

PREFACE

ADRIANO DE MAIO

IReR President

This publication originated from the workshop on “Control and risk prevention of dangerous materials and crisis management” that took place in Sofia, Bulgaria, in March 2009.

The basic idea is that international scientific cooperation can effectively contribute to security, stability and solidarity among nations, through increased collaboration, networking and capacity-building and supporting democratic growth and economic development in Partner Countries.

We are all facing new needs and threats, deriving from a world changing constantly its social, political and economic dimension and, for this reason, the international dialogue through civil science represents a way forward to commitment to global common issues.

In fact, the Lombardy Regional Institute for Research has developed some international activities aiming at establishing networks of scientists and experts in defined areas and subjects. Through one of these activities, the Institute entered in touch with the *Science for Peace and Security Programme*.

In this framework, we decided to share the experience of Lombardy Region on transportation of dangerous materials (half of their total transport in Italy): research and studies in civil area conducted in Lombardy Region are considered the most innovative in Europe for the results obtained.

Comparison with diverse international experiences is a great opportunity of implementing present results and applying them to different applications (from civil to anti-terrorism) and extending them to countries other than Italy.

Therefore, the pages that follow collect contributions from scientists and experts having a variety of different backgrounds and involving different perspectives: the territorial level, represented by Regional expertises; the National one, represented by different countries’ and Governments’ representatives and the European and International levels through their officers’ perspectives.

We look on this publication as a moment of reflection and knowledge-sharing on risk management of dangerous materials, targeting specific topics of horizontal interest for safety and security issues, with the aim of starting new partnerships enabling a sustainable scientific community.

We therefore hope this is just a beginning, flexible enough to let the reader make a personal reflection and, last but not least, we would like to take the opportunity to acknowledge the *Science for Peace and Security Programme* and the NATO Science Committee for making all this possible, all the participants to the event in Sofia and the authors of these articles for their valued contributions and, last but not least, the Lombardy Foundation for the Environment – FLA for their support.

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HRISTO SMOLENOV

CUNG Director

This collaboration between CUNG and IReR originated from the international scientist community, started with the workshop on Control and risk prevention of dangerous materials and crisis management that took place in Sofia, Bulgaria, in March 2009.

We would like to thank The *Science for Peace and Security Programme* of NATO for the opportunity, which gave the possibility to share experiences and expertise, to activate partnerships and to transfer knowledge. Aims that also this publication intends to achieve, in the framework of the international scientific cooperation.

Among the Balkan countries, Bulgaria has always been attentive on the issues of transport and goods, particularly thinking of the borders that frame the territory.

In fact, Bulgaria borders on five other countries: Romania to the north (mostly along the River Danube, an international river considered as a border with the European Union), Serbia and the Republic of Macedonia to the west, and Greece and Turkey to the south. The Black Sea defines the extent of the country to the east.

Concerning the goods, the type of materials that cross the borders are various: strategic raw materials, which are dangerous, explosives, weapons, supplies, radioactive materials and other toxic substances and poisons and trans-frontier garbage, even if it is difficult to find a definition for what garbage is, what it includes, if it is a mixture of several products and this is a problem that Bulgaria faces nowadays.

In this framework, the country continues to work on the improvement of the national legislation and the control and risk preventions measures according to the *acquis Communautaire* (European Union laws and policies), and it has already implemented the international collaborations as such with the Agency of Atomic Energy.

This geography, together with the system of transports, such as airports (five international airports), boats, trucks, railways and so on, pictures a quite variegated territory accompanied by difficulties: lack of necessary equipment and resources, information system and communications, sometimes staff trained appropriately.

Nonetheless at the same time, these “obstacles” to safe and security can be overcome also through the knowledge and this situation stimulates an interesting comparison with the experiences of the Italian and the international scientists gathered at the workshop in Sofia.

Therefore the papers collected on this publication would like to offer lesson learnt and to be learnt, knowledge transferred and to be transferred, during that occasion.

In addition to this, we hope that looking at different experiences and sharing the best practices will increase interest to collaborate for the common benefit of the life long learning.