_methodology/index.htm](http://forlearn.jrc.ec.europa.eu/guide/4_methodology/index.htm)

- Complexity studies,
- Delphi,
- Relevance tree,
- Morphological analysis,
- Small worlds,
- Critical path method,
- Petri nets,
- Bayesian networks,
- Multi-attribute utility theory,
- Emerging and future risks framework,
- Disrupt-it,
- Analytic hierarchy process (AHP),
- Process models,
- SOS behaviour description and management assessment,
- Combination of methods for complex territory safety management.

Scenario building is one of the most frequently used methods in foresight activities, and it is implicit its use in FOCUS. A scenario is a "story" illustrating visions of possible future or aspects of possible future. It is perhaps the most emblematic Foresight or future studies method. Scenarios are not predictions about the future but rather similar to simulations of some possible futures. They are used both as an exploratory method or a tool for decision-making, mainly to highlight the discontinuities from the present and to reveal the choices available and their potential consequences<sup>3</sup>. Scenario building is used in almost all the projects dedicated to Globalisation, Europe and Neighbouring countries in European Research in Foresight and Forecast<sup>2</sup>, and therefore is applicable to Comprehensive Approach theme.

Other methods not analysed in D2.1 but applicable to the Comprehensive Approach theme are:

- Literature Review
- Structural analysis
- Creativity methods such as: Brainstorming, Workshops, Panel of Experts, Surveys, Interviews, etc.
- Modelling and simulation
- Macroeconomic models
- Environmental scanning and monitoring
- Driver and Trend Analysis

- Gaming
- Backcasting
- Cross-impact analysis

In most of the precedent projects analysed it is not common to use a taxonomy that allows defining different scenarios in detail. The taxonomy used in some cases is a description of possible types of hazards that helps to focus the analysis of the several possibilities in study.

These taxonomies allow the study to focus on some concrete cases and do not lose itself in a great world of possibilities related to security research.

The most common methods for scenario analysis are workshops and panels of experts. Through these methods, formal information of experts was gathered and discussed.

Also, informal opinion methods, which are more difficult to establish within a methodology, have been used, as brainstorming, assessments, personal interviews, etc.

IT-Tools as data-bases or web pages were stated as used only in 4 of the analysed documents, showing that these support tools have been not common in security foresight studies.

There are also other methods as questionnaires and morphological analysis which have been seldom described as support tool for workshops and expert panels.

## **4.2 THEME/STAKEHOLDER-SPECIFIC FORESIGHT SCENARIO NEEDS/METHODS TO CONSIDER**

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D2.1 concludes that once all the data on foresight methodologies have been analysed, it can be said that there is a need for further scenario research, as there is no clear methodology applied to these kind of studies (most of the more relevant documents have used a mixture of methods). The methodological issues to be overcome by the FOCUS tool box can be summarized with the following ideas:

- Clarify which mixture of foresight methodologies is the most suitable to deal with scenario research planning. This methodology has to be useful for any kind of scenario (in this context, for any of the FOCUS Big Themes)
- The methodology has to be adapted for long-term studies, up to 2035, as the vast majority of the identified documents only cover the 2020 horizon.
- Define the IT-tools to support the above mentioned methodology. The data base tools or electronic questionnaires or forums have been used in some of the initiatives, but there is a lack of unified tools to support these exercises.
- Define the kind of out-puts requested to the IT-tools, coming from the analysis on the gathered information. The reports, data collection, etc. have to enhance and simplify the work that can be done with a group of experts (although it is an obvious conclusion, it is sometimes forgotten).
- Rationalized the implication of end-users; defining the moment of the activity where their impact will be higher. It is not always possible to have the required number of these

personnel neither the amount of time needed, but it is clear that their involvement in scenario-based activities is compulsory, so they have to be part of the activity only in the right moment.

## 5 LIST OF EXPERTS

List of experts for general information and possible commitment to the Big-theme specific Future Group.

### 5.1 GENERAL LIST OF EXPERT INDIVIDUALS/INSTITUTIONS FOR THIS BIG THEME, WITH CONTACT INFORMATION

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- European Union Institute for Security Studies, ([www.iss.europa.eu](http://www.iss.europa.eu))
- Centre for Security Studies, ETH, Zurich, ([www.css.ethz.ch](http://www.css.ethz.ch))
- Geneva Centre for Security Policy, ([www.gcsp.ch](http://www.gcsp.ch))
- Berghof Conflict Research (formerly the Berghof Research Center for Constructive Conflict Management), ([www.berghof-conflictresearch.org](http://www.berghof-conflictresearch.org))
- FRIDE, Madrid, ([www.fride.org](http://www.fride.org))
- Institute for Security and International Studies, Sofia, ([www.isis-bg.org](http://www.isis-bg.org))
- International Institute for Strategic Studies, London, ([www.iiss.org](http://www.iiss.org))
- European Council on Foreign Relations, (<http://ecfr.eu>)
- German Institute for International and Security Affairs, Berlin (Stiftung Wissenschaft und Politik), ([www.swp-berlin.org/en/](http://www.swp-berlin.org/en/))
- NATO Defence College, Rome, ([www.ndc.nato.int](http://www.ndc.nato.int))
- European Security and Defence College, (<http://esdc.mil-edu.be/>)
- Centre for Security and Defence Research, Bulgarian Academy of Sciences, (<http://cnsdr.bas.bg/>)
- Center for East-European and Asian Study (CEEAS), National School for political studies and public administration, Bucharest, Romania, ([www.cseea.ro](http://www.cseea.ro))
- EURISK Foundation (European Institute for Risk, Security and Communication Management), Bucharest, Romania, ([www.eurisc.org](http://www.eurisc.org))
- Polish Institute of International Affairs, Warsaw, ([www.pism.pl/en](http://www.pism.pl/en))
- Geneva Centre for the Democratic Control of Armed Forces, ([www.dcaf.ch](http://www.dcaf.ch))
- Centre for Security Studies (CSS), ([http://www.css.ethz.ch/index\\_EN](http://www.css.ethz.ch/index_EN)), at the Swiss Federal Institute of Technology, Zurich
- World Customs Organization, ([www.wcoomd.org](http://www.wcoomd.org))
- United Nations Office on Drugs and Crime, ([www.unodc.org](http://www.unodc.org))
- The Royal United Services Institute, ([www.rusi.org](http://www.rusi.org))

- Insurers of Europe, ([www.cea.eu](http://www.cea.eu))
- International AntiCounterfeiting Coalition, ([www.iacc.org](http://www.iacc.org))
- World Intellectual Property Organization, ([www.wipo.int](http://www.wipo.int))
- Financial Action Task Force, ([www.fatf-gafi.org](http://www.fatf-gafi.org))
- Transparency International, ([www.transparency.org](http://www.transparency.org))
- Kenos Circle, (see founding members: [www.execupery.com/dokumente/KENOS\\_Circle.pdf](http://www.execupery.com/dokumente/KENOS_Circle.pdf))
- The American Council for the United Nations University Millennium Project, ([www.millennium-project.org](http://www.millennium-project.org))
- Rutgers - Center of Public Security, ([www.rutgerscps.org](http://www.rutgerscps.org))
- European Organization for Security (EOS), ([www.eos-eu.com](http://www.eos-eu.com))
- Organization for Security and Co-operation in Europe (OSCE), ([www.osce.org](http://www.osce.org))
- International Transport Forum, ([www.internationaltransportforum.org](http://www.internationaltransportforum.org))
- TAPA EMEA Transported Asset Protection Association, ([www.tapaemea.com](http://www.tapaemea.com))
- Trust in Digital Life (TDL), ([www.trustindigitallife.eu](http://www.trustindigitallife.eu))
- NESSI – Security and Dependability Working Group, ([www.nessi-europe.com](http://www.nessi-europe.com))
- ICT Theme – Trustworthiness unit R&D projects: Effectsplus, ([www.effectsplus.eu](http://www.effectsplus.eu))

## 5.2 GROUPS OF STAKEHOLDERS TO INVOLVE IN FOCUS FORESIGHT IN THIS BIG THEME

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- European External Action Service, ([www.eeas.europa.eu](http://www.eeas.europa.eu))
- European Defense Agency, ([www.eda.europa.eu](http://www.eda.europa.eu))
- EU Political and Security Committee
- EU Military Committee
- EU Military Staff
- Crisis Management Planning Department
- Civilian Planning and Conduct Capability
- Ministries of Foreign Affairs of EU member states
- Ministries of Defense of EU member states
- Ministries of homeland security, emergency management services, paramilitary organizations of member states

- EU Security Research Advisory Board
- Europol ([www.europol.europa.eu](http://www.europol.europa.eu))
- Serious Organized Crime Agency ([www.soca.gov.uk](http://www.soca.gov.uk))

## 6 RECOMMENDED RESOURCES FOR PREPARATION OF SCENARIO FORESIGHT AND BRIEFING OF FUTURE GROUPS

### 6.1 COMPREHENSIVE APPROACH SPECIFIC DEFINITIONS AND TERMS

- **CBRNe:** It is a relatively new concept. CBRNe is short for Chemical, Biological, Radiological, Nuclear and explosives. It is used to refer to incidents or weapons involving any of these five hazards. Before CBRN became common, the term NBC (Nuclear, Biological, Chemical) was used to address these types of weapons and their countermeasures
- **Comprehensive Approach:** Alternative future tracks in further developing the comprehensive approach as followed by European institutions, Member States and international strategic actors – including links between the internal and external dimension of security.
- **CSDP:** Common Security and Defence Policy, formerly known as the European Security and Defence Policy (ESDP).
- **Dimension:** The key areas in which in depth research and analysis on trends and drivers are organized. (Remark: A distinct role of the EU in the implementation of the comprehensive approach is presented through the set of choices along all explored dimensions.)
- **Enhanced co-operation:** In the European Union, enhanced cooperation is a procedure where a minimum of nine EU member states are allowed to establish advanced integration or cooperation in an area within EU structures but without the other members being involved.
- **ESDP:** European Security and Defence Policy
- **Global Actor:** An entity with a capacity and ambition to act and influence in decisions of world relevance.
- **Hazard - Risk:** Situation that poses a level of threat to people, health, property or environment.
- **Multilateralism:** The ability of having into account the relationship between various member States, different organizations and relations between EU and other countries.

### 6.2 ONLINE RESOURCES

Recommended online available resources for preparation of scenario foresight in Comprehensive Approach Big Theme (for use by Future Group members).

#### Organizations

- Human Security Gateway (<http://www.humansecuritygateway.com>)
- European Interagency Security Forum (<http://www.eisf.eu>)

- SecurityCommunity.eu (<http://www.securitycommuniy.eu>)
- International Relations and Security Network (<http://isn.ethz.ch>)
- Institute of International and European Affairs (<http://www.iiea.com>)
- European Union Studies Association (<http://www.eustudies.org>)
- University Association for Contemporary European Studies (<http://www.uaces.org>)

## Projects

- F7 Project FORESEC - Europe's Evolving Security: Drivers, Trends and Scenarios (<http://www.foresec.eu>)
- FP Project EU-GRASP - Changing Multilateralism: the EU as a Global-regional Actor in Security and Peace (<http://www.eugrasp.eu>)

## Articles

- Risk Management Tools (<http://www.fmea-fmeca.com/nasa-risk-management.pdf>)
- A Qualitative Risk Analysis and Management Tool –CRAMM ([http://www.sans.org/reading\\_room/whitepapers/auditing/qualitative-risk-analysis-management-tool-cramm\\_83](http://www.sans.org/reading_room/whitepapers/auditing/qualitative-risk-analysis-management-tool-cramm_83))
- Foresight on the future of public research metrology in Europe (<http://www.emeraldinsight.com/journals.htm?articleid=1906962&show>)
- Arctic Planning Scenarios ([http://pubs.rddc.gc.ca/inbasket/DRP\\_CORA.110824\\_1020.CR2011-117\\_A1b.pdf](http://pubs.rddc.gc.ca/inbasket/DRP_CORA.110824_1020.CR2011-117_A1b.pdf))
- Genealogies of ResilienceFrom Systems Ecology to the Political Economy of Crisis Adaptation ([http://sydney.edu.au/arts/political\\_economy/downloads/Melinda\\_Cooper.pdf](http://sydney.edu.au/arts/political_economy/downloads/Melinda_Cooper.pdf))
- Emerging Risks related to Food Technology- ([http://www.agtechint.com/uploads/Emerging\\_Risks\\_Related\\_to\\_Food\\_Technology.pdf](http://www.agtechint.com/uploads/Emerging_Risks_Related_to_Food_Technology.pdf))
- Anticipating ubiquitous computing: logics to forecast technological futures ([https://eprints.uwe.ac.uk/14067/1/anticipating-ubiquitous-computing\\_kinsley.pdf](https://eprints.uwe.ac.uk/14067/1/anticipating-ubiquitous-computing_kinsley.pdf))
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- Global Matrix.A Conceptual and OrganisationalFramework for Researching the Future of Global Governance (<http://www.iai.it/pdf/DocIAI/iai1109.pdf>)

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