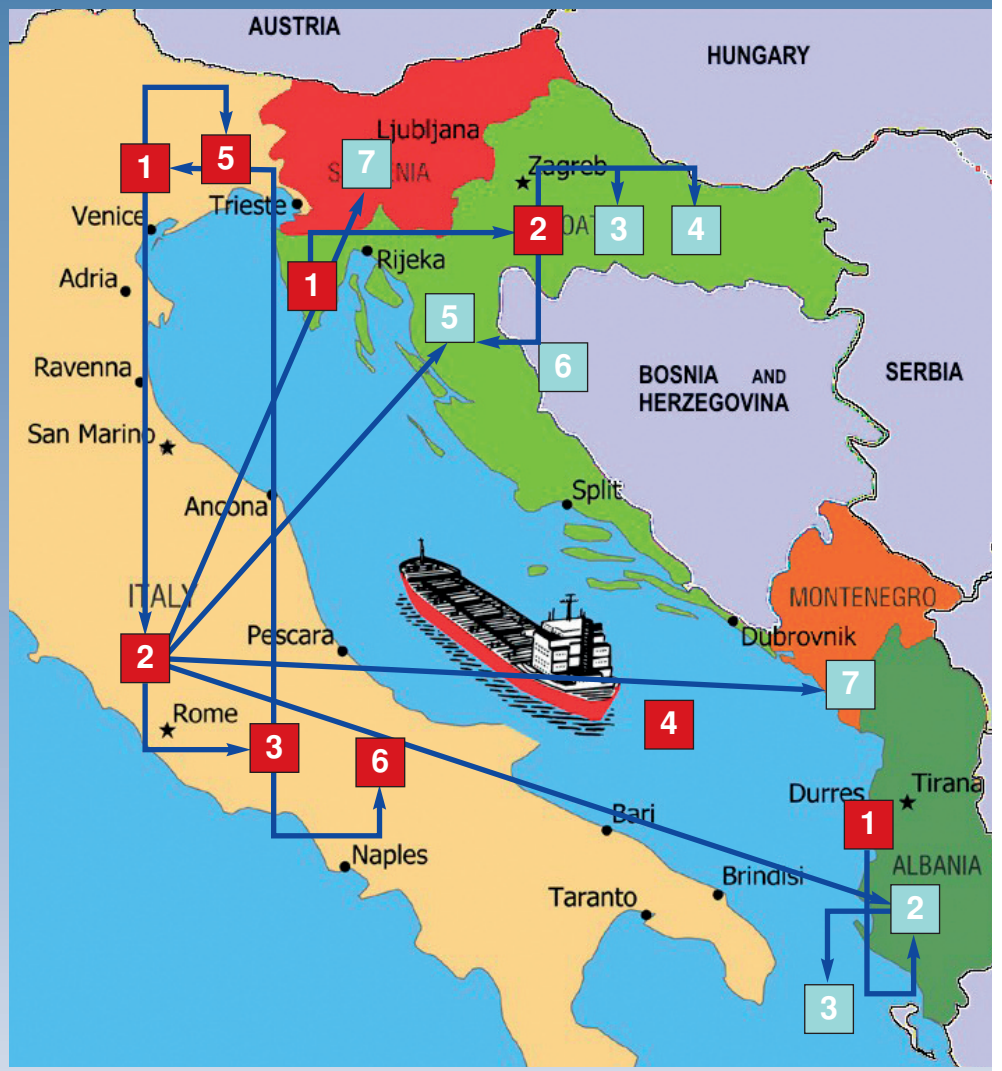
Protecting the Adriatic Seaways

edited by
Daniele Del Bianco



Protecting the Adriatic Seaways

Daniele Del Bianco

PROADRIAS

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ISIG

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I.S.I.G.
INSTITUTE OF INTERNATIONAL SOCIOLOGY OF GORIZIA

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TABLE OF CONTENTS

Chapter 2
PROFILES OF RISK IN THE ADRIATIC AREA

Chapter 3
PROTECTING CRITICAL INFRASTRUCTURES:
A COMPARATIVE OVERVIEW OF OPERATIVE SECURITY PLANS

Chapter 4
PROTECTING THE ADRIATIC SEAWAY. A COOPERATIVE APPROACH?

Chapter 5
SIMULATION, CRITICALITIES AND RECOMMENDATIONS

FOREWORD

Terrorism, inter-faith/inter-cultural dialogue, the quest for a non-violent mediation between social groups who feel different one from another, the perception of security and the very concept of European Union are recurrent paradigms of everyday terminology. They all represent different dimensions of a global reality and of an asymmetric world to which we got quickly accustomed but is radically new [Giandomenico Picco (2007), *Afghanistan*, Isig, Gorizia: pp. 7-13].

Ten years after its insurgence, global and strategic terrorism [Alberto Gasparini (2008) "Globalization, reconciliation and the conditions for conserving peace", *Global Society*, 1: 46] appears to have failed to impose itself as an alternative superpower and to have collapsed into several national experiences. These, in turn, have embraced local/national conflicts and regional instances. On the one hand, one could say that the international tools for pacification have been successful but, on the other, it should be noted that new instruments and methods need to be designed and implemented to counteract its virulent violent outbreak. The more so in areas where it would be least expected. Such tools should take on more pragmatic structures which are already practised and could be applied both at the international and local levels when crisis occur.

Although the Adriatic Sea does not seem to be at the very fore-front on terrorist threats, it is held to suffer from social turmoil and political instability. This context was generated by the application of the modern-state paradigm to the countries emerged from the disintegration of former Yugoslavia with particular reference to the often-too-difficult juxtaposition of the co-existence process where ethnic and national identities differ. Within a given system, when multifarious complexity is no longer held together by a vigorous

ordering principle, several sub-units emerge and they are characterised by a culture of specificity rather than a culture of synthesis.

The ProAdrias project aimed to challenge this situation offering both an analytical description of the Adriatic Sea region with a specific focus on its safety and security dimensions and the design of those innovative tools necessary to its *pacification* and secure development. The co-financing granted by the European Commission, DG Justice, Freedom and Security within the EPCIP 2007 programme, made possible to the ProAdrias research staff to bridge multidisciplinary competences and to applied them to the Adriatic Sea context of security elaborating an original interpretation of the area, an unprecedented mapping of Critical Infrastructures protection plans and Operative Strategic plans, and a ready-to-use set of recommendation for the safe and secure development of the Adriatic Sea ways.

Finally, this report was not elaborated in a vacuum but it set itself as the temporary end result of ISIG scientific interest in the field of terrorism and pacification strategies.

About terrorism and pacification strategies I would like to remember some books: *Le operazioni Onu di peacekeeping nella realtà e secondo il Brahimi Report* (Nicolò Gasparini), "Pace e pacificatori" (n. 1/2-2002, *Futuribili*), *European negotiations* (Vasile Puşcaş), "Terrorismo pace e il ruolo dell'Europa nella soluzione di conflitti" (Giandomenico Picco, n. 1/2007, *Futuribili*), *Afghanistan* (Giandomenico Picco, Antonio Palmisano), *Professionalità e dedizione nelle Ong per la pace* (Giuseppe Cingolani)); on cross-border cooperation; *La situazione confinaria* (Renzo Gubert), *Cooperation and conflict in border areas* (Giovanni Delli Zotti, Raimondo Strassoldo), *Cross-border cooperation in the Balkan-Danube area* (Alberto Gasparini), *Mimetismo di frontiera* (Emilio Cocco), *Europa centrale dei confini* (Alberto Gasparini, Daniele Del Bianco). On environmental safety I remember: *Impact magnitude* (Luciano Di Sopra), *Sociology of disasters* (Russell Dynes, Bruna De Marchi, Carlo Pelanda), *Tecnologia e società nella valutazione di impatto ambientale* (Alberto Gasparini, Gilberto Marzano), *Decidere l'ambiente* (Luigi Pellizzoni, Daniele Ungaro).

In fact, this report falls within the partners cultural tradition which has often studied and planned the changes that can overtake a

country moving out of a Communist regime towards a liberal democratic state. The study of the active operational processes through which such a transition takes place has involved many research projects and generated many scenarios built for the Balkan-Danube area and central and eastern Europe.

Alberto Gasparini

INTRODUCTION

Since its "pacification" under the Roman rule, the Adriatic sea was an area characterised by the strong cultural, social and economic ties of the populations inhabiting its coasts and hinterland(s). The modern interpretation of the Adriatic Sea, consequent to the creation of the Nation-State, as a divided but fixed and solid space, implied the disintegration of its original unity and the socio-economic and relational comparative advantages. However, the fall of the Eastern European totalitarian regimes and the European integration process, on the one hand, and the civil society growth, on the other, call for a new non-dichotomist interpretation of the area based on the past, fluid and integrated multilateral approach.

Although the Adriatic space is not commonly though to be on the very fore-front of terrorist threats, from a security point of view, the Adriatic space has proved to be an area interested by a number of serious criticalities, particularly linked to the aftermath of the Yugoslavian wars. Illegal trafficking, poor level of cross-border cooperation, an uneven European integration process, the unresolved institutional frameset of Kosovo are but a few examples of the weakness and threats incumbent on the area. The relatively fragile structure of the Adriatic Sea region safety/security integrated framework calls for original analysis maximising the joint efforts of international and national actors, who operate both at the global and local level, in fields which (only apparently) are different and distant from one another.

These convergent perspectives inspired the design and implementation of the ProAdrias – Protecting the Adriatic Seaways research project co-finance by the EC, DG Justice Freedom and Security, European Programme for Critical Infrastructures, which aimed to deepen the knowledge of the Adriatic Sea Region in terms of CIs

protection and to formulate recommendation for both its safety/-security and socio-economic development.

The Adriatic Seaway, in fact, represents a crucial infrastructural and logistic support to the European development. Despite the relatively small dimension of the Adriatic Sea Basin, it is characterised by an important momentum of traffic (both commercial and leisure) growth. The port of Trieste alone in 2006 recorded a total turnover of ferry traffic with the Balkans and Turkey for more than 4.5 millions of tons, 166.000 trucks and 50.000 passengers. The practice of carrying lorries by ferries increased consistently during the 1990s for the Yugoslav wars that produced harder border control with long waiting period, bad road connections, safety concerns. This also made the Eastern Adriatic harbours critical EU border points. Moreover, commercial traffic routes of the Adriatic are crossed by a consistent number of international tourists and pilgrims during the summer season. In spite of the complexity and intensity of these flows, there is no specific coordinated and cooperative approach to infrastructure protection and civil defence in the region. Moreover, for the high militarisation of the area (multinational NATO forces, US forces, national armies, special police forces) the risk of overlapping procedures, contestable reactions and lack of coordination is high. Planning of terrorist activities has been repeatedly reported in the area: to sink oil-tankers, hijack ferries, exploit illegal migrations to smuggle explosives/terrorists to EU. This shows the developing connections between institutional instability, organised crime, political radicalism and religious fundamentalism.

The project challenged such situation developing a three-tiers research system:

1 - A risk analysis of the Adriatic seaway, pointing out critical points and weaknesses of the institutional assets, of the infrastructure systems and their vulnerability to terrorism
2 - A tabletop exercise with practitioners/experts, where terrorism scenarios in the Adriatic are simulated within a transnational and cross-border framework of action
3 - Scenario analysis and recommendation on regional and EU CIP with a specific focus on the principles indicated

As pilot study directed at promoting and supporting common operational measures in the elaboration of OSP and contingency

plans in the Adriatic cross-border context, the research applied multi-disciplinary and cross-sector research to tabletop exercise and its final aim was to develop the ECI protection and to organise responses to alerts on potential safety and security risks in the Adriatic basin. In concrete terms, the research brought together both military/-civil issues, private/public interests, R&D/institutional approaches, connected the terrestrial/maritime dimensions of CIP and, finally, challenged the topic of regional and cross-border cooperation in the field of security when national antagonism is still intense.

This volume, thus, presents the most salient research results of the ProAdrias project and its structure parallels the development of the project itself, interpreting each chapter as a necessary methodological step towards the through analysis of the Adriatic Sea Region in terms of the challenges and opportunities in the protection of the Adriatic Seaways.

The first chapter is devoted to the analytical attempt to define CIs in the Adriatic. After a comparative review of the main existing definitions of CIs at the international level in general and in the framework of the EU CIP in particular, the chapter reports on the main CIs in Italy, Austria, Slovenia, Greece and Turkey.

Related risks and threats on CI are assessed in the second chapters which define both concepts and focuses on cross-border vulnerabilities of CI and possible weaknesses of coordinated trans-national decision making procedures. Both safety and security issues are taken into consideration.

The third chapter focuses on the comparative analysis of operative security plans, exploring the feasibility cooperative approach as the basis for common and integrated operational procedures for an effective protection on CIs.

Transnational or regional cooperative approaches, however, cannot develop outside a wider framework of cross-border co-operation (CBC). The fourth chapter is entirely devoted to the analysis of CBC relations in each border area of the Adriatic level to finally report and elaborate the result of the research on the internal and external intervening variables enhancing or disrupting the propensity to cooperate of the relevant stakeholders in the region and on to what extent regional agencies may enact virtuous procedures to such end.

What are the OSP and contingency plans in place for the Adriatic context? What are the main strengths and weaknesses inherent to the cross-border area? To what extent existing OSP and contingency plan are prepared to accommodate for the new terrorists threats? What degree of interaction exists between MS and regional mechanisms and communities routines? What degree of complementarily exists between early warning prevention routines and mechanisms for such threats and the common EPCIP framework? What are the protocols developed by MS authorities to provide leadership and coordination in developing and implementing a nationally consistent approach to CIP in terms of cooperation among stakeholder? How would local authorities and private sector stakeholder practically interact in terms of communication and cooperation?

These are but a few of the questions raised by the ProAdrias project and repeatedly debated with several relevant stakeholders in the region both during interviews, public meetings and tabletop exercises. Chapter five, collects answers and comments, visualises the results of the tabletop simulations and brings forward a set of recommendation formulated by the shared efforts of researchers and stakeholders.

Acknowledgements

The present volume represents the final report of the ProAdrias project: PROtecting the ADRIAtic Seaway PRO-ADRIAS (N° JLS/2007/EPCIP/003). The project falls within the EU program of "Critical Infrastructure Protection". Co-financed by the DG Freedom, Security and Justice in the call 2007: "Pilot project containing a set of preparatory actions with a view to strengthening the fight against terrorism".
Although every care has been taken to ensure the accuracy of the information contained in this study, the responsibility for factual errors or omissions falls entirely on the ProAdrias research partnership.
The ProAdrias project was carried out by the following partners: ISIG – Istituto di Sociologia Internazionale di Gorizia (lead partner), Hellenberg.org, CEI – Central European Initiative, IMO – Institute of International Relation (Zagreb), EMP – European Maritime Partnerhsip.
The report was based on the integrated results of the research activities carried out by the partners and their contribution, as follows:
Chapter 1: Giulio Tarlao, ISIG (except paragraphs 4.1-3, Emilio Cocco, ISIG); Chapter 2: 1.Timo Hellenberg, Hellenber.org; 2. Giulio Tarlao and Zvonimir Mahecic, IMO; 3.1 Emilio Cocco, 3.2 Zvonimir Mahecic, 3.3-9 Giulio Tarlao; Chapter 3: 1. Timo Hellenberg, 2. Emilio Cocco, Zvonimir Mahecic, Giulio Tarlao; Chapter 4: Daniele Del Bianco, ISIG and Alberto Gasparini, ISIG; Chapter 5: Daniele Del Bianco, Giulio Tarlao, Emilio Cocco.
The data on which the analysis of Chapter 4 is based on represent an update of data gathered by ISIG in a research funded by the Council of Europe and collected by the following researchers: Daniele Del Bianco, ISIG 3.1, 3.2; Jozeph Langer, University of Klagenfurt 3.2; Emilio Cocco, University of Teramo 3.4, 3.5, 3.6; Miroljub Radojkovic, University of Belgrade 3.7; Mulita Reis, ISIG 3.8,3.9; Davide Rocchetto, ISIG 3.10.

Chapter 1
WHAT CRITICAL INFRASTRUCTURES ARE

1. Definition of Critical Infrastructures (CI) in the framework of the European Union CI Protection

The project ProAdrias (Protecting Adriatic Seaways) is co-funded by the European Commission, Directorate General for Justice, Freedom and Security, within the EU programme for Critical Infrastructures Protection (CIP). Therefore, this report gathering relevant data from the Italian side cannot but begin with a definition of what CI are, primarily according to the European Union, but also according to other key international security actors.

The EU Commission adopted a broad definition of CI in its first main policy document, *Critical Infrastructure Protection in the Fight Against Terrorism*, produced in the year 2004: «Critical infrastructures consist of those physical and information technology facilities, networks, services and assets which, if disrupted or destroyed, would have a serious impact on the health, safety, security or economic well-being of citizens or the effective functioning of governments in the member states. Critical infrastructures extend across many sectors of the economy, including banking and finance, transport and distribution, energy, utilities, health, food supply and communications, as well as key government services. Some critical elements in these sectors are not strictly speaking 'infrastructure', but are in fact, networks or supply chains that support the delivery of an essential product or service» (Commission 2004: 3-4).

When the EU started to develop its own European Programme on CIP (EPCIP), it had to detail and specify its definition of CI. The European Commission definition offered in the 2006 Directive Proposal states that: «Critical Infrastructure means those assets or parts

thereof which are essential for the maintenance of critical societal functions, including the supply chain, health, safety, security, economic or social well-being of people» (Commission 2006a: 15). This definition is added with a specification of the sectors concerned.

Box 1 - Critical Infrastructure sectors according to the EU

I . Energy
1 - Oil and gas production, refining, treatment, storage and distribution by pipelines
2 - Electricity generation and transmission

II. Nuclear Industry
3 - Production and storage/processing of nuclear substances

III. Information, Communication Technologies, ICT
4- Information system and network protection
5 - Instrumentation automation and control systems (SCADA, etc.)
6 - Internet
7 - Provision of fixed telecommunications
8 - Provision of mobile telecommunications
9 - Radio communication and navigation
10 - Satellite communication
11 - Broadcasting

IV. Water
12 - Provision of drinking water
13 - Control of water quality
14 - Stemming and control of water quantity

V. Food
15 - Provision of food and safeguarding food safety and security

VI. Health
16 - Medical and hospital care
17 - Medicines, serums, vaccines and pharmaceuticals
18 - Bio-laboratories and bio-agents

VII. Financial
19 - Payment and securities clearing and settlement infrastructures and systems
20 - Regulated markets

VIII. Transport
21 - Road transport
22 - Rail transport
23 - Air transport
24 - Inland waterways transport
25 - Ocean and short-sea shipping

IX. Chemical industry
26 - Production and storage/processing of chemical substances
27 - Pipelines of dangerous goods (chemical substances)

X Space
28 - Space

XI. Research facilities
29 - Research facilities

In order to gather a more concrete interpretation of CI, it appears useful to compare the EU definition with those brought forward in other national contexts. If we look now to national definition of CI, we find rather similar instances. If we thus look at national definitions of CI, we find rather similar instances.

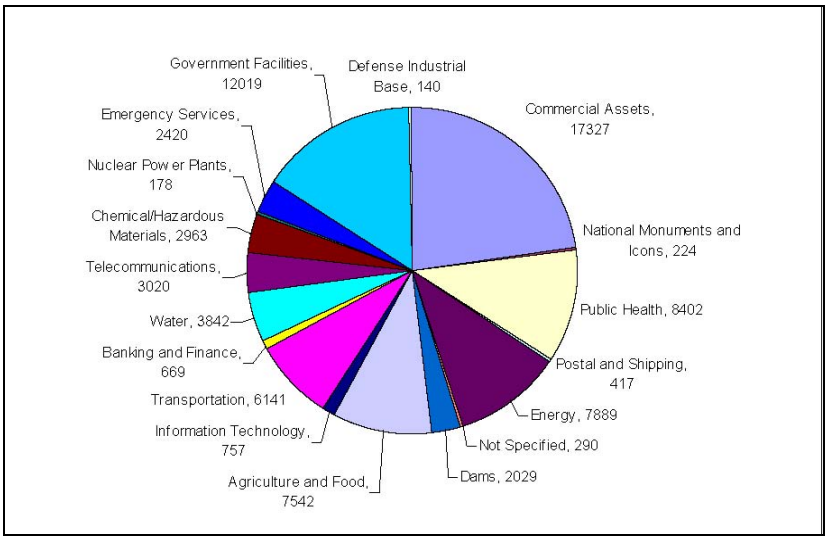
1.1. United States

The statutory definition of critical infrastructure is given in the USA PATRIOT Act (P.L.107-56). It is: «...systems and assets...so vital to the United States that the incapacity or destruction of such systems and assets would have a debilitating impact on security, national economic security, national public health and safety, or any combination of those matters».

There are currently 12 sectors of the economy and 5 groups of key resources (dams, commercial assets, government facilities, na-

tional monuments, nuclear facilities) that the Department of Homeland Security considers as possessing systems or assets that, if lost, may have a critical impact on the United States [1].

Figure 1.1: *United States Critical Infrastructures*



Source: *Critical Infrastructure: The National Asset Database*, CRS Report for Congress, updated July 16th 2007, pages 5-6

In the same documents we find a graphic representation of these national assets.

1. "Critical Infrastructure: The National Asset Database, CRS Report for Congress", updated July 16th 2007, pages 5-6. «4,055 malls, shopping centers, and retail outlets; 224 racetracks; 539 theme parks and 163 water parks; 1,305 casinos; 234 retails stores, 514 religious meeting places; 127 gas stations; 130 libraries; 4,164 educational facilities; 217 railroad bridges; and 335 petroleum pipelines».

1.2. France

Critical infrastructures are «those activities that are indispensable to the public's essential needs and the maintenance of the security and defence capabilities of the country: food, water, energy, transport, financial institutions, information and communications systems, and command and decision centres» (source: Governmental White Paper on Domestic Security in the Face of Terrorism).

1.3. Germany

Critical infrastructures are those «facilities and organisations of major importance to the community whose failure or impairment would cause a sustained shortage of supplies, significant disruptions to public order or other dramatic consequences» (source: KRITIS Task Force of the Ministry of Interior)[2].

1.4. United Kingdom

The Critical National Infrastructure comprises «those assets, services and systems that support the economic, political and social life of the United Kingdom whose importance is such that its loss could: cause large-scale loss of life; have a serious impact on the national economy; have other grave social consequences for the community; or be of immediate concern to the national government». (source: Parliamentary Commission Communication: *Critical Infrastructure Protection in the fight against terrorism,* 20 October 2004)[3].

To sum up, we can say that by CI it is indicated mainly: infrastructures of transport (airports, ports, etc.); strategic facilities of public bodies (government seats, the Army, etc.); power supply structures (pipelines, etc.); information and communication systems.

The reader immediately understands that such definitions are indeed very encompassing, as to gather data about all these sectors and subsectors would mean to investigate almost all fields of a given State

2. http://www.nato-pa.int/default.asp?SHORTCUT=1165.

3. http://www.parliament.the-stationery-office.co.uk/pa/cm200405/cmselect/cmeuleg/38-v/3807.htm/.

and society. For this reason, ProAdrias staff thought it would be convenient to make a choice, as the title of project addresses "seaways", and therefore this report will briefly treat all sectors, but with a special focus on transport and communication facilities. In the same time, the crucial role of energy infrastructures in today's security scenario will not be underestimated. For this reason, ProAdrias staff regarded convenient to make a choice: as the project addresses "seaways", therefore this report will briefly treat all sectors, but with a special focus on transport and communication facilities. In the same time, the crucial role of energy infrastructures in today security scenario will not be undervalued.

2. CIP in the Adriatic space: A perspective

Any scientific endeavour is based on well structured steps of definition of the topic of investigation, choice of the means and methods of enquiry, data collection and analysis. Thus, in this final part of the introductory chapter, we feel the need to devote some space to the discussion of the approach that has guided ProAdrias researchers in the design of the project, and in its implementation, up to the writing of the present report. What we call here perspective or approach is what is called "hypothesis" in the strict scientific terms, but being such report not aimed to academic dissemination, we can just label it as the "file rouge" that interconnects and gives the pace to the following chapters, what makes them not only a list of data and information, but above all a structured argument.

The two key terms are indeed "security", and "Adriatic". What is the situation of the crucial Adriatic area from the security point of view in the tormented beginning of the new millennium? In this introduction we consider satisfactory to summarise our perspective in a nutshell, to draw attention to not more than 3 fundamental points:

(1) as far as we gather from the ProAdrias project and from many similar projects the Institute of International Sociology of Gorizia, lead partner of ProAdrias, has been working on in the past year, the Adriatic space does not seem to be on the very fore-front of terrorist threats; it is not the hot spot of geopolitical turmoil as in the case of Middle East, for example; after the end of wars in the former Yugoslavia, it did not show a record of recurrent, dramatic crises; but

(2) nonetheless, and still from the security point of view, the Adriatic space has proved to be an area interested by a number of serious criticalities, to whom a whole chapter of this report is devoted. We can name the aftermath of a series of armed conflicts, the significant presence of illegal traffic of goods such as weapons and drugs, the poor level of cross-border cooperation in the area, the uneven path of European integration, the unresolved institutional frameset of Kosovo, but we like to quote here at least one criticality from the fresh data we collected for this research: «After 9/11, I wonder what it would need to take possession of a oil or gas tanker. The fact is that, according to Solas regulations, all these vessels are blind at the rear, as the radar is only on the front. We have to add that often on these tankers the crew is undermanned, for technological and economic reasons. The conclusion is that for a terrorist commando it would be not so difficult to reach the back of the ship on a raft, and from there to take control of it. It is much more demanding to conduct a Boeing, than a tanker. Then, when you have the tanker, you have a bomb. You can run against a cruise vessel, or against port infrastructures. What to do in such case? You should sink the tanker, but what Government would take the responsibility to issue such order? Would they really sink it? Imagine a chemical tanker»[4];

(3) So, we get the final point of the mentioned "file rouge": the Adriatic geopolitical arena appears not at an immediate, devastating danger. Still, the weaknesses of its security situation makes it a region that needs more accurate control, and joint efforts, from the international and national actors, both at the global and local level, and regarding a wide range of fields, from political will to diplomatic agreement, from military cooperation to technological investments.

3. Background data on the Adriatic Basin: Physical features and maritime traffics

Before discussing any issue about CI protection in the Adriatic space, we must start from general presentation of physical characteristics of such space.

4. From the interview with Official of the Guard Coast of Bari, South Italy, 19th June 2008.

3.1. Context analysis: The physical setting

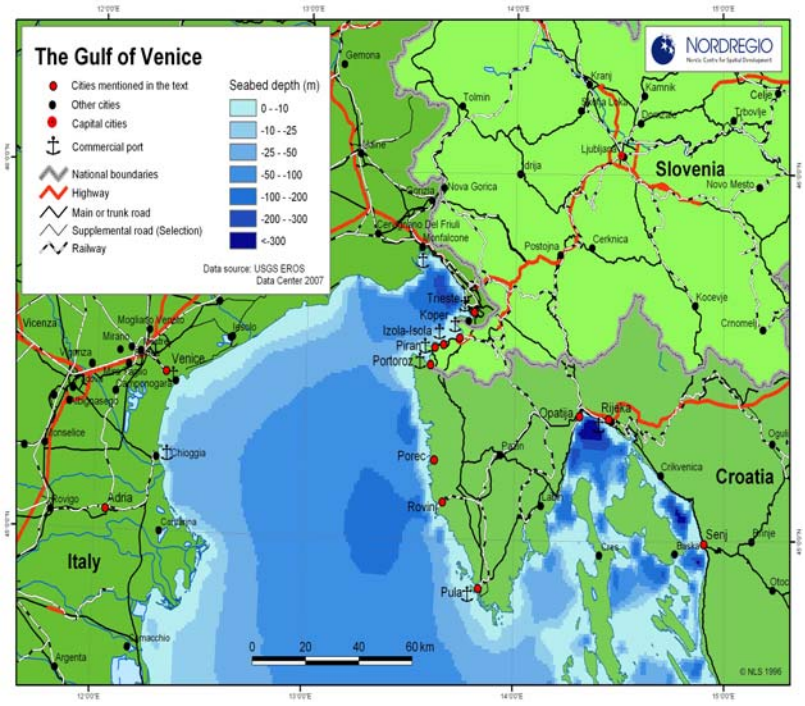
Taken as a whole, the Adriatic Sea has a total surface area of about 60,000 square miles (160.000 km^2). From the political point of view, its coasts are divided amongst Italy, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro and Albania.

Figure 1.2: *Map of the Adriatic Sea*

Source: *http://www.aventura-baska.com/Default.aspx?PageID=501*

Placed on islands within one of the lagoons of the North Adriatic, Venice has its unique situation. Other notable cities on the Italian coast are Trieste, Ravenna, Rimini, Ancona, Pescara, Bari and Brindisi. Major cities on the eastern coast include Izola, Koper, Piran and Portorož in Slovenia; Poreč, Rovinj, Pula, Opatija, Rijeka, Senj, Zadar, Šibenik, Trogir, Split, Makarska, Ploče and Dubrovnik in Croatia; Neum in Bosnia and Herzegovina; Herceg Novi, Kotor, Bar, Budva and Ulcinj in Montenegro; and Durrës in Albania.

Figure 1.3: *Map of the North Adriatic Sea*



Source: *Early warning and civil protection*, Nordregio, Stockholm 2008, page 125

The Adriatic extends northwest from 40° to 45° 45' N., with an extreme length of about 770 km (415 nautical miles, 480 miles). It has a

mean breadth of about 160 km (85 nm, 100 mi), although the Strait of Otranto, which connects with the Ionian Sea, is only 45-55 nautical miles wide (85-100 km). The west, Italian coast is generally low and sandy, rich of marshes and lagoons, whereas the east coast is bold and rocky, with many islands. Many rivers end their flow into the Adriatic Sea.

The most important one is the Italian river Po (652km). Its delta has historically pushed forward (and eastward) the coastline. Albeit the presence especially in winter of the strong northeast wind called Bora (Bura in Croatian), the tidal movement is slight.

This is true especially for the North part of the Adriatic Sea, being quite shallow. Between Venice and the Croatian peninsula of Istria the depth rarely exceeds 46 m (25 fathoms), whereas in the Southern part of the sea, between Bari (I) and Dubrovnik (HR), it reaches around 900 m (500 fathoms). The maximum depth is 1460 m (800 fathoms), and the mean depth is 240 m.

3.2. Context analysis: Figures of maritime traffic

To get an initial idea of the most relevant issues concerning safety and security in the North Adriatic Sea, we consider necessary to present some background data on the nature and the scope of maritime activities in the area. Thus, in this part we report figures regarding the largest ports active across the 3 countries concerned: Italy, Slovenia and Croatia. About Italy we could gather data for the ports of Venice and Trieste; for Slovenia we focus on the port of Koper and for Croatia on the port of Rijeka.

3.2.1. Venice port

The activities of the port of Venice are experiencing a positive trend. Both the containers and passengers traffics have reached their historical maximum. In the year 2006 around 5000 vessels reached Venice: 1377 passengers ships for a total of almost one million and half tourists, and 3655 commercial ships for a total of over 30 millions of tons of goods. Significant for our safety issues are the data about oil: last year over 11 millions of tons of oil products have been treated in the port of this historical and unique city, so breaching the Special Law for Venice 41 of 1973, that mandates to move the commercial maritime traffic out of the lagoon, and to place

it in the open sea, off shore. Such provision has never been enforced, and so the oil harbour of San Leonardo, situated right in the middle of the lagoon of Venice, is still functioning.

3.2.2. Trieste port

All in all, the port of Trieste is a smaller centre of traffic compared to the Venice case. The holds true especially for the passengers sectors. But if we focus on oil traffic, we have to say that, as confirmed also by the stakeholders and experts we met and interviewed, in the recent years the port of Trieste has overcome the traditional position of Venice as leading centre of the Mediterranean in this field, and this is due in particular to the oil pipeline to Germany that starts from the surroundings of the town. Actually Trieste is almost only an oil port. To give an image, thirty-seven millions of ton of oil treated in the 2006 means having an oil tanker loaded with 100000 tons that reaches the docks of Trieste every single day of the year. And this huge traffic has obviously a bearing on the following discussion on the oil spills risks.

3.2.3. Koper port

The port of Koper is the most important in Slovenia. The port of Koper is gaining a growing importance year after year, especially thanks to the traffic of goods to Germany. The total traffic in the year 2006 has reached beyond 12 millions tons of goods treated, especially from dry bulk cargoes.

3.2.4. Rijeka port

The amount of traffic activities developed in the port of Rijeka is of a lesser magnitude, but it is reaching the figures treated in the port of Koper. In fact in the year 2006 the total amount of goods treated has been almost 11 millions of ton, the majority from liquid bulk cargoes.

4. Critical Infrastructures of the Adriatic Area

After the analysis about the definition of Critical Infrastructures proposed by international and national actors, we devote the following pages to the enlisting of the most significant CIs present in the Countries of the Adriatic space, from the standpoints of the same national institutions.

Figure 1.4: *Key CIs for the Adriatic Seaways*

The map display the following list of Critical Infrastructures the ProAdrias research staff as identified as the main CIs in the event of an environmental disasters (i.e. oil leakage) or terrorist attack in the Adriatic Sea. ITALY: Venice historical town; Venice port and petrochemical complex (Marghera); Trieste port; Oil pipeline Trieste to Germany; Ravenna refinery; Ancona port; Bari port; Brindisi LNG implant. SLOVENIA: Koper port; Nuclear implant of Krsko. CROATIA: Rijeka port; Dubrovnik historical town. MONTENEGRO: Bar port. ALBANIA: Durres port. BOSNIA HERZEGOVINA: Ploce port.

Source: *ProAdrias TableTop Exercise* www.proadrias.isig.it

On the basis of our fieldwork experience specific for this project, we have to remark, before presenting the data gathered, that even mere request of lists of CIs have been considered touching "sensitive" data, in the opinion of the national authorities we addressed. If we add the already underlined very broad nature of any definition of CI available, we cannot but warn the reader that the following are only very partial repertoires of the CIs of the Adriatic area.

Actually, many material and immaterial assets can fall within the definition of CI; we forcefully decided to concentrate on CI that are directly connected with the issues of transport, energy and mobility as a whole. However, if we consider that an all-hazard approach is progressively imposing itself on the debate on CI, the inter-locking nature of most infrastructural systems makes it almost impossible to decide what is and what is not a CI.

4.1. Main Critical Infrastructures of Italy

The topic of the strategic protection against internal and external threats coming from terrorist or criminal sources is becoming progressively hotter in Italy. After the events of 9/11 the public opinion is more sensitive and the safety policies have become sharper. New frontiers of security are constantly explored and many dimension of everyday life, which where not considered particularly risky, are now object of interventions in terms of safety measures.

The Italian ministerial decree individuates the Italian CI, defining them as "informatized infrastructures of national interest" and forces them to sign specific agreement with the newly established C.A.N.I.P.I.C [5] that would be paid by the same infrastructures to protect themselves against the cyber-crimes. The C.A.N.I.P.I.C is based on the Postal Police, which has been one of the few institutions to address the issue of CI in Italy, in a context of general underestimation. One of the effects of such underestimation if that the formulation of the EU directive has been done without taking too much into consideration the specific complexity of the Italian situation. As a matter of fact, the focus on cyber crime seems to be the result of

5. Centro Nazionale Anticrimine Informatico per la Protezione delle Infrastrutture Critiche – National Center against IT Crime for the Protection of Critical Infrastructures.

the specific engagement of the Postal Office, which is currently dealing with the cyber-crime. Moreover, the C.A.N.I.P.I.C role is has been quite important in the Italian scenario for it introduced the perspective of a national approach to threats connected with CI in a period when almost anyone was taking the problem into consideration. However, in spite of the importance of the cyber-dimension the most recent developments of the CIP debate shifted the attention from the protection of the assets to an overall, 360 degree protection of the CI, following the so-called all-hazards approach and the protection of service continuity. Accordingly, in the Italian case the C.A.N.I.P.I.C has the possibility to carry on extremely deep preventive investigations with quite invasive methods like the checking telephone conversations or emails exchanges, which are quite efficient but bring about the problems of the citizens' privacy.

While reading the January 08 ministerial decree, one may also notice that differently from the EU approach, that tries to identify really critical infrastructures to invest one? Through objective criteria, in the Italian case the legislator refers only to crucial sectors and recalls the generic concept of "national interest" to orient the identification. Consequently, it seems quite difficult for any minister of the interior to produce an objective and accepted list of priority; also for the lack of studies and researches on the topic that in the last years have been flourishing in many countries of Europe but not in Italy.

Also, the Italian approach focuses quite a lot on the national dimension while the EU directive stresses the importance of the international and transnational, that is to say regional dimensions. As a matter of fact, some infrastructures can be critical ones at the national level, with a quite direct impact, like electricity distribution or gas provision. However, there are quite strong critical dimension that appear less important at national level but can influence the economic and political interconnections in the medium terms, with a low level of danger to primary needs but more diffuse and unpredictable effects on the social, political and economic systems.

In this perspective, transport systems certainly fall within the definition of CI and are the target of specific interventions. As a matter of fact, transport systems are made of a number of elements and relationships that go from the material assets to the production of services. Also, the goods that make up the capital of a transport

system are various and generally quite material.

Speaking of transport systems and transport infrastructures in Italy, the main actors are the Ministry of Infrastructures, together with C.I.P.E. [6] (Inter-ministries committee for economic planning), A.N.A.S. [7] (Highways agency) and its local/regional concessionaries and R.F.I.[8] (railway agency).

Waterways traffic and internal navigation relies upon interregional agreements made by regions offices for mobility and port authorities, in agreement with the Ministry for Infrastructure.

Other major actors are the council of the ministries and the parliament for the financial issue (i.e. financial law) and the regional and local councils, which makes the process of development quite dependent on political factors.

A.N.A.S. represents the major public roads manager and R.F.I. is the national railway net manager.

Autostrade per l'Italia S.p.A., Autovie Venete S.p.A., Autostrada del Brennero S.p.A., Autostrada Brescia-Verona-Vicenza-Padova S.p.A., Società delle Autostrade di Venezia e Padova S.p.A. are A.N.A.S. concessionaires in Triveneto. They are responsible for the private motorways and have midterm and yearly financial plan for the management of their road network.

The Regions receive the guidelines of the national transports policy and compare them to the local spatial and environmental systems.

A.N.A.S. and R.F.I. are under the control of the Ministry of Infrastructures so their plans must be coherent with the indications of the Ministry.

The Ministry of Infrastructures establishes in The General National Plan of Transports and Logistics the principles of the modal share, especially for rails and roads, and the priority of the infrastructures which are located in different corridors. In many cases these corridors are the national section of the Trans-European transportation Networks.

In spite of the fragmentation of the Italian political system and the urgent need of new strategic infrastructures, the coordination system between the responsible authorities at territorial levels seems to be work-

6. Comitato Interministeriale per la Programmazione Economica - Interministries Committee for Economic Planning.

7. Agenzia Nazionale Autostrade - Highways agency.

8. Rete Ferroviaria Italiana - Railway agency.

ing properly. Actually, both the coordination system and the legal framework are not considered inappropriate, besides many slow and complicated administrative procedures. What is really at stake is the issue of political consent and the poor information/communication strategies that often bring regions, townships and the state one against the other, in spite of the approval of the national strategic plan. Technical considerations, relevant data, risk awareness and strategic approaches are not always made available to populations and civil society, so that political resistances are pretty much easy to be exploited and instrumentalised.

4.2. Main Critical Infrastructures of Austria

The most important institutional body dealing with transport infrastructures is the Federal Ministry of Transport, Innovation and Technology, which is divided in: Department I - Executive Committee and Coordination (Area Coordination and EU-Affairs); Department II - Roads and Aviation (Group Roads, Group Aviation); Department III - Innovations and Telecommunications (Area Telecommunication and Post, Area Innovation); Department IV - Rail, Water Transport and Transport Labour Inspectorate (Group Transport Labour Inspectorate, Group Rail).

As far as roads are concerned, a federal public company called ASFINAG is in charge of constructions, maintenance and operations. So, as soon as the political decisions are taken, ASFINAG is in charge of all actions.

Conversely, all the strategic and planning activities are carried out by the departments of the Ministry of Transport, Innovation and Technology (BMVIT). However, in the process that leads to the creation of a new specific law, also the Ministry of Agriculture and Environment takes part, with special regard to the environmental impact assessment. An environmental impact assessment is carried out for every single project, except for very small projects with only local importance.

As far as the maintenance is concerned, the main highways and fast connection roads (*Bundessnellstrassen*) are under state maintenance. Highways and rails are under surveillance camera at the state level and at the same time they benefit of technical support. Depending on the type of the state road, there are different involvements of

the Regional governments in the maintenance process of the roads. In Regional roads (*Bundesstrassen*) where some parts have been defined like connections similar to highways, maintenance is covered both by regional and state budgets. Other regional roads depend entirely on regional budget and maintenance is made by the regional government with technical local support units. Regional Governments have usually been supporting the local infrastructure due to the high percentage of mobility in the population but only in a very small percentage. Local small roads are supported in combination from regional, municipality and city or local budget Construction, maintenance and operation of roads type A and S have been put into the hands of ASFINAG, who is also entitled to collect tolls (vignette for cars, km-depending tolls for trucks plus a special toll for cars and trucks on alpine crossing motorways and expressways. The former federal roads (Bundesstrassen B), which are usually two lane roads, have been handed over to the provinces (Bundesländer), which receive some 550 Million Euro per year for construction, maintenance and operation of this secondary network.

Among the main problems hindering the development of transport systems in Austria, the most relevant are:

(1) The difficulties of financing. There is a need of huge capitals to be invested in a quite long terms and there is no way to keep on financing only by using public funds.
(2) The political exploitation of environmental issues that is detrimental to the development, especially when is carried out at the local level and based on the worries of the dwellers.
(3) The rising tension between some variables such as the long time needed to develop transport systems, the evolution of technology (that makes solutions obsolete sometimes pretty soon) and the change of safety culture patterns. This combination leads to continuous re-discussion of projects according to new perspectives and needs. As a result the overall costs keep increasing.
(4) The clashes between the different regions about routes and priorities.

4.3. Main Critical Infrastructures of Slovenia

The Ministry of Transport and Ministry of Environment and Spatial Planning, (adequate Directorates and bodies within ministries) are the institutions competent for most phases of the development process. The bodies within the Ministry of Transport are: the Slovenian Maritime Administration, the Slovenian Roads Agency, the Transport Inspectorate Agency for the Management of Public Railway Infrastructure Investment. Independent institutions play a role providing feasibility studies and environmental assessments while private investors are allowed to participate in financing. At local level port of Koper and municipal administrations are also responsible authorities.

The Ministry of Transport carries out duties relating to railway, maritime and air transport, inland navigation and road transport, with the exception of the supervision of the safety of road transport, and to transport infrastructure, cable cars and ski lifts.

The programme Priorities are: Transport Policy International Affairs Roads Railways and Cableways, Aviation Maritime Transport and Inland Navigation.

Ministry of Environment and Spatial Planning, namely the Spatial Planning Directorate is responsible for spatial management at the national, regional and municipal levels, as well as for construction, housing and real-estate brokerage. It coordinates work with internal organisational units of the Ministry, bodies under the Ministry and other ministries. Also, The Ministry of the Environment and Spatial Planning prepares laws or drafts strategic documents, which are approved by Government on national level and Municipal Council on local level. In this process the involved institutions and non-governmental organization have a possibility to cooperate with proposals and initiatives. Public discussions are also held with professionals.

The Ministry of Transport is also responsible for the implementation of the Transport Policy Resolution of the RS with the preparation of national programmes for sectors, implementation of the Resolution on the National Programme for Road Transport Safety, Implementation of the Programme for the sustainable and stable development of the Slovenian road transport system and Cooperation in drafting proposals for EU legislation for sectors.

All others institutions have to draft regulation proposals and other documents within the competence of the Directorate and to prepare a work-program and reports for other ministers, the Government and the National Assembly and to make initiatives and proposals within its area of work.

Because there are no regional authorities in Slovenia but only state and municipalities, the coordination is pretty easy and functioning. The government makes its decisions confronting stakeholders and the municipalities. Only in the case of the Port of Koper there is a problem between the Ministry of Environment and the Ministry of Transport about the extension of the pier II and its environmental impact. This is due to the relative autonomy of the institution of the Port that can make its strategic choice quite independently from the national government policies, in spite of the government monopoly on transport development issues. Accordingly, inter-modality is quite crucial in Slovenia with regards to the railways and highways connections to the Port of Koper, which is a strategic actor. As a matter of fact the Port of Koper is a public institution (73% public capital) which is also present in the stock-exchange (covering the rest of the capital). It works quite independently even though the government platys an important role in the supervisory board and the administrative board. The Port of Koper is both a public authority – as it works like port authority – and a company because it operates ferry terminal. It has been acting strategically and in a profitable way.

4.4. Main Critical Infrastructures of Greece

Greece is in an intensive period of infrastructural works, developed for the Olympic and Paraolympic Games of summer 2004, while at the same time ensuring a permanent legacy for future generations. A series of major infrastructure changes has transformed the city of Athens, improving the flow of traffic as well as the travel of commuters, thus sanctioning new transfer habits.

Important Transportation Projects implemented in the Greek capital: Road support projects: 120 km new, modern roads and 90 km upgraded roads - 40 fly-overs; Attiko (Athens) Metro - 7.7 km new metro lines; Upgraded Athens-Piraeus Electric Railway stations; Suburban railway- 32 km suburban railway (reaching the Athens International Airport Eleftherios Venizelos); Tram Network - 23.7 km tram

network; New Airport - Eleftherios Venizelos Airport; Attiki Odos; Management Projects and Traffic control, and a new, ultra-modern Traffic Management Centre; Modern train stations; Parking lots in central locations, with new management systems; Transport projects at Olympic sites [9].

Figure 1.5: *Map with the location of the Rion-Antirion bridge*

Source: *http://www.gefyra.gr/en/index.php?ID=s4akTBxnDdLSXHrg#anch1*

Having in mind ProAdrias focus on Adriatic seaway, we want to stress the importance of the following CI, the The Rion-Antirion bridge: The Rion-Antirion bridge shall cross the Corinth strait near

9. www.greekembassy.org/embassy/Content/en/Article.aspx?office=3&-folder=95&article=16390.

the city of Patras connecting Peloponnese with mainland Greece. Symbol of Greece of the 21st century, the Rion-Antirion Bridge has been the vision of Charilaos Trikoupis, Prime Minister originating from nearby Messolonghi and the wish of many generations of Greeks. Since August 12, 2004 the Bridge is fully functioning.

The bridge provides a permanent link: reducing crossing time to 5 min (compared to an average of 45 min before the bridge); improving crossing comfort to high standards and; remaining in operation whatever the weather conditions.

At present there are ferry-boats serving the strait crossing but they are no longer able to satisfy the ever increasing traffic needs.

The Rion-Antirion bridge is located at the intersection of two major roads: the Patras - Athens - Thessaloniki motorway which links the three most important cities of Greece and forms part of the European motorway network, the Kalamata - Patras - Igoumenitsa Western axis.

The bridge will facilitate communication between Greece and Italy (and thus Western Europe) through the harbours of Patras and Igoumenitsa.

The Harilaos Trikoupis Bridge boosted drastically the economic growth of the region. A serious proof comes out of the conclusions of a recent research of the University of Patras. Such research «… proved that the Rion-Antirion Bridge is a particularly important project for Western Greece and Greece in general, both from a financial and developmental point of view as well as in terms of social impact… The effects of the Project change the revenue and work conditions of the adjacent areas and the conditions of social exclusion, thus releasing new development forces, which thanks to the appropriate measures and policies will further develop the regional economies… the analysis documents the fact that the Bridge will play an larger role in the development, as an axis linking Greece to Europe, the Mediterranean and the Middle East»[10].

10. Financial & Social Impacts from the Operation of the Rion-Antirion Bridge, University of Patras, 2006.

4.5. Main Critical Infrastructures of Turkey

Bearing in mind the military confrontation between Georgia and Russia that took place in the summer of 2008, probably we had better to begin this short list of Turkish CI by mentioning an oil pipeline.

Energy. The Baku-Tbilisi-Ceyhan Main Export Pipeline project developed in order for the oil produced in the Caspian Basin and primarily in Azerbaijan to be transported to the world markets with oil tankers from a terminal in Ceyhan through a pipeline over Georgia, which has a capacity of 50 million tons/year, was completed in 2006. The 501 km long Samsun-Ankara Natural Gas Transmission Line, which will carry 16 billion cubic meters of natural gas annually under the agreement made with the Russian Federation, was completed and purchase of natural gas from this line was started in 2003.

Transport. During the 8th Plan period, the share of highways in domestic freight transport rose from 88.7 per cent in 2000 to 90 per cent in 2005. The small share of maritime transportation in freight transportation decreased even more to the level of 2.8 per cent in 2005. Railway and pipeline transportation maintained their shares. During this period, 95.2 per cent of domestic passenger transportation was done by highways. While freight transportation abroad was dominated by maritime transportation, passenger transportation abroad continued to be dominated by airways.

Maritime sector. The Ports Master Plan study, which was started in 1999 in order to ensure that the port development decisions are based on sound information and data, was completed in 2001. The Turkish maritime fleet, which was 18th in world listings in 2000, dropped back to 24th in 2005 due to financing problems and flag avoidance that are more evident in the recent years. While the container handling capacity in Turkish ports was expected to reach 1.9 million, Twenty-foot Equivalent Unit (TEU) at the end of the 8th Plan period, it was realized as 2.3 million TEU. The North Marmara Port and İzmir Port Dredging and Extension Projects and the construction of the Derince Container Port, which were planned to be realized under the Build-Operate-Transfer (BOT) model, could not have been started. South Aegean Port Survey has been finalized.

Railways. The existing railway network of Turkey is 10,984 km in total, 8,697 km of which are main lines. 2,305 km of the existing

railway network consist of electrified lines and 2,665 km consist of signalized lines. In terms of the railway density, Turkey has the lowest railway density compared to EU member countries

Airways. In Turkey, there are 37 airports open to traffic as of the beginning of 2006. While a total of 34.9 million passengers were transported in 2000, this figure went up to 55.5 million passengers in 2005. As a result of reducing the state share over the ticket and starting of domestic flights by private airline companies, passenger demand has increased

Communication Technologies. While the fixed telephone subscriber penetration rate in Turkey, which was 27.9 per cent in 2000, dropped to 26.3 per cent at the end of 2005, mobile telephone subscriber penetration rate increased from 20.5 per cent to 60.5 per cent. Currently three operators are performing activities in the mobile telephone market.

4.5.1. Main objectives of Turkish government regarding maritime policy

In line with the objective of transforming each port into a logistic centre, enabling multi-modal transport besides being spots where loading and unloading is realized, highway and railway connections of all major ports will be completed. Port capacities will be increased primarily in the İzmir, Marmara and Mediterranean Regions. In this scope, the Mediterranean Region will be supported to be an important logistic centre of the Eastern Mediterranean. In sea transportation, vessel and port investments that will increase short distance maritime transports will be intensified.

In the context of increasing safety in maritime transportation, Flag, Port and Coastal State controls will be improved. In this framework; Vessel Traffic Services projects will be implemented in ports, gulfs and regions where maritime traffic is more intensive. With the aim of designing and manufacturing military and commercial vessels in Turkish shipyards with high domestic contribution and renewing the Turkish Maritime Fleet, new shipyards will be established primarily in the Ceyhan region based on the Turkish Shipyards Master Plan.

Chapter 2
PROFILES OF RISK IN THE ADRIATIC AREA

The structure of the chapter is thus organised: firstly, we present a part of theoretical discussion about the concept of risk, and its different typologies and way to treat them; then some profiles of risk are presented, that is data on the historical record of accidents and threats to safety and security in the Adriatic region; later on, a list of criticalities on the subject are considered, as emerged by the fieldwork we carried on, through interviews with relevant stakeholders.

1. Risk assessment and mapping

The meaning of threat has a special character to each one of us. For many of us it raises instant and hidden fears of something unavoidable and disastrous, depending of our personal histories and way to understand our living environment. For others it gives direct incentive to improve our personal performances or in a positive case, to streamline public disaster management proceedings in order to minimize the obvious consequences of the foreseeable losses. Within the scientific community the concept of threat or *risk* as we prefer to say when talking about civil protection, has usually been defined as being a result of two components; consequence and probability. In the daily media flows and public debate, our losses from disasters have been indicated to be linked on "the overall human wellbeing, economic losses and environmental impacts". Although the risks and hazards are usually been explained by technical sciences and mathematics (consequence x probability) it is important to note that in the socio-economic sense both components have also a multidi-

mensional and subjective nature which has to be taken into account[1].

Today, the risks facing modern societies are more complex and intertwined as before. In other words, risk picture has changed from traditional risks to modern types of risks[2]. This is a result of the societies' increasing vulnerability and dependency of the critical infrastructure such as modern telecommunications, roads and railway networks, harbours, airports and water systems. In order to better understand current disaster reduction mechanisms, it is important to clarify the various mechanisms used to prevent different risks at the intergovernmental, national and local levels. This task is particularly demanding, as the risks are changing rapidly and constantly, demanding continuous monitoring and improvement of our performance to tackle them. For instance, the potential risk areas at the Baltic Sea region can be listed as following: Risks resulting from demographical changes (such as ageing of the population), security and supply of the energy sources, natural disasters, man made disasters (such as environmental degradation), health risks, and risks related to information security[3] and even, as Prof. Glenn E. Schweitzer from the National Academies has put it, "superterrorism" – complementing symbiosis between organized crime and terrorists[4]. Counting on these rather theoretical but all-too-destructive variables, this paper intends to generate discussion and feedback about those steps which are necessary to make in order to pre-empt both direct and indirect losses included to the materialization of these risks.

Threat or "risk" assessment as we prefer to say when talking about civil protection is a comprehensive process, which needs to be thoroughly, understood both at the operative and planning level in order to be able to generate and implement efficient risk reduction policies. Risk assessment includes both quantitative and qualitative information, which has been collected through understanding the concept of risk, its physical, social, economic, and environmental

1. SITRA; Riskien hallinta Suomessa – Sitran raportteja, 2002, Helsinki, 8-10.

2. Hovden, Jan; "Vulnerable Society", The Norwegian Experience, presentation at the Eurobaltic seminar, 9.9.2004.

3. SITRA; Riskien hallinta Suomessa – esiselvitys, Sitran raportteja, 2002, Helsinki, 15-18.

4 . Schweitzer, Glenn; Superterrorism, 2004.

factors and consequences. Its importance as a first step for all disaster reduction measures was addressed during the International Decade for Natural Disaster Reduction (1989) as following: «All countries, as part of their plan to achieve sustainable development, should have in place comprehensive national assessments of risks from natural hazards, with these assessments taken into account in development plans»[5].

Since then risk assessment has been conceptualized by the United Nations International Strategy for Disaster Reduction (ISDR) as the «systemic use of available information to determine the likelihood of certain events occurring and the magnitude of their possible consequences». Moreover, its activities include «identifying the nature, location, intensity and probability of a threat, determining the existence and degree of vulnerabilities and exposure to the threat, identifying the capacities and resources available and finally, determining acceptable levels of risk»[6]. In the scientific literature the risk assessment has also been defined as a research, which aims; «to identify the risks and their magnitude both from vulnerability and probability point of view (risk analysis); to estimate the meaning of risk i.e. to decide the acceptable risk level and to analyze the efficiency of various mitigation policies». The risk estimation can be based on various methods, both quantitative and qualitative.

The identification of the hazards and vulnerability/capacity assessments constitutes the first phase of the risk assessment process called risk analysis. The hazard assessment determines such elements as geographical location, intensity and probability of the specified hazard in a certain future time period. For instance the assessment of forest fires is important in setting up industrial sites and the assessment of annual flooding zones is crucial when constructing seaside resorts. The mapping of hazards and risks have since the 1980s been facilitated by the development of geographic information system (GIS). This computer tool offers a possibility for handling, processing and analyzing geographic data.

The multi-hazard assessments are most difficult to implement as a

5. ISDR: Living with Risk: A global review of disaster reduction initiatives, Geneva, July 2002, 66.

6. ISDR: Living with Risk: A global review of disaster reduction initiatives, Geneva, July 2002, 66.

result of various disciplines in assessing the specific potential hazards but they are essential when dealing with complex disasters or large-scale natural catastrophes such as hurricanes or man-made disasters such as the hijacking of a tanker. This type of hazard may have various components such as flooding, storms, winds and mud-flows. The vulnerability/capacity assessment determines capacities both from physical and socio-economic perspective. The physical aspects of vulnerability assessment provide answers to the questions of what is vulnerable and where it is vulnerable. The attempts to assess socio-economic aspects of vulnerability such as age, gender, religion or wealth, are seeking answers on who is vulnerable and how have they become vulnerable[7].

The OECD report (2003) stated two major forms of vulnerability in modern society. The first one was structural weaknesses in the physical conditions such as dams and roads; the other was related architectural weakness in system design. The report recommended that «means to detect and reduce structural weaknesses in key installations should be developed, and the integration of systems redundancies should be encouraged in cooperation of both public and private actors on the field»[8]. The Swiss Re report *Terrorism risks in property insurance and their insurability after 11 September 2001* has defined the vulnerability of society as following: «The vulnerability of society under attack is determined by its technical, economic, social and political stability, in other words, by the damage an attack of a given magnitude is likely to trigger, by the likely consequences and by the way in which the affected society deals with the situation»[9].

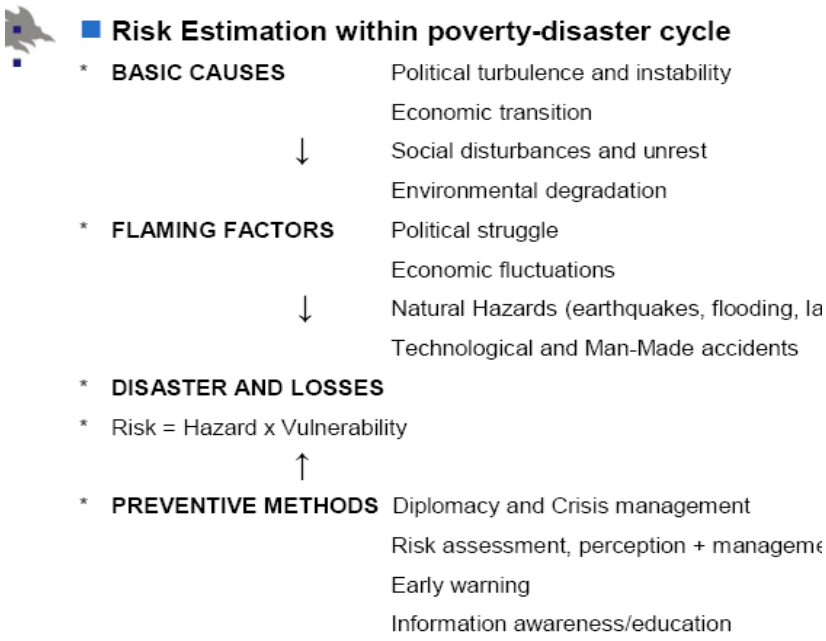
Both hazard and vulnerability assessments are strongly based on research material such as data processing and social studies. The hazard assessment is normally technical of its nature and scientific experts carry out the operational tasks. The vulnerability/capacity assessments are based on more traditional methodologies such as community based mapping. As such, municipalities and local autho-

7. ISDR: Living with Risk: A global review of disaster reduction initiatives, Geneva, July 2002, 72.

8. European Commission, Joint Research Centre: Addressing Systemic Risks: Dynamic Territorial.

9. Swiss Re; Terrorism risks in property insurance, 2003, 26.

rities themselves can carry out the work. The technical information gathered by "technical risk analysis" is used as a basis for drafting level of estimated risk. However, socio-economic factors and political priorities will lead a way towards acceptable levels of risk[10].



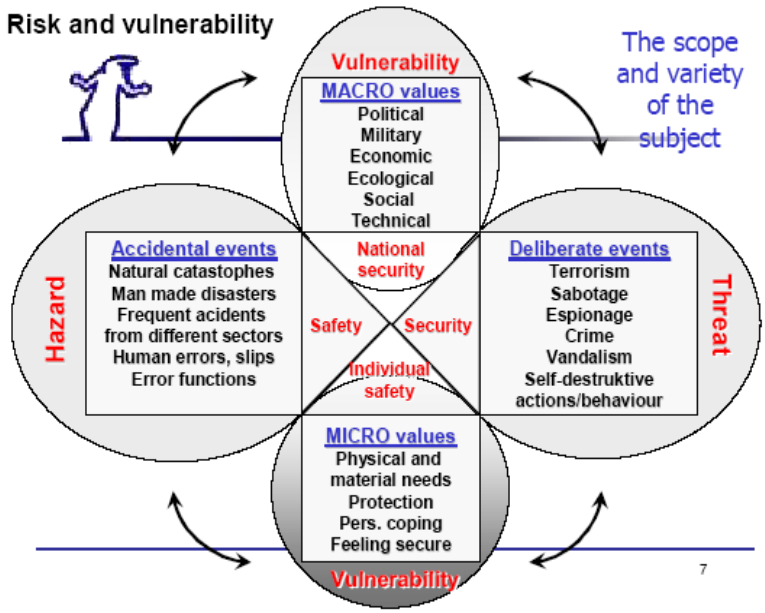
In above, the risk estimation has been framed with poverty-disaster cycle, which describes the basic causes, flaming factors and preventive methods needed to produce for progressive risk analysis and estimation. In the scientific literature, steps to comprehensive risk assessment have usually been divided to three categories: *Risk Engineering* deals with all the risk analyses performed during the development of the system design. *Risk Verification* deals with the application of some methodologies for risk analysis to verify the compliance of system design to risk related requirements. *Risk*

10. ISDR: Living with Risk: A global review of disaster reduction initiatives, Geneva, July 2002, 67.

Management deals with all the activities related to the management of risk during the operation of the system, with the purpose of assuring the risk level accepted for the system during the design and construction phases.

1.1. Risk perception

On Friday the 13th, August 2004, in the middle of the aftermath of the Hurricane Charlie which hit to Florida, President Bush replied promptly when asked about why he made such a quick trip to Florida in this election year: «If I didn't come, they would've said we should have been here more rapidly»[11]. This comment describes well the socio-economic expectations, which are affecting our way to understand risk and the needed responses. This second phase following the risk assessment (risk assessment = risk analysis + risk estimation) is called risk perception.



11. CNEWS: "Florida starts cleanup after hurricane Charley" by Allen Breed, August 15, 2004.

The main difference between risk assessment and risk perception is that whereas risk assessment is based either on purely scientific or more conventional systemic approach the risk perception is composed of such elements as personal intuition and experiences and individual views. In other words, the risk assessment will lead to the estimated level of risk and the risk perception will lead to the acceptable levels of risk. Risk perception can be effected by cultural, scientific, economic and political factors. The way we understand risk is always based on our individual positioning within the society, not to forget those expectations the society have from us[12].

The level of acceptable risk depends on the balance of views on objective risk and perceived risk. The risk perception can also be implemented simultaneously with risk assessment, for instance while producing data material by exchanging views on risks with other experts. These both phases determine the results of risk reduction (risk assessment + risk perception = risk reduction)[13].

1.2. Risk management

Risk management means multiple, parallel and complementary actions at government, municipal and local level to minimize the risk. These actions have been divided by the Finnish Fund for Independency (SITRA) study as following: Prevention, mitigation, reparation and compensation[14].

Risk management has usually been conceptualized as "multiple and parallel actions to minimize the risk". These actions known as "risk reduction" can be divided as following: Prevention, mitigation, reparation, compensation and long-term prevention. Risk management in this study also covers the organizing of the comprehensive national and regional risk management programmes, which should be more complementary than substitutive with each other.

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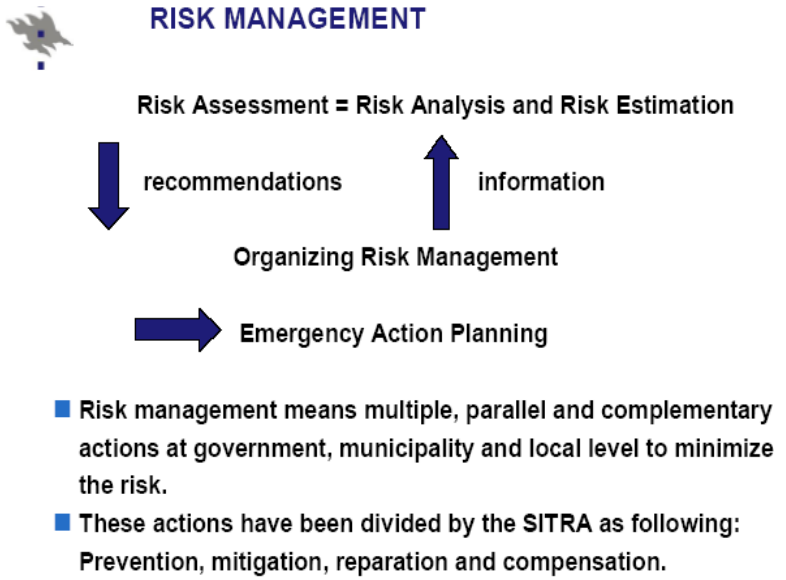
12. ISDR: Living with Risk: A global review of disaster reduction initiatives, Geneva, July 2002, 67.

13. ISDR: Living with Risk: A global review of disaster reduction initiatives, Geneva, July 2002, 67.

14. SITRA; Riskien hallinta Suomessa – esiselvitys, Sitran raportteja, 2002, Helsinki, 12-13.



This process can roughly be categorized as following; 1) legislation, political decision making and coordination related to all sectors of risk management; 2) risk estimation [research on the magnitudes of risks]; 3) operative actions of risk management [operative planning and implementation of risk management, surveillance, awareness raising, information and communications, preparedness planning] and 4) follow up analysis and policy recommendations to all levels concerned[15].

1.3. Risk and Critical Infrastructure

Assessing risks of the critical infrastructures is always a challenge. Not because of their complexity but because of the definition of the concept critical infrastructure (CI) or vital functions of societies.

Risk analysis of a dam, for example, consists of the use of the information available to estimate the risk to individuals or a popula-

15. SITRA; Riskien hallinta Suomessa – esiselvitys, Sitran raportteja, 2002, Helsinki, 12-13.

tion, to property or the environment. A risk analysis is generally done here in the following order: 1) scope definition, 2) risk/hazard identification, and 3) risk estimation. A risk analysis covers "the deaggregation or partitioning of the dam system and sources of risk into fundamental parts".

Risk identification in this study has been described as "a process of determining what can go wrong, why and how. The risk identification for a critical infrastructure such as a dam can be broken into the following steps: 1) identify initiating events – internal or external, 2) evaluate system response – overtopping, breaching, non failure, 3) determine outcomes – abrupt release of water from the dam at varying magnitudes, 4) estimate consequences – loss of life, economic and social considerations.

An application of risk assessment to dams raises a unique set of problems, because each dam is a unique system within its own distinctive environment[16]. The main emphasis of this study was laid on the risk analysis dams. The study was based on "literature and Finnish experience". The risk analysis of Kyrkösjärvi dam contains a dam description, identified weaknesses, a qualitative risk assessment (failure mode identification), quantitative risk assessment (probability of events), and risk evaluation. The primary interest in this study has been in evaluating «the usability of the methodology and in evaluating the probability of failure without detailed assessment of consequences»[17].

Probabilistic risk analysis has been regarded by the Finnish Environment Institute as «a more rational basis for dam safety evaluation, and to provide a deeper insight into the risks involved than the traditional standards-based approach». Furthermore, the Institute regards the full risk analysis to provide a more comprehensive view of dam safety, in that it considers all load increasing conditions over the full range of loads. The RESCDAM final report by the Finnish Environment Institute states that the analysis procedure itself should not be viewed as a replacement to traditional engineering judgment and expertise but as a process, which depends heavily on the knowledge of experts[18].

16. Slunga, Eero; Concept and Basis of Risk Analysis for Dams, 2001.
17. Finnish Environment Institute, RESCDAM Final Report, June 2001.
18. Finnish Environment Institute, RESCDAM Final Report, June 2001.

1.4. Definition of the cross-border risk

Cross-border risks are risks which are familiar as a concept but less known as of their content. They can be defined as potential civic and systemic risks which are affecting several countries, by creating potential or actual losses on both sides of the governmental borders. They are caused by the interactions among four major systems: the physical environment, which includes the hazardous events; the social and demographic characteristics of the communities that experience them; the buildings roads, bridges and other components of the constructed environment; and the political environment which is expected to tackle and prevent the risks.

2. Data on accidents in the maritime traffic in the Adriatic Sea

We hold here convenient to present some data about accidents and emergencies occurred across the sea in the recent years. We begin presenting the data coming the database of REMPEC[19]. This organisation has as special mission the protection of marine environment.

2.1. Environment damaging accidents according to REMPEC database

In figures 2.1. and 2.2., the most serious accidents that happened in this area in the last 30 years are enlisted.

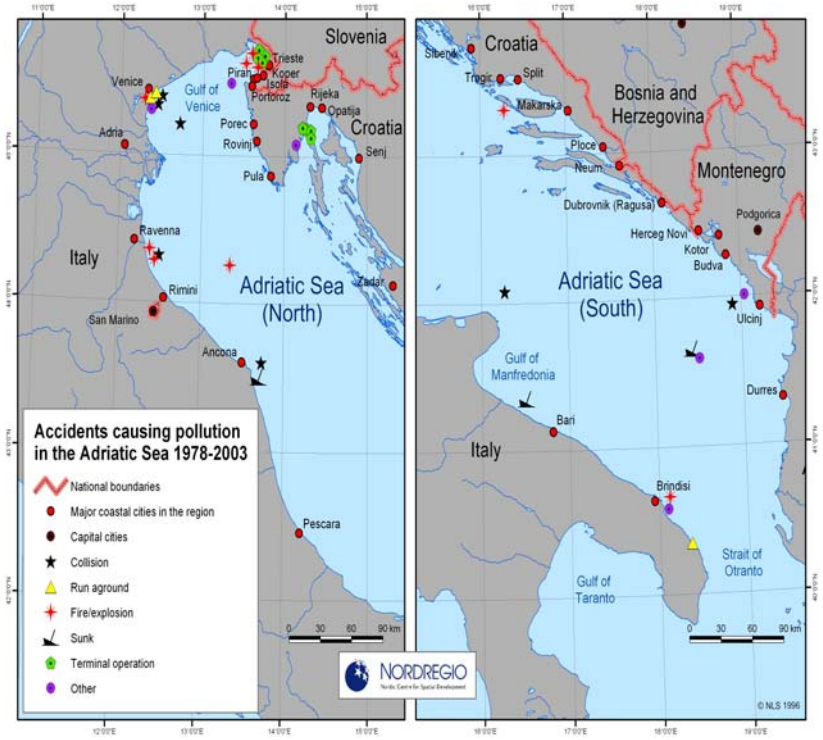
Albeit this list is not really exhaustive, nonetheless it is useful to this report insofar it gives an account of frequency, location and type of such crisis events.

The two maps are useful in locating the mentioned polluting accidents.

We conclude with REMPEC data giving a significant of distribution of accidents to different countries. REMPEC has a repertoire of accidents occurred between 1977 and 2003 in the Mediterranean that have provoked some, even minor, oil pollution. The entries for this kind of pollution are 376. It is remarkable that, out of 376 cases, 135 are reported happening in the Greek Sea, 7 in the Turkish Sea, 85 in the Italian Sea, 7 in the Croatian Sea, 2 in the Slovenian one.

19. Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea.

Figure 2.1-2.2: *Map of the accidents causing pollution in the Adriatic Sea, 1978-2003*



Source: *Early warning and civil protection*, Nordregio, Stockholm 2008, page 135

We have no ground to argue whether such unbalance belongs to reality, or to gaps in reporting.

2.2. Main sea accidents in the Adriatic area in the recent years

After considering the data collected by REMPEC and so specifically related to damages to the environment, we here enlist the most important accidents occurred in the Adriatic area in the recent years, and originated from a broad spectrum of causes

In the past the most serious accidents that took place were:

- The tragedy of the 9th January 2004, when 21 persons lost their lives in vicinity of Karaburun Peninsula due to severe weather conditions in an attempt to reach Italian coast. Accident was caused by the difficult atmospheric conditions and human error. In this accident many people lost their lives in an attempt to reach the Italian coast with rubber dinghy.
- Several persons killed during the Presidential Helicopter Bell 222 crush in the Adriatic Sea.
- The Strait of Otranto tragedy when Albanian boat sunk after an accident with Italian military ship "Sybilla" on the 28th March 1997, resulting in 57 persons lost their lives other and 24 reported lost in the accident.
- Various tragic accidents have happened from 1997 to 2002. As a result various Albanian citizens lost their lives in an attempt to go to Italy and Greece with lawbreaking hovercrafts like rubber dinghy and hulls.
- Contamination of the sea environment with the fuel flow from a Greek cistern on 2005.
- Explosion of a weaponry depot in the village of Gerdec on 15th March 2008 when 25 people died, 400 were wounded and almost 2000 houses were destroyed or damaged. Causes are related to human error together with the failure to respect security rules. However, the inquiries are still going on in order to reveal the responsibilities.

In Croatia the only big accident that happened at sea recently was the result of the fire that started on the Turkish ship "Und Adryatic" in February 2008. The accident mostly took place almost directly at the point where Croatian, Italian and Slovenian territorial sea waters meet and it resulted in the involvement of organizations and institutions of all the parties.

In Slovenia:

- The last big ecological accident happened in 1983 when some 90.000 l of oil derivates was leaked into the sea.
- In 2001 there was a major fire at Izola Shipyard on the ship "Atlantic Star", but it was solved without major ecological consequences.
- The recent events were oil spillages that happened in 2005 and 2007 when some 10.000 l of polluted waters spilled into the sea

near the Port of Koper.

- Otherwise there is an average of some 10 minor spills per year in the Slovenian sea area.

In the future growing sea cargo traffic means higher possibility of accidents at sea or in ports. Growing crude oil imports and construction of LNG terminals in Trieste bay, increasing number and amount of transportation of the toxic cargo in all the North Adriatic Ports and the new oil and gas pipelines in the costal area will add to the possibility of the sea accidents and result in more risks than before.

2.3. Accidents deriving from illegal immigration

We now end this part on repertoires of accidents at sea in the Adriatic space by presenting data about a different type of emergency and crisis. Besides the risks of spillage, pollution, grounding, fire, collision and explosion, we should bear in mind that the Adriatic Sea has been in the recent years and is still today interested by the phenomenon of illegal immigration. The latter must clearly be accounted in a report like this. If the information obtained from REMPEC and IMO deals mainly with safety, the following data, collected by an Italian NGO, throw light on a true security emergency.

Table 2.1 - *Casualties in illegal immigration to Italy (1992-2003) Adriatic Sea only*

Day	**Location**	**Dead**	**Survived**
31.12.1992	Off Otranto, South Italy	10	1
12.10.1994	Cape of Otranto	12	13
18.10.1994	Cesine (Otranto)	2	
11.09.1995	Otranto channel	15	12
30.11.1995	Otranto channel	19	?
1.12.1995	Otranto channel	17	5
25.04.1996	Lower Adriatic, off Vieste	6	14
24.12.1996	South of Passero Cape, more than 200 illegal immigrants, mainly Pakistani, died, in consequence of the collision between the Libanese cargo «Friendship» and the boat «Yohan».	289	29

23.03.1997	Otranto channel	5	
28.03.1997	Otranto channel. There happened a collision between the ship of Italian Navy «Sibilla» and the Albanian boat «Kater I Rades». 34 illegal immigrants are immediately rescued, together with 4 corpses. 7 months later also the wrecked ship is found, with 54 dead people on board.	58	34
21.11.1997	Lower Adriatic. 16 Albanians died due to the explosion of their raft.	16	11
9.09.1998	Puglia coast (South Italy). 3 illegal immigration traders threw in the sea 9 children (3 just born) during the sailing Some of the kids are rescued by parents, some by Italian police.		
12.1999	A raft packed with 59 illegal immigrants sink in the Otranto channel.	59	
15.08.1999	Off the coast of Montenegro a boat packed with Roma families is reported wrecked. The death toll is apparently higher than a hundred.	100	
4.05.2000	A raft full of illegal immigrants collided with a police boat 4 km off Italian coast.	12	
10.06.2001	12 Albanians died in Trani, South Italy, perhaps thrown into the sea by the passeurs. 22 survived.	12	22
14.01.2002	2 passeurs, in order to escape from Italian police, drove a raft loaded with people against the rocks off Otranto. A dozen of immigrants fell into the water.		26
11.03.2002	6 corpses of immigrants tied to the floor of and abandoned raft are found off Otranto. The starting point of the sailing was Valona, in Albania. Then there was a fire on board.		23
8.06.2002	Opposite Castro Marina, South Italy, some Albanians passeurs, detected by Italian Guardia di finanza, threw into the sea 40 immigrants, and stabbed those resisting to them.	4	40
22.07.2002	A collision between a boat full of immigrants and a ship of Italian Guardia di finanza.	2	

1.12.2002	44 corpses are found, due to 2 wreckages opposite Libia and Morocco coast.	44	
19.01.2003	Off South Italian coasts, 20 miles from Santa Maria di Leuca Cape, 6 corpses of illegal immigrants were found. Their nationality was Curds from Iraq. Their little boat is intercepted by the Russian oil tanker «Brother 4». On board 6 men survived, whereas the missing were 23.	29	6
17.06.2003	Sinking of a boat off Lampedusa, South Italy 6 corpses found, 3 people rescued, but the passengers were around 70.	70	3
20.10.2003	A boat with 80 people on board was rescued by a fishing ship. At least 13 people died already for hunger and drought.	13	80
TOTAL		794 dead people	319 survived

Source*:* *Naufraghi. Cronache a Sud della Fortezza* - Antonello Mangano, October 2003. www.terrelibere.it

3. Key threats to security and safety in the Adriatic space

We are now in the third and last part of this chapter. After the theoretical analysis of the concept of risk, and the mere lists of accidents occurred in the Adriatic Sea, in this final section we analyse the profiles of risks in the Adriatic region, and we discuss them critically. To begin this effort, we feel convenient to develop some general considerations that would help us in depicting the general scenario.

The Adriatic space maintains a relatively low risk profile if compared to other sensible areas of the world. However, it represents a difficult scenario that includes a number of potential terrorism and security threats, the description of which is to follow.

In the 1990s there has been a rise of organised crime in the Balkans with increased smuggling, human trafficking and weapons trading. Moreover, many war criminals are still free and protected by the local populations (notably the Bosnian Serb leaders Ratko Mladic and many others).

The intense flows of people and goods between European Union countries, the Balkans and the Black Sea Region set the stage for a risky environment because security policies or strategic protection initiatives are lacking. In spite of the high militarization of the Adriatic Ionian Sea Region (NATO forces in Italy, Bosnia-Herzegovina, Kosovo, Macedonia and Albania; American bases in Italy and Kosovo) it is very vulnerable. Although there is heavy traffic, the visa regime between the Western Balkans and the EU is a relatively soft one, especially during the tourist season. At the same time some Balkan countries maintain special visa agreements with other Islamic countries, the engagement of Muslim NGOs and the financial support received (Bosnia-Herzegovina and Macedonia with Turkey, Egypt, Iran, and Saudi Arabia). The European police and military efforts are mostly aimed at tackling the illegal migration and organised crime activities but do not challenge consistently terrorism threats nor implement public safety strategies.

The Adriatic-Ionian Sea Region is at the cross-roads of religious-political affiliations: Rome and the Vatican are about 200 km from the Adriatic coast; in the Balkans, Sunni Islam, Orthodox Christianity and Catholicism are heavy intermingled and very politicized, with a number of sites for political-religious pilgrimage (i.e. the Kosovo monasteries, the Virgin of Medjugorje in Herzegovina, the Bosnian Ottoman mosques, etc.), thus there is a potential risk for terrorist attacks against pilgrims.

3.1. The Adriatic context of security

The Adriatic-Ionian Sea basin represents a large maritime frontier area between the EU countries and some of the potential candidates. Additionally, the Adriatic Sea opens up a complex geopolitical frame that stretches from the Balkans' shores to the wider Eastern Mediterranean, including areas with a long history of unsolved ethnic and religious conflicts. These conflicts have clear geo-economics implications (primarily in the fields of energy, real estates and logistic) and produce notable effects on regional stability (organised crime, migrations/mass movements and radical politics).

The Adriatic Sea Region (ASR) is therefore to be considered as a crucial interlocking meso-region between the EU and its south-eastern area of instability. The borders of the ASR are therefore blurred and

the picture of such interlocking region can be easily extended to the Middle East, depending on the strength of the EU projection across its present borders. The European South Eastern frontier area and the ASR overlap because while the Adriatic Sea is sometimes defined as a ”European Lake” there are no clear definition of the EU South Eastern extension. However, in this perspective, the important fact is that such frontier area is made of a number of different institutional subjects that range from states, to churches, organised transnational crime; lobbies; energy, real estates and logistic corporate groups, banks, exiled and diasporas networks; and many others. All these subjects interact and sometimes move towards a cooperative approach while in other occasions is the conflictual dimension that takes the upper lead.

From the point of view of security the critical points of such regional context are: ecological disasters, pollutions, local wars, ethnic-nationalism, terrorism, organised crime, illegal migrations, over-exploitation of land and sea resources, illegal house building, corruption, privatizations, unbalanced urban and transport development.

In this perspective, terrorism is addressed as a critical point even though it does not have a status of a “sensitive topic”. It is usually a variable depending on organised crime or ethnic-national mobilization.

For instance, in November 2006[20], the Croatian police arrested two men who were carrying explosives into a ferry operating between Zadar (Croatia) and Ancona (Italy). The case was initially investigated as a terrorist plot to target and detonate the explosives on a ferry in the Adriatic Sea. However, subsequent information pointed to the more likely scenario of an organized crime operation. However, the scenario of a terrorist plot in a ferry is a likely one because regional trafficking in the Balkans and the Adriatic is likely to remain at a high level, thus presenting an ongoing opportunity for guerrilla/terrorist groups to participate. That trend is promoted by the increased inter-group cooperation and sophistication that has been noted in recent years in the Balkan and Adriatic regions. These arguments, according to a 2002 American Department of Defense

20. United States Department of State, *U.S. Department of State Country Reports on Terrorism 2006 - Croatia*, 30 April 2007. Online. UNHCR Refworld, available at: http://www.unhcr.org/refworld/docid/4681085c19.html.

Report titled *Narcotics-Funded Terrorist/Extremist Groups*[21], are supported by evidence that the KLA (Kosovo Liberation Army) guerrillas and Albanian liberation extremists have used profits from their participation in Taliban-sponsored narcotics smuggling to re-arm themselves after the disarmaments that occurred from 1999 to 2001.

An additional reason to believe that a terrorist plot may happen is the threefold relation between social development, mobility and safety in the Adriatic region. In other words, for the processes of post-socialist transition and European enlargement, local and sustainable patterns of development in the Adriatic region rely quite a lot on cooperation and thus on mobility, that is to say infrastructure networks, logistic, information system and circulation policies. So, to hijack a ferry may be a way to blow the economic and political assets of the Eastern Adriatic countries.

3.2. The Adriatic context of safety

The amount of the oil transport and number of tankers visiting the Adriatic Sea reinforce the belief of our correspondents that accidents, technology oriented mishaps, and human induced catastrophes, etc., are the most feared events taking into account the possibility of incurring highest level of damage to the economy, tourism and well being to the people in the region. This is especially reinforced with the fact that hundreds of tankers with million tons of oil enter Adriatic Coast annually.

However, having said that, it has to be noted that the most of representatives of the institutions, agencies and organizations interviewed for the ProAdrias project, as well as existing strategic documents and reviews, in general consider the prioritization of threats as following:

- Earthquakes,
- Floods,
- Forrest fires,
- Radiological, chemical and biological pollution, and at the last place,
- Sea pollution by oil spillage.

We can see that the threats related with the subject of ProAdrias

21. A Global Overview of Narcotics-Funded Terrorist and Other Extremist Groups, Library of Congress Washington DC Federal Research Division, May 2002.

project are positioned relatively low on this list. Partly this is because as a consequence of some ugly experience with the earthquakes in Croatia and in its close vicinity in the past, coupled with the possibility of heavy destruction, earthquakes are being considered as one of the major threats for the well being of the Croatian citizens and society.

The same is true for the possibility of flooding. Zagreb, the capital of the Croatia, has been flooded in the past and in the meantime many different actions have been undertaken in order to prevent the same outcome again. But, while Zagreb was protected, many other smaller cities located on or near the rivers do not enjoy the same level of protection against the flooding. Floods have by far the most damaging effect on the local communities, well being of the citizens and organization of every day life.

Among the general population, the forest fires are recognised as one of the predominant risks to the well being of the citizens and society. Partly this is because every year significant resources, financial, material and manpower are engaged to counter the threat of fires especially along the Adriatic Coast.

Possibility and likelihood of the radiological, chemical and biological pollution has not been regarded as high in the past. However, with the development of the terrorist threats and terrorists groups' capabilities this is not any more such a remote possibility. Most of the danger is perceived to come not from the possibility of the direct threat of attack, but from the possibility of trafficking of dangerous materials and substances across the Croatian territory from the East towards the possible targets in Western Europe.

It is also worth noting there are some industries in Croatia which represent the possible threat. For instance, the chemical plant producing ammoniac is located just 2 km from the city of Kutina and some 80 km from the capital Zagreb.

Along the Adriatic Coast there is a growing understanding that serious and devastating damage could be done to the ecological systems by the oil spillage caused by accident, technological mishap or even worse by deliberate terrorist attack.

Having said that, it has to be noted that oil terminal Omišalj on the island of Krk, with the capacity of 34 million tonnes of oil and it derivates, processed by now 1470 tankers with 140 million tonnes of oil without the single ecologically related incident. More tankers and

expected increase in the processed tonnage of oil may well increase the risk of some accidents, especially as the problem of ballast waters becomes the most prominent issue.

We received different info form different agencies but after careful consideration it could be said that the amount of oil transported across the Adriatic Sea in the previous years was steadily growing and is expected to reach 70 million tonnes this year. Oil is usually transported from the Southern and Eastern Mediterranean through the Strait of Otranto across the Adriatic Sea towards the Croatian, Slovenian and Italian destinations directly or in the vicinity of ports Rijeka, Koper and Trieste.

In the last ten years the biggest number of pollution induced events on the Adriatic Sea happened in the international waters and during the night or storm, which all hampered significantly putting in motion relevant procedures and undertaking necessary actions.

In Slovenia the representatives involved in the project estimated that the biggest threats are as follows:

- bad weather (storms, fog…) related accidents,
- sea traffic accidents of cargo ships with toxic cargo (some 1,97 million tons of oil and its derivates),
- sea traffic accidents in wider Trieste bay where some 30 million crude oil is manipulated,
- accidents in shipyards and ports (spills of contaminated and highly polluted waste waters, technical accidents, collisions of the ships),
- unexpected high tides and corresponding damage,
- accidents with unexploded ordinance from the 2 World war.

Changes expected in Albania in the future may well be connected with the development of the so called 8th corridor. It will intensify the maritime traffic and very likely increase the possibility of occurrence of maritime incidents, maritime pollution and illegal traffics. However, because of the recent activities that resulted in confiscation of around 250 watercrafts from criminal organizations (and consequently big amount of tonnage of narcotics and smuggled goods) lawbreaking activity on the sea seems for now to be minimized. In addition, with measures planned to be taken in the future there is a belief that illegal activities might reach the lowest possible levels.

A lot of work is needed in the years to come if Albania wants to develop better land, sea and air infrastructure in order for respective

transportation activities to become safer and control efficient.

Regarding the prioritization of threats there are no expectations that serious change could occur in the future. However, obvious changes in the climate make possible for emergence of far greater damage as a result of the heavy thunderstorms.

3.3. Insufficient level of control over sensitive CI (especially port)

After the outline of the general framework, and the consideration of the so-called worst-case scenario, we want here to devote some room also to a number of other criticalities and weakness as regarding Adriatic seaways, starting from the insufficient level of control that some CI are experiencing.

Ports are natural candidates to be considered critical infrastructures to protect, and in the frame of the ProAdrias project they are probably to be regarded as the most typical CI to investigate.

In this regard, it is remarkable what we gathered from one of our interviews. The experience of the Coast Guard of Bari is unfortunately a source of concern for the security issues in the cross-border exchanges with Greece. In fact, the Capitaneria of Bari has detected quite a number of illegal traffics operating through the ferry lines connecting Italy to Greece. For this reason, the Italian authorities decided to keep some control procedures on these ferries, and such policy has become a matter of confrontation with the Greek authorities. In fact it is a breach of the Schengen treaty, according to which the ships operating between Greece and Italy should not pass neither police nor custom control and inspection. Theoretically, it is the Greek authorities' responsibility to ascertain that no ship, of whatever type and nationality, is violating any provision of maritime international law. But as a matter of fact, all illegal traffics (migrants, narcotics, and smuggling) across the Adriatic that in the recent past used to originate from Albanian and ex-Yugoslavia harbours are now originating from the Greek ports enlisted above. The picture we could draw about the port of Patras cannot raise worry and concern: «the port of Patras is completely open to the city; there is no proper wire fence, as it is damaged. Every time I go there together with colleagues of local Coast Guard to inspect ferries in the frame of international maritime safety regulations, I can see illegal immigrants that walk

freely around the harbour premises to choose the truck on which to hide for the boating trip to Italy».

On the contrary, the interviewee could verify that in the Greek port of Igoumenitsa the local Coast Guard is careful in making all controls, exploiting also its police powers, granted by the Greek legal framework, that is different from the Italian one in this sense.

3.4. Distances in national strategic national priority

As about this sensitive issue, we refer the meetings we had with officials of the Coast Guard of Trieste. The first point made regarding the sensitive topic of security in the Adriatic area has been on the crucial role of the United States foreign policy in the region. Washington is "pushing" the Balkan States of the Adriatic area to address more attention to the security field in general, and to perform more accurate systems of control of the maritime traffic in their waters, in particular. Nevertheless, the assessment of the respondent on the preparedness level of vis-à-vis Countries is worrisome: «These States are profoundly unprepared. But even Italy only recently developed and updated the port facility concept: the port of Ancona, where I come from, has been closed off, so that entering can be prohibited».

«In the past, scarce importance was given to security, but now we have a different strategy. Nowadays war has turned into terrorist attacks, but for me it is still war».

The lack of both equipments and protocols of Balkan States already mentioned, is due, according to the interviewee, to "their having other priorities, rather than security". Year after year they are making steps ahead, but these new measures are still "not binding".

3.5. Problems arising from public-private partnership

Obviously, the protection of CI in general and of the Adriatic seaways in particular means to carry out a number of monitoring activities that has to face a number of obstacles. One obviously derives from the fact that it compresses commercial trades, as explained in this excerpt from the interview at Coast Guard of Trieste: «If you think about cruises, it is clear that during the stops along the route, it is very easy to embark noxious goods»; «Ship-owners are puzzled by

our activity. I am not saying that we are having troubles, or that they display any hostile attitude towards us, but we try to cause the least possible damage»; «we cannot stop all vessels».

This last sentence is again found in the words of the head of the Security unit of the Port Authority of Trieste: «In the Trieste port area there is also a terminal container. In this case, security activity means to control a number of these containers. The number and type of controls depends on the risk plans developed for this port. The Unites States pushed to have not only an administrative control of such traffic, but also a radioscopic monitoring of the goods. [However] we cannot open all containers».

Another criticalities in the public-private partnerships, to say, has to do with the very commercial policy in the shipping field nowadays. Here we are crossing the line between security and safety aspects. As remarked by a different official of the Coast Guard of Trieste: «The greatest news of these recent years has regarded the training of the maritime personnel. In 1984 a fall of charters occurred, and ship owners reacted to the resulting economic crisis by cutting the expenses for personnel training. In particular they took out of the crew of many vessels the crucial figure of the cadet (*allievo ufficiale*), crucial as he normally becomes the future captain. Such reduction provoked a number of risks, since the first source of maritime safety is the leadership (ability) of the captain. The record of accidents happened in the last decades, not only in the Adriatic, shows that the majority of vessels involved come from Third world countries, those less caring about personnel training».

Now the situation has changed in many regards. Higher education schools have been opened in Italy for maritime training both on board and on the land. But also changes in the normative framework fostered such process: today every seaman must have an international certificate to start his service. Also the Paris Memorandum (Paris Mou[22]) authorises now Coast Guard units to stop a vessel in the case its crew is undermanned or not sufficiently trained. Trieste Coast Guard makes such controls on regular basis. The consequence of such tightening of rules on personnel gave positive effects, in so far the ship owners realised that it is in their economic interest to sail vessels

22. Http://www.parismou.org/.

complying with all regulations, since the costs for training and manning of the personnel is lower - according to the interviewee - than the loss of having the ship stuck at a port.

3.6. The role of the media

The role of the media in security and CI protection is treated here very briefly, albeit it is a crucial element as being the interface between the inner secrecy of protection plans and the involvement of a large public opinion. On these issues it is worth to report the argument of the functionary of Trieste Port Authority: «the most worrying things are not on the newspapers»; «the less we speak the better. People get worried».

On the other hand, we have voices that complain against the media, but not because they do not speak about these issues, but because they speak about them in an inappropriate way. According to a Trieste businessman in the shipping market we interviewed, in the usual coverage of a shipwreck in the Mediterranean Italian media tend always to stress 2 keywords: that passengers survived thanks to "a miracle", and that they survived because "they threw themselves into the sea". Mass media never write that the survival was due to the presence of working safety equipments, and so to the obedience of the existing laws. To dive into the sea is probably consistent with Italian individualistic culture, but it remains a highly dangerous course of action.

3.7. Jeopardising safety regulations

Still on the safety side of navigation issues, we gathered critical evaluations about some backwardness of provision of the existing laws, but also about the lack of respect of the regulations themselves. The already mentioned entrepreneur supplying life safety equipment in the North Adriatic made two remarks worth underlining here: «There is no interest from the private sector to an improvement of safety equipments. The only 2 drives to such improvement are stricter regulations coming from above (UE especially), and the occurrence of disasters».

This brings us to the paradox that the lack in the historical record

of a huge loss of lives in the North Adriatic works against the development of a proper safety culture.

On the other hand it is important to pay attention to the role of the so called notification agencies, such as Buro Veritas, RINA, Lloyd register, DNV, that are in charge of the periodical controls of the compulsory life saving equipment on board of ships and vessels. Such controls are twofold: on the single product (the so-called model B), and on the chain of production of that product (model D). If the control is positive, the mark CE can be released. Now, what the interviewee stressed is the conflict of interest actually rising from this system of control. In fact, what actually happens is that the notification agency is contacted and paid by the ship owner. At least in Italy this could make unlikely any criticism on part of the notification actor: in fact the latter can easily foresee that any refusal to approve the safety equipments of the ship would lead to the loss of a client, since next time the ship owner would look for a notification agency less strict and more "understanding". This applies in particular in the case of those controls that can be very expensive: the example made was the test of a prototype of ship with waves up to 3 metres. Again what most likely occurs is that the ship owner asks the notification actors to give just a general look to the equipment, avoiding those very costly tests.

3.8. Criticalities concerning cross-border cooperation

"In the Adriatic sea you cannot say: it's their problem". This line by an official of the Coast Guard of Trieste explains very well how fundamental is the role of cross-border cooperation in the security and safety accomplishment in the region here considered.

In this field we found promising elements of the cooperation already in force, like in the case of the RoRo ferry Istanbul to Trieste devastated by a fire on board some months ago. The ferry had the Turkish flag, and when the fire originated it was sailing in the Croatian waters. Nonetheless, Italian Coast Guard intervened with its own equipments, and evacuated the crew to Venice. The Italian Navy officer explained: «In this case there was a pollution risk; a national interest was at stake, because the Ro-Ro service is mainly to Italy, and therefore we intervened». «Our intervention was *ad adiuvandum*, not

ad excludendum»[23].

Thus it proved to be an example of a profitable cooperation. "We do very often the same with Slovenia". In fact, the cooperation with Slovenia, for example in SAR actions, is daily and efficient, because Slovenian coasts are close to Italy and very limited in extension (46 km). In the case of Croatia the cooperation is more occasional, because the Croatian maritime system in general still has yet to comply with the EU regulations. However, some steps ahead have already been made in the last year in terms of cooperation: for example after years of negotiations, an agreement has been reached between Italy, Slovenia and Croatia on the delimitation of two corridors for vessels, one going Northwards and the other Southwards. This satisfied especially Croatia, as in this way the oil tankers heading to Trieste port (terminal of the pipeline to Germany[24]) will pass less close to Croatian coasts, a country in which summer tourism is one of the fundamental sources of income.

We end this short analysis by hearing a Slovenian voice, more critical about the level of cooperation in safety interventions. The head of the Civil protection Directorate of Koper stated to us: «There are no civil protection or coast guard centres on the Croatian coast up to Rijeka. So that if any emergence occurs, it is better to call Venice: on the Croatian side there are no companies that could help us».

Therefore the cooperation Slovenia-Croatia seems more a question of old acquaintances: "I know them from the times of old Yugoslavia".

The meaning of these words unveils a specific character of such cooperation: its being based more on personal networks rooted in a common past, rather than on an updated legal and institutional framework. A specific space deserves the question of cross-border cooperation across two other Countries of the ProAdrias project, that are Greece and Turkey. As well known, this is a sensitive issue, since the diplomatic relations between Greece and Turkey have been characterised by various (positive and negative) phases over the past two centuries. Long periods of proactive dialogues were often interrupted

23. By this expression it is meant that the action by Trieste Coast Guard was aimed to give further help to Croatian actors, and not to replace them.

24. www.siot.it.

by times or high political tension. As far as military co-operation is concerned, within NATO's framework, the two countries have adhered to some common initiatives (confidence-building measures - CBMs) aimed at exchanges of personnel, meetings and joint training. As far as regional co-operation between Greece and Turkey is concerned, they have both joined various international organisations devoted to the development of cross-border relations. Both countries have, in fact, become members of the Stability Pact for South-Eastern Europe and the Southeast European Cooperative Initiative (SECI). Two main factors could be seen as proactive in improving the relation between Greece and Turkey since 1999: first of all, the improved national political context as a result of the co-operation agreements signed by the two Ministries of foreign affairs; secondly, the earthquake tragically unifying the two countries in August and September 1999. Although this was a tragedy, the experience brought the two national communities closer together and they responded jointly in this emergency situation. This led to a direct contact between the two populations and helped in putting aside some of the stereotypes present in people minds.

Chapter 3
PROTECTING CRITICAL INFRASTRUCTURES: A COMPARATIVE OVERVIEW OF OPERATIVE SECURITY PLANS

After reviewing different profiles of risks to maritime safety and security in the area, this chapter deals with the other side of the issue, that is what actors in charge of safety and security, be they national or international, public or private, do to prevent those risks and to react in the event of a crisis or of an emergency.

The structure of this chapter will be as follows: there is the first, short part, devoted to what international and supranational organisations, such as UNO and EU, do in critical infrastructures protection, whereas the following pages summarise what the five main Adriatic Countries (Italy, Slovenia, Croatia, Montenegro and Albania) involved in the ProAdrias TableTop exercise carry out in this field, with a specific focus on international cooperation in protecting the critical infrastructures.

At the beginning of this part, we have to say that to gather information on safety and especially security plans has resulted the most difficult and time-consuming task of the whole ProAdrias project. In the words of one of our Italian interviewees: «When we speak about security, we are not speaking about data (plans) that are classified. Nonetheless, such data are considered sensitive, and therefore it is not good that they circulate freely. They are for staff only. However, in the event of a request from a government body (*like the European Commission*), we have no problems to answer. But not for the publication»; «your questions are pretty delicate».

Another excerpt is worth to quote, as it is tuned with the previous one: «What the Italian State is doing to prevent and control such traffics? It is not an easy task. Prevention means to head off vessels carrying explosives or radioactive materials. This is possible only

thanks to alerts coming from other Bodies, such as Fire Brigade, than can count on peculiar technological devices, and through other channels that I am not going to tell you».

The remarkable point is that the sentence "that I am not going to tell you" was uttered twice.

Therefore, the data we can present in this chapter have undeniably a fragmented nature.

1. International organisations and Risk Management

As said, we begin this review of operative security plans with a look to international and supranational joint actions. Within risk and vulnerability assessment there are both intergovernmental and non-governmental initiatives, which are necessary to be studied before creating suggestions for the comprehensive risk assessment strategy. As mentioned in the introductory part of this study, UN has been generating risk assessment mechanisms both at the international, regional and national level. The essential role is played by the International Strategy for Disaster Reduction (ISDR). The ISDR is the only entity within the UN system, which is entirely dedicated to disaster reduction. The importance of the ISDR is also the result of its direct placement under the direct coordination of the Under-Secretary-General for Humanitarian Affairs.

The background of the ISDR process dates back to the late 1980´s. In Resolution 42/169 of 11 December 1987, the General Assembly decided to designate the 1990s as «a decade in which the international community, under the auspices of the United Nations, would pay special attention to fostering international cooperation in the field of natural disaster reduction»[1]. Operative paragraph 7 of Resolution A/42/169 «calls upon all Governments to participate during the decade in the concerted international action for the reduction of natural disasters and, as appropriate, to establish national committees, in co-operation with the relevant scientific and technological communities, with a view to surveying available mechanisms and facilities for the reduction of natural hazards, assessing the

1. WHO/Decade, 1989, 1.

particular requirements of their respective countries or regions in order to add to, improve or update existing mechanisms and facilities and develop a strategy to attain the desired goals»[2].

The IDNDR was launched by the General Assembly of the United Nations in Resolution 44/236 of 22 December 1989 with the objective of reducing through concerted international action, especially in developing countries, the loss of life, property damage, and economic and social disruption caused by natural disasters, such as earthquakes, windstorms, tsunamis, floods, landslides, volcanic eruptions, wildfires, grasshopper and locust infestations, drought and desertification and other calamities of natural origin. The main mechanisms for the implementation of the Decade included the Special High Level Council, the Scientific and Technical Committee, the National Committees and the IDNDR Secretariat. The role of the IDNDR Secretariat was to act as *co-ordinator, catalyst, stimulator and facilitator*, working closely with all concerned including particularly UNDRO, WMO, WHO, UNESCO, FAO and other United Nations bodies and agencies. Since then, the IDNDR process has been succeeded as International Strategy for Disaster Reduction (ISDR), small coordination unit based in Geneva.

The ISDR is implemented by an Inter-Agency Task Force for Disaster Reduction which was set up according to the terms of reference established by the UN Secretary-General in his report to the General Assembly (A/54/497). The primary functions of the Task Force have been defined as following: «a) to serve as the main forum within the United Nations system for devising strategies and policies for the reduction of natural hazards; b) to identify gaps in disaster reduction policies and programs and recommend remedial action; c) to ensure complementary action by agencies involved in disaster reduction; d) to provide policy guidance to the ISDR Secretariat; e) to convene ad hoc meetings of experts on issues related to disaster reduction». [Taken from "International Strategy for Disaster Reduction - ISDR Highlights", March 2000, Vol. III, Issue 3][3]. Also, there is an increasing collaboration between the United Nations and the European Union. For instance, a joint workshop was organized by

2. UN/GA Resolution, 42/169.
3. Disaster Research Newsletter – 318, 12.4.2000.

EC/DG JRC and UN/ISDR in October 2003 with the topic "Natech (Natural Disaster Triggered Technological Disasters) Disaster Management"[4].

Various UN agencies have developed their activities such as Internet/Intranet based guidelines, annual disaster reviews and tools for vulnerability and risk assessment. For instance UNCHS (Habitat) has been cooperating with the UNEP developing tools for flood vulnerability assessment in relation to environmental and human settlement aspects. It has also generated various tools for human settlement vulnerability assessment in relation to floods and earthquakes. The UNDP ERD has been upgrading the World Vulnerability Report (WVR) in order to «highlight the evolution of contemporary patterns of risk and vulnerability»[5]. Apart of the intergovernmental context, also the non-governmental organizations have been developing their capacities of risk assessment. The International Federation of Red Cross has created Disaster management information systems (DMIS) web site to provide updated information on disasters and various tools to prevent them. The IFRC initiatives also include the annual World Disaster Report which is providing advisory services for the humanitarian agencies and governments and their ways of assisting disaster affected communities to recover[6]. In the private sector there are also similar initiatives such as the Nat Cat database (Natural Catastrophe) and the creation of risk indexes by the Munich Re insurance company.

The European Union launched its common security strategy at the European Council meeting in June 2003 in Thessaloniki. The aim was not only to prevent the proliferation of the weapons of mass-destruction but also to push forward a comprehensive concept of common security i.e. to become able to tackle the threat of terrorism and risks caused by nature and technological interaction. Instead of acting as a group of nations, the competitiveness of the EU was laid

4. European Commission, Joint Research Centre: Addressing Systemic Risks: Dynamic Territorial Vulnerability Assessment and Management, Discussion Document, 2004, 25.

5. ISDR: Summary report to the Inter-Agency Task Force (Risk, Vulnerability and Assessment), 2.

6. ISDR: Summary report to the Inter-Agency Task Force (Risk, Vulnerability and Assessment), 2.

in its sustained willingness and capability to mobilize the civilian and military forces in case of disaster. This means that the intergovernmental cooperation within the Union should be based on shared desire to create cohesion of security. For instance, the disastrous flooding of 2002 in Central Europe paved the way for both national and regional flood prevention programs and funding.

Although different types of risk assessment processes (hazard identification, hazard data and information collection, hazard analysis, hazard monitoring, hazard mapping) are taking place among the EU countries there is no centralized system for research and analysis regarding natural, man-made and technological disasters within the EU. In the EU, risk management is guided by the precautionary principle: «The Community has consistently endeavoured to achieve a high level of protection, among others in environment, human, animal or plant health. In most cases, measures making it possible to achieve this high level of protection can be determined on a satisfactory scientific basis. However, when there are reasonable grounds for concern that potential hazards may affect the environment or human, animal or plant health, and when at the same time the available data preclude a detailed risk evaluation, the precautionary principle has been politically accepted as a risk management strategy in several fields» (European Commission 2000).

European Commission has promoted risk identification, prevention and management though its COMPASS process. This is an ongoing institutional action implemented by the Traceability and Vulnerability Assessment Unit of DGJRC in order to assess and manage the vulnerabilities of infrastructures, technological systems or other assets against man-made or natural hazards (incl. terrorism). There are particularly two special systems, which receive attention: a) the transport of dangerous substances and b) the production and distribution of energy.

Latest example of the response action of the European Union is the establishment of the EU Solidarity Fund, which was established as a result of the disastrous floods in Europe in the summer of 2002 [7]. The

7. European Commission, Joint Research Centre: Addressing Systemic Risks: Dynamic Territorial Vulnerability Assessment and Management, Discussion Document, 2004, 6-7.

Council regulation (No 2012/2002) states that the Fund will provide financial assistance to contribute to a rapid return to normal living conditions in the disaster-stricken regions. The initiative aims to «enable the Community to act swiftly and efficiently to help in mobilizing emergency services to meet people's immediate needs and contribute to the short-term restoration of damaged key infrastructure so that economic activity can resume in the disaster-stricken regions».

2. Adriatic common operative security plans

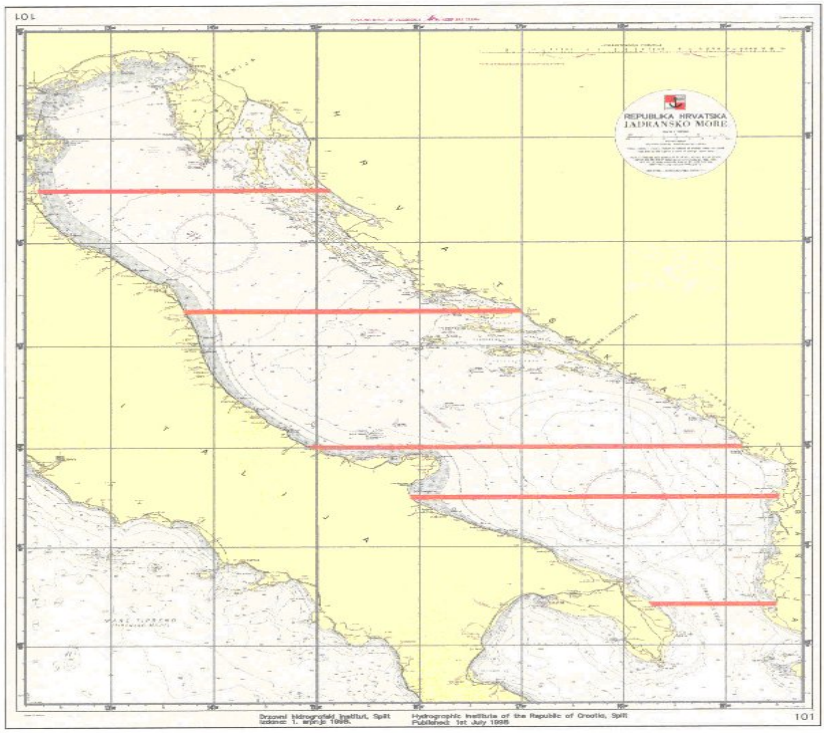
Here we focus more in deep on operative security plans put in force in the Adriatic basin. From the regional point of view cooperation has been established with the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) based in Malta. Objectives and functions of REMPEC were modified in November 2001 in order to reflect the new role of the Centre envisaged by the adoption of the new Protocol concerning Cooperation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea. The Centre is hosted by the government of Malta.

Measures and standards regulating maritime traffic are passed by the International Maritime Organization (IMO). Among other issues this regulation incorporates regulation of the systems and procedures of communications with ships and their regular reporting, systems of divided and directed sailing and systems of control and oversight of the maritime traffic. International resolutions A.851(20) i A.857(20) provide possibility for interested country or group of countries to propose to the IMO the passing of the procedures of communication and reporting of the ships, especially those carrying dangerous and harmful substances.

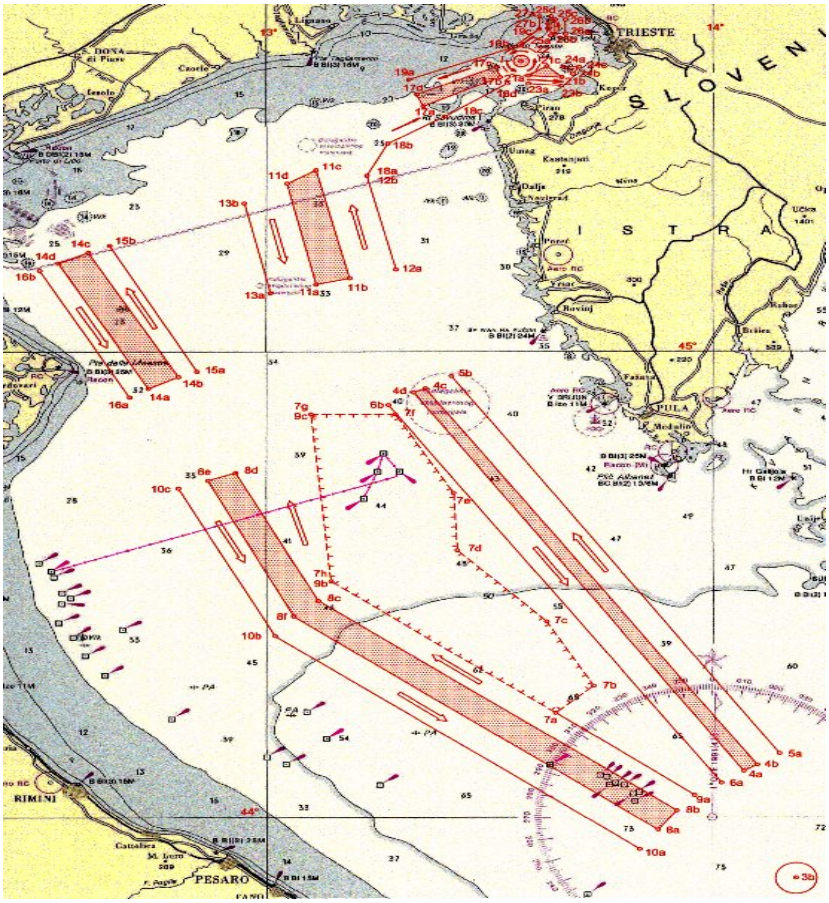
Based on the Memorandum of mandatory system of reporting of the ships common system of navigational routes and system of divided and directed sailing Albania, Croatia, Italy, Montenegro, Slovenia and Serbia undertook in 2002. Common activities were undertaken within the framework of the IMO putting the above mentioned operations to system. This regulation is mandatory for all the tankers with more than 150 GRT and all the ships with more than 300 GRT

carrying dangerous or harmful substances. System covers the entire Adriatic Sea and is divided in five sectors. Every sector is covered from one of the following ports: Ancona, Bari, Brindisi, Koper, Rijeka, Trieste and Venice. Formalized reports are introduced and ships are obliged to report every time they pass from one sector to another, entering or leaving the ports.

Figure 3.1 and 3.2: *System of reporting in the Adriatic Sea* [8]



8. Published in the work JANAF – yesterday, today, tomorrow and measures of the protection of the Adriatic Sea, by authors prof. dr. sc. Pavao Komadina, deputy minister of maritime, traffic and communications, Maja Markovčić Kostelac, BA, department head in the Ministry of maritime, traffic and communications and Željko Kiperaš, BS, head of the certification system in the Ministry of maritime, traffic and communications; picture available courtesy of Mrs. Nada Plešnik, JANAF, Croatia.



Ships are informed about the weather, conditions on the sea lanes and other information necessary for the safe voyage. So, there is no doubt that this system of mandatory reporting is a big step forward in achieving higher levels of safety, security and protection of the natural environment in the Adriatic Sea.

Furthermore, with the objective of introducing a common system of divided and directed sailing in the Adriatic Sea, agreed in the Memorandum, bordering countries agreed and sent to IMO for confirmation a proposal of how to put this system in operational use. This way arbitrary taking of navigational routes was prevented and

the possibility of the accidents with the potentially devastating effects significantly reduced. Initially, the system was recommended for use and after the introduction of the video and radar control it was accepted as mandatory.

Speaking about the regional cooperation between the Adriatic countries it has to be stressed that mutual cooperation has at last two different and important levels: political cooperation and operational cooperation in any specific filed, including the protection and rescue operations. While it is true that these two levels interfere and influence each other, it is also true that in the case of protection and rescue at the Adriatic Sea organizations and institutions in each country try to do their best, within the limits of their resources, organizational and functional capabilities, to cooperate whenever necessary, and thus at least at the operational level disregard existing political differences connected with the still unresolved question of the state borders at sea between Croatia and Slovenia.

The question of the borders is a highly debated issue in both countries and the resolution of this question seems to be heading toward using the services of the internationally established judicial institutions. In principle, politicians in both countries expressed intention to seek the judgment of the third party but there are some procedural differences, intentions to reach the best possible starting position and apparent fear of "not committing to the certain path to early".

A satisfactory solution of this issue would very likely enable even more developed regional cooperation in many fields, including protection and rescue at sea, but all available information seems to prove it would be wrong to conclude the cooperation in the field of protection and rescue is at present harmed because of this specific political issue, meaning consequently that a necessary and healthy level of cooperation does exist.

This is exemplified by the above mentioned Agreement on sub regional plan of interventions for prevention of and reaction to the sudden pollution of the Adriatic Sea which has been prepared in cooperation with the three countries - Croatia, Italy and Slovenia - with the REMPEC and within the framework of the Mediterranean Action Plan. Priority in protection has been given to the protected natural and cultural heritage, economy and tourism related infrastructure.

This Agreement foresees the existence of the National Emergency

Reaction Centres mutually connected and networked in order to ensure full use of all available national protection and rescue capabilities. In case of emergency any party to this Agreement which is threatened by pollution or any other kind of emergency activates the Plan of intervention and/or asks for help the other parties. In that case its National Emergency Reaction Centre becomes Joint Emergency Reaction Centre and takes over operational command of all the available resources with the help and support of commanders of other National Emergency Reaction Centres.

The Agreement on sub regional plan of interventions for prevention of and reaction to the sudden pollution of the Adriatic Sea has already been signed by the governmental representatives of the three countries and corresponding operational structure, in brief explained above, will be implemented once the Agreement is being passed by the corresponding Parliaments.

It is worth to mention that this initiative is a continuation of the activities undertaken within the framework of the so called Trilateral commission and there is the intention to expand this commission by accepting the membership of all the Adriatic Sea countries. In the spirit of such cooperation Croatian Government, simultaneously with sending the Agreement on sub regional plan of interventions for prevention of and reaction to the sudden pollution of the Adriatic Sea for passing to the Croatian Parliament, also sent for passing to the Parliament the Agreement between Croatian and Montenegrin Governments on cooperation in protection from natural and civilisation catastrophes. By passing all the above mentioned agreements and transforming those in operational plans and procedures it seems obvious that the actual satisfactory level of cooperation between the countries would receive a strong boost that would in the future possibly enable a higher level of protection and safety at the Adriatic Sea.

2.1. CIP in Italy

Box 1 – Italy

- Area: total: 301,230 sq km; land: 294,020 sq km; water: 7,210 sq km
- Land boundaries total: 1,899.2 km; border countries: Austria 430 km, France 488 km, Holy See (Vatican City) 3.2 km, San Marino 39 km, Slovenia 199 km, Switzerland 740 km
- Coastline 7,600 km; territorial sea: 12 nm; continental shelf: 200 m depth or to the depth of exploitation
- Population 58,145,320 (July 2008 est.)
- Economy: Italy has a diversified industrial economy with roughly the same total and per capita output as France and the UK. This capitalistic economy remains divided into a developed industrial north, dominated by private companies, and a less-developed, welfare-dependent, agricultural south, with 20% unemployment. Most raw materials needed by industry and more than 75% of energy requirements are imported
- Electricity production 292.1 billion kWh (2007 est.)
- Oil production 166,600 bbl/day (2007 est.)
- Natural gas production 9.706 billion cu m (2007 est.)
- Airports: 132 (2007)
- Pipelines: gas 18,863 km; oil 1,258 km (2007)
- Railways: total: 19,460 km
- Roadways: total: 487,700 km
- Waterways: 2,400 km
- Merchant marine: total: 609. By type: bulk carrier 60, cargo 47, carrier 2, chemical tanker 159, combination ore/oil 1, container 25, liquefied gas 27, passenger 22, passenger/cargo 154, petroleum tanker 35, refrigerated cargo 4, roll on/roll off 33, specialized tanker 13, vehicle carrier 27
- Ports and terminals: Augusta, Genoa, Livorno, Ravenna, Sarroch, Taranto, Trieste, Venice
- Telephones - main lines in use: 26.89 million (2006)
- Telephones - mobile cellular: 78.571 million (2006)

Source: *CIA, the world factbook*

2.1.1. The Crisis Management and the Critical Infrastructures Protection (CIP)

The Ministry of the Interior has emanated on the 9th of January 2008 the ministerial decree (published the 30th of April 2008 on the *Gazzetta Ufficiale* n.101) that individuate the "Informatics Critical Infrastructures of National Interests". Such decree gives shape to the art. 7 bis of the so called Legge Pisanu (the "anti-terrorism" law), promulgated in the wake of the London terrorist attacks in 2003. Among a number of dispositions, the article 7 bis calls for the creation of a special unit of the Postal Police called C.N.A.I.P.I.C. [9] that has the duty to protect all Italian critical infrastructures from criminal or terrorist threats.

The High Studies Center of the Ministry of defense has constituted a special observatory called OSN[10] with the purpose to improve the national capacity to tackle threats coming from attacks to the critical infrastructures. Interestingly enough, the OSN points out the importance to stress and invest of private-public partnerships as viable solutions.

The Presidency of the Council of the Ministries, has assigned to the Political-Military Unit (now renamed Committee of National Defense) the role of coordination of all national and international initiatives that has to do with the protection of critical infrastructures. The Unit is coordinated by a military representative and refers directly to the President of the Council of the Ministries. Its objective it to support the building of a national and unitary strategic vision of the problem, which in Italy is still quite often underestimated. After 9/11 the role and the responsibility of the Unit have enlarged and many representatives from all the national public institutions operating in the field of security are involved.

Being its main objective to contrast terrorism and protect citizenship, the political-military unit has to spend quite a lot of energy to coordinate and rationalize the information and the actions coming from different fields and places. Insofar, a number of emergency

9. Centro Nazionale Anticrimine Informatico per la Protezione delle Infrastrutture Critiche – National Center against IT Crime for the Protection of Critical Infrastructures.

10. Osservatorio Nazionale della Sicurezza – National Observatory of Security.

plans and contrast strategies have been elaborated in the fields of bio-terrorism, transport systems and prevention/repressions of threats to the public order.

In accordance with the new strength of the Political-Military Unit, the Ministry of the Interior has empowered the institution of the Committee for Security and Public Order, directly headed by the Minister of the Interior, which also has the goal to coordinate and harmonize the initiatives in the civil dimension.

However, since the publication of the *National Book for Crisis Management* that dates back to 1994 (and puts together a number of documents and previous elaborations), the description of the Italian crisis management system focuses on the Political-Military Unit, also called "the Crisis Unit", as the main tool to implement the government choices on national security matters. The "Book" defines methods and procedures of the crisis management systems by pointing out the crucial political institutions, which are the Council of the Ministries itself and the Committee (a more restricted group made by the ministers of the interior, defense and foreign affairs, headed by the head of the Government). These two institutions give the political instructions that are implemented by the crisis unit, which is generally directed by an officer close to the Head of the Government. Moreover, a number of secondary but nonetheless important bodies act together with the crisis unit on technical matters or specific domains. The most crucial is probably the Inter-Ministerial Technical Commission for the Civil Defense, which is made by representatives of all ministries implicated in civil defense and acts as interlocking body between the civil and the military actors.

The structure of the Italian Crisis Management System has its roots in the 70s and was initially aimed at responding to international crisis by acting within the NATO structure in a "bipolar world". The geopolitical changes of the 90s brought some structural modification that nonetheless have been quite smooth and did not touch the overall philosophy, which has shown to be efficient and valuable. Moreover, in the recent times a permanent structure called Center for Crisis Situation has been established at the Council of the Ministries in order to get the overall picture of the internal security state. The center is in permanent touch with the similar centers established in the other ministries (like the Crisis Unit of the Foreign Office) and of other EU

partners and some third-countries. Also, its interact directly with public bodies representing critical infrastructures (i.e. Railways, National Oil Company, Highway Society, etc.) and can rely on the centralized ministerial structures to be operative in a flexible and efficient way on all the national territory. Thus, it avoids the frequent distortions and obstacles that hinders the activities of crisis management at local levels.

In this respect, one may notice that beside the centralized approach another feature of the Italian way is the overwhelming role of the public sector *vis-à-vis* the involvement of the private actors. Even in those special cases were the government cannot operate directly through its bodies and institutions, there is always a so called "dominant subject"; for instance in the fields of energy productions and distributions, telecommunication, transport and other critical infrastructures there is always a subject of public law controlled by the State that act as point of reference for all the others. So, the standards, the measures and the procedures connected with specific activities are usually indirectly supervised by the government. Therefore, the government could quite easily define and implement specific reactions and prevention plans to possible threats (unlike other very privatized systems, like the USA). In fact, the situation is not as simple because the public institutions can disagree and express antagonism, mistrust and lack of transparency. As a result, the goal of an efficient coordination is very sensitive and difficult to reach out in front of many parochial resistances.

2.1.2. The Italian Crisis Management system in the Adriatic

For the vast majority of crisis or accident at sea, the Italian Coast Guard (GC) is the body in charge, with the exception of a terrorist attack and hijacking of a vessel. In this last case, as being a national crisis, the actor in charge would be the Ministry of Interior. The GC cooperates with the General Command of the Italian Port Authorities to implement the services of search and rescue at sea (S.A.R. - Search & Rescue) in the interested area, which can be larger of the national territorial waters.

The General Command of the GC acts as the Italian Maritime Rescue Coordination Center (I.M.R.C.C.), and may cooperate with others military and civil rescue organizations (private, non governmental, international, etc.). The I.M.R.C.C. works in cooperation

with similar rescue institutions operating in other states according to the Hamburg International Convention on maritime search and rescue (1979). The Hamburg convention has been introduced in the Italian legal system with the national law 147/1989 ad the Presidential decision n. 662/1994 introduces officially the principles of Hamburg Convention into the Italian Legal System. The same law, 147/1989, indicates the Ministry of Transports and Navigation as the national responsible authority, which operates through the General Command of the Italian Port Authorities to coordinate rescue services and relations with other states. In the field of "security" (i.e. hijacking) the direction center of the General Command is the proper recipient for warnings coming from the SSAS (Ship Security Alert System) and, according to the London Convention on Safety of Life At Sea (SOLAS), the computerized system receives messages sent by naval units in situations of danger.

Practically, the rescue operations are carried out by one of the 14 Maritime Directions, which operate as Maritime Rescue Sub Centers (MRSC) and perform within their jurisdiction along the specific rules issued by the National Authority (IMRCC). Recently, several *rescue operations* of the MRSC were directed towards illegal immigrants or tourists in danger.

In the case of a crisis in the Adriatic with strong military implications (like an international terrorist plot at sea) it is not clear who would be in charge of maritime operations. The special forces of the 28th Italian navy group that operate in Albanian territorial waters have other duties and may not be ready to act. Italian troops in the Balkans under the NATO are under the high operational inter-forces command (COI) in Rome that manages all missions abroad. Theoretically, the responsibility for a crisis in the area falls within the duties of the COI, only if the "crisis unit" of the Italian Foreign Ministry has certified the "military" dimension of the crisis itself. In all other crisis, not strictly military situations, the Foreign Office is the institution in charge. It operates through a Joint Survey Team (JST) made of representatives of the interested ministries (i.e. defense, environment, interior). In this case, communications are quite problematic because every single ministry follows its protocols and systems of communications that overlap with the one of the JST.

Additionally, the Italian civil protection may play a role if

civilians are rescued and brought to the shore by the coast guard, but civil protection usually acts in civilian crisis and does not take part into military actions.

2.2. CIP in Croatia

Box 2 – Croatia

- Area: total: 56,542 sq km; land: 56,414 sq km; water: 128 sq km
- Land boundaries total: 1,982 km; border countries: Bosnia and Herzegovina 932 km, Hungary 329 km, Serbia 241 km, Montenegro 25 km, Slovenia 455 km
- Coastline 5,835 km (mainland 1,777 km, islands 4,058 km) territorial sea: 12 nm; continental shelf: 200 m depth or to the depth of exploitation
- Population 4,491,543 (July 2008 est.)
- Economy: once one of the wealthiest Yugoslav republics, Croatia's economy suffered badly during the 1991-95 war as output collapsed and the country missed the early waves of investment in Central and Eastern Europe that followed the fall of the Berlin Wall. Since 2000, however, Croatia's economic fortunes have begun to improve slowly, with moderate but steady GDP growth between 4% and 6% led by a rebound in tourism and credit-driven consumer spending
- Electricity production 12.41 billion kWh (2006 est.)
- Oil production 23,620 bbl/day (2007 est.)
- Natural gas production 1.58 billion cu m (2006 est.)
- Airports: 68 (2007)
- Pipelines: gas 1,556 km; oil 583 km (2007)
- Railways total: 2,726 km
- Roadways: total: 28,788 km
- Waterways: 785 km (2007)
- Merchant marine: total: 80; by type: bulk carrier 25, cargo 11, chemical tanker 3, passenger/cargo 30, petroleum tanker 8, refrigerated cargo 1, roll on/roll off 2
- Ports and terminals: Omisalj, Ploce, Rijeka, Sibenik, Vukovar (on Danube)
- Telephones - main lines in use: 1.825 million (2007) Telephones - mobile cellular: 5.035 million (2007)

Source: *CIA, the world factbook*

2.2.1. The Crisis Management and the Critical Infrastructures Protection (CIP)

Currently in Croatia there is no clear Critical Infrastructure Prioritization. Different ministries and agencies have different approaches to this issue so, although there are structures and at least origins of some rudimentary system, there is no systematization that would help operatives in doing their jobs consistently. Only infrastructure objects specifically denominated for protection are those aimed for the needs of the national defence, but logically they represent just a part of the overall Critical Infrastructure. Part of the natural and cultural heritage is designated as protected under the international, notably the UN, regulation. National parks and nature as such, cultural heritage and monuments, all the ports (passenger and cargo) opened for the international maritime traffic, overall sea surface (internal and territorial sea) and underwater, traffic routes for transportation of goods and passengers, oil platforms in the North, 6 to 7 thousands of animal and plant species can be considered as possibly endangered by the accidents, natural disasters or human induced attacks.

Generally, the most endangered Critical Infrastructure is nature, all the life forms in the Adriatic Sea, tourism, energy supply infrastructure and ports. There is little evidence there could be any significant change in the future. This situation is expected to be changed in Croatia if in the future this field is moved from the Defence Strategy to the National Security Strategy, as proposed and required by the representatives of some agencies and organisations. While there are protected areas designated by the laws, especially along the sea coast, there is more tension surrounding this issue because on the other side of the spectrum there are increasing private interests towards further urbanization, privatization and utilization of the sea coast with everything this process brings with it.

In Croatia very often neglected social capabilities protection do exist albeit on an insufficient level. There are significant Health protection capabilities rooted within some hospitals and Health related institutes and correspondingly veterinarian capabilities ready to be employed in case of the technological disasters, oil pollutions and damages to all sort of animal life forms in the Adriatic Sea, notably birds and fishes. Adriatic Maritime Institute and Maritime Faculty in Rijeka are highly involved in scientific research and review in the

field of civil protection by doing different projects and simulations.

Civil Protection organization does exist and is shaping up in order to take its part in the role of the protection of the society and citizens from the consequences of accidental threats. One of its segments is the part of the operational capabilities connected with the State Directorate for Protection and Rescue, and the other part is the status and existence of the reserve forces capabilities. These structures, in case of need, could provide a few teams ready to be deployed and used were need be. Study on the possible consequences of building the "Družba Adria" project was undertaken and consequently there was a great public exchange and discussion.

Many companies, especially the bigger ones and those important for the social and economic well-being, have significant capabilities that can be mobilized and put in service of protection of the citizens in case of need. Their capabilities to help local communities and even the State institutions have been proven during the Homeland War.

There are also significant engineering capabilities ready to offer help in case of natural disasters. They are located within private building companies and Croatian Armed Forces. International SOLAS convention has been implemented through the adoption of the Law on Security Protection of the Ships and Ports open for International Traffic. There is a nucleus of coordination between responsible state institutions and administrative organizations. Regarding the protection capabilities the situation is not ideal at present although organised activities do exist with the objective to raise the level of awareness, preparedness and response capabilities.

In Croatia rational long term oversight and control mechanism for protection of the sea has to be established. This will be done very likely through the process of adoption and adaptation to the requirements of the EU.

2.2.2. The Croatian Crisis Management system in the Adriatic

Local Port Authorities are a part of the network that provides surveillance at sea and early warning in cases of accidents, disasters and crises situations.

However, Ministry of Defence and Armed Forces contribute significantly to this by their resources: enhanced Peregrine Radars, patrol ships, FPS Radars, Pilatus aircrafts.

Ministry of Internal Affairs, on the other hand, has its own operational, detection and surveillance capabilities: 17 boats for the control of the inner sea waters, 18 boats for the control of the territorial sea waters, 4 boats for the surveillance of the state border at sea.

Information are coming from different ministries, so taking into account another source of information there are: 52 ships altogether, with 5 Search and Rescue ships, 10 aircrafts, and 20 towing tugs.

Detection of the critical events rely mostly on the Police and Civil protection and rescue branches in all internal regions and bigger cities with the strong input from citizens. Systematic surveillance is mostly the task of the Armed Forces, Police and in the future Coast guard units.

The detection and surveillance capabilities, as well as operational too, will raise once the Coast Guard take the full organizational and functional shape. Also, a complete renovation of the Police patrol boat fleet is due according to the Action plan of the integrated management of the border. The results of the project PHARE 2006 "Blue Border" will determine the overall technical needs. The need for the Ministry of Environmental Protection and Space Management and Building to improve and strengthen its role in the coordination phase of the process is also being recognized.

Generally speaking, the Government of the Republic of Croatia holds in its hands all the political decision-making authorities and responsibilities regarding undertaking any kind of major search and rescue operations.

In the future, the recently established Coast Guard will take its share of responsibilities. At present, other than the law regulating its existence and roles and appointment of the Commander, its resources are very limited. While developing its strength and capabilities the new procedures of the state management of the protection and rescue field will be adopted and put in operational use. This must include reshaping of the legal, strategic and doctrinal documents and acts both on the State levels and on the specific institutions and organisations level.

This goes from the Governmental Coordination for management and execution of the tasks of surveillance and protection, which directs the Search and Rescue activities through corresponding organizations, all the way to the operational forces like the Croatian

Navy, Police and in the future Coast Guard. At the bottom are the shore Radio Stations, Port authorities, civil protection, etc.

The Governmental Coordination is a supreme decision-making body in the prevention of the environmental catastrophes, it is responsible to the Government, and works according to the Plan, assesses the level and the scope of the eventual pollution, unifies all the maritime recourses at hand, its chief passes programs and decides about the ways to educate and train relevant crews.

The present state of affairs regarding the placement of the operational control in Croatia is a bit fuzzy. Most of the institutions involved in the protection, search and rescue operations have their operational capabilities. For instance, the Ministry of Internal Affairs has under its command the Police Headquarters with the Border Department, Sections of the Naval and Airport police, Police Directorates spread through the counties, six Stations of the Naval Police and other combined Police stations.

The Croatian Navy Command Operational Centre is located in the port Lora in Split and once the Croatian Coast Guard takes its shape and full responsibility it will have its own Operational Centre which should take over a part of responsibilities from the Navy Operational Centre.

However, there is no designated centre for the operational command and control and/or crisis management in Croatia as for now. The National Centre for Coordination of the Search and Rescue at Sea in Rijeka is designated to take over the role of the national operational centre in case of accidents, disasters and crisis situations that would demand the involvement of all the State capabilities to address any situation at sea. In this case a National Commander will be appointed by the Government. This Centre is supposed to acquire help and employ the resources of all the Port Authorities it deems necessary for the fulfilment of its task. Also, it has the possibility to deal with the private companies, give them concessions for undertaking specific tasks. Recent experience shows whenever crisis situation occurs there is a big vested interest of the insurance companies that can effectively influence the outcome of the specific rescue operation.

Countries in the region work hard to put in place one overarching operational command and control centre whose task would be also cooperation with the similar centres in the neighbouring countries.

For the time being they are only partly successful in that attempt, mostly because of the lack of understanding of higher authorities, organisational capabilities and a lack of available resources.

2.3. CIP in Slovenia

Box 3 – Slovenia

- Area total: 20,273 sq km; land: 20,151 sq km; water: 122 sq km
- Land boundaries total: 1,086 km; border countries: Austria 330 km, Croatia 455 km, Hungary 102 km, Italy 199 km
- Coastline: 46.6 km; territorial sea: 12 nm
- Population: 2,007,711 (July 2008 est.)
- Economy: Slovenia, which on 1 January 2007 became the first 2004 European Union entrant to adopt the euro, is a model of economic success and stability for the region. With the highest per capita GDP in Central Europe, Slovenia has excellent infrastructure, a well-educated work force, and a strategic location between the Balkans and Western Europe. Privatization has lagged since 2002, and the economy has one of highest levels of state control in the EU
- Electricity production: 14.13 billion kWh (2007 est.)
- Oil production: 5 bbl/day (2007 est.)
- Natural gas production : 4 million cu m (2006 est.)
- Airports: 14 (2007)
- Pipelines: gas 840 km; oil 11 km (2007)
- Railways total: 1,229 km
- Roadways: total: 38,562 km
- Merchant marine: registered in other countries: 29 (Antigua and Barbuda 6, Bahamas 1, Cyprus 4, Liberia 3, Malta 4, Marshall Islands 4, Saint Vincent and the Grenadines 5, Singapore 1, Slovakia 1) (2008)
- Ports: Koper
- Telephones 857,100 (2007)
- Telephones - mobile cellular: 1.928 million (2007)

Source: *CIA, the world factbook*

2.3.1. The Crisis Management and the Critical Infrastructures Protection (CIP)

Slovenia, generally speaking, is in the phase of identifying Critical Infrastructure Protection sectors. At the moment, it defined 12 sectors among which there is also the Traffic sector in which sea traffic is only one of sub-sectors and with this one we have protection of the sea routes and ports and infrastructure related to normal operation of ports - roads, railways etc. There are also cultural heritage sub-sector which in this case applies to protection of the old cities at the cost line. It is expected that changes will occur with the creation of state level Critical Infrastructure Protection concept in all 12 sectors.

In Slovenia the main protection capabilities are in the hands of the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief (ACPDR) and Disaster Management system in case of bigger disasters. Then, there also the Slovenian Maritime Authority (search and rescue of tourists and small boats), State companies responsible for cleaning of the sea waters in case of oil spills, Police with its maritime force for search and rescue and to some extend Slovenian Armed Forces and finally private actors especially Port of Koper and rented capabilities form neighbouring Italy.

In Slovenia additional capabilities of the Slovenian Armed Forces (SAF) in the filed of airborne search and rescue capabilities at sea are envisaged as well as additional capabilities in the filed of ecological disasters sanitation and cleaning activities, especially boats for cleaning of the oil and other toxic spills.

2.3.2. The Slovenian Crisis Management system in the Adriatic

In this country the key state institutions related to the Adriatic Sea safety and disaster prevention are two: Administration for Civil Protection and Disaster Relief (ACPDR) in the frame of the Ministry of Defence, and Slovenian Maritime Administration in the frame of Ministry of Transportation.

Since Slovenian coastline is small, it is not rational to develop separate capabilities in separate ministries. If event at sea or in ports has normal proportions and capabilities of the Slovenian Maritime Authority are sufficient, then the whole matter is solved by this institution. In case of need, additional capabilities from the Police or

even from Disaster Management System can be added (like Fire-fighters or contracted ecological boats…). But if the event is over-whelming for MRCC, then the Disaster Management System steps in with its additional capabilities and also by overtaking coordination and leadership of the ongoing activities.

We can say that the responsibility in the Slovenian case, for sea traffic safety and disaster prevention and management, lies in the hands of the Slovenian Government which primarily uses the state Agencies: Maritime Authority and in case of big accidents and disasters Administration for Civil Protection and Disaster Relief and Disaster Management System.

The Maritime Rescue Coordination Centre in cooperation with Regional Notification Centre coordinates the majority of disaster management and search and rescue activities at sea in connection with other operational centres of state institutions taking part in SAR or disaster management

In this country the major operational command centre will be in the future placed within the frame of the National Crisis Manage-ment System. This will provide coordination of activities of different state and private actors and provide crisis tailored expert advice and crucial state level decisions and resources.

In Slovenia forces at hand are: Slovenian Maritime Authority can employ 3 Search and Rescue boats, Slovenian Armed Forces (SAF) one Dora class patrol boat and divers, Slovenian Maritime Police Unit two bigger and one small patrol boat, and several vessels in pri-vate ownership contracted by the Administration for Civil Protection and Disaster Relief for use in case of major disaster at sea (tug boats, ecological ships, laboratories …).

Also, in the Slovenian case the purchase of additional boats is envisaged within all state institutions. A unified communication system in the frame of unified state communication system Tetra is envisaged in long term.

2.4. CIP in Montenegro

Box 4 – Montenegro

- Area total: 14,026 sq km; land: 13,812 sq km water: 214 sq km
- Land boundaries total: 625 km; border countries: Albania 172 km, Bosnia and Herzegovina 225 km, Croatia 25 km, Kosovo 79 km, Serbia 124 km
- Coastline: 293.5 km; territorial sea: 12 nm; continental shelf: defined by treaty
- Population: 678,177 (July 2008 est.)
- Economy: Montenegro is pursuing its own membership in the World Trade Organization as well as negotiating a Stabilization and Association agreement with the European Union in anticipation of eventual membership. Severe unemployment remains a key political and economic problem for this entire region. Montenegro has privatized its large aluminium complex - the dominant industry - as well as most of its financial sector, and has begun to attract foreign direct investment in the tourism sector
- Electricity production: .864 billion kWh (2005 est.)
- Oil production: 0 bbl/day (2007 est.)
- Natural gas production : NA cu m
- Airports: 5 (2007)
- Railways total: 250 km
- Roadways: total: 7368 km
- Merchant marine total: 6; by type: cargo 5, passenger/cargo 1; registered in other countries: 3 (Bahamas 2, Saint Vincent and the Grenadines 1) (2008)
- Ports: Bar
- Telephones: 353,300 (2006)
- Telephones mobile cellular: 643,700 (2006)

Source: *CIA, the world factbook*

2.4.1. The Crisis Management and the Critical Infrastructures Protection (CIP)

In the case of Montenegro, the elements of the national security system include state authorities and institutions involved in planning, organizing, harmonizing and implementing measures and activities within the security system.

The Management of the national security system is regulated by law.

The President of the Republic of Montenegro chairs the meetings of the National Security Council, acts as the commander in chief of the Army and decides about its deployment in accordance with law.

The parliament of the Republic of Montenegro, through its relevant organs and bodies, exercises democratic and civil oversight over the national security system. The Parliament of the Republic of Montenegro is responsible for ensuring legal preconditions for functioning of the national security system.

The government of the Republic of Montenegro regulates and implements the policy on national security by: giving guidelines and performing supervision over the national security system; providing material and financial resources for the needs of the national security system; looking after the enforcement of international treaties and agreements in the field of national security and compatibility of national laws with international documents, and adopting and implementing the National Security Strategy.

The National Security Council considers strategic issues in the area of functioning and development of the national security and defence system. The composition and competences of the Council are defined by the special law regulating the security and the defence sector.

The Ministry of Justice addresses the issues relevant for the organization and work of the courts and the State Prosecutor, misdemeanour courts, penal institutions, criminal legislation; court proceedings and misdemeanour proceedings.

The Ministry of Foreign Affairs coordinates, promotes and implements the defined security policy at the international level, especially in relation to the international security organizations.

The Ministry of Defence formulates and implements the defined defence policy, plans system of defence, designs and harmonizes defence plans, conducts international cooperation in the field of defence, conducts tasks of managing, equipping, armament, developing

and deploying the Army, performs other tasks within its competency in accordance with the law regulating the security and defence sector.

The Minister of Defence is a civilian.

The Ministry of Interior proposes and implements defined policy in the field of protection of the State security; protection of life, security of persons and property; risk management, protection, rescuing and relief in the extraordinary situations (earthquakes, fires and other natural and technical-technological catastrophes), and conducts international police cooperation.

The National Security Agency, by applying special methods and means stipulated by law, collects data and information relating to potential threats, plans or intentions of organizations, groups or individuals that are directed against the territorial integrity, security and constitutional order of the state of Montenegro and warns against potential security challenges, risks and threats.

The judiciary, an independent and impartial system, renders decisions in the court proceedings on the basis of the Constitution and the law.

The State prosecutor conducts criminal prosecution and uses legal measures in order to protect the Constitution and laws and represents the Republic in the property disputes.

The Customs Authority is responsible for issues related to: customs control; custom taxation of goods; control of goods whose import/export is separately regulated; foreign currency control in international travel and cross-border traffic with foreign countries; prevention and detection of criminal acts and economic offences in customs procedures; prevention and detection of foreign currency related offences in the international travel and cross-border traffic with foreign countries; processing and monitoring of the statistic data on exports and imports and other activities pertaining to its competences.

The Security Forces represent the united armed forces in the national security system (at state level). The organization, composition and deployment of the Security Forces are defined by the law regulating the security and the defence sector.

The Army, the Police and the Coast Guard are parts of the security forces. The Army represents the armed part of the Security Forces, whose task is to defend Montenegro, in accordance with the Constitution and the international law principles regulating the use of

force. The Army deployment is defined by law.

The Police ensure general, personal and property security and protection of citizens and inhabitants. It is active in prevention and suppression of crime, especially all forms of organized crime, protection of human rights, supervision and control of the state border, securing public peace and order, security of traffic, security of citizens and other persons under the jurisdiction of the state of Montenegro.

The Coast Guard and the Army are an integral part of the security system in a sense of preventing and responding to challenges, risks and threats to security on and from the sea.

The Homeland Security is responsible for the protection of the critical national infrastructure and civil protection. The components of Homeland Security are compatible with the integrated national security system. The Homeland Security operates at the level of local governance, whilst it is defined and coordinated at the state level.

2.5. CIP in Albania

Box 5 – Albania

- Area total: 28,748 sq km; land: 27,398 sq km; water: 1,350 sq km
- Land boundaries total: 717 km; border countries: Greece 282 km, Macedonia 151 km, Montenegro 172 km, Kosovo 112 km
- Coastline: 362 km; territorial sea: 12 nm; continental shelf: 200-m depth or to the depth of exploitation
- Population: 3,619,778 (July 2008 est.)
- Economy: Lagging behind its Balkan neighbours, Albania is making the difficult transition to a more modern open-market economy. Energy shortages and antiquated and inadequate infrastructure contribute to Albania's poor business environment. The completion of a new thermal power plant near Vlore and improved transmission line between Albania and Montenegro will help relieve the energy shortages. Also, the government is moving slowly to improve the poor national road and rail network, a long-standing barrier to sustained economic growth
- Electricity production: . 2.892 billion kWh (2007 est.)
- Oil production: 6,425 bbl/day (2007 est.)
- Natural gas production : 30 million cu m (2006 est.)
- Airports: 11 (2007)
- Pipelines: gas 339 km; oil 207 km (2007)
- Railways total: 447 km (2006)
- Roadways: total: 18000 km (2006)
- Waterways: 43 km (2007)
- Merchant marine total: 24; by type: cargo 22, roll on/roll off 2; foreign-owned: 1 (Turkey 1)
- Ports and terminals: Durres, Sarande, Shengjin, Vlore
- Telephones: 353,600 (2005)
- Telephones mobile cellular: 2.3 million (2007)

Source: *CIA, the world factbook*

2.5.1. The Crisis Management and the Critical Infrastructures Protection (CIP)

In Albania the most endangered Critical Infrastructures are considered to be: ports, the maritime resources and maritime environment, infrastructure for energetic furnishing, maritime commercial routes, and land transport routes.

In the future Albania expects to improve the port infrastructure (8^{th} corridor), safety and security of the sea-lanes after the expected increase in the maritime traffic. Also, land transportation routes do not fulfil the international standards and necessary routes signalisation is missing. Therefore, all of these areas need to undergo significant progress.

Actual limited capabilities of Albania for the protection of maritime domain and for law enforcement are the result of: assets that need to be modernized, Coastal Surveillance System that is very old, improvements needed in inter agency cooperation.

Each Albanian Port is manned with a fire-brigade unit in order to damp down possible fires.

All the action in the protection and rescue operations starts only after the detection of the harmful situation. So, it is the imperative to have developed detection and surveillance capabilities, although even than in many cases information about the potentially hazardous event not through the established system but from unofficial sources like citizen, fishermen and alike.

At present, Albania has limited capabilities due to very old Coastal Surveillance System. This system is going to be replaced with a new Coastal Surveillance System.

The Ministry of Interior, through organisation of Police services for controlling and supervising the border, furnish structure borders with the necessary instruments and technology for detection and prevention of illegal activities. There is a constant exchange of information between border services, national agencies and international ones.

Exchange of information together with well equipped police and border structures enabled Albania to increase the capacity of detection and prevention of crime in the borders and recently the results have been evident.

2.5.2. The Albanian Crisis Management system in the Adriatic

In Albania, the operational Command and Control is exercised through Chief of Naval Operations and Naval Operation Centre. A reorganisation of Border and Migration Police took place in January 2008, and it functions as a vertical structure inside the State Police. This should have as a result a higher level of autonomy and civilian control in the supervision of borders.

Apart of that, the Naval Operational Centre within the armed forces and Ministry of Defence is functional.

It is expected very soon that the command and control of coast guard operations will be transferred to the Maritime Operational Centre. As an inter-ministerial organization, the Maritime Operational Centre will be established to conduct coast Guard Operations. Legal framework for its organization has been prepared and submitted for approval by the government

When it comes to the forces ready to respond to the threat of hijacking a tanker full of oil or a ferry full of passengers Albania has following operational forces at hand: the Coast Guard and Navy units, Police forces, units of Border and Migration Police that act along the coastline and on the sea, Harbour Masters with their resources, and Fire-brigade.

2.6. Protection of Critical Infrastructures in the Adriatic space: Conclusive summary

Although different levels of awareness and capabilities do exist, all the Countries here considered still have to raise the level of preparedness for addressing the consequences of the natural, technological or human-induced accidents and disasters with the potential catastrophic outcome.

We need to establish a coherent system and structures ready to do the job of protecting and rescuing people, material goods and environment. It has to include all the available resources and work hard on acquiring those missing as well as raising the level of readiness for unexpected situations. This should lead to shortening the response time and act positively on reducing the scope of the eventual damage. However, it cannot be done effectively without clearly established links and procedures between the local, regional, state and

wider international institutions and organisations.

Cooperation and sharing the information and resources in providing help on different spots of the Adriatic Sea is essential. This would help rising the level of environmental protection while at the same time enabling further economic development, elements that are at present both underdeveloped and not properly balanced in order to achieve best results for the whole society.

Countries in the region do have strategic documents that in part cover the issue of the Critical Infrastructure Protection. However, sometimes they are lacking an overarching approach while the resources available for the prosecution of the Critical Infrastructure Protection are not clearly and thoroughly recognized and identified.

Some crucial conceptual and organizational elements are missing while at the same time on operational levels institutions, organizations and crew involved in the protection and rescue operations have to do with whatever resources and capabilities they have at hand. It seems there are too many different strategies, with the attempt to create even more, but unfortunately also too much overlapping and too many existing holes. A clear sign of the institutional lack of understanding of the importance of this field of activities was also visible during this project when some institutions failed to offer any help even on the basic level.

As a conclusion, the legislature, international and domestic, seems to be at least at the satisfying level, while planning and operatives are lagging a bit behind and the resources are clearly inadequate. The analysis of the decision making processes show too many functional links between the organizations involved exist, there are too many unresolved issues, and there is an approach that is overly institutional and bureaucratic in guarding its own fence and backyard. All these contribute to opening some critical spots where a lot of time can be lost in vain in situations when and where the time is the most precious resource.

Chapter 4
PROTECTING THE ADRIATIC SEAWAY. A COOPERATIVE APPROACH?

1. The Adriatic Sea as a cooperative space: Present dynamics and future opportunities

Since its "pacification" under the Roman rule, the Adriatic sea was an area characterised by the strong cultural, social and economic ties of the populations inhabiting its coasts and hinterland(s). Such ties grew even stronger under the influence of Venice. Thus the Adriatic Sea in general – even where its waters blend into the Mediterranean Sea – and the Upper Adriatic in particular, was a sea lengthening (and, thus, connecting) the costal routes and those reaching the Apennines, the Danube Valley and the Balcanic hinterland. Being a trade area for salt, cereals, raw materials for Western European manufactures, the Adriatic Sea experienced, up to the Austria-Hungarian times, a dynamic economy which was not completely interrupted even during the XVI centuries wars between Christianity and the Ottoman Empire. The "liquidity" of the Adriatic Sea was, to some extents, reproduced in its contiguous territory: an emblematic example is that of Niccolò Tommaseo who, defined as a philologist and an Italian patriot, defined himself as deeply Venetian and proud of being Slav.

The modern interpretation of the Adriatic Sea, consequent to the creation of the Nation-State, as a divided but fixed and solid space, implied the disintegration of its original unity and the socio-economic comparative advantages. However, the fall of the Eastern European totalitarian regimes and the European integration process, on the one hand, and the civil society growth, on the other, call for a new non-dichotomist interpretation of the area based on the past, fluid and integrated multilateral approach. From this perspective it

seems possible to overcome disputes such as «the on-going vitriol between Croatia and Slovenia over their disputed maritime boundary in Piran Bay (which) increased throughout the spring and summer of 2004» (Donaldson, Pratt 2005: 413). Such diatribe is all but resolved, in fact it is still a matter of debate within the EU accession process of Croatia at the end of 2008.

The so-called cross-border (or transborder) co-operation, is a multifarious and multifaceted process which is activated when populations of a given border-area *and* regional institutions realise borders not only divide, but also unite, creating identical problems on both sides. Its main aim is generally to overcome borders, interpreted as limits to social and economic development, in order to create areas of economic and services development, protection of the environment, and territory planning (Ferrara 2001). Moreover, cross-border co-operation, in its European dimension, has been seen as a tool for regionalism and integration to merge in a subsidiary fashion (Gasparini 2003). Such phenomenon has gained momentum with time, not only for people living on the borders, but also for the process of European integration itself. Thus, it appears that cross-border co-operation, whilst maintaining a predominant functional nature, has a strong political component to be found in the aspiration of local politics to project itself in a broader, and more proactive context external to national (restricting) administrative frameworks.

The new *regionalistic* role of Europe revolves around various policies designed to invent, conceptualise and realize new regions, overcoming the states. Building regions across one or more borders was the aim of a new European idea: such regions, obtained by unifying a region in one state with another of a neighbouring state, needed to be somehow defined and the term Euroregion seemed the most appropriate new term best describing the visible core concept of the European integration. The Euroregion represents a phase of greater integration between border regions belonging to contiguous states. The Euroregion is made operational in an agency institutionally aiming to create favourable conditions for cross-border co-operation legitimising operators and associations with determined goals, providing expert support and services to gain from the opportunities created by EU programs, and, finally, elaborating strategies orienting civil society to create and/or support cross-border co-operation.

In concrete terms, the Euroregion is usually made up by a presidency and by an operative secretariat, which might be articulated in committees or work areas stimulating favourable conditions to such co-operation and eventually by a small parliament representing the wills and needs of cross-border regions inhabitants. Nowadays, national laws usually allow for a private law institution, but the aim is to give to the Euroregion a juridical status.

The functions of the Euroregions are of a, broadly speaking, economic-cultural nature. However, these have more specific traits or more general characteristics depending on the local situation. For matter of definition, three main functions can be identified within the Euroregion. The first takes into consideration the need to create a centrality around a Euroregion. This follows from setting the Euroregion centrally within a network of road, maritime, aerial, railroad infrastructures: linking the Euroregion to Europe, it will be possible to speak of a *Euroregion of macro infrastructure*, a Euroregion characterised by a vast territory. The second function is represented by the creation of conditions enabling firms and institutions located in the Euroregion to connect one another and synergistically operate although they are physically separated: such is the *Euroregion of the functional networks*, a Euroregion extending on a territory including the border areas. Finally, the third function of the Euroregion is that of favouring the cooperation of stringently contiguous areas, where the daily life and the civil society has a predominant cross-border nature. Such is the *cross-border Euroregion*, a Euroregion limited on the cross-border contiguous territories (Gasparini 2003).

As mentioned above, the Euroregion represents here the fullest and most advanced form of institutionalisation of cross-border co-operation given the following four characteristics: (i) the Euroregions deals on an institutional level with cross-border co-operation involving areas relatively contiguous with borders. (ii) A Euroregion tends to favour complete cross-border co-operation, comprising support for local players in the use of European and local funds, the creation of reciprocal knowledge and the promotion of the formation, activation and transformation of actions and organisation for cross-border co-operation. Its primary interlocutor is therefore civil society. (iii) The work of a Euroregion extends to economic, social, cultural, educational, service provided and institutional activity – all involving trans-

national players. (iv) A Euroregion may take on a configuration that varies over time according to the objectives being pursued by cross-border co-operation players, according to legal consideration and according to the public and/or private actors belonging to it. Since at present there are no other ways – in many a case – of giving a public legal personality to the Euroregion, it may take the form of a private Association between the regional and other public bodies such as provinces and municipalities (or preferably Associations of Municipalities).

The aim of this chapter is to shed some light on the Adriatic Sea as a cooperative space highlighting present dynamics and proposing possible future trajectories within which strengthen the existing propensity to cross-border co-operation. In order to do so, after a brief introduction on the methodology used in carrying out the analysis, each cross-border area within the Adriatic Sea region will be first described for what it is at present and, secondly, analysed so to delineate possible future opportunities. Finally, the propensity towards cooperation of different actors operating in such context will be analysed starting from the data collected by the questionnaires distributed within the ProAdrias Project.

2. A brief methodological introduction: The SWOT analysis

SWOT analysis was born in those strategic planning offices created by enterprises in order to rationalize market reality, bringing together the elements that make it analytically functional, and identifying the most appropriate actions to be undertaken in order to limit the effects of negative elements and to maximize the possible effects of positive ones. In the case at hand, SWOT analysis is crucial because it attains sets of heuristically relevant indicators from cross-border cooperation processes. The elements of the up-to-date analytical scenario thus delineated can be modified so as to positively influence future scenarios. Cross-border cooperation is bound to benefit from careful strategic planning, as well as from practical actions organized, for instance, by a Euroregion body for transfrontier areas.

Thus, the main function of SWOT analysis is to determine rationally a cross-border region's future prospects, set between an operational present (current scenario) and a future predominantly mark-

ed by cross-border cooperation fostering local development (latent scenario) (Gasparini 1988). The SWOT method involves both an analysis of what occurs and, above all, of how we want it to occur, between time t_0 and time t_1.

These being the conditions, cooperation might well result from the ideology of empathic and expressive action, which commonly lead to expect something more from a common effort in relations and networking. As true as this may be (ideological matrix), SWOT analysis, action and strategies within a Euroregion, all do in fact challenge the ideology itself, by assessing the capability of producing an ontological transformation of values and culture in practical terms. This could not in any case take place without a mixture of concrete action and ideological drive in order to reach, on either side of the border, the shared targets of the two cooperating regions.

SWOT analysis furthermore "unmasks" ideological interpretations of cross-border cooperation, given that it is based on a very concrete system of indicators: it can identify the factual processes by which a particular cooperation is carried out, and, above all, provide reliable relations between indicators and forecasts.

2.1. Cross-border cooperation: Theoretical elements and internal/-external functional aspects

Cross-border cooperation is the active outcome of the proximity of cultural diversity. That is, it stems out of the differences between distinct sovereign areas; while these variations generally appear in legal, administrative and economic regulations, or in the cultural and linguistic reconstruction plans of those nation-state that favour the strengthening of stereotypes in relation policies, here instead, such factors are exploited with creativity, which in turn thrives on diversity itself, providing new opportunities to establish relations, and to benefit from advantages that would not exist in the absence of differences between sovereign areas.

Therefore, on either side of the border the two sovereign areas have to partially sacrifice their autonomy and act pragmatically as regards concrete everyday economic, social or cultural issues (see Gasparini 1996). In these cross-border regions, sovereignty concerns central national issues or national politics alone, while in regional matters, the sense of sovereignty has been lost (it is no longer possible to say "yes or

no", "all or nothing" with respect to this or the other region).

In this way, the cross-border region becomes a transition area, as the territory takes on a new meaning (Badie 1996) which differs from that of the national system, in such a way that national regulations are worth less than elsewhere in the country. Moreover, the transition is continuous, being based on the balance between the actions of the bordering population and the administrative, institutional and economic regulations, which must themselves be constantly adjusted according to this precarious equilibrium, made unstable by the passage of time and by changes taking place within the countries to which the two cooperating regions belong.

Cross-border cooperation in thus caught up in a perpetual instability, due to local internal factors, which constantly change and, remarkably, offer advantages which could not be possible without cooperation. Such cooperation is faced with endless challenges coming from the countries involved (which, as legal systems, fear impending self-determination, or that the national borders to be redrawn into regional ones, etc.); these challenges put to the test the will towards cooperation of the bordering population, and may well engender frustration.

Having thus defined cross-border cooperation, we can better understand its importance by distinguishing between its endogenous and exogenous dimensions (within and without the cross-border area), evaluating above all those dimensions which extend beyond the regions involved, finding their raison d'être in the two or three nations themselves, in their internal and bilateral policies.

Box 1 - Dimensions with operational implications

1. Propensity towards cross-border cooperation
2. Level of training and coordination
3. Cross-border relations in each activity sector
4. Institutional obstacles for cross-border cooperation
5. Economic obstacles for cross-border cooperation
6. Socio-cultural obstacles for cross-border cooperation
7. Institutional factors for effective cross-border cooperation
8. Administrative factors for effective cross-border cooperation
9. Economic factors for effective cross-border cooperation
10. Linguistic, cultural and historical factors for effective cross-border cooperation

2.1.1. Internal dimensions and indicators

The first endogenous (internal) dimensions concern the existence of a basic form of collaboration, based on products derived from the active collaboration found in a civil society: such collaboration is of deep importance and it is considered essential, as it produces results otherwise impossible to obtain. As far as this research is concerned, there are two such dimensions:

1. *Propensity towards cross-border cooperation.* This is defined by indicators which refer to operators in industry (1), commerce (2), culture (3), institutions (4). In short, a high propensity for cross-border cooperation in all four operator types, means that there are realistic opportunities to develop stable cooperation.

3. *Cross-border relations in each activity sector.* These relations are expressed by the indicators of relations among institutions (9), planning and environment (10), transports and telecommunications (11), work and economy (12), tourism (13), culture and education (14), everyday services (15). The indicators specify the connection among civil societies on either side of the border. Such aspects represent the structural (but local) side of the propensity towards cooperation indicated by Dimension 1. If there is already such a structural dimension (number 3), the following dimensions will be easier to obtain.

A less relevant second level of endogenous dimensions is represented by two other dimensions, concerning the characteristics of institutions and the context.

2. *Level of training and coordination.* These indicators define the characteristics of institutions and their personnel. The indicators highlight the formation of local élites (5), the coordination among different local and national administration sectors (6), the coordination between local organisations and social and economic stakeholders (7), the coordination among central administrations (8).

9. *Economic factors for effective cross-border cooperation.* This dimension describes the context in which cross-border cooperation should take place. These indicators detect whether or not borders act as a "filter" (44), if the economies are integrable (45), if economic action is not exclusively oriented towards the centre of the national system (46), if there is a significant participation in programmes such as Phare, Interreg, etc. (47), and if road, rail and waterways are in good conditions (48).

A third level of internal dimensions, still less central than the previous ones, consists of two further dimensions, which relate to the cultural context of the cross-border area. Such cultural dimensions are considered to be less relevant than economic policies, assuming that cross-border cooperation is predominantly linked to business interests and to basic services, rather than to cultural and linguistic attractions and values (which nevertheless play a remarkably positive role). The latter may form subsequently; in fact, stereotypes and linguistic matters can be developed or solved according to varied and complex modalities, as each of the national areas might have to deal with its own specific issues.

6. *Socio-cultural obstacles for cross-border cooperation.* These obstacles are evaluated according to their impact on cross-border cooperation. The indicators taken into account are as follows: negative national and/or regional stereotypes (31), language barriers (32), weak or no reaction to proposals for socio-cultural cooperation (33).

10. *Linguistic, cultural and historical factors for effective cross-border cooperation.* This is another cultural dimension of the context. Its indicators outline a specific situation, that is, the existence of a common historical background, free from stereotypes (49), a common language or widespread knowledge of each other's language (50), the ratification of the 1995 Framework Convention for the Protection of National Minorities (51), a tradition of cooperation (52), good cross-border transport routes (geomorphology, passes, types of transportation) (53).

2.1.2. External dimensions and indicators

The exogen (external) dimensions of cooperation in cross-border areas concern national, European and international conditions, which may favour or not the development of cooperation in a cross-border area. There are four external dimensions, and they are thought to have a progressively lower gradient of direct influence on a specific cooperation process. Such declining gradient does not result from the last dimension (in the presentation) being essential as a general (European) framework, but it implies that other dimensions are necessary, in order to activate the specific mechanisms of cooperation.

5. *Economic obstacles for cross-border cooperation.* This dimension is based on countries' complementary development levels in a

specific cross-border area. The selected indicators are: differing economic development levels/rate (25), technology gap (26), reluctance due to overcoming competition (27), labour market protection (28), customs and fiscal issues (29), weak or absent reaction to opportunities for economic cooperation. All of these obstacles generate from the lack of balance between the two cross-border areas.

4. *Institutional obstacles for cross-border cooperation.* These obstacles as well result from unbalance between cross-border areas. The indicators are: state centralisation (16), lack of adequate structures for cross-border cooperation (17), differing competences on either side of the border (18), restrictive regulations on cross-border cooperation (19), lack of credibility from cooperation agencies (20), low degree of mutual knowledge and trust (21), insufficient financial resources (22), different political-ideological orientation (23), weak or absent reaction to opportunities for institutional cooperation (24).

8. *Administrative factors for effective cross-border cooperation.* This dimension concerns the relation between local borderland administrations and the powers yielded to them by central authorities. This shows in the relations between the two bordering areas, and in the connotation of the area, which can be contiguous to the border, or wider, to the point of including several regions in order to carry out special functions (for instance, macro infrastructures). The pertinent indicators for this dimension are: official definition of cross-border areas (39), non-centralised countries with local administrations granted with wide decisional powers (40), local authorities encharged of foreign relations (41), local authorities with competent management (42), local authorities with independent financial administration (43).

7. *Institutional factors and international relations.* This dimension concerns the accession of the two countries to conventions and international protocols, as well as clean acceptance of its status of borderland region. The pertinent indicators are: signature of the 1980 Convention to Madrid (34), signature of the 1995 Additional Protocol to the Convention of Madrid (35), signature of the 1998 Protocol II of the Convention of Madrid (36), international recognition of borders (37), good institutional and legal framework (38).

Box 2 - SWOT analysis indicators, according to conceptual dimensions

1. Propensity towards cross-border cooperation

1. Of manufacturing industry operators; 2. Of commerce operators; 3. Of socio-cultural operators; 4. Of institutional operators.

2. Level of training and coordination

5. Training of local bodies; 6. Coordination between different national and local administration sectors; 7. Coordination between local bodies and social and economic stakeholders; 8. Coordination between central administrations.

3. Cross-border relations in each activity sector

9. Institutional relations; 10. Environment and territory planning; 11. Transports and telecommunications; 12. Economy and work; 13. Tourism; 14. Education and culture; 15. Everyday services.

4. Institutional obstacles for cross-border cooperation

16. State centralisation; 17. Lack of adequate structures for cross-border cooperation; 18. Differing competence on either side of the border; 19. Restrictive regulations on cross-border relations; 20. Lack of credibility from cooperation organisations; 21. Low mutual knowledge and trust; 22. Insufficient financial resources; 23. Different political-ideological orientation; 24. Weak or absent reaction to opportunities for cross-border cooperation.

5. Economic obstacles for cross-border cooperation

25. Uneven development levels or rates; 26. Technology gap; 27. Business shutdowns due to overcoming competition; 28. Labour market protection; 29. Customs and fiscal issues; 30. Weak or absent reaction to opportunities for cross-border cooperation.

6. Socio-cultural obstacles for cross-border cooperation

31. Presence of national/regional negative stereotypes; 32. Language barriers; 33. Weak or absent reaction to opportunities for cross-border cooperation.

7. Institutional factors for effective cross-border cooperation

34. Signatory of the European Outline Convention on Transfrontier Co-operation (Madrid, 21 May 1980); 35. Signatory of the additional 1995 Protocol to the Convention of Madrid; 36. Signatory of the second 1998 Protocol to the Convention of Madrid; 37. Internationally recognised borders; 38. Good institutional and legal frame (EU requirements).

8. Administrative factors for effective cross-border cooperation.
39. Official definition of cross-border areas; 40. Non-centralised countries with relevant government powers devolved to local authorities; 41. Local authorities encharged with foreign relations; 42. Local authorities with competent management; 43. Local authorities with autonomous financial administration.

9. Economic factors for effective cross-border cooperation
44. Presence of positive "filter" borders in both countries; 45. Integrable economies, characterised by complementary features; 46. Economic action not exclusively oriented towards and depending from the central administration; 47. Significant participation to Interreg/Phare projects; 48. Efficient and well connected road, rail and waterways.

10. Linguistic, cultural and historical factors for effective cross-border cooperation
49. Common historical background and absence of stereotypes; 50. Common language or widespread knowledge of the neighbouring country's language, at least on one side of the border; 51. Ratification of the 1995 Framework Convention for the Protection of Ethnic Minorities; 52. Tradition of cooperation; 53. Good transboundary transport routes (geomorphology, passes, transports)

2.1.3. Measurement of indicators

Swot analysis is based on two sets for the evaluation of variables: one is concerned with positive (Strengths and Opportunities for the cross-border area) or negative (Weaknesses and Threats) variables, while the other identifies variables as either internal or external to the cross-border area. In order to locate variables within a SWOT framework, it is necessary to first measure them, as SWOT only takes into account extreme values, either positive (SO: strengths, opportunities) or negative (WT: weaknesses, threats).

Measurement is carried out as follows: first of all, each indicator is evaluated according to "very high", "high", "medium", "low", "very low" values; the modalities of cross-border sector activities (Dimension 3) instead are evaluated as: "cooperation" in a sector on either side of the border, "consultation", "information exchange", "no relations", "com-

petition". A symbol is associated to each evaluation and modality: "++", "+", "±", "-", "- -"; an ordinal scale, formed by the numbers "2", "1", "0", "-1", "-2", is then applied as a convention to each of these symbols.

Measures of indicators:

Evaluation of intensity and modality		Symbol	Numeric value
Very high	cooperation	++	2
High	consultation	+	1
Medium	information exchange	±	0
Low	no relations	-	-1
Very low	competition	--	-2

2.1.4. SWOT analysis methodological process

Swot framework is based on detecting the dimensions and the internal indicators of a cross-border area, and the external ones referring to central governments or Europe, in order to subsequently measure the indicators, allowing to evaluate them as positive or negative, according to the intensity of their presence. There are variables, self-explanatory in their (positive or negative) presence; there is "noise", which consists in existing indicators with low intensity, and thus not capable of generating a context; and finally, there is neutrality, in the presence of indicators of medium or poor relevance, which as such, have no influence on cross-border cooperation, in the present scenario as outlined by SWOT analysis.

It is finally possible to define SWOT variables, and redraw the previous table, in order to show a possible SWOT scenario outline:

Measure of indicators		Internal	External
+ 2	*Swot variables*	Strengths (S)	Opportunities (O)
+ 1		positive context	positive context
0		"neutral" (non-relevant)	"neutral" (non-relevant)
- 1		Negative context	Negative context
- 2	*Swot variables*	Weaknesses (W)	Threats (T)

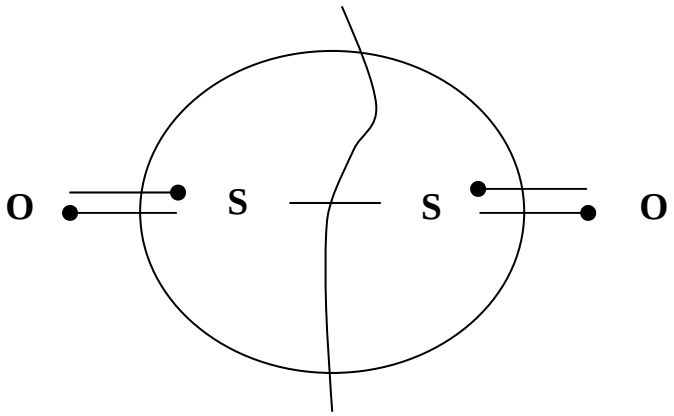
By this complex data processing, SWOT analysis allows to define the conditions of cross-border cooperation in a specific area, and at the same time, it helps to highlight any potential for cooperation, by operating on the given elements so as to emphasise strengths (S) and opportunities (O), while limiting the negative effects of weaknesses (W) and threats (T).

2.1.5. Action strategies

Action strategy needs to be rationalised within the frame of a scenario, outlining the future by which, starting from the present situation, the area can establish effective cross-border cooperation. The chosen strategy, the one considered to be the most appropriate for a specific future target, is the primary tool for action, and the general frame within which decisions are made. On the other hand, when dealing with several realistic options for cross-border cooperation, it becomes necessary to devise differing action strategies. In this research, fives types of strategies are taken into account.

First strategy: Strengthening strategy. This strategy is based on the strengthening of positives, both internal and external to the cross-border area, assuming that by so doing, negatives will be critically abated and bypassed or absorbed by positives.

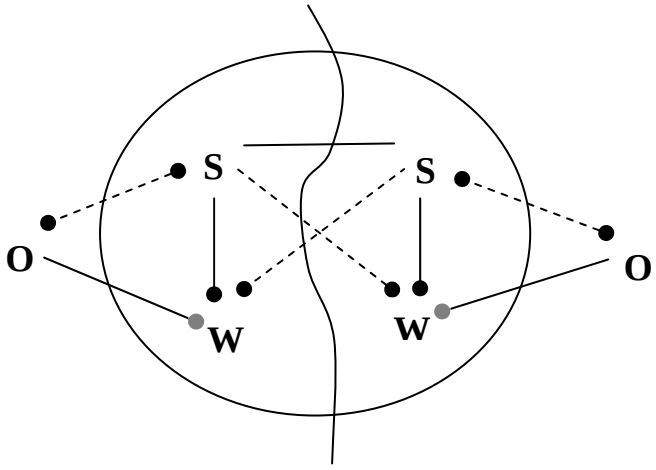
This strategy is expressed in the following diagram:



Such strategy should be applied where it is possible to act on already large, strong, stable strengths (S) and opportunities (O), so as to spur the rest of the system, transforming or mitigating the weight of few and unrelevant weaknesses (W) and threats (T).

Second strategy: Overcoming strategy. This strategy is more cautious and systemic, and less expansionist than the first one. Applying a reverse logic, it acts on positives (strengths and opportunities), in order to decrease if not deactivate internal negatives (weaknesses). The aim of this strategy is to preserve and balance stakeholder participation, preventing major internal fractures.

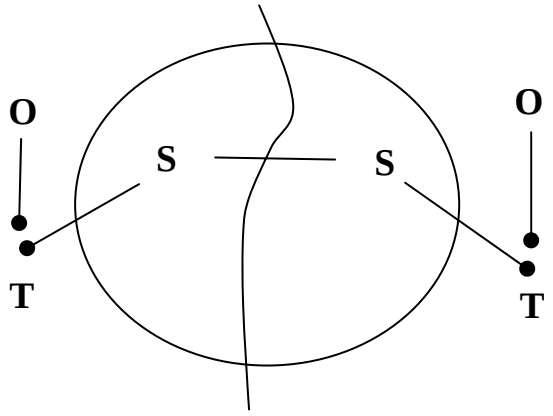
This strategy is expressed in the following diagram:



Besides applying this strategy to a rational development plan backed by political will, it is more generally appropriate where together with evident and substantial obstacles, there are also enough widespread strengths (S) and opportunities (O) to overcome the existing weaknesses (W).

Third strategy: Mobilisation strategy for context control. This strategy emphasises the effect of strengths (S) and opportunities (O) on the negative (T) context, which poses serious challenges to the establishment of a positive system.

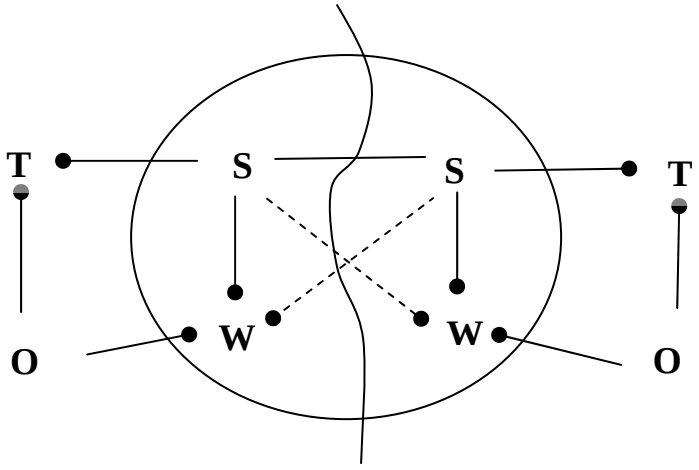
This strategy is expressed in the following diagram:



This strategy is appropriate where external threats (T) are so overcoming or widespread, that it becomes necessary to exploit strengths and opportunities in order to limit the influence of external threats (T).

Fourth strategy (Combining the second and the third strategies): negatives control strategy. This strategy is based on the joint action of strengths and opportunities (O) in decreasing weaknesses (W) and threats (T), therefore abating overall negatives.

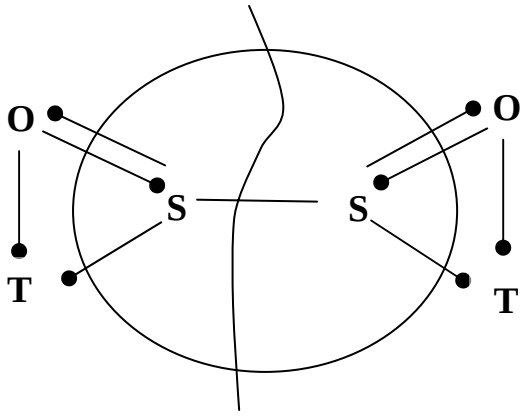
This strategy is expressed in the following diagram:



This strategy is suitable where both weaknesses (W) and threats (T) are strong. In this markedly negative environment, all available resources, limited as they might be, have to be employed to tackle heavy unbalance and counteract negatives.

Fifth strategy (Combining the first and the third strategy): joint internal-external coalition for context control. This strategy consists in employing available strengths (S) and opportunities (O) of sufficient level, in order to face consistent threats (T); this is made possible by the absence of influent weaknesses (W) in the cross-border area.

This strategy is expressed in the following diagram:



This strategy is applied where there are plenty of positive strengths and opportunities (O) (more specifically, if pro-activeness is widespread), and weaknesses (W) refer to non-relevant elements. In this case, strategy focuses on decreasing those threats (T) which might affect the present positives.

3. Overcoming borders in the Adriatic Sea: Present trends and future prospects

The following paragraphs aim to describe the state of the art of cross-border cooperation for each border area in the Adriatic Sea Region and to consider the prospects of cooperation for each area individually, describing in detail the cooperation parameters previously determined with SWOT analysis, in order to outline strategies and measures which are appropriate to the development of positive transboundary collaboration. Area analysis takes into account if the distribution of variables is: SWOT, *halo effect* (positive or negative), *non relevant* for cooperation; in addition, in takes into account SWOT variables positive/negative and internal/external categories, and reports SWOT variables by their denomination.

Such data allows to identify the most effective action strategy for each individual cooperation process.

3.1. Austria-Italy

3.1.1. Geographical definition of the border

The border line between Italy and Austria runs, on a west-east axis, for 430 kilometres along the Alpine barrier starting at the Resia Pass/-Reschenscheideck (1525 m) passing through the Brennero/Brenner, the Vetta d'Italia/Klockerkarkopf (2912 m) to reach the Dreilander Mountain (1508m.a.s.l) where the borders of Austria, Italy and Slovenia meet. Although, within the Schengen area, border crossings have a mere geo-political relevance, there are 8 Alpine road crossing points out of which 3 are also railroad crossing points (the Brennero/Brenner Pass, the Prato crossing point over the Drava/Drau River and the Coccau-Tarvisio crossing point).

3.1.2. Infrastructural characteristics

The economy of the cross-border area and its infrastructural characteristics are strongly influenced by its mountainous morphology which equally characterise the whole region.

Although the situation has radically improved in the past decades, the cross-border area propensity to invest in R&D is still more than one point under the Lisbon Target. The social infrastructure frame-

work of the cross-border area, beside its good supply of school, universities and research centres, finds an important sector in the health care and social affairs/services context. As far as hard infrastructures are concerned, the cross-border area suffers from its morphological settings. There are two main north-south axis: the Brennero/Brenner (Munich – Innsbruck – Brennero/Brennen – Bolzano/Bozen – Verona) and the Tauri/Tauern Pontebbana (Saltsburg – Spittal an der Drau – Villach – Tarvisio – Udine – Venezia/Trieste). Along these axis, both highways and railways are developed and guarantee both cross-border and international transports. The central area is equipped only with small roads and one railroad (Fortezza-Spittal and der Drau). The alpine outlook of the area has limited the number of road and railroad border crossing points to 13, out of which there are only two main highway crossings (Thoerl-Maglern/Coccau on the East and Bennero/Brennen in the centre) and two main railroad crossings (Tarvisio on the East and Brennero in the centre). These crossing points are heavily used since they represent the only access to the region and most of the commercial transports are by road. Finally, the cross-border area is equipped with a number of airports out of which two are international airports.

3.1.3. Cross-border declarations and agreements

The border between Italy and Austria is regulated by a number of international treaties dating back to the late 40s and 50s which established its position and normalised the relations among the two countries. Since 1995, when Austria joined the EU the relations between the two states find an adequate and common framework within the European juridical system. However, several bilateral and multilateral declarations, agreements and institutional partnerships have been developed since the end of WWII striving to define an international relations and legal framework within which to activate cross-border activity. Since 1946, Italy and Austria entered into 132 formal (i.e. officially recorder) diplomatic contacts which led to the signing of a treaty, to an agreement or to a formal exchange of notes; of these 97 are protocols or agreements (18 are European multilateral agreements). Finally, Italy and Austria entered 42 bilateral agreements with a clear cross-border orientation: 15 focused on the customs relations among the two states and the collaboration among the two national police agencies; 9 aimed at regulating the legal and in-

frastructural framework for cross-border traffic and transportation (especially in the railroad sector); 4 focused on the mobility of the people inhabiting the cross-border area; 3 focused directly on facilitating cross-border co-operation in general and a cross-border ambulance service in particular; 2 regulated the status of national minorities; 2 regulated the definition of the border line and its maintenance; 1 regulated co-operation in the tourism sector; and 1 was concerned with energy issues and the preservation of the environment.

The 1946 Paris peace treaty established a land-mark for cross-border declarations and agreements between Italy and Austria, however some issues were left unresolved. Notably, the issue of the German-speaking minority in Alto Adige/Süd Tirol was regulated with the so-called De Gasperi – Gruber agreement (5th of September 1949). However, Austria claimed that Italy did not implement that agreement in the fields of minority cultural, economic and ethnic promotion and protection so to call for a UN resolution in 1960 (UN resolution 1497) and one in 1961 (UN resolution 1661).The promotion and protection of the German-speaking minority in Italy is transferred to the regional and provincial authorities who have entered all sorts of agreements to enhance the promotion and protection of the German-speaking minority and have enacted several projects and initiatives in such direction. An interesting example is the Decree of the President of the Trentino Alto Adige Region 17/03/2005 on the protection and promotion of linguistic minorities.

Since the establishment of the Working Community of Countries and Regions of the Eastern Alpine Area – Alpe Adria (in Venice on the 20 November 1978), Italy and Austria are involved in a number of important international partnership which have led to the signing of numerous cross-border agreements and declarations. The founding principle of Alpe Adria was to alleviate the tension between the then-separated Western and Eastern Europe through international co-operation at the regional level. At that time, the Alpe Adria working community represented a first bridge between the two cold-war political systems; at present, given the dramatic changes intervened in the geo-political context, the working community is undergoing an important political and institutional process (which led three regional partners to redraw from it in 2005 Bavaria, Canton Ticino and Alto Adige/-Süd Tirol) in order to re-define its scopes and roles.

Both Italy and Austria are members of the Central European Initiative (CEI) established in Budapest on the 11th of November 1989. The CEI is a regional organisation which brings together Central European States (17 members) in order to promote the development of its members through economic and social co-operation and the EU enlargement process.

Furthermore, both countries are involved in a number of trans-regional associations involving some of their regions in larger co-operation networks. Such initiatives take place today within Framework Agreement between Italy and Austria on the cross-border co-operation activities of local communities and local authorities signed on the 27th of January 1993.

One example is the Working Community of the Alpine Region established in 1972 (12th of October) among the Bavaria State, the Cantone dei Grigioni/Kanton Graubuenden, the Saltsburg and Tirol states, the Lombardia Region and the Bolzano/Bozen province and, later, the Trento/Trient autonomous province (1973, the Cantone San Gallo/Kanton St.Gallen (1982), Canton Ticino (1986) and the Baden-Wuerttemberg (1989) state with the aim of dealing with common problems in the fields of the environment, culture, socio-economic development and mutual knowledge through a cross-border co-operation approach. Another example, is the Euregio Tirol-AltoAdige/SudTirol – Trentino. Created from a process started on the 21st of May with the first meeting of the regional administrations involved, the Euregio was established as a common space aiming at the socio-economic development of the area and the promotion of joint initiatives notably in the sectors of transports, research and development, tourism, social affairs, mutual knowledge and environmental protection. The Euregio extends on 26,254 km2 with more than 1,5 million inhabitants.

Finally, another interesting euroregional project is gaining momentum in the Eastern part of the cross-border area. In this direction, a most important agreement on the strategy towards the establishment of a Euroregion was signed by the Presidents of the Regions interested by the project (Veneto, Carinthia, Istrian County, Primorsko Goranska County) and by the Ministry of Regional Policy of Slovenia on the 17th of October 2005. The Euradria Euroregion extends itself on 128,994 km2 with approximately 14 millions inhabitants. Such Euroregional project is capitalising on a number of

protocols and agreements signed by the regional governments involved. One example is the Collaboration Protocol among the Autonomous Region Friuli Venezia Giulia and the Carinthia Land signed in Trieste on the 14 December 2001, directly aiming at enhancing the collaboration among the partners with a particular focus on the institutionalisation of such contacts. A more recent example is testified by the documents elaborated on the occasion of the meeting among the Friuli Venezia Giulia Region, Carinthia and the Istria Region on the 2nd of August 2005 when new strategies for cross-border co-operation were adopted notably in the field of cross-border infrastructures and mutual representation in Bruxelles.

3.1.4. Propensity towards cross-border co-operation

Three levels of interpretation should be considered when analysing the propensity towards cross-border co-operation (CBC): the civil society level, the economic actors level and the institutional level. These levels also represent the phases of CBC which starts from the co-operation among people and private actors in different spheres of the daily life; it develops in the participation of local authorities to enact cross-border networks for local entrepreneurs and to turn local border-generated peripheries into context-related centres; and, finally, it stems into the cooperation among regional or national institutions enacting larger institutional networks concerned with the macro-economic (infrastructural) and social aspects of the cross-border area. However, as far as the Italian – Austrian cross-border area is concerned, the morphology of the territory and the consequently limited cross-border infrastructural network should be held as a factor hindering the propensity to co-operate at least at the first two levels.

3.1.5. Elements of SWOT analysis

Strengths: The membership of both Italy and Austria in the European Union guarantees full access of both countries to the EU political, economic and financial activities and programmes. Moreover, both Italy and Austria are member states from at least ten years which has enabled the two countries to establish a stable and consolidated framework for international relations also within the enlarged European context. The socio-economic performance of the regions constituting the cross-border area (and more frequently so on the

Italian side) is overall better than the national averages and often above the average European levels (both EU 15 and 25). From a demographic perspective, the population is slowly but steadily increasing and, although in an heterogeneous fashion across the territory, it attracts young foreign workers with trends that seem to ensure a well balanced economic-welfare system. Looking at the labour market level and at the cross-border area economic system, the territory appears heterogeneous, but has overall low unemployment rates (also female unemployment) – lower than the national contexts – and a slowly increasing GDP with a very advanced tertiary sector. However the most promising economic sectors appears to be the tourism sector since there is an increasing tourists flow in the whole region thanks to the existing infrastructures, the cross-border experiences in terms of promotion and the increasing incidence and presence of agro-tourism initiatives. There is a know-how in the area (and especially so in some Italian regions and Carinthia) for local industrial development activated through SMEs productive clusters. The alpine outlook of the area provides hydrological renewable energy and the existing infrastructures for its production and use appear to be adequate. The social infrastructures (e.g. public and private health care) of the area are adequate and able to support further development of the private sector and could represent a new industry for the development of the tertiary sector. There are numerous universities, training and research centres in the cross-border area which do activate cooperative activities both at the level of youth training and innovation and research. Although, not at the levels auspicated by the Lisbon targets, the cross-border area displays positive rates of GDP expenditure on R&D. Moreover, especially on the Austrian side there are sustained investment in R&D from the private sector. Finally, at the institutional level, there is an adequate know-how of the institutions of the cross-border area in cross-border co-operation. Although several problems hindered the full potential of joint programming within the communitarian programme initiatives, several studies and researches have been carried out to highlight past weaknesses and new strategies have been adopted to participate more successfully to the 2007-2013 programming period.

Weaknesses: The geographic and morphological outlook of the area has historically imposed some limits to the contacts and relations

among the populations inhabiting the larger cross-border area whilst reinforcing the relations among linguistic groups inhabiting strictly contiguous areas. The role of the German-speaking linguistic minority carries a great potential in favouring cross-border relations; however, although much progress has been done in the past decade, the overall contribution to cross-border co-operation for the whole region coming from the minority is still limited. One explanatory factor is that the German-speaking minority represents in certain Italian area the majority of the population. Due to the alpine settings of the area, there are only a few crossing points which are able to sustain modern traffic patterns. Therefore the existing cross-border highways and railways are often over-crowded and consequently polluted – border infrastructures as a whole could be further improved. At a demographic level, the cross-border area has an ageing population and immigration does not involve the whole area homogeneously. A cross-border labour market is almost non-existent and although the overall economic indicators for the area are positive, a significant heterogeneity has to be noted with certain areas performing much below the regional averages. The enterprises fabric of the area is in need of further developed. The territorial concentration of enterprises is very low, there are only a few medium firms whilst the majority are micro-firms. The overall limited economy of scale of the regional economic activities hinders the potential for cross-border co-operation. Although the area is well equipped in terms of education infrastructures, the index of scholarization is relatively low. There still exist consistent language barrier hindering both cross-border work and social relations. Although institutional cross-border relations exist from at least 3 decades, the relations among institutions appear not yet completely efficient especially when considering the rate of projects and initiatives on the European programmes. This is in part due to the differences in competencies among the institutions of the border areas, differences which are both inter-national and, as it is in the Italian case, intra-national.

Opportunities: The integration of the cross-border area is promoted and developed through the European harmonisation process which opens up for further pragmatic co-operation in the field of welfare services. The German-speaking ethnic minority represents an important asset to promote cultural and economic integration especially in the tourism (and agro-tourism) sector. The development of the Euro-

pean North-South and West-East multimodal communication corridors represents an important opportunity for the area which could attract new tourism flows. Demographic, economic and social trends are moving towards an homogenisation of the relative indicators of the area. Further development of productive clusters among the SMEs operating in the region are the research and development centres located on both side of the borders. Further projects could identify the productive specificity of the area and the cross-border area within the external productive and trade networks. Another opportunity is for a harmonisation of the education (and promotion of bilingual curricula) and health systems. Increased institutional (horizontal and vertical) communication and internal harmonisation or enhanced networking among trans-regional institutions is needed.

Threats: Sustained positive economic trends of neighbouring regions might push for risky delocalisation policies of local entrepreneurs, thus deteriorating the employment rates and widening existing wage differentials. The economic development of the Eastern and South Eastern neighbouring regions may endanger the competitive geo-economic positioning of the cross-border area. Sustained immigration might endanger the sustainability of the local labour market and of the agencies providing welfare services. The missed-development of the secondary and primary sector in a integrated system opening up to global markets may provoke significant migration trends toward the national central regions. Such trends would have a negative effects on the protection and conservation of the alpine territory. The EU harmonisation process accentuates the competition among potential users of services such as child-care or housing since nationality does not represent a discriminating factor. In the vacuum of stable and consistent private funding, the progressive reduction of EU funding may exacerbate the competition among R&D and training (notably universities) centres. The cross-border results so far achieved by means of institutional relations may appear insufficient to the citizens inhabiting the cross-border, especially in the wake of Euro-scepticism.

3.1.6. Future prospects

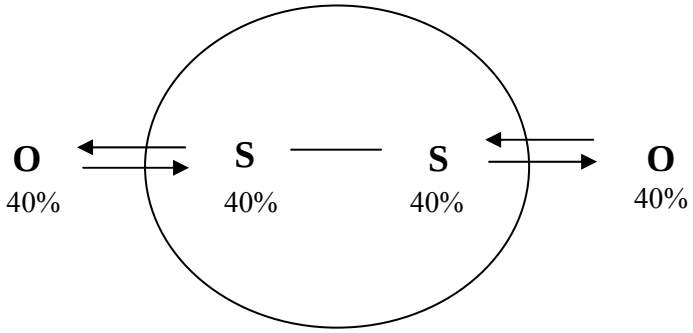
The 53 indicators of cross-border analysis listed by type:

			n.	%
- SWOT variables indicators			25	47.2
- Halo effect indicators	positive	16		
	negative	9	25	47.2
- non-relevant indicators			3	5.6
			53	100.0

SWOT variables then are configured as follows:

	Internal to the area (SW)	External to the area (OT)	Total	%
Positive (SO)	10	10	20	80.0
Negative (WT)	2	3	5	20.0
Total	12	13	25	
%	48.0	52.0		100.0

Available data on the Italian-Austrian cross-border area shows how most of the variables are related to strengths and opportunities (80% of variables), while the rest refer to negative aspects. Another relevant feature is the halo effect, or else those non-SWOT indicators which play relevant and positive roles in the cross-border area. This scenario requires the enhancement and stabilisation of positive SWOT scores (the afore mentioned 80%), and the strengthening of the positive halo effect. By improving and consolidating positives, negatives are going to be mitigated, especially in what concerns economy [both in permanent obstacles – indicators 26 and 30 -, and cross-border economy integration factors (indicators 45 and 46)]. The use of stabilisation and strengthening policies in order to decrease negative levels implies the use of the first strategy (strengthening strategy).



Strategic action can be summarised as follows:

(1) promote the creation of specialised economic operators on either side of the border, especially for transports and telecommunications, tourism and education. Operators can be sector bodies or cross-border sector federations;

(2) public support policies for cross-border sectors, so that solid financial and logistic opportunities may decrease unbalances within specific sectors;

(3) creation of professional training courses to enhance industry and commerce cooperation, as well as to shrink technology gaps (indicator no. 25) and to counteract local weak response (30) to cooperation opportunities.

(4) pressing on governments to improve cross-border areas, especially road and railway connections.

This cross-border area does not need the intervention of the radical measures which characterise the Cross-border Euroregion or the Functional Network Euroregion. As the area boasts very positive scores, it may suffice to promote local agreements between local authorities on either side of the border. However, this area might benefit from being inserted within the frame of the Macro Infrastructures Euroregion, which could finance roadways enhancement, like the local flight connections between Trieste and Klagenfurt, and railways enhancement.

3.2. Austria-Slovenia

3.2.1. Geographical definition of the border

The border between Austria and Slovenia runs first on a partly straight and, then, on a slightly north bound line from west to east. The border starts at the "Dreiländereck" in the west, where the borders of Italy, Austria and Slovenia meet, follows the Karawanken mountain range (altitude around 2000 m) in the southern Austrian province of Carinthia (Kärnten) and gradually cuts into the rolling hills of the province of Styria (Steiermark), for some time follows the river Mur and finally meets the Austrian-Hungarian border near Tauka (district: Jennersdorf) in the province of Burgenland. Austria's border shared with Slovenia stretches 170 km in the province of Carinthia, 145 km in Styria and 15 km in the province of Burgenland, in total 330 km (Source: Bundesamt für Eich- und Vermessungswesen, Vienna). The border between Austria and Slovenia provides 37 border crossings, out of which three are railway crossings.

3.2.2. Infrastructural characteristics

A total of thirteen international border crossings and additional sixteen local crossings can be found along the Slovenian-Austrian border. These are supplemented by three international railway connections. Three small Alpine border crossings and a large toll tunnel make up the Carinthian door to Slovenia. Styria's international border traffic is relatively better developed through a range of small yet well-equipped crossings. Infrastructure in Southern Austria is generally well developed. Both, Carinthia and Styria are crossed by international auto and railway routs. Both provincial centres, Klagenfurt and Graz, have international airports which are part of networks of low cost and national airlines. As far as ground traffic is concerned, the strategic crossing point in Carinthia is the city of Villach, where the motorway A10 from Salzburg/Munich/Linz to Ljubljana/Zagreb/Belgrade crosses with the motorway A2 from Vienna/Prague/ Budapest/ Warsaw to Trieste/Venice/Rome/Madrid. In Styria it is the city of Graz where the motorway A9 from Nuremberg/Linz/Prague to Maribor/Zagreb/Ljubljana/Koper/Triest cross with motorway A2 from Vienna to Klagenfurt/Trieste/Rome. A motorway (S7) connecting the A2 near Graz to

western Hungary is currently in the planning stage. Three international railway lines cross Southern Austria: a) The "Tauernbahn" from Salzburg via Villach to Ljubljana/Zagreb/Koper/Triest, b) the "Südbahn" from Vienna via Klagenfurt/Villach to Trieste/Venice/Rome and c) the "Pyhrnbahn" from Nuremberg/Prague/Linz via Graz to Maribor/Ljubljan/Zagreb/Koper. Currently a new railway from Graz to Klagenfurt is under construction. This new route will considerably improve the "Südbahn" as a connection between north eastern to south western Europe. Besides this high level mobility network the region has excellent roads also on the local level.

3.2.3. Cross-border declarations and agreements

The border between Austria and Slovenia is regulated in a number of international treaties and agreements going back to the time of the Federal Republic of Yugoslavia and also to the era when Austria had not yet regained full sovereignty after WWII. For example, the agreement about the use of the waters from river Mur in Styria (signed on 16.12.1954). Yugoslavia became also a member of the Austrian State Treaty in 1955 which regulates the status of the Slovene minorities in Carinthia and Styria (Art. 7). After the creation of independent Slovenia Austria disputed the right of Slovenia to step into this Treaty as one of the "successor states of Yugoslavia". Until the eighties Yugoslavia signed all kinds of agreements with its northern neighbour Austria. These agreements concerned the course of the border, its policing, the custom regime and cross-border cooperation. The most important documents concerning the common border are probably the treaties from 1965 and 1975. These treaties now also regulate the border between Austria and Slovenia. In 1995 a general agreement on cross-border cooperation under INTERREG and Phare was signed between Austria and Slovenia. Besides that, a great number of bilateral agreements between Slovenia and Austria concern border questions like return of illegal immigrants, common border regime, documents and visa, cross-border Alpine tourism, local border crossings, cross-border EU projects and after Slovenia joined the European Union the establishing of common border check points.

It should be mentioned that in 1999 the National Assembly of the Republic of Slovenia adopted a declaration on basic principles of Slovenia's foreign policy. In this declaration the National assembly

emphasises the obligation of Austria towards the Slovene minorities in Styria and Carinthia and it declares itself as successor of Yugoslavia in the Austrian State Treaty from 1955. The latter Austria has rejected. In the same declaration the Slovene National Assembly also promises support of regional cross-border initiatives including trilateral initiatives. In 2003 Austria and Slovenia together with ten other states from Central and South Eastern Europe signed a joint declaration to fight "illegal migration and related crimes" (The Brdo Initiative). Significant in this context are also the regular meetings of interior ministers from seven central European countries, including Austria and Slovenia, known as "Forum Salzburg". The results of these meetings are usually put down in a declaration with border relevance. In 2005 it was cross-border police cooperation and "Schengen" for the new EU member states.

3.2.4. Propensity towards cross-border co-operation

Although the ethnic relations in Southern Austria are sometimes antagonistic this does not seem to have a negative impact on cross-border cooperation. Not even in the province of Carinthia where the ethnic antagonism between (parts of) the German speaking majority and the Slovene minority historically is the strongest. Whereas the federal government is usually pro cross-border cooperation anyway. Particular since the independence of Slovenia a relaxed situation can be observed. However, already in the late Yugoslavia the cross-border relations were good, although this could not be felt so much in the ethnic relations. The ethnic conflict in Southern Austria was to some extent an integral element of the Cold War policy between the communist and the capitalist system. With the implosion of the Soviet Block and the disintegration of Yugoslavia the ethnic conflict immediately fell to a much lower level of intensity than before. Austria was a strong supporter of the independence of Slovenia and Croatia. However, already in the time of Yugoslavia the ethnic situation had barely any negative impact on business relations or common infrastructure projects. Obstacles for cooperation were usually connected with the different political and economic systems. On the other side the "neutral" status of Austria on the one and the "non-aligned" character of Yugoslavia on the other side also produced a favourable communality.

On the individual level and from the perspective of collective consciousness the situation is more ambiguous. This ambiguity derives from historical processes and particular from experiences in the course and aftermath of the Second World War. Particularly in Carinthia this ambiguity becomes visible in all kinds of monuments which either remind on the "crimes of Yugoslavia partisans" at the end of WWII or in contrary celebrate the "partisans" as freedom fighters contributing to Austria's liberation. There is also the memory of expropriation of property and expulsion, lingering on in certain pockets of the population. Another dimension are mutual semantic claims indicating a tacit strive for domination. A recent example is the suggestion of the Slovene national bank to use symbols for its future Euro coins which Austrians usually consider as "theirs". One of these symbols are the famous Lipizzaner horses from the Viennese Imperial Riding School and the other the "Fürstenstein" (a fractured Roman column from the 7th century) from Carinthia. Particularly the suggestion to use the "Fürstenstein" on a Slovene Euro coin has upset parts of the Carinthian public which interprets it as another endeavour to "revise the border". On the other side some Austrians consider Slovenia simply as a "home market" or even as a tenth province in the tradition of the former "Crown Lands" and thus tacitly questioning its independence.

3.2.5. Elements of SWOT analysis

Strength: The border region between Austria and Slovenia is characterised by a century long common history in which it was not political divided . In comparison to this history the age of the border is very young. This can be the foundation of shared memories and mutual dependence. Besides, the ethnic overlapping has high potentials for cross-border cooperation. Slovenia and Austria are both members of the European Union with full access to the Union's financial and political arrangements. The population in the border areas is characterized by a high level occupational training, skills and education. Educational institutions on all levels are available in short distance. Infrastructure, particularly on the Austrian side, is in many ways excellent. The border area is participating in high level networks of Transeuropean communication. Transformation to a knowledge based economy is successfully under way. High-tech facilities are well flourishing. The still significant wage difference between

Austria and Slovenia opens excellent business opportunities. Partly different mentalities of the population on both side of the border could complement each other in an advantageous way: Whereas the Slovenian population is embracing Western models of progress in an unambiguous way, the Austrians, although visibly more prosperous, have a inclination to view "innovations" from abroad critical and implement them with hesitation, if at all. Another asset is the interesting and attractive natural as well as cultural landscape.

Weaknesses: History of the region is not only a foundation of strength for cross-border cooperation but produces also barriers. This is particularly true in the area of culture and communal cooperation. In part of the population mistrust towards the neighbour from across border is strong and rivalry can be felt. This is mainly fed by a collective memory of historical atrocities and the fear of getting dominated. The region is a latecomer with respect to economic and social development. It does not belong to the established prosperity belts for which the foundation was laid already in the late Middle Ages. Part of the region has a difficult Alpine topography which makes infrastructure investments expensive and economic activities in general difficult. The relatively great distance to the main European economic and political centres also counts. From certain angels the stagnating or even declining population can also be seen as a weakness.

Opportunities: The membership of both countries in the EU creates excellent opportunities for advanced cross-border cooperation. With the expected membership of Slovenia in "Schengen" and the adoption of the Euro the border might become almost invisible. This can provide new opportunities for cooperation. The recent discussions about a EU Future Region Southeastern Europe or a Euregio "Alpe-Adria" point in that direction. The already existing intellectual assets (universities, research institutions etc.) and high tech clusters (automotive, electronic, informatic, etc.) in combination with high social stability in both countries and a strong ecological orientation (strive for "sustainability") in Austria can produce opportunities for the emergence of a unique society in this part of Europe. The easier cross-border pooling of resources under the new circumstances provides the opportunity for a recombination of the factors of production and a better economy of scale. The emergence of new entrepreneural undertakings in kind and scale can be expected. In general,

the region will become more attractive not only for domestic but also for global actors.

Risks and threats: The intensified economic activities as a consequence of a practical removal of the border can develop into a risk for environment and social stability. Already now traffic in the region is exploding and adding to the health hazards of the population. The question is also how much "foreign" impact in the economy particular but also in other spheres of life a society can handle. For example, how much "sell out" of real estate will the Slovenes accept? New ethnic conflicts based on property rivalries are not unlikely in the region. One should not forget that EU integration enables again an ethnic mix which was so long typical for the region but at the end leading to very destructive consequences. However, the feared influx of cheap Slovene labour into Graz or Klagenfurt is less likely to create disturbances, because due to the relatively small size of the Slovene labour force and the excellent opportunities in the Slovene economy not much influx is expected. The increasing global attractiveness of the region is also not without risks. Already now, the international traffic lines in the region attract criminals and illegal migrants alike. Particularly property crimes by foreigners have skyrocketed since the arrival of the EU. An indicator for this is the discussion about building new prisons (instead of schools), something completely absent until the arrival of EU, "Schengen" and the dismantling of the Iron Curtain. The temptation to counter the negative demographic trend with immigration from distant and alien culture could produce additional risks of social instability and conflict. It can also not be completely excluded that the European integration process will be reversed. This would have severe consequences for all cross-border undertakings hitherto established.

3.2.6. Future prospects

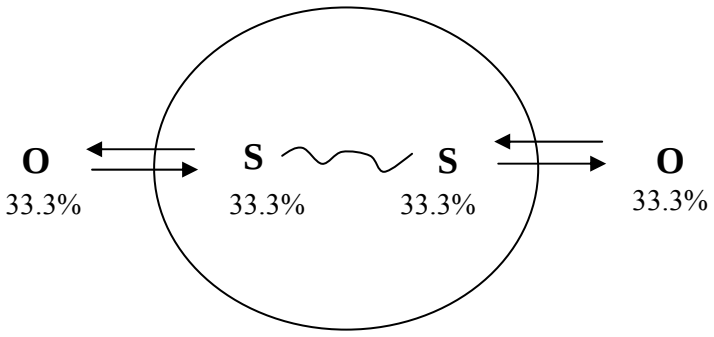
The 53 indicators of cross-border analysis listed by type:

			n	%
- SWOT variables indicators			20	37.7
- Halo effect indicators	positive	15		
	negative	11	26	49.1
- non-relevant indicators			7	13.2
			53	100.0

SWOT variables then are configured as follows:

	Internal to the area (SW)	External to the area (OT)	Total	%
Positive (SO)	8	7	15	75.0
Negative (WT)	-	5	5	25.0
Total	8	12	20	
%	40.0	60.0	100.0	

The Austria-Slovenia SWOT analysis situation is rather complex. There are many positives (75 against 25%); nevertheless, these SWOT variables are few, as over one half of the indicators consists in a halo effect of those same variables. Such halo effect features both positive and negative indicators, contributing to the general complexity of a scenario where within the same ten dimensions there are opposite sign indicators. Finally, negative SWOT variables are related to external threats rather than to internal weaknesses. In this situation action should focus on stabilizing positives while carefully managing the general context. The appropriate strategy for these tasks is the third one.



Strategic action can be summarised in the following points:

(1) promote the creation of specialised economic operators on either side of the border, especially for communication and transports, tourism, education and culture. Operators can be sector bodies or cross-border sector federations;

(2) training courses for administration staff, in order to encourage both centre-outskirts and cross-border cooperation;

(3) Promote action in unbalanced sectors in the two border areas, especially economic development, technology gap, labour market protection, tax system, weak response to collaboration opportunities;

(4) encourage local élites to press central governments to obtain more institutional and legal autonomy;

(5) promote activities for the growth of mutual knowledge;

(6) creation of a training system for enterprises and institutions for the proper management of EU programmes;

(7) pressing on central governments to include the cross-border area in a funding system in order to improve transports and road and railways.

The Cross-border Euroregion, and even more the Macro Infrastructures Euroregion are the adequate models to achieve these goals, so as to insert this cross-border area in a wider context regardless of strong governmental restrictions.

3.3. Italy-Slovenia

3.3.1. Geographical definition of the border

The border between Italy and Slovenia runs on a north-south axis for about 232 km. Starting at the Dreilander Mountain (1508m.a.s.l) where the borders of Austria, Italy and Slovenia meet and then, leaving eastwards the Italian city of Tarvisio, the Italian-Slovenian border climbs up to the Mangart Mountain (2677m.a.s.l.) to follow gradually the Isonzo/Soča (transborder) river valley up to the twin town of Gorizia/Nova Gorica. The border, then, runs along the Carso/Karst hills to end in the Adriatic Sea some 20 km south of Trieste at the Italian municipality of Muggia/Milje. The maritime border between Italy and Slovenia lies in the Upper Adriatic in the gulf which includes Trieste and Koper/Capodistria (and Venice). The territorial orography, beside five alpine border crossings , allows for several road crossing-

points out of which 14 are I category, 20 II category, 2 are pedestrian crossing-points and 19 are agricultural crossing-points. Moreover, there are two railway crossing-points in Gorizia and in Trieste and one international airport (Gorizia).

3.3.2. Infrastructural characteristics

The cross-border area is equipped with 63 border crossings . In 2003, more than 49 million people have crossed the border; in 2000, more than 10 million tons of goods crossed over road borders and 3 million ton crossed over railway borders .

The regional road system appears, on an aggregate level, sufficiently developed by national standards but is heterogeneously distributed on the territory disproportionately favouring some areas over others. Moreover, its cross-border dimension is still relatively underdeveloped with only a few tentative experiences of cross-border public transportation (as it is the case between Gorizia and Nova Gorica).

The railway system is well developed but fails to be competitive if compared to the road system in terms of speed, reliance and costs. The Italian and Slovene systems need to be logistically connected so to allow for a new corridor towards Eastern-European countries such Romania, Bulgaria and Ukrain.

The ports of Trieste and Koper/Capodistria represent an important asset of the cross-border economic infrastructures system along with the port of Monfalcone (and Nogaro located in the neighbouring Veneto Region).

The Friuli Venezia Giulia international airport represent another important asset for the cross-border area. Its development in recent years in terms of traffic of passengers and goods and in terms of new destinations is an important achievement for the regional infrastructural system.

Overall, the regional infrastructural dotation needs further development both at a structural and management level. The implementation of joint logistic strategies is much needed especially as a condition for an optimal use of the Transeuropean Corridor 5 Lion-Turin-Trieste-Ljubljana-Kiev, exploiting the infrastructures which are already, to some extent, in place but which need further development such as the Cervignano multimodal platform. At present, the two main high-ways connecting the two countries are: Venice-Gorizia-Ljubljana

and Trieste-(Koper/Capodistria)Ljubljana-Zagreb-Dubrovnik; as far as railways are concerned there are two main lines: Venice-Trieste-Ljubljana/Rijeka and Venice-Udine-Gorizia-Ljubljana.

In the past decade several initiatives in terms of development of cross-border infrastructures were launched such as the 1999 pre-feasibility study for the improvement of the railway Trieste-Venezia-Ljubljana by opening a Ronchi Sud – Trieste railway line. This new (high-capacity) line represents an important infrastructure especially when the Slovenian plans for the improvement of the Divača hub is considered. In fact these new infrastructures would constitute an ideal railroad triangle joining together the two ports of Trieste and Koper/Capodistria.

3.3.3. Cross-border declarations and agreements

Not only the border between Italy and Slovenia is regulated by several international treaties dating back to the late 40s and 50s, but there is also a vast number of declarations, agreements and institutional partnerships which have, since then, strived to define an international relations and legal framework within which to activate cross-border activities.

According to the succession rights and obligation principles adopted in 1999 by the Declaration on Basic principles of Slovenia foreign policy, Slovenia stepped in a vast majority of the agreements and treaties signed between Italy and Yugoslavia in its quality of "successor state". In any case until 1991, Italy and Yugoslavia entered into 159 formal (i.e. officially recorded) diplomatic contacts which led to the signing of a treaty, to an agreement or to a formal exchange of notes out of which 98 were protocols or agreements. Finally, Italy and Yugoslavia entered 31 protocols or agreements with a clear cross-border orientation: 5 focused on issues linked to the properties left by Italian in Yugoslavia as a consequence of WWII; 3 regulated the definition of the border line; 8 focused on the cross-border mobility of Italian and Yugoslavian citizens inhabiting the respective border areas; 4 were directly concerned with facilitating cross-border transports; 4 were directed to regulate the (cross-border) water supply of Gorizia; 3 aimed at solving issues linked to fishing in the Upper Adriatic Sea; 2 were concerned with issues of

cross-border cultural relations; 2 regulated the status of national minorities; 2 regulated the cross-border economic relations; 1 was concerned with cross-border environmental protection, 1 with tourism and 1 with customs co-operation.

Since 1991, Italy and Slovenia had 29 formal diplomatic contacts out of which 16 led to protocols or agreements of which 5 were directly concerned with cross-border issues: 3 were aiming at facilitating the co-operation among Italian and Slovene police and customs departments, 1 was directed to the co-operation and the joint management of the common Upper Adriatic Sea area and 1 further defined issues linked to cross-border transports.

Most notably, the treaty signed by the Italian and Yugoslavian foreign ministries in Osimo on the 10th of November 1975 not only established that part of the boundary between the two countries which had not been determined by the Peace Treaty in Paris, but it also represented the main international and juridical framework within which Italy and Slovenia could operate and co-operate. It regulated various matters from territorial aspects to issues linked to national minorities and economic co-operation, the institution of free-trade areas and cross-border mobility, transfrontier work and the preservation of the environment. Together with the Udine agreement (1955, 1962 and 1982) – and to some extent the agreements established under the Interreg Community Initiative Program, the Osimo Treaty (and the declaration of succession of Slovenia signed on the 31st July 1992). represents a land-mark for cross-border declarations and agreements between Italy and Slovenia.

Since the establishment of the Working Community of Countries and Regions of the Eastern Alpine Area – Alpe Adria (in Venice on the 20 November 1978), Italy and Yugoslavia (and now Slovenia) are involved in a number of important international partnership which have led to the signing of numerous cross-border agreements and declarations. The founding principle of Alpe Adria was to alleviate the tension between the then-separated Western and Eastern Europe through international co-operation at the regional level. At that time, the Alpe Adria working community represented a first bridge between the two cold-war political systems; at present, given the dramatic changes intervened in the geo-political context, the working community is undergoing an important political and institu-

tional process (which led some regional partners to redraw from it in 2005) in order to re-define its scopes and roles.

Both Italy and Slovenia are members of the Central European Initiative (CEI) established in Budapest on the 11th of November 1989. The CEI is a regional organisation which brings together Central European States (17 members) in order to promote the development of its members through economic and social co-operation and the EU enlargement process.

Furthermore, both countries are involved together with Hungary in the Trilateral (Quadrilateral since 2000 with Croatia) Initiative launched in Slovenia in 1996 which represents a specific co-operation project between this countries on issues of internal affairs, defence, culture, environment, regional development, labour and employment.

Another important example of cross-border declarations and agreements between Italy and Slovenia is represented by the Adriatic-Ionian Initiative (established in Ancona in May 2000). Both countries together with the other 6 countries of the area signed an agreement to foster the economic development and co-operation, the stability and the security in the Adriatic and Ionian seas area.

Finally, a most important agreement on the strategy towards the establishment of a Euroregion was signed by the Presidents of the Regions which will be interested by the project (Veneto, Carinthia, Istrian County, Primorsko Goranska County) and by the Ministry of Regional Policy of Slovenia on the 17th of October 2005. The Euradria Euroregion extends itself on 128,994 kmq with approximately 14 millions inhabitants. One example is the Collaboration Protocol among the Autonomous Region Friuli Venezia Giulia and the Carinthia Land signed in Trieste on the 14.12.2001 directly aiming at enhancing the collaboration among the partners with a particular focus on the institutionalisation of such contacts.

3.3.4. Propensity towards cross-border co-operation

Three levels of interpretation should be considered when analysing the propensity towards cross-border co-operation (CBC): the civil society level, the economic actors level and the institutional level. These levels also represent the phases of CBC which starts from the co-operation among people and private actors in different

spheres of the daily life; it develops in the participation of local authorities to enact cross-border networks for local entrepreneurs and to turn local border-generated peripheries into context-related centres; and, finally, it stems into the cooperation among regional or national institutions enacting larger institutional networks concerned with the macro-economic (infrastructural) and social aspects of the cross-border area.

Although ethnic relations in the (strictly speaking) border areas are at times antagonistic, observers seem to agree that cross-border relations (if not co-operation) were already in place since 1948 at the familiar and friendship level and steadily increased with time enhanced by the treaties and agreements on cross-border mobility and trade put into place. The ethnic frictions, however stronger in the past, are mostly due to the tragic memories of the events which took place during the course and in the aftermath of WWII which still permeates, to different extents, the collective consciousness especially in Gorizia, Trieste and in the Carso/Karst area. By and large, the population inhabiting the border area entertains daily contact with their counterparts on the other side of the border. Whereas before the disintegration of Yugoslavia, contacts between Italians and Slovenian were mostly due to the regular shopping of Italians in Yugoslavia for cheaper goods and services, in recent years border-crossing for shopping, trading and cultural activities appears to be more balanced. It would be possible to argue that the Slovenian modernisation process, both in political and economic terms, is a prime actor in promoting the propensity towards CBC since it produces a more equal approach to the (cross-border) other.

As far as the economic actors are concerned, the rule of profitability of return on investment appears to be stronger than any CBC logic. Namely, although some projects and investments were launched to promote cross-border economic initiatives and entrepreneurship their success is disproportionably hindered or promoted by the economic profitability stemming from them. Moreover, although Italy has always been a most important commercial partner of Slovenia with a number of Italian enterprises investing in Slovenia, only few entrepreneurs from the cross-border area are involved in economic activities on the other side of the border. This seems to be mainly due to the scale, management structure and economic vocation of cross-

border business. Finally, at the civil society level there appears to be a high propensity to co-operate at the level of individuals, organisations and economic actors, however, it should be noted that the level of propensity towards CBC are proportionally linked to the cross-border services and opportunities set in place by local agencies.

The geo-economic position of the Italian border regions *vis à vis* the Slovenian modernisation process, considering the European enlargement, implied the opening and collaboration of these regions towards and with Slovenia. The CBC efforts of the Italian regions with Slovenia, moreover, were fostered by the Community technical and financial support notably through the Interreg and Phare CBC programs. Since 1991 the propensity to co-operate among these institutional subjects has been steadily growing affirming itself at present as a key element of their socio-economic development policies. The Friuli Venezia Giulia region has made of CBC one of its institutional strengths initiating a wide variety of CBC project with Slovenia so to become a source for best practices at the European level. If one would take the number of projects implemented among these actors or the number of the meetings they have entertained over the past few years on different CBC-related issues as a proxy for their propensity towards co-operation, it could be easily stated that the Italian-Slovene border area is, at the institutional level, most keen towards CBC. However, if one looks at cross-border co-operation, at the institutional level, as an altogether different and integrated approach to the socio-economic development of a cross-border area, then the propensity towards CBC of these institutions should be weighted against their success in promoting at a European level lobbying actions in favour of the territory.

Local authorities (i.e. municipalities or provinces contiguous to the border) appear to be most eager to co-operate with their (cross-)border counterparts especially in the field of environmental protection or promotion of common economic (especially agricultural) strengths in a wider market.

Bringing together the different aspects raised by this tripartite approach, and once ideological issues are isolated, the overall propensity to co-operate highlights how it is significantly higher when (i.) cross-border objectives are clearly identified; (ii.) cross-border approaches are perceived as indispensable and equitable in order to

achieve given objectives; (iii.) when cross-border services (to people or economic actors) are clearly identifiable and persist over time.

3.3.5. Elements of SWOT analysis

Strength: The Italian-Slovenian border area is characterised by a common history of unity in which the establishment of the borderline is a relatively recent event. Capitalising on it, the border area finds a collective memory prompting integration not only at the cultural level but also when marketing the territory to third parties. Both Italy and Slovenia are members of the European Union with full access to the EU political, economic and financial activities and programmes. The Italian-Slovenian cross-border area represents in geo-economic terms a strategic territory which could attract FDI and financial flows aiming at relations of trade and economic development between Western Europe and South Eastern Europe, especially in the Adriatic context. At the demographic level, the Slovenian population is young (especially if compared to its Italian counterpart) and the cross-border area (especially the Italian side) attracts young foreign migrants creating a favourable context for the development of a well balanced economic-welfare system. The cross-border area scores unemployment rates which are consistently lower than the national averages even when female unemployment is considered. The economy of the area is relatively well developed: the entrepreneurial fabric of the Italian areas (especially in the Veneto region) is most developed and Italy is the second commercial partner of Slovenia. Moreover, the cross-border area finds in its natural resources and in its improved infrastructure a most favourable context to develop the tourism sector. To some extents, moreover, the Italian and Slovenian entrepreneurial systems appear to be complementary, at least, in so far as investments on R&D are considered. In fact, although the industrial clusters remain more developed (although the gap is rapidly closing), Slovenia is much closer than Italy to the Lisbon target on GDP expenditure of research and development. Although not dramatic, the wage differential between Italy and Slovenia opens up for good business and investment opportunities. The cross-border area (and notably the Slovenian regions) scores good overall levels of scholarization, it is equipped with many and well-established Universities and international training and research

institutes. At the environmental level the cross-border area presents high level of nature preservation and renewable energy production and environmental friendly waste management policies are well spread across the territory. Finally, an important strength are the established networks of collaboration and cooperation among the Italian contiguous regions and Slovenia. Such networks grew stronger in time and produced several CBC projects which led to substantial results in terms of achieved cross-border co-operation objectives. These experiences built the know-how of the institutions of the cross-border area necessary to jointly participate to the European programs.

Weaknesses: From an historical perspective, the tragic events which took place during second world war and in its aftermaths represent on cultural and mutual trust levels (especially for the older generations inhabiting the cross-border area) a factor hindering co-operation. In economic terms, the region is still lacking an integrated approach to the new global challenges. On the Italian side SME suffer from their limited economies of scale and managerial capital whilst in Slovenia industrial clusters and entrepreneurship are not yet stably established. At the infrastructural level, the railroad system is underdeveloped and, thus, commercial transports are road-oriented often provoking traffic congestion of the regional highways. Public cross-border transportation and IT is still underdeveloped in some parts of the region. The harmonisation between national welfare agencies is still limited hindering potential collaboration and the use of services of the cross-border population offered on the other side of the border. Overall, the area suffers from the centre-periphery divide with the respective state the more so since the institutions and local authorities of the border area do not have similar competences: at the Italian level the Veneto Region does not have the competencies granted to the Friuli Venezia Giulia Region by its autonomous status; on the Slovenian side there are no formal administrative levels between the municipalities and the state. Finally, the role of the Italian minority in Slovenia and vice versa in promoting cross-border co-operation is still not expressing its full potential and some linguistic barriers persist.

Opportunities: Both the membership of Italy and Slovenia in the EU and their strong institutional relations represent opportunities for the further promotion of the cross-border at the EU level. The 2007-2013 programming period will be an important opportunity to attract

EU financial and political support. The institution-building process leading to the institutionalisation of a euroregion for the cross-border area (as elsewhere described) is an important challenge to both promote further internal integration and for the area to gain new centralities both at the EU and South-Eastern European levels. The global economic forces channelled by the existing projects and cross-border initiatives push for the creation of cross-border clusters stimulating the co-operation among entrepreneurs, research institutes and universities especially in high-technology sectors which could, whilst restructuring the existing tertiary sector, offer services to the regional SMEs and to the new Adriatic markets. At the infrastructural level, the European multimodal transport corridor 5, represent a most important opportunity for the development of the region. With the new generation and the widespread use of English as lingua franca cultural contacts and mutual trust will be enhanced. The legal, political and socio-economic harmonisation process at the EU level will have a positive impact in the region favouring cross-border work and the organisation of welfare services. Finally, a positive impact on the cross-border area will stem from the entering of Slovenia into the Schengen Treaty (in 2007).

Threats: Sustained positive economic trends of neighbouring regions might push for risky delocalisation policies of local entrepreneurs thus deteriorating the employment rates and widening existing wage differentials. The economic development of the Eastern and South Eastern neighbouring region may endanger the competitive geo-economic positioning of the Italian-Slovenian cross-border area. Alternative transportation axis will be developed at the European level leaving out the cross-border area and thus further undermining its strategic positioning and exacerbating its peripheral location. Moreover, sustained immigration might endanger the sustainability of the local labour market and of the agencies providing welfare services (which in turn may provoke an upheaval of ethnic conflicts). The relatively rapid development of the Slovenian regions might not be able to compete in a sustainable fashion once EU fundings will be reduced. At a cross-border level such threats will be exacerbated in the vacuum of restructuring of the Italian SMEs sector. The EU harmonisation process accentuate the competition among potential users of services such as child-care or housing since the nationality does not represent a discriminating factor.

3.3.6. Future prospects

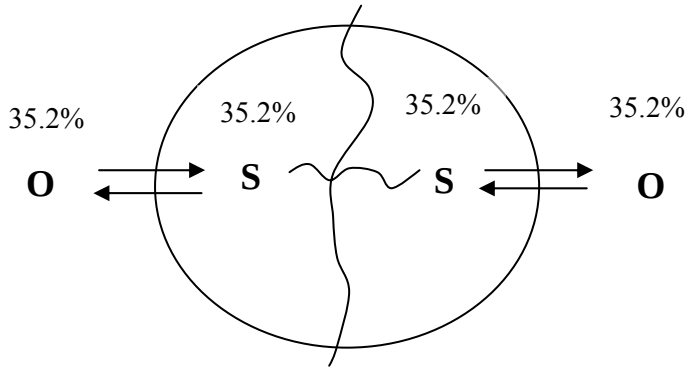
The 53 indicators of cross-border analysis listed by type:

			n.	%
- SWOT variables indicators			17	32.1
- Halo effect indicators	positive	18		
	negative	8	26	49.0
- non-relevant indicators			10	18.9
			53	100.0

SWOT variables then are configured as follows:

	Internal to the area (SW)	External to the area (OT)	Total	%
Positive (SO)	6	6	12	70.6
Negative (WT)	3	2	5	29.4
Total	9	8	17	
%	52.9	47.1		100.0

The SWOT analysis situation for Italy-Slovenia cross-border area is generally positive, both in SWOT indicators and halo effect ones. Nevertheless, it is necessary to mention 10 non-relevant indicators, which refer to cross-border relations in education and culture, institutional obstacles, presence of mutual stereotypes (however non-relevant). Being this scenario characterised by positives, the first strategy could be adopted to further enhance such variables.



Strategic action is going to focus on the strengthening and stabilisation of existing positives. Such action is configured as follows:

(1) professional training courses in order to strengthen propensity towards cooperation in sector operators, especially in industry and commerce;

(2) promotion or introduction of relation-making initiatives among different sectors across the border. Such relations are particularly needed for everyday services on either side of the border;

(3) organisation of conferences and semi-permanent reference bodies in order to coordinate different administration sectors and social/economic operators;

(4) pressing on national government to mitigate state centralisation and grant power devolution to local authorities;

(5) integration of one country's language in the other's education model.

The cross-border Euroregion seems to be the most appropriate tool to direct and spur all previously mentioned strategic action. Corridor 5 requires this area to be included within a Macro Infrastructures Euroregion as well.

3.4. Croatia-Slovenia

3.4.1. Geographical definition of the border

Slovenia is situated in the Central Europe and covers an area of 20,273 km2 that is half the size of Switzerland. Location of Slovenia is Central Europe, the major European geographic regions meet in Slovenia are the Alps, the Dinaric area, the Pannonian plain and the Mediterranean. Slovenia is bordering Italy in the west, Hungary in the east, Austria in the north and Croatia in the south. The total length of borders is 1,382 km, of which the border with Italy is 280 km, Austria 330 km, Croatia 670 km and Hungary 102 km long. Slovenia also has 46.6 km of coastline -the Adriatic Sea. The borderline with Croatia represents 48.5% of all borders. For Croatia the borderline with Slovenia represents 30,5% of all borders, the border countries are: Bosnia and Herzegovina 932 km, Hungary 329 km, Serbia and Montenegro 241 km, Serbia and Montenegro 25 km and Slovenia 670 km.

The bordering regions from east to west are: seven regions in Slo-

venia: Pomurska, Podravska, Savinjska, Spodnjeposavska, Jugovzhodna Slovenija, Notranjsko-kraška in Obalno-kraška region; and seven regions in Croatia: Međimurska, Varaždinska, Krapinsko-zagorska, Zagrebačka (without city Zagreb), Karlovačka, Primorsko-goranska in Istarska region.

3.4.2. Infrastructural characteristics

Infrastructure between both countries is well developed and has been under intensive construction. The Slovenian A1 East - West motorway course is a direct connection between the Slovenian coast in the West and the Hungarian border in the East, together with exits to Sežana (Italy), Nova Gorica (Italy) and Šentilj (Austria). It links Slovenia with its neighbours, Hungary, Italy and Croatia and is a part of the 5th European Transport Corridor (Trieste - Koper - Postojna - Ljubljana - Budapest), which will be one of the more important links of Italy to the Central and Eastern Europe by 2010. As a part of the National Motorway Construction Programme, another 406 km of motorways in the East - West direction remain to be completed. The Primorska leg links the existing Ljubljana - Razdrto motorway with the new motorway leg via Divača, Kozina, Črni kal viaduct along with the Port of Koper, with the branch road to Škofije and the coastal road leading to Croatia. The second important motorway is A2 from Karavanke to Obrežje connects Gorenjska region with Central Slovenia, the Ljubljana capital, and goes on towards the South - East, i.e. Dolenjska region. This route also connects Austria (via the Karavanke Tunnel) on one leg and Croatia on the other leg (Obrežje border crossing) and represents a part of the 10th. European Traffic Corridor. Partially in Gorenjska and majority in Dolenjska of 113 kilometres of the uncompleted sections is still under construction.

Railways network is well developed and connects Slovenia and Croatia and the prevailing role in the future development of railway infrastructure will be within the 5th (East-West) and 10th (North-South) European Transport Corridor.

3.4.3. Cross-border declarations and agreements

Bilateral relations between Slovenia and Croatia are intensive and well developed, several bilateral agreements and treaties have been

concluded in the past years since both countries became independent states, while some issues are still under discussion and will be gradually resolved. Slovenia must as a member state that forms part of the EU's external border implement the strict Schengen border rules to curb illegal migration and commerce through south-eastern Europe.

More than 60 bilateral agreements and treaties have been concluded in the past years and of that number 41 have been currently implemented, from different fields, among them: diplomatic relations, administrative issues, local border traffic and cooperation, trade and economic cooperation, labour affairs and social insurance, transport, infrastructure, defence cooperation, police cooperation and crime prevention, etc. The most important for economic cooperation are: Agreement on local border transport and cooperation (2001, 2005); Agreement on trade and economic cooperation (2005); Free trade agreement (2004); Agreement on encouragement and mutual protection of investment (2000); Agreement on standardisation and metrology of products (2000); Treaty on legal regulation of property issues (1999); Agreement on social insurance (1997); Agreement on scientific and technological cooperation (1996); Agreement on cooperation regarding veterinary medicine (1996); Treaty on maritime fishery (1996); Agreement on employment (1994).

Agreement on local border transport and cooperation is the main document improving living conditions of border population, managing cooperation of local communities and encouraging economic cooperation on the border area. The agreement defines passing over the border and the documents, agricultural and forestry activities, foreign currency and customs relief, maritime and continental transport, border economic cooperation. Among border economic cooperation it regulates common issues regarding investment, infrastructure, water and electricity supply, communication, protection of environment, cultural heritage, forestry and fishery. For implementation of the agreement the permanent committee vas established consisting of six members from each state.

Slovenia has succeeded the Interim agreement on trade and trade-related matters between European Community and Croatia (2001) that is introducing trade liberalisation gradually by 2007, customs rates decreasing from 70% of basic tax in 2002 to 50% in 2003, 40% in 2004, 30% in 2005 and 15% in 2006.

The Croatia-Slovenia maritime boundary agreement, concluded in June 2001 and signed by the prime ministers Račan-Drnovšek, was ratified in the Slovene parliament but Croatian parliament later refused ratification. This agreement is important open issue as it determines border in the Piran Bay and maritime access of Slovenia to the international open sea. The maritime border will be presumably settled in the process of international arbitration.

3.4.4. Propensity towards cross-border co-operation

Traditional trade flows and economic cooperation between Slovenia and Croatia with positive trends in foreign investment keep countries highly connected. Further progress would be achieved with special programme and financial encouragement.

Therefore the EU initiative INTERREG is of great importance and interest to regional and local units. The Committee of the Regions, referring to the principle of subsidiarity, emphasizes that the definition and implementation of plans and programmes are primarily the prerogative of local and regional authorities. The INTERREG initiative main aim is «developing cross-border co-operation between adjacent areas on the EU's internal and external frontiers, which, due to their geographic position, are disadvantaged and often isolated from major economic centres in their respective countries. Strand A of the INTERREG III initiative relates to cross-border co-operation, meaning that the border areas of Member States, candidate countries and third countries, that is, (to a certain extent) areas "lying along" border areas may participate in Strand A programmes. In most cases the certain border areas within states are included in a specific programme».

The European Commission has decided to encourage cross-border cooperation between Slovenia, Hungary and Croatia by co-financing for the 2004-2006 period within INTERREG III A "Neighbourhood" programme. The total budget is €27.4 million, the assistance of ERDF European regional development fund assistance amounts to €20.55 million. Within the programme three priority areas are defined: economic and social cohesion and human resources development with budget €15 million, sustainable development with budget €10 million and technical assistance with budget €2 million.

The main aim of the programme for Slovenia, Hungary and Croatia is development of trilateral bordering territory to an economic and

social environment oriented to the future, with the intention of improvement of competitiveness in European area, improvement of living conditions of population and helping to over bridge the regional development gaps, caused by the borders. The strategic goals are two: development of economic and social conditions for regional economic integrity and strengthening of cross-border relations among people, organisations and institutions on the fields with expected structural changes. Within the first priority – economic and social cohesion – the following measures are foreseen: 1) common economic area, with the goals: more economic cooperation, better business dynamics, improved cooperation between research and development activities; 2) common human resource development, with the goals: better employability, better cooperation on management of labour market, better cooperation between the educational system and economy, support in opening new jobs; 3) common tourist and cultural area with improvement of activities significant for cross-border areas.

The second priority - sustainable development - consists of the measures: 1) sustainable use of natural resources and environment protection, including establishment of cross-border cooperation within the projects and awareness raising on environment; 2) protection of nature with establishment of protected natural areas and better management of natural parks; and 3) accessibility with integral cross-border public transport and better access and use of new information and telecommunication technologies.

The 'neighbourhood' programme is well designed and has been working with success with Hungary, while Croatia has to organize the institutions, legislation and development documents in order to be able to implement the EU standards.

3.4.5. Elements of SWOT analysis

Strengths: strong economic cooperation, traditional trade flows, tourism flows, labour migration, common history, understanding of languages and cultures and human contacts.

Weaknesses: transport infrastructure – main connecting highways and motorways are still under construction.

Opportunities: Slovenia as a new European member state could help Croatia who has recently become accessing European country, in this context cross-border cooperation is among the most important

issues, therefore bilateral agreements should be put in debate, emphasis on regional development and regional agencies in Croatia; joint research projects, cooperation of education institution – universities.

Threats: unsolved maritime border, difficulties of Slovenes land and real estate owners in Croatia.

3.4.6. Future prospects

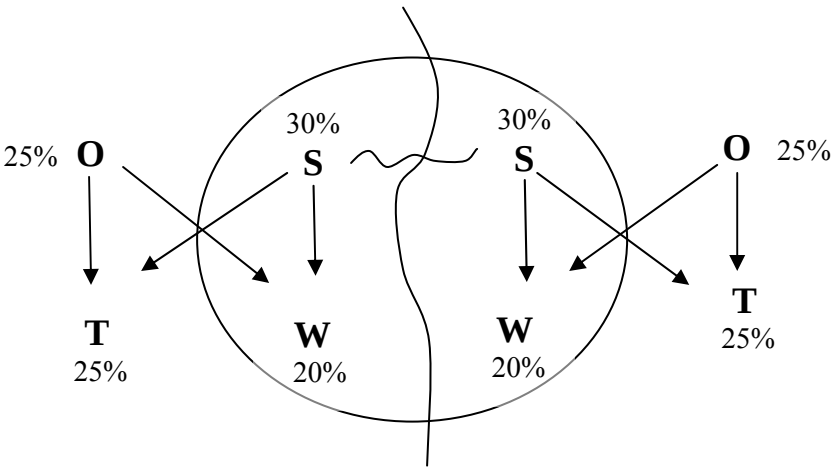
The 53 indicators of cross-border analysis listed by type:

			n.	%
- SWOT variables indicators			20	37.7
- Halo effect indicators	positive	14		
	negative	3	17	32.1
- non-relevant indicators			16	30.2
			53	100.0

SWOT variables then are configured as follows:

	Internal to the area (SW)	External to the area (OT)	Total	%
Positive (SO)	6	5	11	55.0
Negative (WT)	4	5	9	45.0
Total	10	10	20	
%	50.0	50.0		100.0

SWOT analysis assessed cooperation between Croatia and Slovenia being generally positive, with higher marks in internal strengths and weaknesses than in external opportunities and threats. All strengths relate to relevant factors for cooperation though, while weaknesses are less influential. Positives also benefit from halo effect, made up of as many as 12 positive indicators, against 3 negatives. The core of internal positives is represented by strong propensity towards cooperation and in the level of relations between production sectors across the border. As for opportunities and threats, the latter have a strong impact, and precisely deeply rooted centralisation policies and inadequate administration skills (indicator 41) of local authorities. In this scenario, the fourth strategy appears to be the most appropriate tool.



Strategic action can be organised as follows:

(1) professional training aimed at increasing the already present propensity towards cross-border cooperation in sector operators and local socio-cultural and institutional élites;

(2) promote the creation of specialised economic operators especially in territory planning, education and everyday services;

(3) exploit European programmes and funding to mitigate economic obstacles (dimension 5);

(4) pressing on central authorities to mitigate the incidence of institutional obstacles, and most of all state centralisation.

The present situation demands a central coordination body for the cross-border area, in order to organise and encourage such policies. This body could be the Cross-border Euroregion, and possibly the other two Euroregions (Functional Networks Euroregion and Macro Infrastructures Euroregion).

3.5. Croatia-Montenegro (and Serbia)

3.5.1. Geographical definition of the border

The border between Croatia and Montenegro (25 km.) retraces that one between the coastal possessions of the Republic of Venice and the ancient Republic of Ragusa (Dubrovnik); it has been esta-

blished between 1419 and 1426. In 1700 the same demarcation line was the border between the Republic of Ragusa and Ottoman Bosnia's narrow access to the sea. In 1991-1992, at the time of the inter-Yugoslav wars, this border was an extremely hot spot for the presence of the Yugoslav army on the hills and mountains surrounding the city of Dubrovnik. Montenegro tried its best to re-establish good relations with Croatia and eventually in late 2002, Croatia and Serbia and Montenegro adopted an interim agreement to settle the disputed Prevlaka peninsula at the entrance of the Bay of Kotor, allowing the withdrawal of the UN monitoring mission. Full demilitarization of the area is pending.

The area is ethnically quite mixed with special regards to the Montenegrian side of the border; there, Slavic populations of orthodox (Montenegrians) and catholic (Croats) faith coexist with Serbian refugees mostly settled in the municipality of Herceg Novi. In Dubrovnik, there was a Serb community as part of the cosmopolitan urban population but both the city and its province (Dubrovacko-Neretvanska) are overwhelmingly Croatian.

3.5.2. Infrastructural characteristics

After a number of difficulties in the 1990s, nowadays the access through the border between Croatia and Montenegro is pretty smooth and mainly via-inland. The local authorities on the two sides of the border are willing to improve better maritime connections because of the closeness of similar urban and natural environments, which would lead to possible integrated tourist offers or patterns of local cross border mobility.

3.5.3. Cross-border declarations and agreements

The republic of Montenegro gained a full sovereignty only in 2006 and for this reasons there is no large record of declaration and agreements between the two countries. However, there are a number of agreement signed during the transitional period, when Serbia and Montenegro formed a temporary federation, that are quite relevant for the present day cross-border relations between Montenegro and Croatia. Namely, they are the Protocol between the Government of the Republic of Croatia and the Federal Government of the Federal

Republic of Yugoslavia on temporary border regime along the southern border between the two states (2002), the Memorandum on the agreement in realising and enhancing the mutual co-operation in fighting all forms of capital crime signed between the General Attorney's Office of the Republic of Croatia and the Supreme State Prosecutor of the Republic of Montenegro (2005), the Agreement between the Croatian Ministry of Interior Affairs and the Montenegrin Ministry of Interior Affairs on police co-operation (2005) and the Agreement between the Government of the Republic of Croatia and the Government of the Republic of Montenegro regarding Mutual Assistance in Customs matters (2005). Significantly, the agreements focus on border control and justice, that are perhaps the more sensitive issues to influence bilateral relations between Montenegro and Croatia, both for war crimes prosecution and organised crime. Such trend is revealed also by the most recent agreement signed by Croatia and the Independent Montenegro that is the Agreement between the Public Prosecutor's Office of the Republic of Croatia and the Supreme State Prosecutor of the Republic of Montenegro on co-operation and prosecution of the perpetrators of war crimes, crimes against humanity, and genocide (2006).

3.5.4. Propensity towards cross-border co-operation

After a period (basically all the 1990s) of practical lack of any co-operation activity, the political changes occurred in Montenegro, which led to the establishment of a fully sovereign country, and the will of Croatia to exit a long international isolation, have set the stage for good cross-border relations between the two countries. Some obstacles could come from the perception of competitive economic assets with special regard to the tourism market and real estates. However, there are good chances that the cross-border cooperation would develop consistently in the next years although the infrastructural network remain poor, the public administration need to be reformed and the technological and economic levels of the area is generally quite low (with important urban-rural divides). Such conditions, together with the problems connected with policing and organised crime, could slow down the process of increasing cross-border co-operation. On the other hand, the protection of the environment and the natural resources could foster transnational cooperation further on.

3.5.5. Elements of SWOT analysis

Strengths: historical and cultural ties, short extension of the border area, lack of high inter-ethnic tensions, density of cultural heritage and tourism attractions.

Weaknesses: low technological and economic level, lack of integrated management, public administration still to be reformed, weak law enforcement.

Opportunities: higher institutional stabilisation, improving tourist offer and developing economy, boost to public administration reforms, higher participation in EU affairs.

Threats: peripheral collocation, disadvantaging infrastructural policies, proliferation of organised crime, lack of political strategy.

3.5.6. Future prospects

The 53 indicators of cross-border analysis listed by type:

			n.	%
- SWOT variables indicators			22	41.5
- Halo effect indicators	positive	5		
	negative	17	22	41.5
- non-relevant indicators			9	17.0
			53	100.0

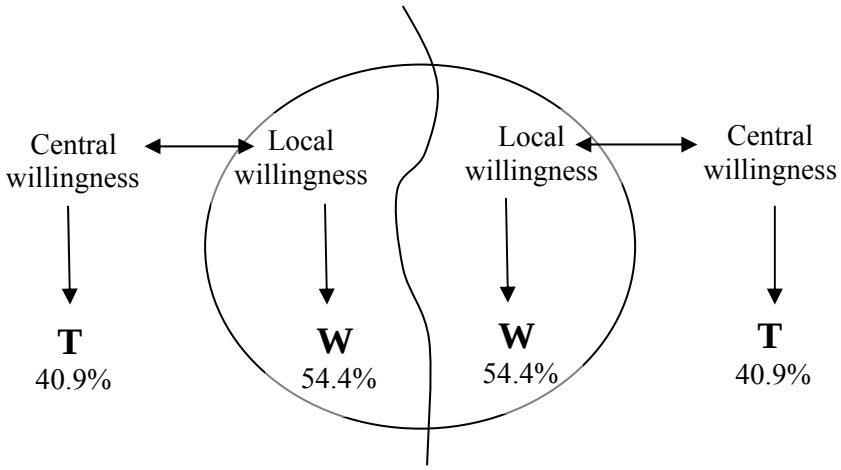
SWOT variables then are configured as follows:

	Internal to the area (SW)	External to the area (OT)	Total	%
Positive (SO)	-	1	1	4.5
Negative (WT)	12	9	21	95.5
Total	12	10	22	
%	54.5	45.5		100.0

SWOT analysis and *halo effect* indicators show how cross-border cooperation in this area needs to be established from scratch, as all basic condition for its development are missing. The reconstruction of cooperation must begin from local and national willingness to adopt extraordinary measures.

None of the available strategies is suitable for this situation, and it

is therefore needed a *sixth strategy*, based on the initial support of local and central political and civil willingness.



This sixth strategy relies on the propensity of local and national stakeholders and decision-makers towards cooperation, and on their belief that cooperation may engender better life conditions and improve cultural, institutional and economic standards. Action needs to attain the following goals:

(1) Establishment of a basic degree of propensity towards cooperation (especially among socio-cultural operators and institutions);

(2) Encourage relations among production sectors on either sides of the border (including territory planning, transport and telecommunications, tourism, education and culture, everyday services, as well as economy and labour market);

(3) Planning of policies to mitigate institutional, economic and cultural obstacles;

(4) Encourage central governments to sign the Madrid Convention Protocols;

(5) Work on raising the awareness of how cooperation implies the devolution to local organizations of specific competences, especially in international relations, of higher administrative skills and satisfying financial independence;

(6) Implementation of efficient transboundary connections and improvement of road, rail and waterways.

These action strategies cannot be carried out without the fundamental support of all three types of *Euroregion*: *Cross-border, Functional Networks* and *Macro Infrastructures*.

3.6. Croatia-Bosnia Herzegovina

3.6.1. Geographical definition of the border

The 842 Km. separating Croatia from Bosnia-Herzegovina runs from east to west and then south, from the junction with the border with Serbia on the Sava river to that one with Montenegro south East of Dubrovnik. At first the border runs along the Sava river, then along the Una river till it reaches Bosanski Novi; then it bends south-west and afterwards it heads back near Bihac. The border then bends south-east along the Dinaric Alps, cutting across the Dalmatian hinterland (Zagora) and the Herzegovinian Karst area toward the Neretva valley. The demarcation line breaks north-west of Dubrovnik cutting a strip of coast from the Croatian territory, leaving thus a small coastal outlet for Bosnia-Herzegovina. It starts again after a few kilometres running parallel to the Adriatic coast; it finally ends on mount Orjen at the junction with Montenegro.

3.6.2. Infrastructural characteristics

The state border agreement, signed in 1999, allowed the development of transnational interactions under the umbrella of the international law, even though some discussions are continuing in some radical circles. Particularly there are some sections of the border between Croatia and Bosnia-Herzegovina, which is the longest one in the western Balkans, that do not enjoy a clear legal status and for this reasons the everyday practices of border crossing and transits can be complicated sometimes. For instance, sections of the Una river and villages at the base of Mount Plješevica are cadastrally part of Croatia, while some are part of Bosnia, which causes an excessive number of border crossings on a single route and impedes any serious development in the region. The Zagreb-Bihać-Split railway line is still closed for major traffic due to this issue. The road Karlovac-Bihać-Knin,

which is on the European route E71, is becoming increasingly unused because Croatia built a separate highway to the west of it. Also, the border on the Sava river between Hrvatska Kostajnica on the northern, Croatian side of the river, and Bosanska Kostajnica on the southern, Bosnian side, is being discussed. A river island between the two towns cadastrally belongs to Croatia but is controlled by Bosnia. The countries have been discussing the building of an international border crossing on the said river island. Close to the Adriatic coast, the Herzegovinian municipality of Neum in the south makes the southernmost part of Croatia an exclave and the two countries are negotiating special transit rules through Neum to compensate for that. Recently Croatia has opted to build a bridge to connect the Croatian mainland with the southernmost Croatian territory (exclave) but Bosnia and Herzegovina has protested that it will close their way to the international waters (although Croatian territory and territorial waters surround Bosnian-Herzegovinan ones completely) and has suggested that the bridge must be higher over 55 meters for free passage of all types of ships. Negotiations are still being led.

3.6.3. Cross-border declarations and agreements

The infrastructural problems and the border issues of above, which are also due to the long physical extension in a geographically uneven territory, have been addressed by a number of treaties signed by the two state governments. First of all the Treaty on border traffic and Co-operation (2003), which has five Annexes covering "mutual locations at border crossings" regarding the zone of mutual locations at the border crossing of Metkovic-Doljani, Klek-Neum, Zaton Doli-Neum, Licko Petrovo Selo-Izacic and Maljevac-Velika Kladusa. The Republic of Croatia and the Republic of Bosnia-Herzegovina have also signed some treaties that quite relevant for the cross-border relations for they settled sensitive international issues and enhance the implementation of more structured transnational activities. Among them, the Protocol on the establishment of tri-border points between the Republic of Croatia, Bosnia and Herzegovina, and Serbia and Montenegro (2003), the Treaty between the Government of the Republic of Croatia and the Council of Ministers of the Republic of Bosnia and Herzegovina on the mutual abolition of visa requirements (2003), the Agreement between the Government of the Republic of

Croatia and the Council of Ministers of Bosnia and Herzegovina on the inland waterways traffic, marking and preservation (2004) and the Agreement between the Government of the Republic of Croatia and the Government of the Republic of Bosnia and Herzegovina on joint financing of the maintenance of the regional drainage system Komarna - Neum - Mljetski Canal (2004). Most recently, Croatia and Bosnia-Herzegovina have signed an important agreement that defines the standard operative procedure between the Croatian State Directorate for Protection and Rescue and the BH ministry of Security on offering cross-border assistance in open space fire fighting; such rules strengthen the perspective of joint operations and allow a closer cooperation in the field of civil protection.

3.6.4. Propensity towards cross-border co-operation

To date, specific analysis of this border area indicates that an efficient cross-border cooperation activity between actors operating at formal, organisational and institutional levels has not yet fully developed. The planning and signing of some important bilateral agreements between Croatia and Bosnia-Herzegovina concerning cross-border traffic, cooperation and joint efforts in fighting organised crime is, indeed, recorded but the quality and the volume of cross-border cooperation remain low insofar. Some factors delaying the development of a stronger cross-border cooperation are the problems arising from the democratic stabilisation process, which is still under way in Bosnia-Herzegovina and include the multilateral issues of refugees return and civil society support. Moreover, the need of a deep reform of public administration is strong in both countries and this include Justice and Home Affairs related areas, which are crucial for the establishment of good governance and the institution building process in post-conflict society.

3.6.5. Elements of SWOT analysis

Strength: intense cross-border informal networks, high level of mutual cultural knowledge, integrated markets, EU and international interests in stabilising and developing the border area.

Weaknesses: length of the border and material difficulties in performing police activities, inter-ethnic tensions, national antagonism,

low technological and economic level, weakness of institutions, lack of integrated management, public administration still to be reformed.

Opportunities: improved democratisation process, higher institutional stabilisation, boost to public administration reforms, higher participation in EU affairs.

Threats: nationalism, institutional collapse, proliferation of organised crime, institutionalisation of bad governance practices.

3.6.6. Future prospects

The 53 indicators of cross-border analysis listed by type

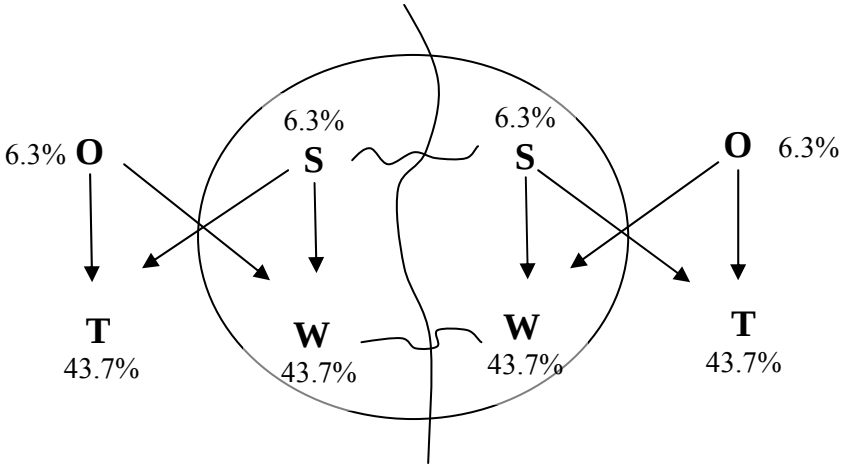
			n.	%
- SWOT variables indicators			16	30.2
- Halo effect indicators	positive	4		
	negative	18	22	41.5
- non-relevant indicators			15	28.3
			53	100.0

SWOT variables then are configured as follows:

	Internal to the area (SW)	External to the area (OT)	Total	%
Positive (SO)	1	1	2	12.5
Negative (WT)	7	7	14	87.5
Total	8	8	16	
%	50.0	50.0		100.0

SWOT analysis outlines a generally negative situation in this cross-border area, with weak points and threats amounting to 87.5% of variables, and 81.8% of negative *halo effect* indicators. Moreover, negative variables concern both internal and external dimensions, and several indicators are *non-relevant.* These conditions imply that cooperation has to be established almost from scratch, bearing in mind, in addition, how historical and cultural issues have never ceased influencing negatively the relations between Croatia and Bosnia, first of all in the Serb-majority areas located between Catholic Croatia and Muslim Bosnia (the Kraine). Furthermore, SWOT variables are mostly non-relevant or fail to produce a *halo effect* (only 16, accounting for 30.2% of all indicators), proving how the level of cooperation

is still very low. This situation demands the use of the *fourth strategy*, although it should be aided by an additional strategy focused on tackling such widespread negatives.



Action strategies should therefore aim at the overcoming of negatives in SWOT variables and *halo effect* indicators. The main guidelines can be:

(1) Cultural planning to foster propensity towards cooperation, especially among socio-cultural and institutional operators;

(2) Professional training courses for local organization staff, for the coordination between local and central sectors, and for central administrations, so that these can support effectively cooperation processes;

(3) Creation of links between production sectors;

(4) Planning of common policies to mitigate gaps and to limit threats such as differing institutional competences, inadequate financial resources, as well as poor structures and political-ideological clashing.

(5) Power devolution to local authorities, so as to create a network of decentralized states, with more autonomy as regards international relations and financial independence;

(6) Enhancement of connections, transport routes, road, rail and waterways;

(7) Prompt adjustment to EU requirements.

All three types of *Euroregion* are required for this area: *Cross-border, Functional Networks,* and *Macro Infrastructures*.

3.7. Bosnia Herzegovina-Serbia (Montenegro)

3.7.1. Geographical definition of the border

The border between Bosnia and Serbia and Montenegro runs in a south direction for 527 km from the triple junction with the Croatian border on the Sava river to the other triple junction with the Croatian border near the Adriatic Sea.

The Serbian and Montenegrin municipalities bordering on Bosnia-Herzegovina are: Pribos, Cajetina, Uzice, Bajina Basta, Ljubovija, Mali Zvornik, Loznica, Sabac and Bogatic. On the Bosnian side there are the municipalities of: Bjelina, Zvornik, Bratunac, Srebrenica, Visegrad, Rudo, Cajnice, Srbinje (Foca).

3.7.2. Infrastructural characteristics

The border area between Serbia and Bosnia&Herzegovina has great industrial and agricultural development potential, being an area where the industrialisation process had already begun. Tourism is a very important resource, especially in the Slatibor mountain area, which is also very well served by the road system. A disadvantage in this respect is the lack of highways and motorways. Connection times pose a problem also in the railway system, especially on the Bar-Belgrade stretch, which is of fundamental importance for Serbia and Montenegro (550 km) but where the average travelling time is 12 hours (the average speed is 30-40 km p/h.). River connections are also problematic: it is still impossible to navigate the Drina, there are, however, ten useful border crossings to ensure a good link between the two countries.

3.7.3. Cross-border declarations and agreements

Relations between the Federal Republic of Yugoslavia (now Serbia (and Montenegro)) and Bosnia&Herzegovina are fixed for the most

part in the 1995 Dayton Agreement. According to this, Yugoslavia could establish special relations with the Republika Srpska, with which special institutional co-operation agreements are already in force, on the basis of mutual interests and especially given the presence of a Serb majority in both countries. Therefore, cross-border co-operation is definitely satisfactory. As to territorial and environmental planning, the function of the Drina river as border demarcation goes along with its potential as water reservoir, energy source and tourist resource. The opening of new river ports on the Serbian side and the construction of the new railway segment Valjevo-Zvornik in Bosnia foster relations between the parties.

As to human resources, mobility is one-directional from Bosnia to Serbia and Montenegro, due to the flow of refugees. This poses a problem for Bosnia, whose human resources are depleted; the bilateral solution to this problem is under discussion. Aside from that, cross-border mobility is very intense and the border may be crossed without a passport. This fosters small border trade as well as joint associative and sports initiatives (for example friendly football matches, tournaments, etc.).

Co-operation in the sectors of education and culture is more problematic because the two systems differ greatly. For example, in Bosnia&Herzegovina education is differentiated on the basis of religion. Therefore there is not much co-operation in this field, but only a mutual exchange of information, which recently led to the introduction of Serb textbooks in the Republika Srpska.

3.7.4. Propensity towards cross-border co-operation

Before any further considerations it is important to know that to understand the evaluation of the propensity to cooperate of these countries one must keep in mind that practically complete border area between Serbia and BIH is area between Serbia and Republika Srpska as specific entity of BIH. Therefore some variables are tricky since some questions are dealing with two states (BIH), but border cooperation could be on the ground only between state of Serbia and entity (Republika Srpska).Training and coordination of the Serbian and Bosnian institutional actors in cross-border co-operation is considered insufficient, as regards both planning and implementation. There are serious shortcomings in the business approach and a lack

of trust (due to recent events) in the coordination of the different agencies. Furthermore, the recent establishment of political borders, often contested and not perceived as such by the local population, translates into insufficient cross-border initiatives simply because the concept of "cross-border planning" is unclear to the inhabitants. Lastly, the scarce knowledge of customs laws and provisions poses yet another obstacle. Consequently, there is virtually no concrete activity other than national and international planning, which often offers no financial contribution to local activities. Therefore, even in those areas where a mild propensity towards cross-border co-operation is present, it does not translate into concrete activities.

The greatest obstacles to cross-border co-operation can be identified in the strong centralisation of the administrative structures and in the low financial and decisional autonomy of the municipalities. Furthermore, on the Bosnian side, the two tiers of political power with the Republika Srpska overlapping Bosnia&Herzegovina's central state cause some decisional ambiguity. For example, good relations between Serbs on both sides of the border are hindered by the Bosnian demands to the Federal Republic of Yugoslavia regarding compensation for damages of war.

Taking into consideration the variables listed in the SWOT analysis, the following changes and process which took place in the past year deserve a special attention. Republika Srpska applies educational curricula and textbooks from Serbia at all educational levels except university one. For the third time on October 2006 a special Contract about special and parallel relationships among Serbia and Republika Srpska was signed. This kind of relationship is allowed and foreseen by Dayton Agreement. It opens all ways of exchange and influences cross-border cooperation positively. Common action concerns the anti pollution measures about the river Drina which comes from BIH part and is exposed to pollution by industrial plants on its banks. As another step of closeness Serbian Telekom will go on tender in order to buy Telekom of Republika Srpska. Airport Belgrade is helping reconstruction of airport in Banja Luka. If BIH is taken as state centralisation is present. Republika Srpska has some power and delegated power under surveillance of international administration – KFOR. International protectorate administration can decide about border control regime. Sometimes it makes it more for-

malized thus hindering free flow of people across the border line. If we take in consideration only Serbian majority in border area the level of trust and knowledge is high and positive. If variable takes into consideration Muslims living on BIH side of border, value must be completely opposite. Left bank of the river Drina is agricultural and has almost no industry. On the other hand the Serbian side has many industrial plants. Electricity plants on Drina are in joint property. It is worth noting that according to bilateral agreement between Serbia and BIH custom does not exists. The same applies to Republika Srpska. From time to time BIH wants to introduce taxes and customs on agricultural products because balance sheet in foreign exchange is in favour of Serbia. This question needs clarification. If one speaks about population of Serbs as majority in border area there are no negative stereotypes or feelings. If one takes in consideration that Muslims also live in border areas and they come back after the civil war, that Muslims are majority in BIH, the answer could be completely opposite. ISIG staff must decide with whom this variable deals. BIH as state has signed Madrid Convention in 2005, but it is not ratified yet (which means has no law influence). On the other hand neither Serbia nor its predecessors has signed documents related to these variables. Greater financial independence of municipalities is foreseen in new Serbian Constitution which goes on referendum only at October 28. 2006. If it will be adopted variable could change in more positive direction. Between border areas the direct railroad is missing. The existing one goes through Croatia a way around. The project of direct line in direction of Bjeljina exists. Quite all bridges on river Drina are old and unsafe, but their reconstruction has started. Roads connecting both sides by these bridges are under construction too. It is ISIG to decide how to evaluate this variable in different contexts of border area, Republika Srpska and BIH.

3.7.5. Elements of SWOT analysis

Strength: strong points in the border area can be detected in its industrialisation, in the bauxite production, and in the ten easily accessible border crossings, that guarantee good links between the two countries. Besides these elements, there is also good cross-border co-operation between the two political bodies, based on the presence of a Serb majority and the shared interests; the Dayton agreement (1995) also

contributed to this end, establishing provisions for the relations between Yugoslavia and the Republika Srpska.

Weaknesses: the main weak point is in the lack of infrastructures: lack of motorways, slow railway travelling-times (Bar-Belgrade line) and problematic navigability of the Drina river.

Opportunities: the border area has good industrial and agricultural development potential, thanks to Serbia and Montenegro's privatisation process, and especially in the tourist sector, thanks to the Slatibor mountain area, which is an important resource adequately served by the road system. The Stability Pact plays an important role in the area's development through the immediate and considerable resources it mobilises.

Threats: Bosnia is in danger of losing its human resources due to the population flow towards Serbia. Furthermore, mention must be made of the high centralisation of administrative structures and the low financial and decisional autonomy of the municipalities. Finally, decisions are hindered by the complexity of the institutional settings and the existence of several tiers of government.

3.7.6. Future prospects

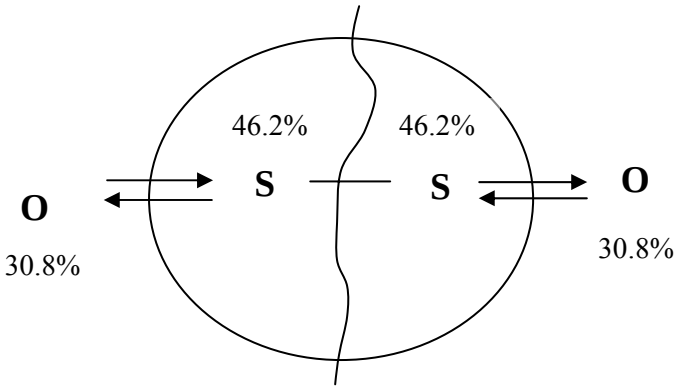
The 53 indicators of cross-border analysis listed by type:

			n.	%
- SWOT variables indicators			13	24.5
- Halo effect indicators	positive	16		
	negative	13	29	54.7
- non-relevant indicators			11	20.8
			53	100.0

SWOT variables then are configured as follows:

	Internal to the area (SW)	External to the area (OT)	Total	%
Positive (SO)	6	4	10	76.9
Negative (WT)	-	3	3	23.1
Total	6	7	13	
%	46.2	53.8		100.0

SWOT analysis indicates largely positive cross-border cooperation processes in this area, especially in its internal dimensions. 76.9% of variables are positive, with a remaining 23.1% of negatives. Positives concern common language, common historical background, and limited mutual stereotypes, a rather obvious result, as the population is Serb on either sides of the border, speaks the same language and uses Cyrillic alphabet. One flaw of such widespread positives is that it refers to few indicators (13 out of 53, 24.5% of the total). Nevertheless, the many *halo effect* indicators have positive marks too (16 vs. 13 indicators). This situation suggests the use of the *first strategy*, the most appropriate when it is possible to rely on several positives and on opportunities for improvement.



Action strategies in this case aim at enhancing existing strengths in variables and indicators. The main guidelines can be:

(1) Professional training courses for local organization staff and for coordination between local and central sectors;

(2) Planning of common policies to mitigate differing competences between institutions on either sides of the border, restrictive regulations in matters of international relations, clashing ideological and political views hindrancing cooperation;

(3) Common action to tackle development and technology gaps and exceeding competition.

The *Cross-border Euroregion* can effectively support this strategy, but subsequently, it will be needed to rely on the *Functional Networks* and *macro Infrastructures Euroregion*.

3.8. Montenegro (and Serbia and Kosovo)-Albania

3.8.1. Geographical definition of the border

The Independence declaration of the new state of Montenegro did not changed the border line between Albania and Montenegro. It remains the same as it was during the political status of Serbia and Montenegro. The border runs east to Tropoja, Shkoder, Malesi e Madhe districts and west to the Adriatic Sea near the outlet of the Bojana river, in a total length 173 km.

3.8.2. Infrastructural characteristics

Cross border custom points of Hani I Hotit, Murriqan, Bashkim and Bajza of the rail way, as well as Buna river cross point are very significant element to an open and collaborative developed marked between Albania and Montenegro. Construction and rehabilitation of the new road Lezhe Shkoder, and Buna Bridge –Muriqan had a great social and economic impact on the border area of Albania and Montenegro.

The Tirana-Shkodër motorway is a communication way of great importance, as part of the north-south Corridor that will link Greece, Albania and Montenegro all the way to Trieste. Shkodër connects with Kosovo via the Shkodër Pukë -Kukës road; furthermore, the World Bank is working on a project for the renovation and construction of this stretch, linking Montenegro via railway and via the road near Hani and Hotit.

The Buna river and lake would enable connection across the border with the cities of Ulqin and Tivari (Antivari). In the northern part of Shkodër, the reconstruction of the old airport is being studied, within the framework plan for the development of civilian air transport.

Among the area's strong points, the Buna river and lake should be mentioned since they are both navigable and useful for linking the Albanian region with Montenegro and with the ports of Ulqin and Tivari. Two more strong points are the hydro-electric plants of Vau and Dejës (250 MW) and Komani (600 MW), with the respective artificial lakes.

3.8.3. Cross-border declarations and agreements

The independence of Montenegro, create new perspective also for more active and flexible agreement of Montenegro Government in the

framework of friendly and collaborative cooperation with neighbours.

The agreements and cooperation memorandum between Albania and Montenegro are to be mentioned. In the last years there are Agreement between Ministry of Public Order of Republic of Albania and of Ministry of Public Order of Republic of Montenegro for establishment of permanent moving of goods and people through cross border custom of Murriqan. Agreement for water economic water resources between Governments of the two Countries. Agreements between two governments for establishment of international passenger and goods road transport between two countries and the agreement for establishment of the international lake transport line for passengers through lake in the line Shkodër–Virpazar.

As there are real indicators and good will in production on matters of cross-border co-operation between the two countries, a strong awareness of mutual cultures and traditions can be detected on both sides. Regional public opinion recognizes also that both sides share a common interest in promoting trade, culture, arts, environmental protection and tourism. However, the impression persists that cooperation between the parties has been, and still is, influenced by the political developments in the area: the regions in question are those affected by the consequences of this situation.

Among the most significant agreements, there is the 1996 agreement approving the opening of new border crossings in Muriqanë, which is now operational in the relations between Albania and Montenegro.

Han and Hotit is active on border crossing for people and goods, with Montenegro. This pass existed previously (as a symbolic border) but it became an official border crossing for persons and goods, since the structure is adequate for the movement of transport. On this subject, the World Bank in cooperation with Albanian government carried out the improvement of this structure, given its great strategic importance due to the terrain's morphology.

In the year 2000, the Ulqin protocol for co-operation in the economic, tourist and culture sectors was signed between Albanian and Montenegrin governments. With this protocol, the Montenegrin Ministry of Tourism and the Albanian Committee for Tourism Development pledge to promote accurate information and to convey a truthful image of both countries, to preserve the free visas regulation, to simplify the border and customs formalities and to draft a project for Lake

Shkodër's future development designed to exploit its tourist and environmental potential. This protocol will serve as the basis for the consolidation of future business relations and also for signing prospective contracts in the tourist hotel sector.

Lastly, mention should be made of the 2001 resolution establishing the Regional Co-operation Forum between Shkodër and Montenegro; the Forum will meet 3-4 times a year. The parties pledge to strengthen co-operation between local authorities and, most of all, bilateral co-operation in the fields of economy, trade, culture, arts, environment and folklore. The good will and the governmental program to put Muriqan as a strategic point for collaboration with all the Dalmat and Ionian coast as well the promotion of above mentioned forum for Murriqan and Vermosh cross border custom lead to opening of the border crossing for people in Muriqanë and of the customs point for goods in Vermosh.

3.8.4. Propensity towards cross-border co-operation

The propensity of the economic and institutional actors towards cross-border co-operation is demonstrating increasingly indicators, while that of socio-cultural operators is satisfactory. The authorities from Shkodër municipality lament the one-way direction of commerce: Podgorica, Ulqin, Shkodër blame the different price levels, and justify, on political grounds, their insufficient activity at institutional level. At cultural level, on the other hand, several folkloristic festivals take place between the regions of Podgorica and Ulqin.

The data gathered show a good level of preparation in the study and planning of cross-border programs (especially on the part of the Shkodër local authorities. Regional Development Plan).

The involvement of socio-economic organizations in cross-border co-operation programmes is insufficient. The twelve Agencies (one per region) for regional development were created in 1999, their activity in recent years has been important, but problems of various nature (infrastructural, logistic, electric energy supply, absence of a valid banking system) have been a real handicap for a greater coordination among socio-economic actors. Coordination between governments, in the past two years, has been sufficient. There has been greater commitment to coordinate programs, involving only tourism at first, but then also the opening of new border crossings for the move-

ment of people and goods.

From the economic point of view, only the different economic (different prices) and technological development levels are an obstacle, while there are no obstacles to the protection of the fiscal and competitive markets. As to socio-cultural activities, the presence of Albanian minorities on the Montenegrin territory is of great help in overcoming linguistic barriers and it fosters a positive reaction to cooperation initiatives.

3.8.5. Elements of SWOT analysis

Strengths: the border area benefits from its favourable geographic position by the sea, its considerable mineral resources (copper, titan oil), its productive resources (footwear, electric energy, cigarettes) and its historical and cultural sites. Independent state of Montenegro is an advantage toward a progressive collaborative relations for the near future. Although relations between border areas centre mainly on information exchange and consultation, a sound awareness of mutual cultures and traditions and reciprocal respect are the basis for stable cross-border co-operation. There are 80.163 Albanian national residing in Montenegro. These are a very strong point in the future cooperation between two countries, not only economically but in the decision making processes of the future collaborative in different areas.

Weaknesses: weak points were detectable in social tensions (now doesn't exist any more) and high levels of migration, due to the high unemployment rate. The local economic operators' propensity towards cross-border co-operation is not so sufficient, while that of socio-cultural operators is satisfactory. Institutional operators lament insufficient attention for local problems on the part of central authorities, while the so-called Agencies for regional development are not yet fully operational. Therefore coordination between the regional and central political authorities and the representation of regional interests must be more operative.

Opportunities: The independence declarations of Montenegro Republic will foster the collaborations between two countries. Good development opportunities for the area will come from traffic on the Tiranë-Shkodër highway, which is a stretch of the north-south Corridor that will link Greece, Albania and Montenegro all the way to Trieste. The World Bank is also investing in cross-border highway

infrastructures. In the tourist sector, both governments pledge to draft a project for the future development of lake Shkodër, designed to exploit its tourist potential (Ulqin Protocol, 2000). The round table organized by the Albanian government to implement regional competences is a further opportunity for local administration to manage cross border relations with greater freedom and financial instruments. On priorities related to European standards, progress has been made on a number of priorities. In the area of the internal market, considerable progress has been made in regarding standards and accreditation. Good progress has been made in the field of customs, with fulfilment of revenue targets, improved administrative capacity.

Threats: cross-border co-operation is far too heavily influenced by economic developments in the area. Infrastructural developments must be comparable to absorb the traffic of people and goods coming south to the Dalmatian coast. There are practical examples in the area of cross-border cooperation but in order to pass the initiative level this cooperation should not be spontaneous, but should be developed on institutional bases with a continuous exchange of information, specialists, and experiences combined with the appropriate financial support.

3.8.6. Future prospects

The 53 indicators of cross-border analysis listed by type:

			n.	%
- SWOT variables indicators			24	45.3
- Halo effect indicators	positive	14		
	negative	12	26	49.1
- non-relevant indicators			3	5.6
			53	100.0

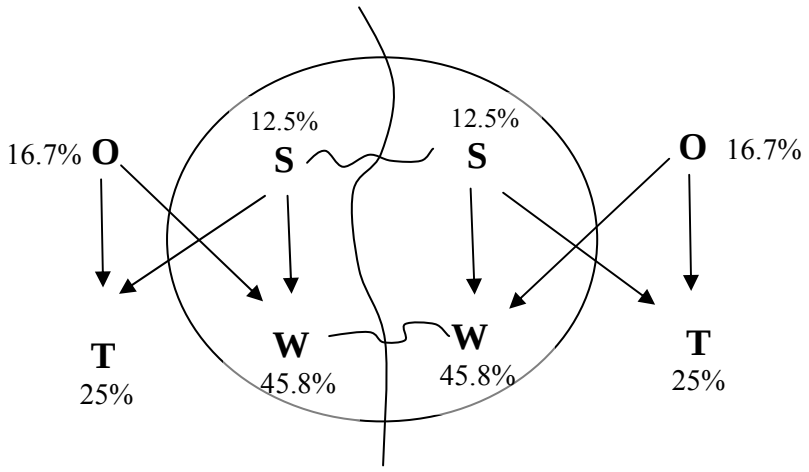
SWOT variables then are configured as follows:

	Internal to the area (SW)	External to the area (OT)	Total	%
Positive (SO)	3	4	7	29.2
Negative (WT)	11	6	17	70.8
Total	14	10	24	
%	58.3	41.7		100.0

SWOT analysis portrays a markedly negative (70.8%) situation for cross-border cooperation, both internal and external. However, the number of variables is not very high (45.3% of indicators), while there is a slightly higher number of *halo effects* (49.1%), and its positive/negative ratio shows a moderate prevalence of positives (14 vs. 12). The number of *non-relevant* indicators is secondary (5.6%).

SWOT variables are nevertheless mainly negative, especially internal ones. Among these, poor professional training (indicator 5), poor economic and administrative coordination on either sides of the border (indicators 6, 7, 8), weak links in economic and labour sectors (indicator 12), presence of strong negative stereotypes (indicator 31), low economic integration (indicators 45, 46), the absence of a history of cooperation (indicator 53). The external dimensions show to suffer from exceeding centralization (indicator 16), lack of cooperation structures (indicator 17), low credibility of cooperation organizations (indicator 20), local development and technology gap (indicators 25, 26), poor international relation competences in local administrations.

This scenario suggests the implementation of the *fourth strategy*, based on overcoming negatives.



The main guidelines for action implied in this strategy are:

(1) Training courses for administration staff on either sides of the border, in order to enhance cooperation;

(2) Support relations between economic and labour market sectors;

(3) Planning of common policies, to mitigate gaps between bordering countries. There are indeed some threats to cross-border cooperation, which concern the uneven standards of competence and skills between adjacent countries, differing regulations about transboundary relations, differing levels and rates of development and available technology, absence of a history of cooperation;

(4) Encourage power devolution from central administrations;

(5) Planning of specific history and civics classes to tackle mutual negative stereotypes.

Finally, the *Cross-border,* the *Functional Networks* and the *Macro Infrastructures Euroregions* are all necessary to foster endogenous development and implement connections with national and European centres.

3.9. Albania-Greece

3.9.1. Geographical definition of the border

The border between these two countries is 282 km long, running from the strait of Corfu, through the Ionian Sea, to Lake Prespa where it joins the Macedonian border, south-west of the Veliki Grad Island. The border runs on water for 27 km lakes and rivers (Sarandoporos), but it runs mainly through mountainous terrain (the Nemercka mountain chain and Mount Dhembel).

3.9.2. Infrastructural characteristics

Gjirokastër's infrastructures play an important role in the development of the region. New road are constructed, the segment roads Kakavijë Gjirokastër, Permete Tri Urat, while will be soon completed Gjirokaster-Tepelenë-Fier, and Konispol-Sarandë, will soon be completed. This will bring about the take-off and consolidation of small and large trade. Tele communications are also extremely important, this being a growing sector in both fixed and mobile telephony.

Reconstruction of Local airports near Girokastra and Saranda are

of a great importance for the future development in those district taking into the consideration the fact that Gjirokastra and Saranda are very important points in cross roads links with Greece and tourism orientation as well as of great strategic relevance for all the southern part of Albania.

Since 1994 the area benefits from the EU Interreg/PHARE-CBC funding for the development of various infrastructures and communications projects (56% of the financing); among them there are also the improvement of the Ioannina-Kakavijë and of the Siatista- Krystallopigi motorways and the opening of the Krystallopigi border crossings.

3.9.3. Cross-border declarations and agreements

A considerable numbers of Agreements, Protocols and Memorandum of Understanding with the very aim of cross border collaboration and good neighbourhood, parties have signed on various aspects of the social, economic and political life, laying down the basis for co-operation and integration in both the Balkan and European regions.

Numerous exchange visits and information of political, state central and local level personalities leads to these collaborative agreements between Greece and Albania.

Convention of Good neighbourhood, and collaboration was undersigned by the two countries on March 21st, 1996.

Bilateral Agreement and protocol of collaborations to be mentioned are those concerning : Transport of people and goods, seasonal employment, social insurance, euro atlantic integration assistance, technology and defence equipment collaboration, education, science and culture, join keeping and control of coastline border, tourism activity cooperation, elimination of double tax, 2000-2006 joint development program, reconstruction and equipment support by Greece side of the military hospital in Gjirokastra, collaboration in the area of post and electronic telecommunication, collaboration in the fire keeping services, and so on.

In the framework of permanent strengthening of collaborative actions between two countries, there are in the process approval the new agreements such as: SME cooperation for promotion and bilateral defence of foreign investments.

Negotiation and signing of collaborative agreement between Albanian Electro energy corporation and PCC, Greece partner.

A new see transport agreement and a new Collaboration Protocol, in Emigration and Employment.

Renovation of the bilateral employment agreement and an agreement for collaboration in fighting laundry money.

All these pragmatic actions of collaboration between two countries are steamed by the very good social and political climatic situation in the border area of the countries. In the south of Albania there are ethnic Greece minorities (the biggest in the country) that enjoy full social and political wrights as all the Albanians.

However, it is necessary to point out the lack of adequate structures and infrastructures for cross-border co-operation and the low implementation of programme, mainly due to uncertainties about regional and local competences and to the lack of structural funds. Overall, legal production on the subject is rather extensive. In 1992, approval decrees were signed concerning the agreement on implementing measures for the prevention of border incidents, the agreement on the reconstruction of border signs and the law ratifying consular relations between the two countries. The agreement on co-operation between customs administrations was ratified in 1993; the approval decree concerning the opening of new border crossings with Greece (Qafe Bote, Dhrimadh, Tri Urat) and the EU Commission financial memorandum for the CBC, programme date back to 1995.

The parties favour trade in the following sectors: military, economic, industrial, banking, tourist, technological, scientific, environmental, waters, energy, transport and communications (duration: 20 years). In recent years, a project-agreement was approved by the two governments, concerning assistance in the Euro-Atlantic integration of Albania (1998); a cooperation protocol was ratified by the Albanian Ministry of Interior and the Greek Mercantile Marine Ministry on joint border-patrolling (involving the Albanian Border Police and the Greek Navy Troops for Harbour Defence) (1999), and an agreement was signed for the construction of the cross-border bridge in Tri Urat-Metzani (1999).

At international level, the following initiatives must be pointed out: the agreement on co-operation and prevention of cross-border crime (1999), involving other countries from south-eastern Europe; the friendship, co-operation and development agreement for the creation of a network of cities in the Balkan region (2000) involving the

mayors of the main cities in the Balkans; the co-operation and joint action of the cities translates not only into better information, exchange of know-how and development of friendship, culture and trade, but also into greater involvement in important issues, such as re organization and development programme taking advantage of the opportunities provided by the European Union.

3.9.4. Propensity towards cross-border co-operation

Increasingly visible tendency and indicators are evident in the last years between local authorities in cross borders area .

Indicators are showing the increasingly good cooperation between local authorities in cross-border area. The decentralization strategy of the governance strongly supported this cooperative framework. Despite the partiality of indicators cooperation is stronger in those areas where the Greek minority live .

In general terms, the actors' propensity towards cross-border co-operation is considered to be insufficient. The Greek counterpart, seems interested in investing principally in those areas where Greek minorities are present .

Also at cultural level, co-operation is discontinuous; cultural exchanges have been established between universities on bilingual projects (Tempus programme). At institutional level, finally, in the year 2000 the decentralisation of powers from state to regions was introduced, and it was reflected by especially interesting figures

There are yet some signs of good relations between local administrations in border areas. There are consultation at the institutional, economic, tourism and cultural sectors, territorial planning and transport (where decisions are made at central level). A positive example of co-operation is provided by the Euroregion "Ohrid-Prespa" implemented with the support of local actors from both sides of the frontier and also from "the former Yugoslav Republic of Macedonia". The Stability Pact and the East/West Institute, are also involved.

Under EU program there will be a new professional training program in the border area between Gjorokastra and Yoanina .

Whereas politically the Austrian-Czech border is relatively old (Kingdom of Bohemia, Dukedom of Moravia), culturally it is the product of "ethnic cleansing" after World War II. This seems to have at least tacitly a restraining impact on the propensity towards cross-

border co-operation. On the one hand there is the partly visionary official rhetoric since the beginning of transformation in Eastern Europe, on the other hand there are the rather modest practical results since the dismantling of the Iron Curtain fifteen years ago. With the exception of the border to Slovakia nowhere else along Austria's borders this ambiguity towards cooperation can be so strongly felt as at the border to Bohemia and Moravia. Not only that decisions about improving traffic infrastructure with the Czech Republic were made hesitantly, there seems to exist also a deep seated uncertainty and distrust in the Austrian population about the benefits of integrating the cross-border area. This is can be seen from all kinds of opinion surveys and research into local attitudes. Nowhere in Austria was the support for EU membership of the immediate neighbour so low as in the regions along the borders of former Czechoslovakia.

The reasons for this strong ambiguity in the propensity towards cross-border cooperation are manifold: expulsion of several millions of ethnic Germans from Czechoslovakia after 1945, persistence of national prejudices and stereotypes from the 19th century, ignorance about the neighbouring people due to the Iron Curtain, divergent policies concerning the use of nuclear power (the case of "Temelin"), fear of unfair competition on the labour market etc. Whereas on the Czech side there are some fears with regard to restitution of property rights and foreign domination in general.

3.9.5. Elements of SWOT analysis

Strength: A Greece community living in the border area between two countries in districts of Gjirokastra and Saranda, represent a positive outcome of cooperation because of the good relations showed by the Albanian majority towards them , as well as because of the fact that a considerable number of Albanians who live and work in Greece (round 600.000 people) are a premise for good neighbour and friendly collaborative relations between Albania and Greece. Thus, among the strong points, a favourable geographical position (a natural outlet into the Adriatic and the neighbouring markets), an abundance of natural resources and highly trained professionals in the labour force. The basis for relations is the respect of sovereignty and territorial integrity, the observance of human rights including those of the national minorities.

Greece supported efforts for the reconstruction and development of Albania by financing educational, health, infrastructural projects and many more. There are hundreds of joint ventures proving the close relations between the two countries.

Weaknesses: there are several weak points in the area. The high unemployment rate due to a weak economy that produces migration, inadequate infrastructures and financial means that do not allow the exercise of regional competences, the lack of a strong banking system able to finance small and medium sized private enterprises and the agricultural sector, insufficient propensity towards cross-border cooperation of local actors, also due to the lack of adequate structures, excessive labour-market control. It seems appropriate to promote the organization of cross-border management training courses and a banking system in order to harmonize regulation with that in force in the EU countries, thus facilitating access to financing instruments for private citizens, especially for those intending to launch activities with partners across the border.

Opportunities: The geographical position at a historical trade route, the rich natural resources, the special ecosystem and the rich ethnic composition of the population with several common cultural characteristics give to the area the potential to become a model region of cross-border cooperation in South-Eastern Europe. A good road network leading to the border and modernization of custom points is contributing to the development of the border area and have create a positive impact on employment and trade. The development of telecommunications and of the highway system and the construction of the hydro-electric plant in Kalivaci are also of strategic importance for the Gjirokastër region. The border area can certainly rely on considerable financing, not only from the European Union, but also from individual state contributions, such as Italy and Greece. Lastly, the greatest opportunity comes from the reform of the Albanian administrative system: the decentralization of power from state to regions will allow greater financial planning and cross-border autonomy.

Threats: the greatest risk is posed by the possibility of an increase in production competitiveness between the border areas, as the result of the reduced number of Albanian farmers and workers willing to work in Greek fields and factories. Intervention of the European Union, the

World Bank and other international organizations can reduce this risk by promoting co-operation on the basis of mutual interest, raising in the actors the awareness that they are part of the same system.

There are practical examples in the area of cross-border cooperation but in order to pass the initiative level this cooperation should not be spontaneous, but developed on institutional bases with a continuous exchange of information, specialists, and experiences combined with the appropriate financial support.

3.9.6. Future prospects

The 53 indicators of cross-border analysis listed by type:

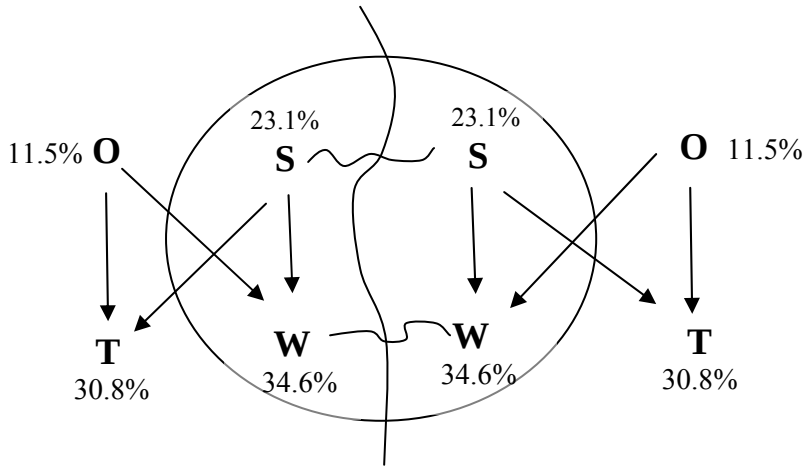
			n.	%
- SWOT variables indicators			26	49.1
- Halo effect indicators	positive	12		
	negative	12	24	45.3
- non-relevant indicators			3	5.6
			53	100.0

SWOT variables then are configured as follows:

	Internal to the area (SW)	External to the area (OT)	Total	%
Positive (SO)	6	3	9	34.6
Negative (WT)	9	8	17	65.4
Total	15	11	26	
%	57.7	42.3		100.0

SWOT analysis shows this cross-border area to have a strong *halo* effect in half of its indicators (45.3%), specifically institutional obstacles (state centralization, lack of structures for cross-border cooperation, poor credibility of cooperation organizations, scarce resources), but also in positive terms, as propensity towards cooperation, relations between production sectors, labour market protection and local administrative independence. There are few *non-relevant* indicators (5.6%), and they mainly concern the uneven accession to international conventions on cross-border cooperation. SWOT variables are predominantly internal (57.7% internal vs. 42.3% external), and, more relevantly, they are more negative than positive (65.4% vs.

34.6%). Negative SWOT variables are generally related to relations between economic sectors and everyday life services, as well as the presence of institutional and economic obstacles. This scenario suggests the most appropriate strategy to be the *fourth*, which focuses on the control of negative factors.



This strategy implements a set of specific actions aimed at overcoming several negatives, which can be more effective than others in fostering cooperation. The main guidelines are:

(1) Parallel training courses for administration staff on either sides of the border, in order to enhance the effectiveness of cooperation;

(2) Implementing projects to support relations among stakeholders in sectors such as economy and everyday life services;

(3) Planning of common policies, to mitigate gaps between bordering countries. There are indeed some threats to cross-border cooperation, which concern the uneven standards of competence and skills between adjacent countries, differing regulations about transboundary relations, differing levels and rates of development and available technology, reluctance to cooperate on one side due to exceeding competition, or low mutual trust;

(4) Promoting communication infrastructures, such as transports routes and connections, which are appropriate to local geomorphology.

In order to support this strategy, the Cross-border Euroregion and

the Functional Network Euroregion (and their related EGTC) represent essential tools to implement the four mentioned action sets.

3.10. Greece-Turkey

3.10.1. Geographical definition of the border

The land border between these two countries is 206 km long, running mostly southwards along the Maritza (Evros/Meriç) river, from the meeting point of their borders with Bulgaria to the river outpouring into the Aegean Sea.

3.10.2. Infrastructural characteristics

In order to exploit the potential linked to cross-border co-operation, however, it is still necessary to overcome various structural obstacles linked to the transport and communication infrastructures. There are two border crossings between Greece and Turkey. One is located in the northern part (Kastanies-Pazarkule), while the other is situated in the southern part (Kipi-Ipsala) of the border. The first is hampered significantly owing to the poor road conditions on both sides of the border, and is a major obstacle to car-traffic for tourism and, especially, for commerce. The latter, however, is interesting because of the "Egnatia Odos" project which led to the building of a modern highway linking the Ionic Sea (from Igoumenitsa) to the Greek-Turkish border. The highway will then link the border area to Istanbul and further projects should also be designed in order to improve the existing bridge over the Maritza river. The internal road next to the border, between the cities of Alexandroupolis and Orestiada (134 km), and between Keşan and Edirne (ca. 100 km) is being restructured and enlarged, thus, giving hope to positive influences for cross-border co-operation. The railroad network, however, is still very limited and scarcely developed.

3.10.3. Cross-border declarations and agreements

The diplomatic relations between Greece and Turkey have been characterised by various (positive and negative) phases over the past two centuries. Long periods of proactive dialogues were often interrupted by times or high political tension. After the Lausanne Treaty

in the Thirties, Greece and Turkey started a gradual process of reconciliation. In 1933, the two countries signed a "friendship pact" to protect themselves from a possible aggression from fascist Italy. At the end of Second world war, together with Yugoslavia, the two countries drew a treaty for reciprocal defence and assistance, followed by a first (tentative) Balkan Pact. At that time, relations intensified in order to overcome the past hostilities and tensions. However, in 1955, owing to the dispute over Cyprus, Greek-Turkish relations started to deteriorate. After the intervention in Cyprus by the Turkish army in 1974, there were two main steps during the reconciliation process: the Davos meetings in 1988 and the Madrid NATO conference in 1997. However, the turning point for cross-border co-operation between the two countries was the creation of the Turkish-Greek Steering Committee and its Sub-Committees by the two Ministries for Foreign affairs (George Papandreu and Ismail Cem) for handling a number of cross-border matters jointly. The peak of this initiative was the two meetings in Ankara and Athens, in 1999, where nine bilateral agreements were signed. The first is concerned with cross-border co-operation in the tourism sector and is aimed at developing an ecologically sustainable tourism (4 May 2001). The second is concerned with economic co-operation and became operative on the 24 November 2001. The third aims at the development of scientific and technological research. Other agreements were signed so as to cover several aspects of the Greek-Turkish relations in maritime transport (19 August 2001), cultural co-operation, environmental policies, sea pollution, renewable resources and policies hindering the desertification process, co-operation between the two administrative systems, and, finally, crime prevention (November 2001).

Consequent to the renewed co-operative relations between the two countries, the Ministries of Agriculture of the two countries signed various protocols establishing policies protecting the cattle-breeding and agricultural sectors. In 2001, a memorandum of co-operation between the diplomatic academies of the two countries was signed and has been in operation since 2003. At the same time, moreover, various joint documents have been prepared for joint and mutual action in case of national and international emergencies and natural catastrophes, which, since 2002, have been developed under the auspice of the UN. The 2 December 2003 an important agree-

ment to avoid "double taxation" was signed by the Greek and Turkish Ministries for economic activities. In August 2005 in Athens, a further memorandum of cooperation in the commercial and trade sector was signed. It aimed at an intensified co-operation and trading between the two countries, which will lead to more agreements than the 25 agreements concluded in the last five years. In particular, it looked at patent and standardisation, in conjunction with exchanging know-how between agencies, decreasing the trade gap through bilateral financial relationships, the creation of a second bridge at the Kipi-Ipsala border and ferry boat lines in the north-east Aegean. It also contains a reference to an agreement between the two telephone providers, OTE and Turk Telecom, and Hellenic Railways and Turkish Rail for improving the Thessaloniki-Istanbul route (source: Athens News Agency).

As far as military co-operation is concerned, within NATO's framework, the two countries have adhered to some common initiatives (confidence-building measures - CBMs) aimed at exchanges of personnel, meetings and joint training. As far as regional co-operation between Greece and Turkey is concerned, they have both joined various international organisations devoted to the development of cross-border relations. Both countries have, in fact, become members of the Stability Pact for South-Eastern Europe and the Southeast European Cooperative Initiative (SECI). In 2000, the Greek Prime Minister Mr Simitis promoted the idea of establishing a Euroregion for the border areas contiguous to the Maritza (Evros/-Meriç) river, and several mayors of the Eastern Macedonian and Thracian region and of the Marmara Turkish region held proactive meetings firstly in Greece and, then, in Turkey (Tekirdag). The project has been further developed at local level but does not seem to receive the primary support of central government. In the meanwhile, however, there have been talks about establishing a network for the prefectures and provinces of the border area between Greece, Turkey and Bulgaria. On 16 April 2004, the prefect and presidents of the provinces of Evros, Rodopoi, Xanthi, Kavala, Drama, Serres (GR), Edirne (TR) Kirtzali, Blagoevgrad, Smolian and Haskovo (BG) signed a co-operation pact in order to define a supra-national network of territorial entities aimed at reinforcing the reciprocal relations and co-operation in various sectors. In particular, the agreement is concerned with the prevention and fight against people

and animal epidemics, extraordinary meteorological events, natural disasters, environmental pollution and illegal immigration. Moreover, it aims at improving the existing co-operation in the tourism and cultural sectors and increasing the exchange of know-how from an European Union perspective.

3.10.4. Propensity towards cross-border co-operation

Although cross-border economic co-operation is a rather recent phenomenon for local Greek and Turkish economic actors, it has rapidly increased in the last five years. In 1999 cross-border trading seemed still limited and only 30 Greek firms were operating in the Turkish market for a total bilateral trade volume of 709.8 million dollars (source: DEIK - Foreign Economic Relations Board, 1999). More recently, this figure has undergone a very high rate of increase, and in 2004 reached 1,765.2 million dollars (source: DEIK - Foreign Economic Relations Board, 2005). There are more than 229 Greek firms operating in Turkey, and there are more than 10 Turkish firms present in the Greek market (source: Permanent Representation of Turkey to the Council of Europe, 2006). The latter operate in the tourism and transport sectors. In 2000, some joint-ventures were created, merging Greek and Turkish companies. They operated mainly in the technology-related sector: e-trading, hardware and software trading, energy plants (source: A.C.C.I. Athens Chambers of Commerce and Industry, 2003). Their market was to be found in the two countries and in other countries too. In cross-border terms, both the tourism and finance sector are important. There are already some forms of co-operation in this sector. In 2005, for instance, 584,952 Greek tourists crossed the border into Turkey; more tourists than ever before (source: Permanent Representation of Turkey to the Council of Europe). Moreover, Turkish nationals too seem to cross increasingly more often the border into Greece for touristic purposes. However, the costs and lengthy procedures needed to obtain an entry visa still represent a strong obstacle.

As far as culture and cultural events are concerned, there is a strong tendency to cooperate and various initiatives are to be recorded. There have been numerous activities linked to music, drama, art, training, and it is important to stress they date a long way back, preceding the agreements between central governments. Similarly, symposiums,

forums and student exchange programmes at the university level are increasingly taking place within a cross-border co-operation framework.

Overall, cross-border co-operation has increased consistently but there is still considerable room for improvement. The high degree of state centralisation does indeed hinder the tendency of local authorities and of civil society in the area to cooperate.

NGOs operating on both sides of the border still find it difficult to initiate proactive and financially sustainable programmes especially those aimed at monitoring protection of the ethnic minorities. Such programmes, however, will gain momentum through EU funding when the negotiations for Turkey's accession to the European Union begin. Widespread information, promotion and understanding may provide more opportunities for developing cooperation between private actors at "everyday life" level and bring a decisive involvement of civil society on the co-operative process, with or without institutional intervention. Successful cross-border co-operation is based on mutual trust. The civil society, the NGOs and the media have an irreplaceable role to play and should be associated with any initiative aimed at fostering reciprocal understanding and effective co-operation.

3.10.5. Elements of SWOT analysis

Strengths: a most important strength element in the cross-border area is the possibility of integrating the two economies in a complementary fashion. Special attention should be paid to the potential offered by the tourism sector. The volume of economic contact has been steadily improving over the last few years but should improve further. New infrastructures are needed in order to integrate the two economies further. The morphologic characteristics of the cross-border co-operation area, especially, in the northern part, favour the agricultural sector. Co-operative relations could enhance the technological development of agricultural practices.

Weaknesses: little investment in technological innovation and research, together with the outdated instruments used in agricultural (and industrial) practices, seems to be the most counterproductive factors to the economic development of the area. Moreover, the lack of concrete help by central governments to the cross-border area on a continuous basishinders co-operation among public and private actors operating in the area. Socio-cultural operators and NGOs are often not proactive

enough to cooperate in a cross-border perspective, reflecting the institutional views and positions. The northern border-crossing (Kastanies-Pazarkule) presents various infrastructural shortcomings thus hindering people crossing and commercial exchanges.

Opportunities: The Maritza (Evros/Meriç) river delta and the Mediterranean beaches represent several opportunities for the further development of tourism as well as other economic sectors. The pre-accession process of Turkey, if correctly carried out/if successful, could offer important financial aid to the cross-border area. Moreover, adequate infrastructures, and particularly the implementation of the Egnatia Odos Motorway (TR), could present itself as a new transport and communication corridor at the European level.

Threats: The costs and the lengthy procedures put in place by the existing visa regime do hinder the private and commercial crossing of the border from the Turkish side. The Greek economic actors operating in Turkey seem to be more interested by the lower costs of production rather than a reciprocal cross-border co-operation. State centralisation on both sides of the border still represents an important obstacle to the promotion of a cross-border mentality. Corruption too seems to be a factor hindering possible co-operation and access to international funds. Finally, the lack of a legal framework within which cross-border activities could be organised represents a strongly detrimental factor to the feasibility of stable cross-border relations and actions.

3.10.6. Future prospects

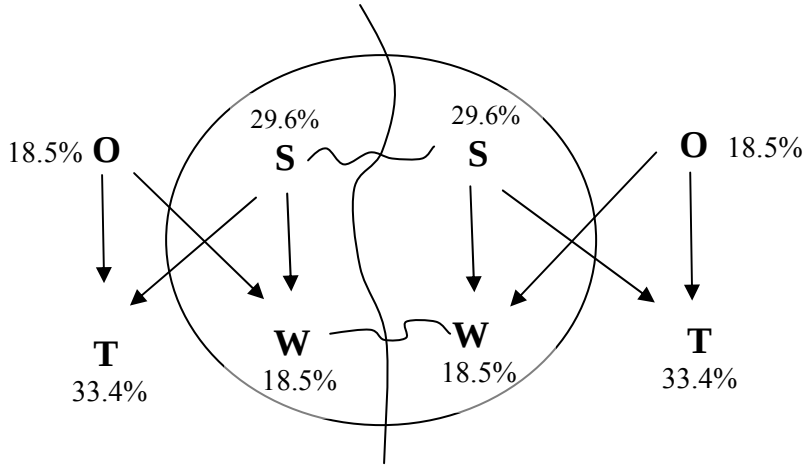
The 53 indicators of cross-border analysis listed by type:

			n.	%
- SWOT variables indicators			27	50.9
- Halo effect indicators	positive	4		
	negative	6	10	18.9
- non-relevant indicators			16	30.2
			53	100.0

SWOT variables then are configured as follows:

	Internal to the area (SW)	External to the area (OT)	Total	%
Positive (SO)	8	5	13	48.1
Negative (WT)	5	9	14	51.9
Total	13	14	27	
%	48.1	51.9		100.0

SWOT analysis shows a balanced ratio between positive and negative variables (48.1% vs. 51.9%) and between internal and external ones (48.1% and 51.9%). Nevertheless, approximately one-third of the indicators taken into account is *non-relevant* (30.2%). The most appropriate *strategy* for this situation is the *fourth*, which is based on positives to counteract negatives.



Action strategies should concentrate on mitigating the influence of weaknesses (W) and threats (T), relying on strengths (S) and opportunities (O). Among the main guidelines:

(1) Implementation of specific programmes to increase the propensity towards cooperation in economic and industry operators;

(2) Encourage relations between everyday services on either sides of the border;

(3) Planning institutional policies to decentralize decision-making powers, and increase the financial resources available to local organizations within the cross-border area;

(4) Outline economic policies to decrease development and economic gaps, as well as to tackle fiscal and customs issues;

(5) Ratification by the two countries of the Madrid Convention Protocols, and of the Framework Convention for the protection of ethnic minorities;

(6) Implementation of devolution policies in order to grant greater autonomy to local authorities, especially in international relations;

(7) Encourage the improvement of transboundary connections and of road, rail and waterways.

The institutional endorsement of these action strategies require the support of all three types of *Euroregion*: *Cross-border, Functional Networks* and *Macro Infrastructures*.

4. Cross-border cooperation among actors directly involved in the protection of the Adriatic Seaways

4.1. The research: Introductory and methodological notes

The scenario developed above depicts a highly heterogeneous cross-border context which varies from area to area, delineating both challenges and opportunities for the future integrated development of the Adriatic Sea region. Within such background, however, despite the proactive or hindering role of context-specific variables, the actors directly dealing with the protection of the Adriatic seaways have developed different approaches to cooperation. Within the scope of the research a questionnaire was distributed to more than 40 relevant stakeholders from all countries in the Adriatic basin aiming at gathering data on the level(s) of cooperation among institutional [International bodies (i.e. NATO, EU, etc.); National authorities (i.e. National Ministries); Regional authorities (i.e. Regional government)], operative (Civil protection, Army/Navy, Coast Guard, etc), economic-trade (Commercial/Civil Shipping companies, etc.) and socio-cultural (Research Institutes/Universities, Media, etc.) actors.

The definition of cross-border co-operation already given above holds valid even within the scope of an analysis focusing more on the

relational aspects of cooperation among actors. However, in order to narrow down its meaning and to highlight its importance within the following analysis, it is useful to consider its external and internal dimensions (with and within the actors' relational space) in order to evaluate its present characteristics and to design strategies for its future prospects.

Box 3 - Dimensions with operational implications

1. Level of propensity toward cross-border cooperation of CBC actors
2. Level of coordination of CBC actors
3. Level of relations in each activity sector
4. Incisiveness of institutional factors inhibiting or prompting cooperation
5. Incisiveness of operative factors inhibiting or prompting co-operation
6. Incisiveness of economic factors inhibiting or prompting co-operation
7. Incisiveness of cultural factors inhibiting or prompting co-opera-

4.1.1. Internal dimensions and indicators

The internal dimension refers to forms of cooperation among actors based on the active examples of collaboration already in place. The reference here is to that bottom-up process which is essential to any further structuring of cross-border cooperation. The two dimensions directly dealing with this aspects are:

1. *Propensity toward cross-border cooperation of CBC actors*. This is defined by indicators which refer to (1) institutional actors, (2) operative actors, (3) economic-trade actors, (4) socio-cultural actors. In short, a high propensity for cross-border cooperation in all four types of actors implies that there are realistic opportunities to develop not only stable cooperation but also, and more importantly, innovative, efficient and integrated.

3. *Cross-border relations in each activity sector*. These relations are expressed by the indicators of relations of (9) institutions on mari-

time-related issues, (10) intelligence services, (11) combating illegal immigration/ illegal trafficking, (12) maritime environment protection, (13) sea rescue, (14) promoting tourism, (15) education and culture, (16) everyday services.

Given the matter at hand, namely the collaborative process necessary to the protection of the Adriatic seaways, there is another internal dimension which is held essential and it concerns those characteristics specific to the relational space which can play a proactive or hindering role on both previous dimensions. This refers to the *2. Level of coordination of* (5) institutional actors, (6) operative actors, (7) economic-trade actors, (8) socio-cultural actors.

4.1.2. External dimensions and indicators

The external dimension of cooperation in the actors' relational space concern agency specific, national, European and international conditions which may play a proactive or hindering role on the development of cooperative relations among actors directly dealing with the protection of the Adriatic Sea ways. There are four external dimension which are thought to have a progressively lower gradient of direct influence on the cooperative process itself. An efficient and integrated cooperative process, nevertheless, requires the interplay of all the following dimensions. These are based on unbalances or equilibrium between the different contexts of action of the relevant stakeholders.

4. *Institutional factors inhibiting or prompting co-operation.* The selected indicators are: (17) high prioritisation of protecting the Adriatic seaways in the policy agenda, (18) state centralisation, (19) credibility of co-operation agencies, (20) different competencies of institutional actors, (21)official definition of the border area, (22) level of mutual knowledge and trust, (23) level of financial resources, (24) EU membership, (25) NATO membership, (26) political stability, (27) participation in international *treaties/agreements.*

5. *Operative factors inhibiting or prompting co-operation*. The selected indicators are: (28) high prioritisation of protecting the Adriatic seaways in the policy agenda, (29) different competencies of operative actors, (30) different technological levels, (31) level of mutual knowledge and trust, (32) level of financial resources, (33) level of autonomy from institutional/management actors, (34) adequate competencies in matter of international relations, (35) good administra-

tive capability, (36) different procedures, (37) linguistic barriers, (38) participation to international drills, (39) non-existent or very weak reaction to collaboration proposals.

6. *Economic factors inhibiting or prompting co-operation.* The selected indicators are: (40) high prioritisation of protecting the Adriatic seaways in the policy agenda, (41) high competition inhibiting co-operation, (42) adequate resources devoted to safety/security, (43) co-ordination with relevant stakeholders, (44) adequate competencies of managerial staff, (45) adequate competencies of workers, (46) good administrative capability, (47) linguistic barriers, (48) non-existent or very weak reaction to collaboration proposals.

7. *Socio-cultural factors inhibiting or prompting co-operation.* The selected indicators are: (49) high prioritisation of protecting the Adriatic seaways in the policy agenda, (50) coordination with relevant stakeholders, (51) negative national and/or regional stereotypes, (52) linguistic barriers, (53) non-existent or very weak reaction to collaboration proposals, (54) history of cooperation.

Box 4 – SWOT analysis indicators, according to conceptual dimensions

1. Level of propensity toward CBC in protecting the Adriatic seaways
1. of institutional actors
2. of operative actors
3. of economic-trade actors
4. of socio-cultural actors

2. Level of coordination between
5. institutional actors
6. operative actors
7. economic-trade actors
8. socio-cultural actors

3. Level of relations in each activity sector
9. institutional relations on maritime-related issues
10. intelligence services
11. combating illegal immigration/ illegal trafficking
12. maritime environment protection
13. sea rescue

14. promoting tourism
15. education and culture
16. everyday services

4. Incisiveness of institutional factors inhibiting or prompting co-operation

17. high prioritisation of protecting the Adriatic seaways in the policy agenda
18. state centralisation
19. credibility of co-operation agencies
20. different competencies of institutional actors
21. official definition of the border area
22. level of mutual knowledge and trust
23. level of financial resources
24. EU membership
25. NATO membership
26. political stability
27. participation in international treaties/agreements

5. Incisiveness of operative factors inhibiting or prompting co-operation

28. high prioritisation of protecting the Adriatic seaways in the policy agenda
29. different competencies of operative actors
30. different technological levels
31. level of mutual knowledge and trust
32. level of financial resources
33. level of autonomy from institutional/management actors
34. adequate competencies in matter of international relations
35. good administrative capability
36. different procedures
37. linguistic barriers
38. participation to international drills
39. non-existent or very weak reaction to collaboration proposals

6. Incisiveness of economic factors inhibiting or prompting co-operation

40. high prioritisation of protecting the Adriatic seaways in the policy agenda
41. high competition inhibiting cooperation
42. adequate resources devoted to safety/security

43.	coordination with relevant stakeholders
44.	adequate competencies of managerial staff
45.	adequate competencies of workers
46.	good administrative capability
47.	linguistic barriers
48.	non-existent or very weak reaction to collaboration proposals
7.	*Incisiveness of socio-cultural factors inhibiting or prompting co-operation*
49.	high prioritisation of protecting the Adriatic seaways in the policy agenda
50.	coordination with relevant stakeholders
51.	negative national and/or regional stereotypes
52.	linguistic barriers
53.	non-existent or very weak reaction to collaboration proposals
54.	history of cooperation

4.1.3. Overview of actors cooperation in the Adriatic

The data gathered through the questionnaire distributed to relevant stakeholders have been analysed by means of SWOT analysis. The methodological aspects on the measurement of indicators and the SWOT analysis methodological process applied have already been described elsewhere (see 2.1.4 and 2.1.5 in this chapter).

The seven conceptual dimension scored the following average marks

Internal			***External***			
1°	2°	3°	4°	5°	6°	7°
6.4	5.1	6.9	6.7	4.8	3.3	3.6

The 54 indicators on the level of cooperation among actors in the protection of the Adriatic seaways configure themselves as follows:

			n	%
- SWOT variables indicators			29	53.7
- Halo effect indicators	positive	12	22	40.7
	negative	10		
- non-relevant indicators			3	5.6
			54	100.0

SWOT variables then are configured as follows:

	Internal to the area (SW)	External to the area (OT)	Total	%
Positive (SO)	7	5	12	41.4
Negative (WT)	4	13	17	58.6
Total	11	18	29	
%	37.9	62.1		100.0

Finally, SWOT variables have the following denominations:

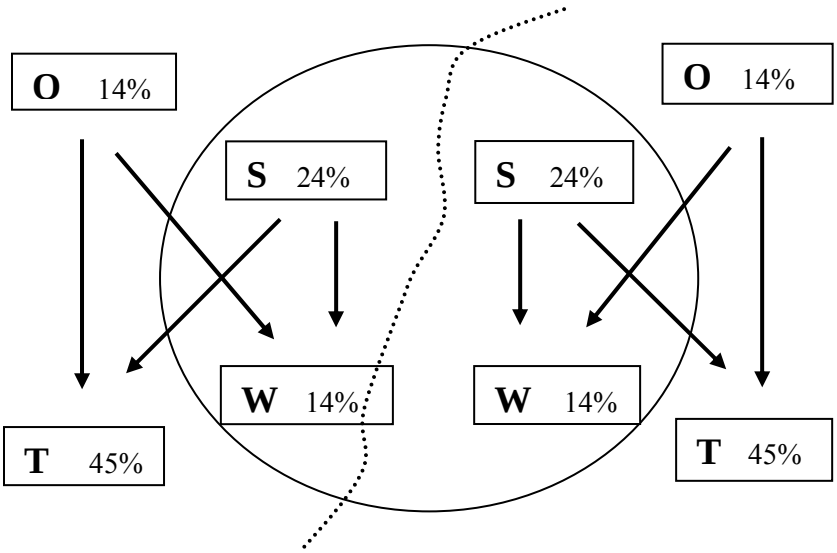
	Indicator	**relev-ance**	**dimen sion**	**S**	**W**	**O**	**T**
Internal							
1	Of institutional actors	+++	1	x			
2	Of operative actors	+++	1	x			
5	Institutional actors	++	2	x			
7	Economic-trade actors	++	2		x		
8	Socio-cultural actors	++	2		x		
9	Institutional relation on maritime-related issues	+	3	x			
11	Combating illegal immigration	+	3	x			
12	Maritime environmental protection	+	3	x			
13	Sea rescue	+	3	x			
14	Promoting tourism	+	3		x		
15	Education and culture	+	3		x		
External							
17	Prioritisation of protecting the Adriatic sea ways in the policy agenda	+++	4			x	
18	State centralisation	+++	4				x
20	Different competencies of institutional actors	+++	4				x
24	EU membership	+++	4			x	
25	NATO membership	+++	4			x	
30	Different technological levels	++	5				x
32	Level of financial resources	++	5				x
33	Level of autonomy from institutional actors	++	5				x
34	Adequate competencies in matters of international relations	++	5				x
35	Good administrative capability	++	5			x	
38	Participation to international drills	++	5			x	
40	Prioritisation of protecting the Adriatic sea ways in the policy agenda	+	6				x

41	High competition inhibiting cooperation	+	6				x
43	Coordination with relevant stakeholders	+	6				x
45	Adequate competencies of workers	+	6				x
49	Prioritisation of protecting the Adriatic seaways in the policy agenda	+	7				x
51	Negative national and/or regional stereotypes	+	7				x
52	Linguistic barriers	+	7				x
				7	4	5	13

As far as the protection of the Adriatic seaways is concerned, the cross-border cooperation among actors in the Adriatic Sea Region, as depicted by the SWOT analyses, does not appear particularly positive but highly heterogeneous depending on the type of actors involved. Although, when considering the internal relational space, there are more positive SWOT variables (7 strength vs. 4 weakness points), there is a considerably high number of threats incumbent on the positive development of cooperation among actors in the area (13 threat vs. 5 opportunity points). Moreover, when comparing average scores per dimensions it appears clear that the cooperation in the area, when it comes to identifying and implementing policies on the protection of the Adriatic seaways, is confined almost exclusively to institutional and operative actors (dimension 1, indicators 1 and 2), carried out by means of institutional relations (dimension 4) within sectors dominated by institutional relations. The prevalence of the institutional sphere in the relational space of the relevant actors may be easily explained by the very nature of the framework within which policies aiming at the protection of the Adriatic seaways are design and implemented. International agreements, national and international definitions of Critical Infrastructures and Operative Contingency Plans, and national safety/security protocol do carry an intrinsically predominant institutional nature and, thus, national (and/or regional) institutions tend to play the lion share in the coordination of cooperative approaches in the Adriatic Sea Region. However, given the nature and typology of risks which the Adriatic seaways are more likely to face, it appears clear that an innovative approach to cooperation should take the lead in order to guarantee both the safety/security of the area and its integrated control necessary to its socio-economic development.

Cooperation trajectories still linger in a blurry phase where the integrated approach characterising effective cross-border cooperation play a minor role (such as the cooperation among economic-trade and socio-cultural actors and their level of coordination with other relevant actors).

Given this scenario, the fourth strategy, a strategy aiming at controlling negative factors, seems to be the most adequate.



The actions necessary to implement such strategy are highly complex and embrace several aspects of the framework within which this research was carried out. Although specific recommendations of a more holistic nature were elaborated and are presented in the next chapter, it is useful to consider the following as trajectories towards positive future prospects:

(1) Favouring the creation of new actors facilitating the interconnection among the institutional, operative, economic and socio-cultural sectors in the whole area;

(2) Promoting diversified international drill aiming to the involvement of all relevant actors;

(3) Promoting a sense of responsibility for the safety/security in the Adriatic space;

(4) Raising funds for the competitive participation of socio-cultural actors in disseminating a safety/security culture in the area;

(5) Operating at the international level for the harmonisation of local and regional agencies dealing directly or indirectly with the protection of the Adriatic seaways.

Chapter 5
SIMULATION, CRITICALITIES AND RECOMMENDATIONS

1. Simulating the protection of the Adriatic Seaway

Within the research activities, Table Top Exercises were organised. «This type of activity involves a simulated response to a hypothetical natural or man-made disaster. These exercises are easier and faster to plan and execute than full scale exercises, which involve the mobilization of resources to a remote location or the use of actors as victims. Table top exercises are especially helpful in testing emergency response procedures and enabling communications and coordination between personnel who typically do not work together. The focus of a table top exercise should always be on identifying and eliminating emergency response deficiencies before an actual emergency occurs.

The focus of a table top exercise is not actually on solving the problem, but on working through the steps to respond to the problem. In some table top exercise, no solution is clearly attainable. In others, the components of the solution are provided to the participants as the table top exercise progresses. However, participants can: Test and validate organizational operational and policy level response plans in problem identification, interagency coordination, integration of resources and crisis resolution; Help representatives of various departments and organizations become more familiar with one another's personnel, capabilities and vulnerabilities; Develop and refine internal and external communications, cooperation, teamwork and confidence; Improve understanding and familiarity with the Incident Command System and the Unified Command System; Identify gaps in plans and resources; Train personnel and clarify roles and res-

ponsibilities in emergency situations»[1].

The table top exercises focused on two scenarios in the Adriatic Sea: an oil spill from a tanker cruising in international waters; and a terrorist attack to a ferry also cruising in international waters. A moderator facilitated the interactions among participants whilst ISIG staff graphically elaborated the development of the scenarios and took record of your contributions. Participants were asked to describe the actions their organisation/institution would undertake in the event of each type of disaster taking into consideration the interactions with other stakeholders. Moreover, participants were encouraged to bring to our attention potential CIs and actors which might had been left out when the exercise were planned. The next paragraphs gather the results of the simulations.

1.1. Simulation 1: Simulating an oil-spill in the Adriatic

1.1.1. t_0 - Early warning

An oil tanker traveling along the Adriatic Sea is experiencing grounding or collision, with the risk of oil leakage.

We decided on purpose to fix neither a precise position of the vessel nor its flag, and this for 2 reasons: on the hand to get from the participants to the table top exercise as much information as possible, and on the other hand not to exclude any of them as possible actor of the simulation. Thus our tanker is on international waters, and we figure out that its early warning would be received by more than one Country.

The scenario in fact is organized in two main phases: this so called t_0 phase, and the following t_1.

This twofold scenario has been drawn on the base of the field-work we carried out so far within the project.

The t_0 is then the opening phase, in which we figure out that the proper recipients, according to national contingency plans and international regulations (Coast Guard, Maritime rescue coordination centers, Port Authorities, etc.), get the early warning message from the oil tanker.

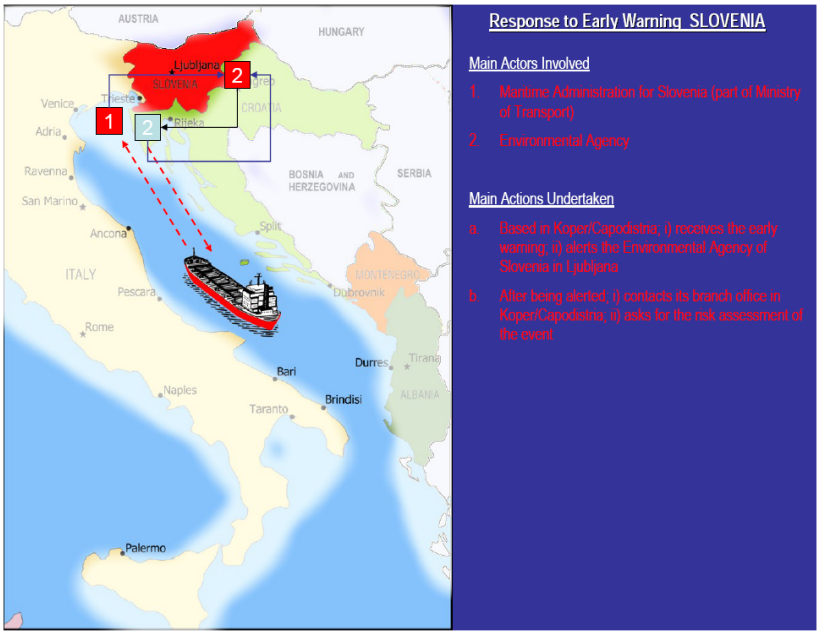
1. And for further info: http://www.infragardmembers.org.

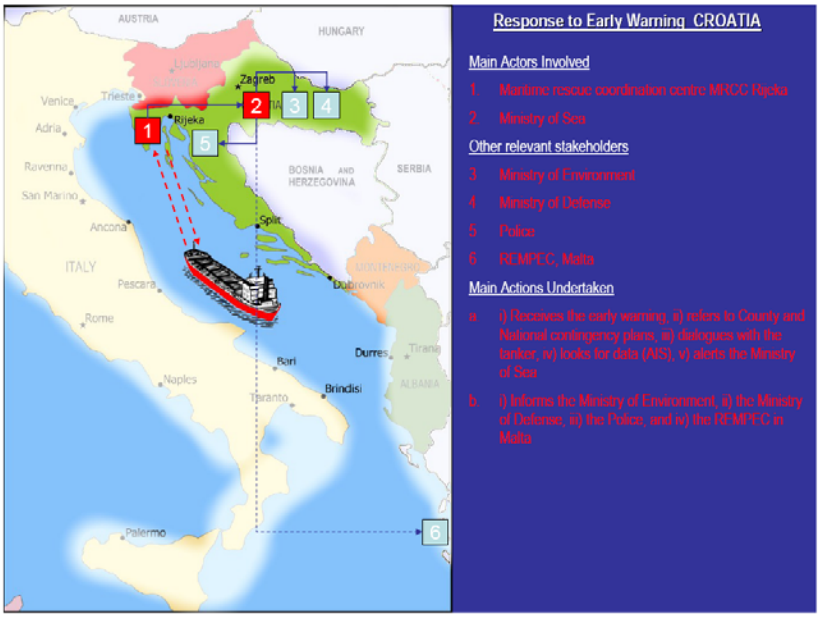
During the final conference the following information were given by the Coast Guard of Trieste to amend the results of the table-top exercise as far as the Italian stakeholders are concerned. The Italian

law regulating the response to early warning in the event of a risk of oil spillage out of a tanker is the law 979 of the 1992, art.11-12. The recipient of the early warning from the tanker is the radio station of the closest Coast Guard. The local Coast Guard will inform the MRCC in Rome, dialogue with the tanker, and gather the information about the position and load of the vessel. The MRCC in Rome will inform the Ministry of Environment. At the end of this chain of alert diffusion, we can say that the t_0 is over. For the passage to the t_1 the crucial point is whether the possible spillage and fire is considered of small or large magnitude. In fact, there are in Italy two operative strategic plans for such a crisis: the local one, and the national one. If the crisis is evaluated as apt to be handled at the local level, obviously the local plan is enforced. If the crisis seems to go beyond the forces of the local Coast Guard, the national plan is enforced.

The actor who decides on this aspect is the Ministry of the Environment, on the base of the proposal from the Head of the local Coast Guard involved. This means also that the local Coast Guard is

allowed to dialogue directly with the Ministry of Environment in Rome, and not only via the MRCC. In the case A (local emergency), the actor in charge is the local Coast Guard, that involves a number of other actors, according to the needs and criticalities of the situation. The actors are the local fire brigade, the local Civil Protection, and any other agency whose contribution is found helpful. It is important to remark the role of the private company Castalia. The latter has yearly contracts at national level with the Ministry of Environment, for providing water cleaning services. In a local emergency event, the Coast Guard may ask the Ministry of Environment the permit to involve the equipments of Castalia, that are displaced in all the most important Italian ports. The permit of the Ministry is necessary to cover the expenses of the cleaning operations. In the case B (national emergency), the Ministry of Environment alerts the national Department of Civil protection, that takes the lead of the operations. The national Civil protection will involve all other subjects mentioned (Castalia, local Coast Guard, local fire brigade, etc.) as supporting actors. As regarding the other Countries of the Adriatic basin, the actor in charge of informing them about the operations is the MRCC in Rome.

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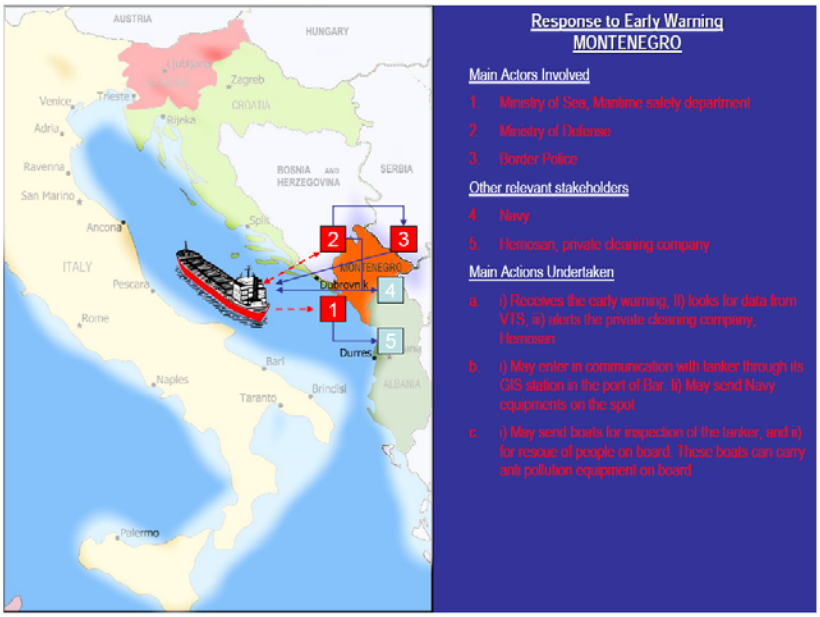
Response to Early Warning CROATIA
Main Actors Involved
1. Maritime rescue coordination centre MRCC Rijeka
2. Ministry of Sea
Other relevant stakeholders
3. Ministry of Environment
4. Ministry of Defense
5. Police
6. REMPEC, Malta
Main Actions Undertaken
a. i) Receives the early warning, ii) refers to County and National contingency plans, iii) dialogues with the tanker, iv) looks for data (AIS), v) alerts the Ministry of Sea
b. i) Informs the Ministry of Environment, ii) the Ministry of Defense, iii) the Police, and iv) the REMPEC in Malta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Response to Early Warning
MONTENEGRO
Main Actors Involved
1. Ministry of Sea, Maritime safety department
2. Ministry of Defense
3. Border Police
Other relevant stakeholders
4. Navy
5. Hemosan, private cleaning company
Main Actions Undertaken
a. i) Receives the early warning, II) looks for data from VTS, iii) alerts the private cleaning company, Hemosan
b. i) May enter in communication with tanker through its GIS station in the port of Bar. Ii) May send Navy equipments on the spot
c. i) May send boats for inspection of the tanker, and ii) for rescue of people on board. These boats can carry anti pollution equipment on board

1.1.2. t_1 - Oil spill

We are now in the second and most crucial phase of our simulation.

After the dispatching of the early warning to the proper recipients, and the consequential reactions of all relevant actors seen in the previous slides, in the phase t_1 we are not anymore dealing with an alert for an unclear threat, but it is ascertained that an oil spill has occurred out of the tanker.

The risk of oil pollution of the maritime area around the tanker is then clear and present. In the same time, operators have to face the even more threatening menace of the occurring of a fire on board of the tanker, and even of the potential final devastating explosion of the vessel itself. The menace is then in the same time to human lives, the environment, and economic assets.

Having made clear this scenario, we now ask to all participants what their institution would do to react to such crisis.

Response to Oil Spillage ITALY

Main Actors Involved

1. Ministry of Environment
2. Coast Guard
3. Castalia, private cleaning company
4. National Civil Protection

Other relevant stakeholders

5. Fire Brigade
6. Local Port Authority
7. EMSA (European Maritime Safety Agency), Lisbon

Main Actions Undertaken

a. It is the main actor in charge in the event of oil spill
b. It is the operative actor acting, through its Crass unit, and together with Castalia, i) Asks for weather conditions, ii) is in contact with EMSA and CleanSeanet, iii) employs surface skimmers, choppers, etc.
c. Works together with Coast Guard units
d. If the leakage is close to the coast, calls the Civil protection of that region
e. May be called by Coast Guard or Port Authority to verify whether the liquid could cause a fire

Response to Oil Spillage, SLOVENIA

Main Actors Involved

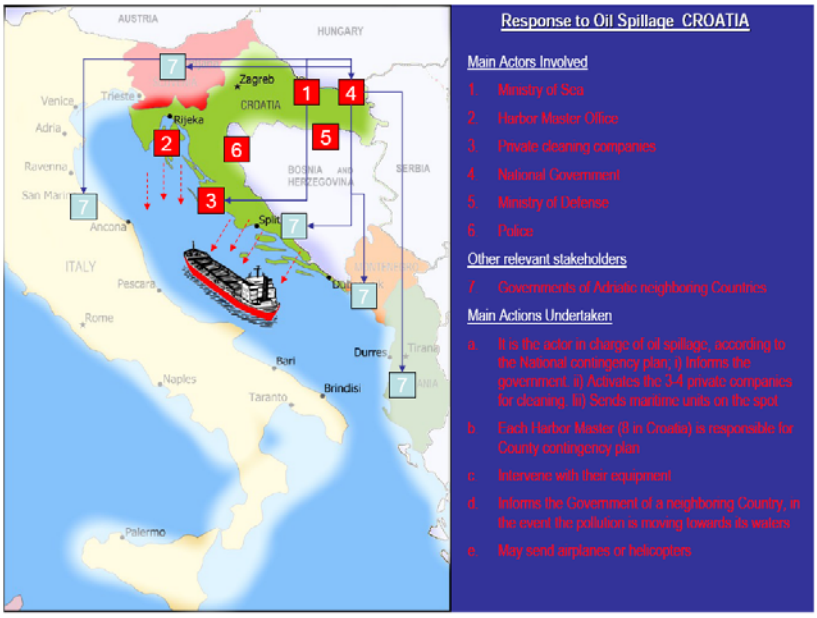
1. Ministry of Defense
2. Police
3. Fire Brigade
4. Port Authority Koper/Capodistria

Other relevant stakeholders

5. Department of Civil Protection

Main Actions Undertaken

a. It is the actor in charge of oil spill, according to the national contingency plan. It is informed by the Maritime authority. It acts through the office of Civil Protection, that is part of this Ministry
b. It is alerted by the Ministry of Defense, and follows its own contingency plan for the event
c. It is alerted by the Ministry of Defense, and follows its own contingency plan for the event
d. Alerts the private cleaning company



Response to Oil Spillage CROATIA

Main Actors Involved

1. Ministry of Sea
2. Harbor Master Office
3. Private cleaning companies
4. National Government
5. Ministry of Defense
6. Police

Other relevant stakeholders

7 Governments of Adriatic neighboring Countries

Main Actions Undertaken

a. It is the actor in charge of oil spillage, according to the National contingency plan; i) Informs the government; ii) Activates the 3-4 private companies for cleaning; iii) Sends maritime units on the spot

b. Each Harbor Master (8 in Croatia) is responsible for County contingency plan

c. Intervene with their equipment

d. Informs the Government of a neighboring Country, in the event the pollution is moving towards its waters

e. May send airplanes or helicopters

Response to Oil Spillage, MONTENEGRO

Main Actors Involved

1. Ministry of Sea
2. Border Police
3. Ministry of Environment
4. Navy
5. Army

Main Actions Undertaken

a. It is the actor in charge of action against oil spillage, through its two branches: Port Authority and Maritime Safety department

b. i) May offer 20 boats, small and big, plus men and technical support (helicopters); ii) Starts to implement its own system of water surveillance

c. All actors are involved and make available their equipment for joint action anti pollution

1.2. Simulation 2: Simulating an oil-spill in the Adriatic

1.2.1. t_0 - Hijacking alert

In this second part of the table top exercise, we have developed a scenario of terrorist attack, with weapons or explosive, to a ferry on route across two Adriatic States, (for example Zadar-Ancona).

As in the previous exercise, we decided however to leave open departure, destination and flag State of the ferry, for the reasons already mentioned.

We have again a 2 level scenario. In this case the early warning to safety and security actors of the Adriatic basin is not given by a specific communication form the ferry, but on the contrary by the absence of communication.

Obviously the ferry cannot disappear from the radar of the local Coast Guard, but we figure out that such misbehavior of the ferry originates the reaction of the security and safety actors, and so the beginning of our exercise.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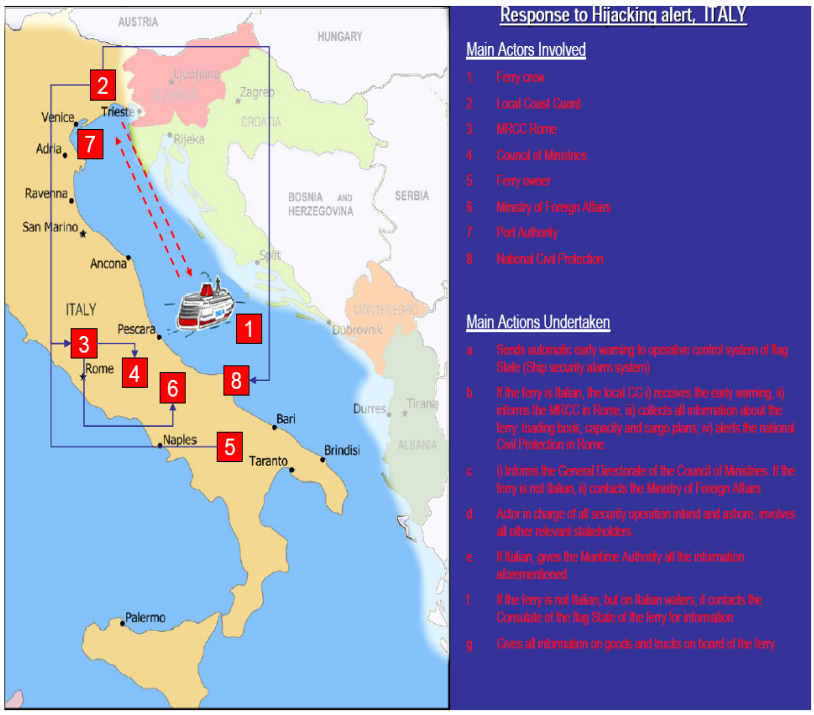
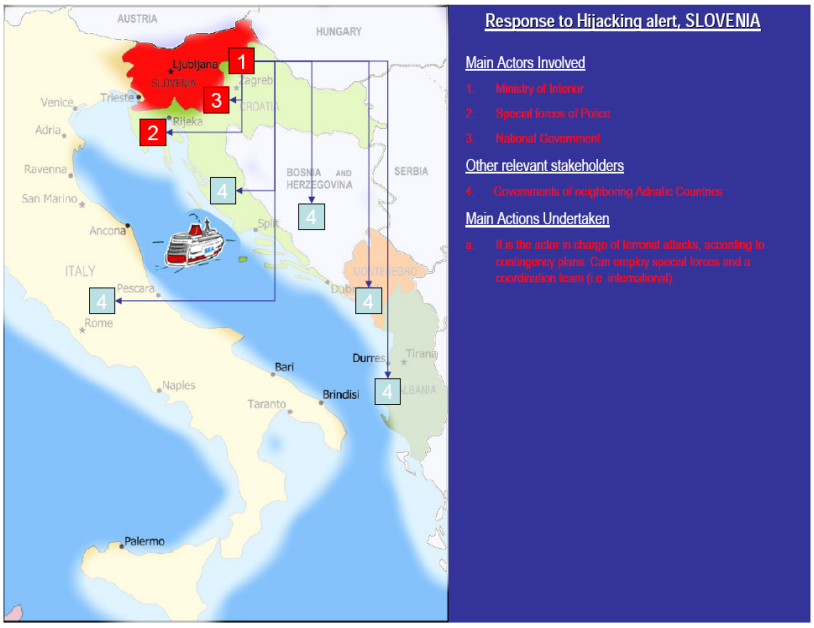
During the final conference the following information were given by the Coast Guard of Trieste to amend the results of the table-top exercise as far as the Italian stakeholders are concerned. In such scenario, the alert can originates from two sources. If the crew of the ferry has the chance to send the alert, it will be sent via radio to the closest Coast Guard. But if the crew has only the chance to "press the button" and send the automatic early warning, then the recipient will be the operative control system of the flag State of the ferry. If the ferry is Italian, the recipient will be then the MRCC in Rome.



The MRCC will instantly inform the Italian Ministry of Interior. In this first phase, the Ministry of Interior will consider the opportunity to request a meeting of the Council of Ministry. Whether or not to issue such request will obviously depend on the information

gathered. For such purpose, the MRCC, after informing the Ministry, will alert the Coast Guard closest to the position of the ferry. The MRCC will also ask information to the shipping company owner of the ferry, and meanwhile the local Coast Guard will inform the local Prefect. These actions extinguish the t_0. In the case the data collection depicts a really dramatic scenario, the Ministry of Interior will propose to the Council of Ministry to call for a meeting of the National Committee of Public Security, and will contact the Head of Police, intelligence, and other relevant bodies. The Ministry of Interior will be then, through the local Prefect, the actor in charge of the crisis. This applies for two cases: Italian ferry in Italian waters, and Italian ferry in international waters. In the third case (Italian ferry in – to say – Croatian waters), the MRCC will also contact the Italian Ministry of Foreign Affairs, that will inform the Croatian counterpart, and then together decide how to react). In this last occasion, the Italian MRCC may directly contact the Croatian MRCC right at t_0. The important point is that in this scenario, unlike the previous one, also the flag matters. In the case of a risk of spillage, the flag of the tanker is not crucial, but only its position will mandate who is to act (Trieste, Venice, Rijeka, etc). But in the case of a terrorist attack scenario, we have to bear in mind that the automatic early warning on board of the ferry will send the alert to the flag State only. And this is indeed a problem, if the terrorist commando would attack not an Italian cruise line, but , to say, a cargo from Bermuda, or Grenada. For this reason, we have to consider two further scenarios: foreign ferry in international waters, and foreign ferry in Italian waters. In the case of a foreign ferry in the middle of the Adriatic sea, the MRCC of its flag State will receive the alert, will adopt the national plan, and then the Ministry of Foreign Affairs of that State may contact for example the Italian government to decide upon actions. The last point to underline is about the event of a foreign ferry in Italian waters. According to the international maritime law, if on board of the foreign ferry offences to law might occur, having an impact on Italian territory, then the Italian State is entitled to be the actor in charge of the operations.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Response to Hijacking alert, SLOVENIA
Main Actors Involved
1. Ministry of Interior
2. Special forces of Police
3. National Government
Other relevant stakeholders
4. Governments of neighboring Adriatic Countries
Main Actions Undertaken
a. It is the actor in charge of terrorist attacks, according to contingency plans. Can employ special forces and a coordination team (i.e. international).


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Response to Hijacking alert, CROATIA
Main Actors Involved
1. Ministry of Interior
2. Ferry crew
3. Ministry of Sea
4. MRCC Rijeka
Main Actions Undertaken
a. It is the leading actor, according to the reaction plan. It has the first contact with flag State of the ferry, if not Croatian.
b. According to ISPS code, all crew must i) carry devices to communicate with flag State, and ii) comply with ship security plan. This means that the Captain in must send the alert.
c. Supports the Ministry of Interior.
d. Can enter into communication with flag State of the ferry, but only after the first contact on part of Ministry of Interior.


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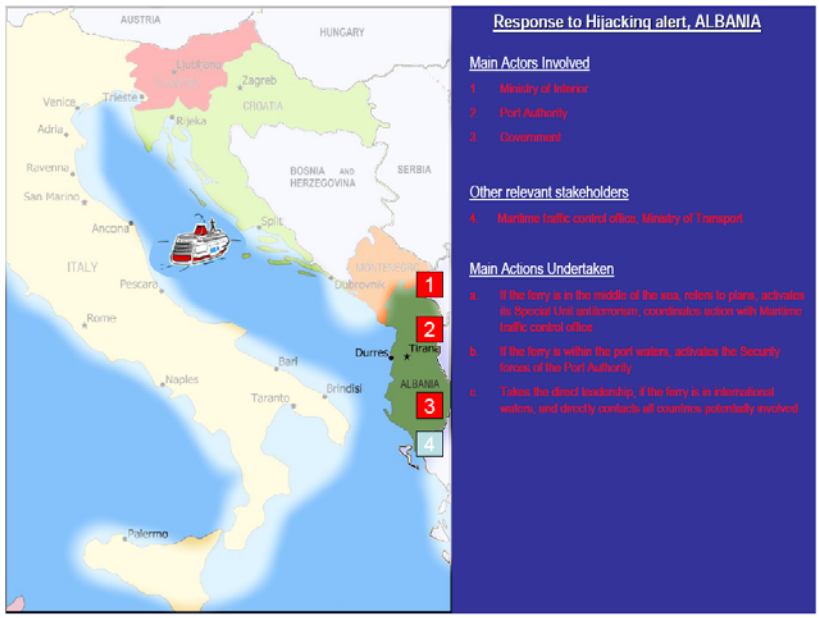
Response to Hijacking alert, MONTENEGRO
Main Actors Involved
1. Maritime Police
2. Ministry of Interior
3. Border Police Directorate
4. Criminal Police
5. Navy
Main Actions Undertaken
a. If signal is missing, special unit of the Maritime Police is alerted
b. If the ferry is in Montenegro waters, the Ministry of Interior i) functions as the headquarter; ii) coordinates all actors involved: Police, Maritime authority, Navy; iii) establishes the working groups that iv) have to analyse and assess the risk
c. It is part of the Ministry of Interior. It commands over the special Antiterrorist unit called Eagle Fight. Within the latter, there is a special squadron for sea operations
d. Acts in support, with its equipment
e. Navy has 3 boarding team trained for this scenario, and special boat. At early warning stage such forces are put in alert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Response to Hijacking alert, ALBANIA
Main Actors Involved
1. Ministry of Interior
2. Port Authority
3. Government
Other relevant stakeholders
4. Maritime traffic control office, Ministry of Transport
Main Actions Undertaken
a. If the ferry is in the middle of the sea, refers to plans, activates its Special Unit antiterrorism, coordinates action with Maritime traffic control office
b. If the ferry is within the port waters, activates the Security forces of the Port Authority
c. Takes the direct leadership, if the ferry is in international waters, and directly contacts all countries potentially involved

1.2.2. t_1 - Intervention

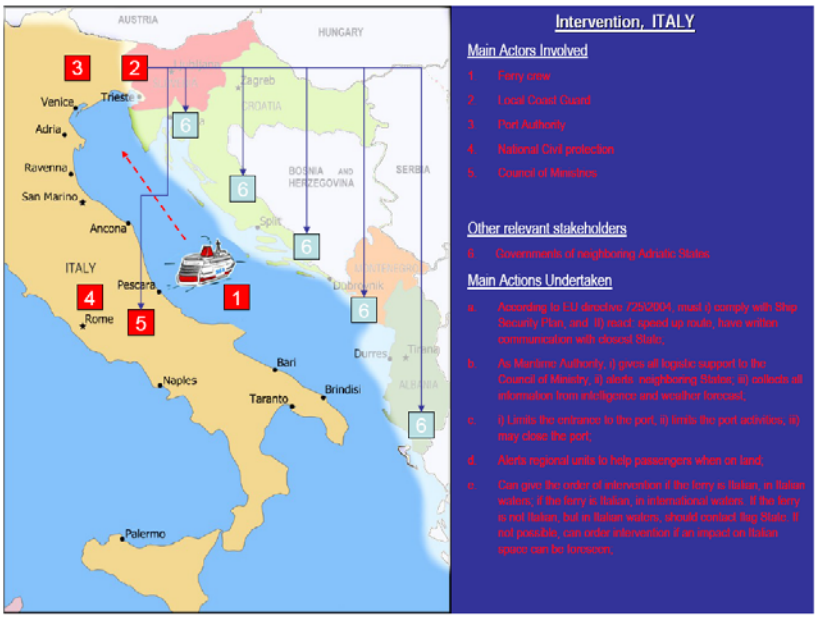
The hijacking has been ascertained, hostages are kept, negotiations begin.

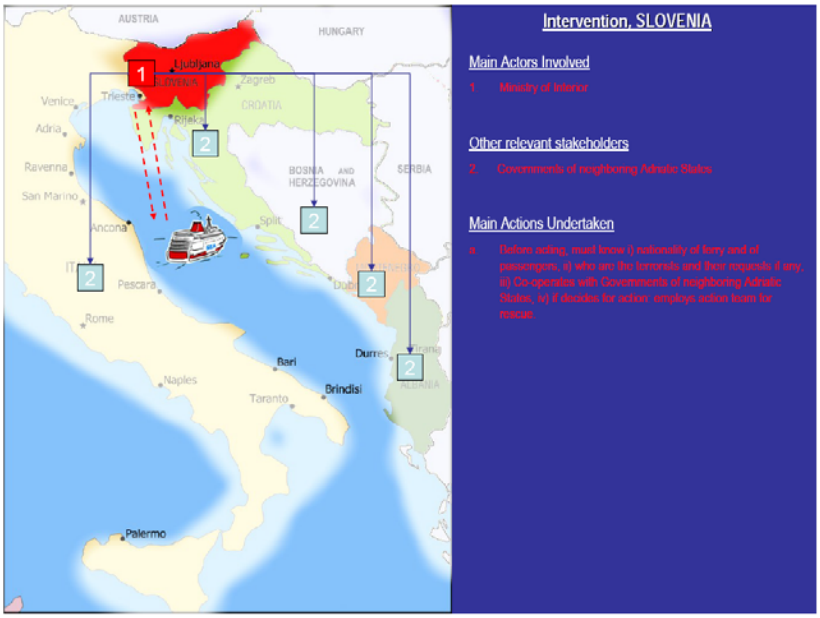
We are now in the following phase of our scenario of terrorist attack.

We can sum up the first phase (t_0), by saying that the attempts to restore channel of communication with the ferry had met success, insofar now it has been ascertained that a terrorist commando is in action, and that therefore we are not dealing with a maritime traffic control anymore, but with a national, and international crisis.

The flag State of the ferry, as key actor in the crisis, has decided to move forward according to national contingency plans and international cooperation procedures.

The steps of data collection and consultancy with neighbouring States are over. Now plans of intervention on the ferry are being considered.

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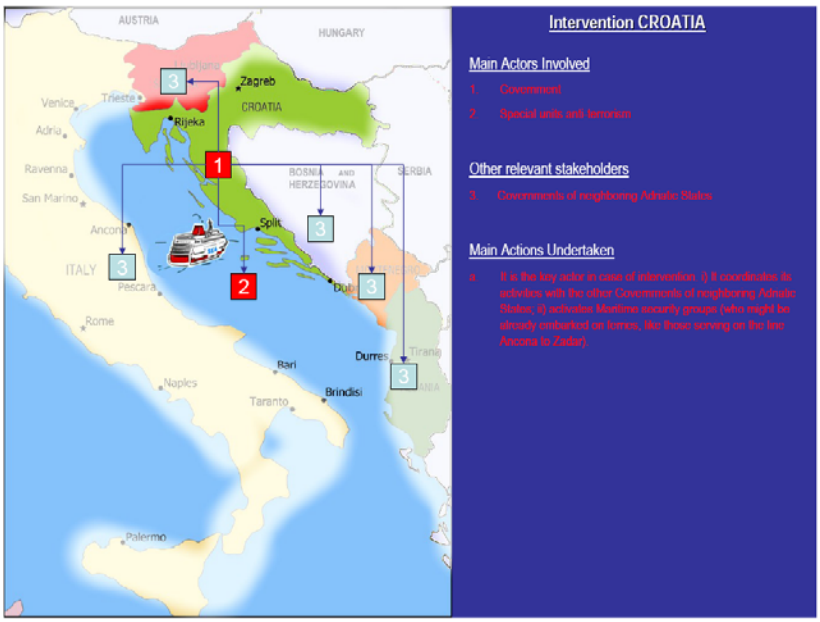
Intervention, SLOVENIA
Main Actors Involved
1. Ministry of Interior
Other relevant stakeholders
2. Governments of neighboring Adriatic States
Main Actions Undertaken
a. Before acting, must know i) nationality of ferry and of passengers; ii) who are the terrorists and their requests if any, iii) Co-operates with Governments of neighboring Adriatic States, iv) if decides for action employs action team for rescue.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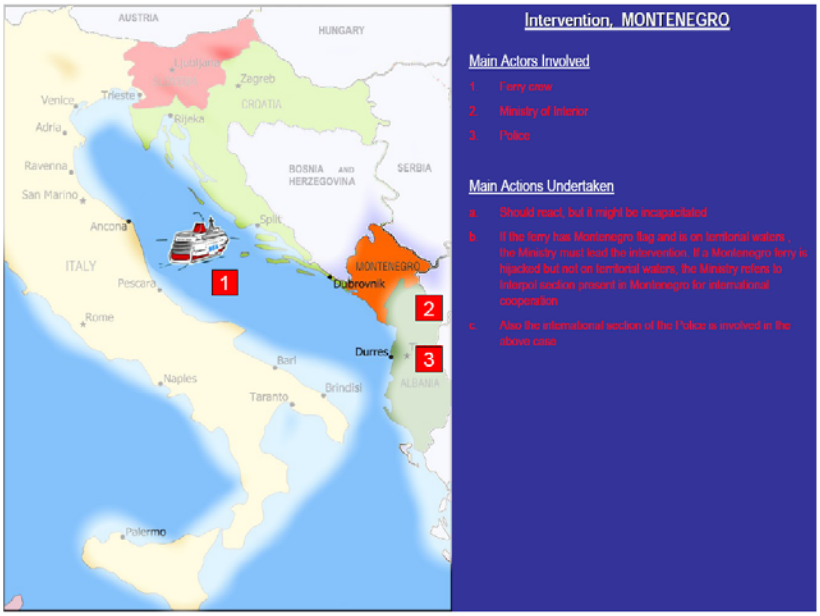
Intervention CROATIA
Main Actors Involved
1. Government
2. Special units anti terrorism
Other relevant stakeholders
3. Governments of neighboring Adriatic States
Main Actions Undertaken
a. It is the key actor in case of intervention. i) It coordinates its activities with the other Governments of neighboring Adriatic States; ii) activates Maritime security groups (who might be already embarked on ferries, like those serving on the line Ancona to Zadar).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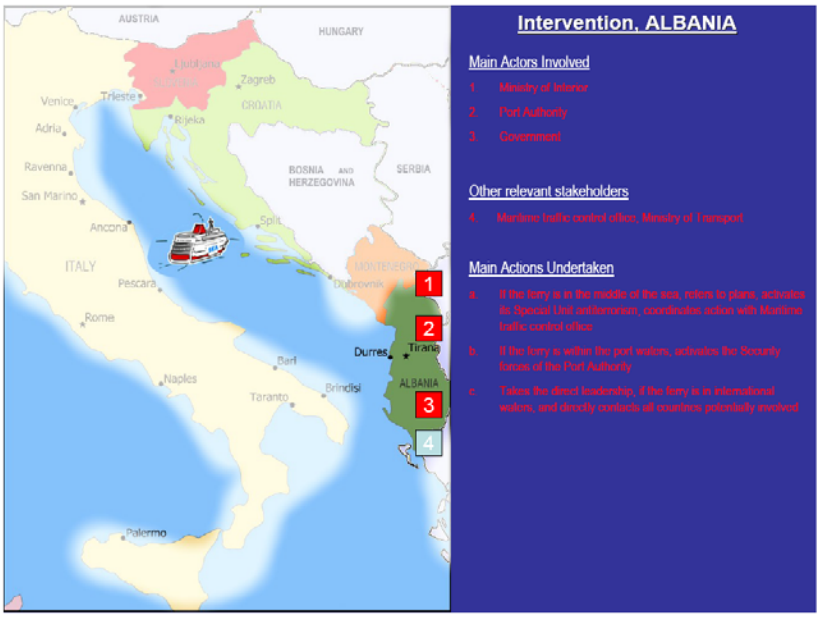
Intervention, MONTENEGRO
Main Actors Involved
1. Ferry crew
2. Ministry of Interior
3. Police
Main Actions Undertaken
a. Should react, but it might be incapacitated
b. If the ferry has Montenegro flag and is on territorial waters , the Ministry must lead the intervention. If a Montenegro ferry is hijacked but not on territorial waters, the Ministry refers to Interpol section present in Montenegro for international cooperation
c. Also the international section of the Police is involved in the above case


AUSTRIA
HUNGARY
Ljubljana
Zagreb
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CROATIA
Rijeka
Adria
Ravenna
BOSNIA AND HERZEGOVINA
SERBIA
San Marino
Ancona
Split
ITALY
MONTENEGRO
Dubrovnik
Pescara
1
Rome
2
Tirana
Durres
Bari
Naples
ALBANIA
Brindisi
Taranto
3
4
Palermo
Intervention, ALBANIA
Main Actors Involved
1. Ministry of Interior
2. Port Authority
3. Government
Other relevant stakeholders
4. Maritime traffic control office; Ministry of Transport
Main Actions Undertaken
a. If the ferry is in the middle of the sea, refers to plans, activates its Special Unit antiterrorism, coordinates action with Maritime traffic control office
b. If the ferry is within the port waters, activates the Security forces of the Port Authority
c. Takes the direct leadership, if the ferry is in international waters, and directly contacts all countries potentially involved

2. Safety and security in the Adriatic Sea: Criticalities

The first thing to say about this short part about the criticalities regarding the security in the Adriatic sea is that her actually we deal with a second run of criticalities. In fact, in the first months of the ProAdrias project w carried out a fieldwork in Italy and abroad, by meeting and interviewing a number of expert and stakeholders.

Out of that fieldwork emerged what we may call the first run of criticalities regarding safety and security in the Adriatic area. In the scientific design of the project the following, and crucial step, was the organising of the so called "table top exercise", in the premises of Centre European Initiative, in Trieste last October. The participants to such exercise have been a large number of officials and functionaries of the key institutions that cope with safety and security in the Adriatic basin, from Trieste to Durres. The latter event resulted, no surprise, the occasion for the emergence of a fresh number of criticalities about safety and security issues, and this is why we might call these the second run.

This few pages will then deal mainly with the problems and shortcomings discussed during the table top exercise of the ProAdrias project.

We regard convenient to distinguish the criticalities in three main groups: criticalities coming from types of risks to maritime safety and security in the Adriatic basin; criticalities originating from lack of knowledge and communication among safety and security actors of different States; criticalities caused by poor performance on part of safety and security actors.

2.1. Criticalities coming from types of risks

Under this heading I mention at least two examples of problems, one regarding the risk scenario of oil spillage from a tanker, and one regarding the risk scenario of a terrorist attack to a ferry or to a whatsoever vessel sailing across the Adriatic sea. To introduce the first criticalities, I report the words of a member of Trieste Coast Guard present at the table top exercise carried out last October: «If the cargo is 15000 tons, we can manage, and by "we" I mean the international community. If it is a 300000 tons, then God save us!».

It is remarkable that also a representative of the Croatian side, the Director of the Regional Centre for Assistance and Disaster Relief of Split, uttered almost the same words, during the above mentioned exercise: «We are very proud of our MRCC, but if something happen between Bosnia and Montenegro, what we can do? God save us in the event!».

This criticalities is evidently stemming from the physical condition of the Adriatic sea, and the disproportion between the gigantic amount of substances dangerous for the environment that are transported across the area, and the minimal capacity of the ecosystem to absorb a large spillage of oil, if a crisis of such type occurs. The worst element in this criticality is that it does not come actually from a lack of international cooperation, as expressed by the Italian official.

The second type of criticalities has to do, as said, with the terrorist attack scenario. I use as starting point here an element not coming from our table top exercise, but gathered during the first phase of fieldwork carried out last Spring for the ProAdrias project. In the words of a Captain of the Coast Guard of Bari: «After 9/11, I wonder what it would need to take possession of an oil or gas tanker. The fact is that, according to Solas regulations, all these vessels are blind at the rear, as the radar is only on the front. We have to add that often on these tankers the crew is undermanned, for technological and economic reasons. The conclusion is that for a terrorist commando it would be not so difficult to reach the back of the ship on a raft, and from there to take control of it. It is much more demanding to conduct a Boeing, than a tanker. […] During one meeting of the Security Commission for Maritime traffic here in Bari, when I introduced this worst-case scenario, I got no reaction from the others members. The Prefect, who is the head of this body, uttered: *why we should speak about this?*».

When we collected this interview, we really thought that the interviewee depicted the worst-case scenario for nowadays maritime security in the Adriatic sea. As the ProAdrias project has been designed in a manner able to validate during Autumn activities the data gathered during Spring fieldwork, during the table-top exercise we raised a question to the experts participants about the likelihood of such scenario. This is the answer given by an official of Trieste Coast Guard: «It is quite a technical thing the one you are asking. But yes, it could

be possible to have a shadow zone of radar, so that the back remains blind, also for meteorological conditions. It depends on the radar, it might be faulty».

Therefore this scenario gains soundness. But the real added value of the table-top exercise is that it gave us account of unknown risk scenarios, that probably deserve the label of worst case ones. As said by a Captain of Montenegro Navy: «Let us go now from 19th Century to 21st Century. Who did 11/9? Today the Captain of the ferry might be the terrorist. I don't believe terrorist will arrive from a small boat».

Clearly, such scenario opens us a wide range of troublesome issues for all actors that today are in charge of granting maritime safety and security in all Countries of the Adriatic basin.

2.2. Criticalities originating from lack of knowledge and communication

This kind of criticalities is central to our research, as it is connected with the issue of cross-border and international cooperation in the fields of maritime safety and security, that is the very core of the ProAdrias project. What has emerged during the table top exercise on this regard appears really worrisome, and must be reported here. Again in the words of an official of Trieste Coast Guard: «Still at the moment we do not know what equipments the others Countries have, nor they know what we have. I do not know how the Slovenians work. This factor is obviously undermining the cooperation. Therefore, the first point is to share information. If I know what devices are available in every port in every Country, it is easier to take decision and react».

This is general remark, on the whole cooperation in this field. But during the table top exercise we could understand that the same problem of lack of knowledge is, no surprise, present also when a single, specific joint action between safety and security actors of two different Countries becomes necessary. The following circumstances recalled by a member of Montenegro Border Police are worth mentioning: «I remember one case in which we were chasing smugglers in Scutari lake. We got permission from Albania to enter their waters, with flash on the boat, for them to recognise us. But we had no maps of the floor of Albanian waters».

If this is the present framework in which safety and security actors of the Adriatic State has to act, the recommendations to put forward at the end of our Project are pretty obvious.

We regard useful to end this paragraph by mentioning a further example of problems of communication, as the latter, in my opinion, makes us move from criticalities in communication to criticalities in the performance delivered by maritime safety and security actors. It is again an excerpt from October table top exercise, in the words of the Montenegro Border Police official: «If I call my boss to have helicopters, my boss, that is the Police Directorate, has to call the Ministry, the Ministry has to call the Canadair unit, the Canadair unit has to call the pilot, asking: where are you? Are you ready? When I get the helicopter, I lost 1 hour».

2.3. Criticalities caused by poor performance on part of safety and security actors

This group of criticalities is probably the largest one, on the base of the results of the table-top exercise. In fact, poor performance on part of maritime safety and security actors can originate unfortunately from a wide range of causes. As always, we start with quotations from the people directly involved on the field. About drills made in the recent years to test readiness to intervene in the event of an oil leakage, the Director of Croatian Regional Centre for Assistance and Disaster Relief said: «To be honest we would have no very good response in such event. This is what our experts say. […] At the moment our reaction force is not good. On paper everything is good, we have a protocol about how to act in the event of an oil spillage. […]We had so far not enough activity in this field. We have problems on the field, and problems with the administration and equipments. I saw a lot of confusions in these drills. We do not know who to contact».

Another kind of criticalities still in this group may have the source at the institutional level. As an expert of the Institute of International Relation of Zagred said during the table top exercise: «Regarding Croatia, I found a pretty strong tension between the 2 Ministries in charge, the Sea and the Environment. The Ministry of Sea does not want to give up its role on these issues».

The same expert added that, besides institutional framework, cri-

ticalities may derive also from the human resources factor: «Finally, there is a problem of personnel, of individuals that just cannot cope together. It happens in any social activity. In any organisation».

In other Countries of the Adriatic basin, poor performance in granting maritime safety and security can be caused again by institutional factors, but by different ones. In Albania and Montenegro, for example, institutional obstacles might mean lack of resources, or the not fully developed structural organisation of safety and security services, in a newly born State. A functionary of Durres Port Authority said during the table top exercise: «We have no equipment for cooperation in fire fighting, and so no cooperation.[…] We have not special units anti pollution. If pollution is along the coast, important actors will be a couple of NGOs, that make pressure on the Government to save the environment».

About Montenegro we listened the voice of the Border Police official: «We have no Coast Guard yet, but only a coordination body, since 6 years. We are a small Country, with no clear division of competences: everything is joint action. […] We can assist, but we have no equipment anti-pollution. Therefore in the event we just would make a phone call to a private company, that has a governmental contract».

However, communication and institutional problems are at a home also in a long-established state like Italy. As the representative of Trieste Fire Brigade said during the table top exercise: «At the operative level, the coordination between us and Slovenian (Koper) counterparts is very good, we work more or less in the same way, without any problems. We have a joint operational agreement about actions on sea and land. We have a very quick alert time. […] So far our only wrong experience is when we have to rely on higher Italian political level, as they cause delays in action».

A further source of poor performance can emerge from the legal work en force at the international level about maritime safety and security, as it might mandate actions difficult to put in practice, in a real event of crisis. In this sense, it is revealing to confront two voices heard during the table top exercise. The first is from Trieste Guard Coast, the second from Montenegro Navy: «The 725/2004 directive of the European Union is compulsory. The crew is trained to counteract possible terrorist attack, as the Captain is a public officer too».

«Ok, on IMO papers it is written that the crew must act, but I don't believe that any civilian crew would do anything in the situation, because no owner of merchant lines would allow the crew to act if hijacked, as it would very expensive for the owner if casualty occurs among the personnel. Not even the security guys from the company would intervene. The ferry Bar-Bari had security guys on board, but not anymore. The crew would probably react only in Far East against pirates. I speak on the base of my experience: I am commander of a ship, with weapons, and military crew, and with my 3 deputies. If I have my 3 aids, I can command the ship, but without them I cannot. And if the captain is at dinner he cannot send the alarm».

As last case of criticalities linked to poor performance of the actors involved, I quote the following words of the Director of the Croatian RCADR, as they seem to me halfway between the poor performance criticalities and the risk scenarios ones, by which I began.

«In Police school we do not care about security. There are so many possibilities for terrorists, especially in summer when very rich people come with their yachts. In an airport they check everything, but on the ferry Split-Ancona last month I could have brought on board 100 kg of explosives. In Ancona you can go on board at the very last moment, with guns, no control. The custom police is usually sleeping. I do not know why terrorists do not attack us, it is promising for them».

2.4. Criticalities and international cooperation

It is now time for concluding remarks of this parts on criticalities to maritime safety and security in the Adriatic basin, as emerged out of the mentioned table top exercise. These remarks are offered according to our key perspective, that is improving cross-border and international cooperation in this field. It is again extremely useful to move from what experts and stakeholders precisely said: «Our helicopters are useless, even unnecessary, without networking action, and sharing information».

This sentence, by the Albanians representative, reminds us the importance of international cooperation. This standpoint is reinforced by many other excerpts, like for example the following, by the Montenegro Navy Captain: «We must have political agreement. Without

agreement we cannot enter territorial waters of other Countries».

In the same time, we are well aware of uneasiness of attaining a proper and functioning international management of safety and security crisis. This is true due to institutional reasons, like different structures of actors in different States, as reminded by the Trieste Fire Brigade participant: «Because in Italy Fire service is a State service, whereas in Slovenia is local. They have a national coordination, but basically fire brigades depends on municipalities. Therefore it is difficult for us to sign an agreement with corresponding authorities».

But such uneasiness may be due also more political reasons, especially in the terrorist attack scenario. I report a number of eloquent quotations about this threatening scenario.

«I guess that on the base of Adriatic conditions, Italy would be the one to intervene, with help from abroad, except the case in which the ferry has our flag, and so we must do the job. However in this event every Government would try to escape such role» (Montenegro Navy Captain).

«If we actually have to use weapons and resources, I think a lot of Countries would step back […] If there are on board passengers from US or Israel, we have to face a huge problem» (Slovenian Ministry of Interior functionary).

«Then, when you have the tanker, you have a bomb. You can run against a cruise vessel, or against port infrastructures. What to do in such case? You should sink the tanker, but what Government would take the responsibility to issue such order? Would they really sink it? Imagine a chemical tanker» (Bari Coast Guard Captain).

Criticalities about international cooperation may be caused also by the "flag factor": «We have to consider that in the Adriatic sea most ships have Panama flag, or some African ones» (Trieste Fire Brigade representative).

This factor opens up one of the most serious problems in dealing with safety and security in the Adriatic region, as the role of the flag State is essential if an international crisis occurs. But what to do if a flag State is unable to carry out its duties, and the flag is merely fictious? The answer we gathered goes in the line of a replacement of such absent State by a key actor present on the spot, typically Italian government and institutions.

Finally, we have to remind that, according to present internation-

al regulations, not all task can be appointed to international cooperation. Each State should anyway make its homework, for example in the case of the so called Port State Control: «How to compare security checks, for example. In Italy we have the same navigation code for both air and marine traffic. But from a commercial point of view, air and ship traffic are different. […]But it is different to check people and potatoes. […] The same can be said for Port State Control. We have the ISPS code, we have our intelligence. But the Port State Control when is applied on board of ship is not as effective as when applied to port facilities. Port facilities are under the control of the State, as they are critical infrastructures. Checks on port facilities depend on national regulations, and not on international agreements» (Trieste Coast Guard official).

The other fundamental issue we must bear in mind is that also economics factors plays a role, probably even more important than political aspects, international agreements, and technological devices. It was again the representative of Trieste Coast Guard to underline that: «There is also an economic side of the question: too many controls are anti-economic, for private actors, because thus they cannot work. Security and economy are always contrasting, so we have to merge the 2 instances».

Economic aspects are well clear also to the Croatian Head of RCADR: «We can expect more traffic oil through the Adriatic sae in the future, due to reduced traffic through Dardanelle strait, and to the pipeline with Russia. So more pollution is expected».

3. Recommendations

The work done in the framework of the ProAdrias project has led to some conclusions, which bring about a set of possible recommendations to the DG Justice, Security and Freedom of the European Commission. However, these recommendations are also useful to the participants to the project and to the public authorities involved in the issue of protection of the Adriatic maritime critical infrastructures.

The crucial point of our recommendations is that the protection of the Adriatic Seaways as part of a larger European strategy of Critical Infrastructure Protection would particularly benefit from the further

development of a transnational regional frame of safety practices. According to our work, the Adriatic region is a seemingly safe and protected environment but a few problems are detected and need to be tackled in an original way. Most of the problems have to do with the national based approach to homeland security. Thus, CIP and security policies have to include a regional transnational dimension, to contrast efficiently some specific problems, like the ones of international terrorism or a natural disaster in international waters. These are uneasy, vague and unpredictable scenarios that can be approached consistently only through politically shared and technically dynamic operative tools.

The Adriatic region has been the target of many security operations in the 1990s, many of them sponsored by the EU and with the involvement of many European countries. The integration within the EU still represents a valuable and crucial target for all of the Western Balkans countries. At the same time, the region is still suffering for the difficulties of law enforcement, the persistence of transnational criminal networks and the popularity of ethnic upheavals that slow down the regional reconciliation process.

Interesting enough, after the 9/11 and the re-orientation of the global agenda on security, the Balkans and thus the Adriatic region have been left out. The military oriented operations have been progressively dismantled and, beside the NATO, there is no strong framework of cooperation to develop joint security activities, which take place but mostly on national level or considering some hot spots (i.e. contested borders or regions at risks). Consequently, recent safety cultural debate and its language have been developed in the Adriatic region only as a result of global engagement on other areas of the world. Terrorism and environmental awareness enter the public debate but are usually interpreted and approached from the national standpoint, namely to upgrade administrative functions of the state-institutions to tackle the new global threats and be ready for the EU integration.

At the same time, a serious reflection that would engage the governments of the Adriatic countries to protect their common physical and social environment is unbelievably lacking. Especially when thinking at the number of infrastructural, logistic and economic functions performed in the maritime space, which is the natural element mostly connecting the Adriatic countries.

An environmental catastrophes or a terrorist strike from the sea and impacting on the maritime critical infrastructures could shed a very negative light both on the role of the EU in the protection of its peripheries and on the way member states and candidate countries work together to protect their common infrastructural assets.

Events like terrorism at sea or a major oil-spill (or a combination of the two) are likely to happen. More precisely, they are technically possible but not very probable because the Adriatic region is not dramatically unstable as other places of the world. Also, national and international defense forces are still very present in the region. The international defense strategies have been quite successful insofar in contrasting the actions of human trafficking, weapons smuggling and drug dealing; especially if we compare the Adriatic region with other critical places.

However, the risk of serious damages to the Adriatic Seaways it is very high exactly because the region at stake has progressively entered in the realm of the safe place, opening thus to tourism, foreign investments, international business. Maritime infrastructures are critical because they are "transitional places" that shape the business and political environments but actually connect national systems that too often conceive themselves quite separately. Some are EU members, some are about to join, some others are candidates and further countries are not even sure if their candidature will be ever considered seriously.

Therefore, the events described and analyzed in the ProAdrias activities can have a very serious impact on the economic and political systems of the region because we underline that the system of protection of critical infrastructures has some shortcomings nowadays.

Terrorist actions and natural catastrophes can be disruptive right for their effect to dismantle quite organized interactions and sophisticated systems, which did not develop a proper self-protection mechanism. In this regards, the Adriatic Seaways represent a vulnerable transnational set of interlocking transport systems that already work together to move goods and people, within and through the Adriatic region. Such system is multi-national, multi-level and multi-functional but its protection is not performed at the same level and is left to the national contingency plans, to the multi-national NATO sponsored exercise and to the good-will of the operative working in the field.

In other words, the situation in the Adriatic region with reference to

the protection of the Adriatic Seaways can be described as a condition of national readiness towards maritime adversity and reciprocal benevolence to international cooperation. It is our opinion that this can not be enough to build up a strategy to protect a maritime transnational environment. The threats to the Adriatic Seaway can be extremely serious and full of severe consequences for their multiple impacts on different national level, infrastructural assets, type of actors, degrees of responsibilities and, last but not least, orientations of the local public opinions. Eventually, the protection of a complex transnational system cannot rely on too bureaucratic and participatory methods. It is necessary for the Adriatic countries to provide themselves with a flexible and highly performing regional agency to tackle the issue of protection of the Adriatic seaway from an all-hazard standpoint.

Such goal seems difficult to realize because as far as now there is a lack of real serious cases to be taken as a "ground zero" experience. In other words, the record of human or natural made disasters in the Adriatic region is quite poor and this is eventually an obstacle to the institutional building of a common transnational system of protection of the Adriatic infrastructures. The Adriatic Seaways represent a realm of many public and private actors, a number of different procedures, different levels of responsibilities and disparity of means.

When terrorism or natural disasters are at stake, there is a real possibility that the cooperative good-will and the shared awareness expressed by most of the actors can clash with the preponderance of national prioritization that would easily take the lead if the regional and transnational approach is not strongly backed from the political and institutional point of view.

Accordingly, we recommend a list of measures that could be translated in operative programs, legal provisions or simply work as reference point to further actions to be taken in the field of a joint development of the Adriatic Seaways protection.

3.1. Need to perform an Adriatic framework of cooperation in maritime safety

The research work and the table-top exercises show that in spite of the local agreements between civil and military authorities of the Adriatic countries there is a need to increase the number of common

exercises at sea. Simulations and training are obviously performed by all the safety actors but these actions mostly take place in large European and North-Atlantic framework and are quite sectorial, namely devoted to single type of threat. Actually, it would be necessary to create a regional defense strategy by engaging different bodies of different countries in all-hazard approach based exercises.

Jointly performed training and exercises are a way to improve the horizontal and vertical integration between different sectors and levels. It is also important to include the local level, since it is on this level the emergency situation takes place, even if the responsibility is on another level. Exercises are also a way for the national systems to plan and prepare themselves to be able to give and receive international assistance.

Jointly performed exercises support the establishment of "personal" networks, which are also facilitated by additional seminars and workshops, where an exchange of experience and knowledge can take place. These events also have a social function, since they bring people together and give faces to the persons you are suppose to cooperate with in case of a real emergency situation

These exercises shall take place in the Adriatic region and have to be shaped according to the material and human conditions of the regions. At the moment, the cooperation process among the Adriatic countries is good but half-a-way; therefore, the need to have more work together is quite evident and it would bring about more precise reflections on the need and the scope of the protection of the Adriatic Seaways.

As a result, the protection of the Adriatic Seaways would become a regional multinational task on the basis of the operative experience coming from the field, which can support the creation of a stronger political framework of cooperation at the national levels.

3.2. Relationship with the private operators

Maritime safety and the protection of related infrastructures are usually demanded to public bodies. Depending on the type of threats different ministries and set of competences can be involved but the role of private actors remains marginal in all the Adriatic countries. Private enterprises can play a role only for some specific function like cleaning activities or performing of some managerial duties. The

situation as such reflects a weak relationship between the public authorities and the private bodies, which may result problematic considering that transport systems, logistic and maritime connections are not only operated but actually made by a number of different private bodies: shipping companies, insurances and others.

Therefore, it is the same relation between critical infrastructure protection and the protection of the business environment that is not perceived as a strategic one. It emerges from the work carried out that public authorities are usually aware of the problems connected with the scope of civil liabilities, the need of common security standard of checking and control for all the private operators and in all the countries. Such results cannot be gained though if the private actors are not directly involved in the discussion and in the practical process of protection of the Adriatic Seaways. Thus, public and private actors shall set the stage for a concrete process of safety building that would raise the level of awareness and clarify the reciprocal responsibilities. For instance, the boarding of goods and people shall follow standard procedures like in the airports. Also, risk prevention and the diffusion of safety culture among passengers and operators shall come after an active engagement of the private actors to secure their business environment and to make safety as part of their business plans.

3.3. Winning the public support through the education and timely information

During emergency situations there is usually a great need of information. Therefore *media training* is crucial for the persons responsible for communicating the events of the incident. Lack of information or distribution of incorrect information can have severe consequences and also cause additional problems, i.e. distrust. Another challenge is to *train volunteers*, so they can be used as a resource.

Therefore, the development of a maritime safety culture as a prerequisite for successful protection of the Adriatic Seaways would imply the improvements of the relations with the wider public and the establishment of proper communication strategies with the passengers and the citizenship as a whole. As a matter of fact, public opinions and citizens in general are not aware or prepared at all for

threats connected with critical maritime infrastructures. The media and the public debate focus more on the risks of terrorism connected with air transportation or the impacts of natural catastrophes on terrestrial routes and land infrastructures. The maritime dimension is usually not part of the picture and when is taken into it, usually reflects unrealistic visions (i.e. Titanic like sinking, wild piracy) that do not shed light on the problem of critical infrastructures protection. Thus, it is absolutely crucial to provide serious and realistic information on the maritime safety issues in order to prevent misinterpretation and to promote widespread awareness. We strongly recommend the involvement of local communities and public opinions in the protection of Adriatic critical infrastructures. So, serious program of activities is needed to raise the level of understanding of issues connected with the Adriatic Sea security among the general public. It is absolutely necessary to dissolve rooted hesitance among the people and build up their understanding that sometimes it is crucial and unavoidable to contribute actively on the local levels in order to improve the overall security and safety of the Adriatic Sea region as a whole. This program involves educational activities aimed to and shaped for different social groups, as much as timely and transparent information in cases of accidents and disasters.

3.4. Overcome exclusively national way to maritime security and legal based approach

In all Adriatic countries there are contingency plans to tackle threats to the Adriatic Seaways but as far as we understood they are mostly national ones. Besides, there is a relatively good disposition towards cooperation among the safety actors of the Adriatic states. Such situation is based on the recognition of a national and international legal framework and relative set of procedures, which seem to cover all kind of threats coming from the sea.

However, it is our opinion that the focus on the national dimension is not enough. Even if there is a positive attitude towards cooperation, the international waters are still a space of disputable authority and if the case of attack to a vessel, according to its flag or to the nationality of the passengers it is possible to witness political frictions or unclear responsibilities. National legislations, Interna-

tional Maritime Organization rules and Safety & Rescue shared principles provide the framework for cooperation. Nevertheless, because there were never serious attempts or deliberate act of terrorism, in the Adriatic space, it is possible that even sharp and detailed set of rules would not be enough.

For instance, one may think of maritime terrorism only in a maritime perspective but actually maritime targets and maritime critical infrastructures can suffer attacks not only from the sea but also from the land, the air and the cyber-space. Therefore, maritime only oriented legal provision cannot create an effective system of protection. Moreover, the security of the sea today is not completely in the hands of the maritime forces; seaways go deeply inland for the intermodality of transport, the mechanization of logistic and the enormous development of containers based trade. Mega-ports and networks of sea-land ways make the job of the maritime bodies essential but not sufficient. There is a need to integrate the maritime safety procedures into a more general oriented multi-approached strategy of protection.

There is an obvious need for the new strategic approach in the Adriatic Sea bordering countries. While all of them nominally recognize the importance of the Adriatic Sea for their economies, cultural heritage, infrastructure and well being of the citizens, there is a clear lack of synchronized strategic thinking embedded and transformed in provisions of their strategic, legal and long term planning documents which should provide direction for all the national state and societal institutions to work in unison to build a better and more secure environment for all.

3.5. Bringing together environmental, economic and safety concerns to build an efficient regional maritime transport system

It is quite common for almost all the Adriatic countries that environmental, logistic and economic concerns influence the issue of safety. The influence of these concerns may vary quite a lot, according to changing political situations, local problems and political cultures.

As a matter of fact, in the Adriatic region disparities exist in the density and quality of the transport infrastructures, with special regards to the maritime infrastructures. Thus, their protection, ex-

pansion and modernisation is a prerequisite to get a safer and more environmentally friendly alternative to other transport options.

Accordingly, maritime transport as well as the port infrastructures also needs modernisation and expansion for the same reasons. Connection links between ports, road and rail infrastructures are the key to the development of a system of sea transport. In other words, the establishment of a sustainable sea transport system has to take into consideration international and national inter - and intramodal systems of transports or it would not reach its goals.

The development of intermodality would also positively affect the development of the air transport and the expansion and modernisation of the local and regional airports.

Therefore, the objective shall be the progressive creation and development of a modern combined/intermodal transport system in the region considered, integrated with national and international systems and with a special emphasis on sea-land links.

In this perspective, cooperation should exist between all the Ministries involved in infrastructure projects (Ministry of Transport, Ministry of the environment and spatial planning) and Government offices for local self-government and regional policy and government office for European affairs. Also, non-governmental organization, faculties, educational institutions, economic subjects and municipalities shall be involved.

The main challenges are, in this perspective: to bring together environmental concerns and investors interests; taking care of local/-regional political issues and bring them into longer term perspectives, by binding agreement; tackle the problems of having interactions between asymmetric territorial levels by bringing in a diversified set of decision makers.

3.6. Fight local and national bureaucracies with clear vision

Overcome a legal-bureaucratic oriented approach to safety and protection of critical infrastructures is essential. Rules and regulations are not everything and cannot forecast everything. Nor it is enough to allocate all responsibilities to the human errors. Risks are unpredictable and technical and legal devices may be useful to cope with the threat but they are also the same sources of risk. They can

be manipulated.

Eventually, the protection of the Adriatic Seaways depends on the availability of proper equipments and not all countries have the same level of equipment. This situation may create some weak sides on the regional maritime infrastructural system, which can eventually affect also the better equipped countries.

All of the above mentioned is connected with the need to establish streamlined and responsible national and international organization of all the activities focused on protection of the Adriatic Sea, while at the same time avoiding at all cost the sirens' call of establishing ever more regional and international security organizations and bodies. Whenever possible it is necessary to improve, streamline and adjust the operations of the existing ones without building more bureaucratic structures. This goes in parallel with the need for the political structures on the national and international level to set the clear sets of criteria and provisions and then let the operational bodies to do their work unhindered.

National operational centers envisaged by "The Agreement" should strengthen already existing operational communication between the national centers and agencies, but also provide a pool of available resources and enable one-basket resource management for the benefit of all the parties involved. These centers should also simplify decision making process and operational control in cases of emergencies serving as a focal transmitting point from the political structures to the field units and back up the chain of command.

3.7. Building robust national and international operational concept

If the cooperation patterns and the international interaction will depend too much on the contingencies of the political situations and on the personal factors, the protection o the Adriatic Seaway may result a difficult task. Considering some serious scenarios where escalation happens quite fast, the situation as it is does not allow an efficient management of the time factor; also, the multiplicity of actors involved does not mean a more participatory approach but it can create communication breakdowns and clashes of authorities. Because a transnational regional contingency plan is not developed, it may be possible that in cases were is not sure who has the right/-

duty to intervene, national and particular interests prevail on the perception of acting together to defend a common good like the Adriatic seaways.

All of this calls for building the tools and mechanisms for rising the readiness and preparedness on national and international levels. Eventual signing of «The Agreement on sub regional plan of interventions for prevention of and reaction to the sudden pollution of the Adriatic Sea» and building of network of bilateral Agreements with the parties not involved in this regional plan seems to be the move in the right direction. Such move would provide all the parties undertake bona fide activities in accordance with the provisions of "The Agreement".

This should be followed with the attempt on the national levels to clarify where is necessary a cooperation of the national bodies and to delineate their responsibilities and authorities.

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