“EU capacities to respond to CBRN attacks and CBRN incidents” (2010)

Submitted by Belgium on behalf of the European Union

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Detail

1. The risks and threats of CBRN incidents could be of accidental, natural or intentional origin, including terrorist acts. While so far major incidents involving CBRN materials have been relatively few, the potential consequences of such incidents could be particularly serious. Mitigating the effects of CBRN incidents require early detection, followed by a prompt activation of an effective response.

2. The European Union has developed a comprehensive and ambitious approach to respond to CBRN attacks or incidents through different policies and instruments with a view to improve coordination and cooperation between all stakeholders involved. The objective of these policies is to ensure the security of European citizens from threats such as terrorism, natural disasters and crime and to guarantee the utmost level of preparedness and response in case such an event would occur. Whilst the responsibility for responding to CBRN incidents rests with the Member States, robust crisis management procedures and tools to support the Member States in case of a crisis with cross-border implications have been developed at the EU level. The European Union has strengthened its capacity to ensure a coordinated approach and support between Member States in the case of a disaster. The added value of the European Union is to provide an EU-wide response, taking into account the likely cross-border implications of attacks and incidents. Coordination and information sharing mechanisms, improvement of capacities and technologies, joint exercises, lessons learnt and sharing of best practices are examples of EU actions which support and complement the actions taken by Member States.

A. EU solidarity in case of disaster - the Civil Protection Mechanism

3. The Civil Protection Mechanism (1) is the main EU legal instrument for disaster relief interventions inside and outside the European Union, applying to both natural and man made disasters, including acts of terrorism. It is aimed at facilitating cooperation in civil protection assistance interventions between the European Union and the Member States with regard to preparedness and response. The mechanism applies in the event of major emergencies which may require urgent response actions or in situations where there may be an imminent threat of such major emergencies. Member States facing a biological incident that overwhelms or threaten to overwhelm their national response capability can, at any time, activate the
Community Mechanism for Civil Protection to pool immediate civil protection and medical assistance available in other Member States. Vaccines, countermeasures and related medical assistance can be part of the overall ad hoc emergency assistance channeled through the Civil Protection Mechanism. Upon an official request of assistance from a third country the Civil Protection Mechanism may also be activated to support immediate response.


4. The Monitoring and Information Centre (MIC), established on the basis of the Mechanism and run by the European Commission, operational 24/7, can be activated upon request of an affected State. Through the MIC, the Commission supports the mobilisation, transport and coordination of civil protection assistance to countries affected by major emergencies. The MIC coordinates the civil protection assistance offered by the Member States. According to the Mechanism, the Member States will register (on a voluntary basis) self-sufficient intervention modules which might be available and which could be rapidly dispatched following a request for assistance (e.g. high capacity pumping modules, urban search and rescue, aerial or ground forest fire fighting modules, advanced medical posts, field hospitals, flood containment and flood rescue modules, emergency temporary shelters). These modules can be supported by assessment and coordination teams which can be sent on the ground by the MIC.

5. This assistance could include expert teams and equipment for the diagnosis (release of field epidemiologists), support to health care (personnel and specialized modules), specialized equipments as well vaccines and medicinal products, protective gears, etc. Vaccines, serums and other related medical assistance can be part of the overall emergency assistance channeled through the Civil Protection Mechanism. There are possibilities for 50% EC co-financing for the transport of the assistance if requested by the Member States providing the assistance. But the funding of additional capacities of equipments or vaccines is not possible under the current provisions of the EC Civil Protection Financial Instrument.

6. The successful response to a CBRN incident may depend on the availability and effective use countermeasures. The CBRN Action Plan foresees that each Member State prepares an inventory and assessment of the available medical and technical means to deal with CBRN incidents, as described below.

7. Through the Civil Protection Mechanism a technical framework has been developed for the definition of European response modules. Within this overall modules approach, two types of CBRN modules are defined – CBRN detection modules and modules for search and rescue in CBRN conditions – that can be deployed at very short notice. The registration of these modules by Member States is ongoing and further analysis is required to ensure that sufficient capabilities are available in case of need.

8. As an example of the use of Civil Protection Mechanism, during 2009 it was activated over 30 times. More than half of the activations concerned third countries. The majority of the activations related to natural disasters: forest fires (e.g. Corsica, Sardinia, Spain, Greece), floods (e.g. Namibia, Tajikistan, the Philippines), earthquakes (e.g. Italy), tsunami (Samoa) and typhoon (Taiwan); several of them originated in man-made disasters (marine pollution in Ireland, gas shortage in the Republic of Moldova, severe respiratory infection in Ukraine and Bulgaria). In 2010, the activation following the Haiti earthquake was the largest operation in which the Mechanism has been involved since its creation. Recently the MIC was also activated for the US oil spill in the Gulf of Mexico.
9. As regards the response to CBRN threats, some Member States have registered CBRN detection and sampling modules, as well as search and rescue in CBRN conditions modules. The MIC could also be activated to coordinate the provision of medicines and medical equipment, as was the case during the abovementioned severe respiratory infection (H1N1) in Ukraine in 2009.

B. Rapid and coordinated policy response in the event of a major crisis: EU Emergency and Crisis Coordination Arrangements

10. The EU Emergency and Crisis Coordination Arrangements (CCA) are designed to ensure rapid and coordinated EU level policy response in the event of a major multi-sectoral crisis, such as natural disasters, pandemics or CBRN terrorist attacks and political crisis situations, affecting several EU Member States or the EU as such. Member States' Permanent Representations can draw on the Arrangements to coordinate their policy response actions quickly in an emergency or crisis which requires an immediate EU-level response. In this context, crisis meetings can be convened at any time within very short notice, i.e. a few hours, with the support of the EU Situation Centre, which provides the main operational backbone for implementing the CCA arrangements. The CCA can only be activated by the Presidency, after consultation with affected Member States and with the assistance of the Council Secretariat and the Commission. A comprehensive and immediate information exchange on the crisis is facilitated by means of a dedicated crisis webpage, the CCA webpage. Currently, the CCA undergo a review in order to further enhance the flexibility of this crisis management tool and adapt it to the new EU institutional arrangements.

11. Since its inception in 2006, four annual CCA exercises have been conducted. Generally, these exercises aim at testing and enhancing procedures, the roles of the intervening actors and media communication aspects. The 2010 exercise (CCAEX10) which is due to take place in September 2010 will be the first one targeted at identifying policy gaps in the areas affected by the crisis. The exercise scenario will deal with a bioterrorist attack by means of bacteria which cause serious infections, and, under certain conditions, are lethal. The target of the attack is a major sporting event which takes place in one of the EU Member States and in a Third Country bordering the EU, therefore likely to have far-reaching cross-sectoral implications for the Member State hosting the sporting event and for other States with nationals present in the area.

12. In addition to these Crisis Coordination Arrangements at the EU level, the European Commission also established its internal crisis coordination arrangements called ARGUS, under the auspices of the President of the European Commission, in order to ensure a high degree of coordination between different policies potentially affected in the event of a CBRN incident (e.g.: health and internal security, environment, agriculture, customs, civil protection). ARGUS ensures rapid decision making and information sharing among all involved services and rapid alert systems, such as the ECURIE system for radiological emergencies, the Early Warning and Response System (EWRS) for communicable diseases or the RAS-BICHAT for biological and chemical health threats of deliberate origins.

13. In the event of a CBRN incident, the EU’s Joint Research Centre can provide technical and scientific support to the EU policies whilst specialized EU agencies can bring their assets and knowledge about these issues, such as the ECDC (European Centre for Disease Prevention and Control), EFSA (European Food Safety Agency) and Europol (European Police Office).
C. Preparedness and response coordination to CBRN risks and threats in the health sector

14. EU-level CBRN preparedness assessment and response coordination activities in the health sector focuses on all types of CBRN hazards – natural, accidental or deliberate, including:
- Risk assessment of public health impact and risk management of chemical, biological (including communicable diseases) and radio nuclear events with major cross border impact;
- Early alerting and communication systems linking up EU countries;
- Expert advice on prevention, treatment and mitigation.

15. In the field of emergency situations caused by communicable diseases, EU legislation ensures since 1998 that EU Member States coordinate measures to deal with communicable disease outbreaks through the Community Network for surveillance and response to communicable diseases and its Early Warning and Response System (EWRS).

16. If an incident due to communicable disease is notified, a rapid consultation is called by the European Commission and a coordinated approach is agreed with the Member States Public Health Authority on the basis of the assessment prepared by the European Centre for Disease Prevention and Control (ECDC), and, when needed by the WHO. Also other Union bodies can be activated if necessary depending by the nature of the event.

17. On the basis of the previous experience with communicable diseases, rapid alert and communication systems (e.g. RAS-CHEM for chemical events) have been developed to link the national authorities responsible for risk and threats assessment (e.g. poison centres) and the Ministries of Health on chemical, biological and radio-nuclear hazards. They will function, as the EWRS for the communicable diseases, for exchange of information and advice, identification and rapid dissemination of information on chemicals, biological and radio-nuclear incidents including those relevant to terrorism. The evidence based information gathered by the information systems, will be forwarded to the event management level in order to allow taking rapid and shared approaches to respond to specific events.

18. The EU Health Security Committee (HSC), which is composed of senior representatives of the EU Member States and the European Commission, is the key body for risk management of CBRN events in the Union. Its HSC CBRN section provides to the members of the HSC the evidence based elements for the decision making process in order to respond with a coordinated approach to the event.

19. Among the different priorities of the HSC, such as detection and communication, threat and risk assessment or crisis management and testing of plans, preparedness is a key aspect aiming at expanding national capacity by offering technical assistance and guidelines.

20. The European Commission also organises regular exercises to test EU and national preparedness and response plans, in particular to assess and train, the institutions at National level to respond during a fast-evolving health threat.

21. A crucial collaboration is established with the Joint Research Centre (JRC) through the implementation of mathematical models used to analyse the spread and control of hazardous agents/situations and help decision-makers take adequate preparedness and prevention measures. The EU JRCs apply such models to assess the public-health impact of infectious disease epidemics and pandemics, the spread of chemicals and radio-nuclear agents, including the effects of climate change.
22. In addition, a number of projects co-funded under the previous and current public health programmes cover important issues related to CBRN response. In particular, these are instrumental to activate a network of expertise to provide help and to coordinate activities to respond to emergency situations. For instance, the following projects have been of crucial importance:

- **ETIDE project** ([http://www.etide.eu](http://www.etide.eu)) assists Member States in enhancing European capacities to recognise and respond effectively and in a coordinated fashion to infectious disease emergencies (whether natural, accidental or deliberate in origin).

- **ASHT 1 and 2 projects** strengthen the capacity to share information and knowledge on chemical incidents, interlinking the poison centres in the MS and establishing a robust platform for risk assessment of chemical events with cross border relevance in the Union ([http://ec.europa.eu/eahc/projects/database.html?prjno=2007210](http://ec.europa.eu/eahc/projects/database.html?prjno=2007210)).


(2) Decision 2119/98/EC of the European Parliament and of the Council of 24 September 1998 setting up a network for the epidemiological surveillance and control of communicable diseases in the Community; OJ L 268/1; 03.10.1998

### D. Common Security and Defence Policy (CSDP) support to disaster response

23. EU emergency response to natural or man made disasters outside the EU may require the assistance of CSDP tools including military assets and capabilities. The 2006 Framework for the identification and coordination of military assets and capabilities in support of the civil protection and humanitarian aid response (3) allows for:

- Identification of potential military assets and capabilities and CSDP tools to support the EU's overall efforts (including medical, engineering and logistic capability, including transportation assets);

- Support to coordination of such assets and capabilities (including their deployment).

24. The appropriate arrangements are in place, notably within the Crisis Management and Planning Directorate and between the EU Military Staff and the multinational military transportation coordination centres (Eindhoven and Athens) and with the relevant Commission services. The mechanisms can be launched within hours but timelines for actual deployment of the assets and capabilities depend on their availability.

(3) “Military support to EU disaster response: Identification and coordination of available assets and capabilities” (9462/3/06 REV 3)
E. EU CBRN Action Plan

25. Following the Commission's Green Paper on Bio-Preparedness of July 2007, the Council adopted in December 2007 Conclusions on addressing chemical, biological, radiological and nuclear risks and on bio-preparedness with a view to enhance EU policies in this area. In the aftermath, the European Commission adopted on 24 June 2009 a Communication (COM(2009) 273) on strengthening chemical, biological, radiological and nuclear security, which included an EU CBRN Action Plan based on the final report of the CBRN Task Force (set up by the Commission in February 2008). This action plan consists of 124 different recommendations across the strands of chemical, biological and radiological/nuclear materials, as well as across the topics of prevention, detection and response.

26. The objective of the CBRN action plan is to support the ongoing efforts of EU Member States in this field and to provide a framework for better coordination of and cooperation in three areas of work:
- **Prevention**: ensuring that unauthorized access to CBRN materials of concern is as difficult as possible;
- **Detection**: having the capability to detect CBRN materials if control over them is lost;
- **Preparedness and response**: being able to efficiently respond to incidents involving CBRN materials and recover from them as quickly as possible.

27. On 30 November 2009, the Council approved the EU CBRN Action Plan and adopted a set of conclusions calling on the Commission and the Member States to undertake its implementation in order to enhance preventive, detection and response measures in the field of CBRN threats and risks, giving special attention to the implementation of key actions identified in the Action Plan.

28. In order to take the implementation of the EU CBRN Action Plan forward, in early 2010 the Commission established a CBRN Advisory Group and sub-groups, bringing together state representatives, technical experts, and relevant stakeholders, including, where appropriate, the private sector.

29. Under the overall framework of the EU CBRN Action Plan, the Commission also put forward a proposal to develop an EU CBRN Resilience Programme, which aims at improving the CBRN work undertaken within the framework of the Civil Protection Mechanism. The objective is to have better linkages between the different first responders including civil protection, health, law enforcement activities in the field of CBRN and to tackle identified gaps in a streamlined way. This includes workshops, training, exchange of experts, simulation exercises, scenario development and capability assessment. Recent calls for proposals for exercises and preparedness projects in the field of civil protection reflect this priority.

30. As regards the response to CBRN attacks or incidents, it is often impossible to quickly ascertain whether it was caused by a malicious act or an accident. Consequently, regardless of the nature of an event, the response to an incident is essentially the same. Due to the all-hazards nature of preparedness and response measures, a broad range of activities in this area has already been developed at EU level as well as in the Member States. Nevertheless, the CBRN action plan envisages further work to be undertaken in order to strengthen existing measures, in particular with regard to malicious CBRN incidents.
In this regard, specific attention is paid to CBRN emergency planning, reinforcing information flows, developing better modeling tools and improving criminal investigation capacity:

(i) Emergency planning: well-developed pre-emergency plans and emergency response plans designed for CBRN incidents are the foundation of efficient crisis- and post-crisis management. Consequently, under the CBRN Action Plan, an effort is made to ensure that CBRN emergencies are specifically included in response plans in each Member State. Such response plans should not only exist for public authorities; they should also be developed by all operators handling high-risk CBRN materials and for other high-risk facilities. All response plans need to be exercised regularly. Such exercises should include criminal investigation and forensics teams.

(ii) Domestic and international information flows: smooth and clear communication and information flows between all stakeholders in a crisis situation are preconditions for an effective response. Consequently, the CBRN Action Plan underlines the need for better information sharing among the Member States on emergency planning for CBRN incidents. Consideration should also be given to making better use of existing information exchange systems.

(iii) Modeling tools and strengthening decontamination capacity: modeling tools play a key role in planning processes and during an actual response to a CBRN emergency. Regardless of the nature of an event (act of war, terrorist attack, traffic accident, industrial accident), the analysis of the movement of a cloud of dangerous substances (i.e. its atmospheric dispersion) and the estimation of the concentration of dangerous substances in the atmosphere constitute some of the most important response variables during a major accident involving dangerous substances. The CBRN Action Plan identifies the need to perform a comprehensive stocktaking exercise in terms of existing modeling tools and their applicability to the conditions prevailing in the EU. Following such an assessment, further work could be carried out on new tools specifically tailored to the needs of first responders in the EU. Within this context, an Emergency Response Guidebook for CBRN emergencies is under preparation, which would be available in all official EU languages. Within the decontamination context, the CBRN Action Plan foresees detailed stocktaking work with regard to effective decontamination means and procedures.

(iv) Criminal investigations: the response to CBRN incidents, in particular terrorist acts, also includes the necessity to conduct criminal investigations with a view to bringing the perpetrators to justice. The importance of judicial cooperation with regard to terrorist activities involving CBRN materials should be underlined. Within the context of criminal investigations, the CBRN Action Plan identifies transport of CBRN contaminated materials across borders and forensic awareness as key areas to be addressed.

F. Seventh Framework Programme for the research, technological development and demonstration activities (FP7)
32. The Council decided in 2006 to support for the period 2007-2013 cooperative trans-national research activities in ten thematic areas, security being one of them (Council Decision 2006/971/EC). The programme is open to all third States. The objectives of the research in the security theme of FP7 are, among others, to **develop technologies and knowledge** for building capabilities needed to ensure the security of citizens from threats such as terrorism, natural disasters and crime, and/or to deliver mission oriented research results to reduce security gaps. The mentioned mission areas also include, but are not limited to:

(i) **Security of citizens**: the ambition is to avoid a CBRN incident and to mitigate its potential consequences. To build up the required capabilities with the aim of providing civil protection, including bio-security and protection against risks from crime and terrorist attacks, emphasis will be on issues such as CBRN threat assessment, awareness raising, detection, access-control measures (including financial aspects), etc;

(ii) **Security of infrastructures and utilities**;

(iii) **Restoring security and safety in case of crisis**.

33. CBRN research plays therefore a major role in the FP7 Security theme, identified as a key European research priority. As of 1st July 2010, more than 20 CBRN security related research projects have been launched or selected for funding, contributing to enhance the future capacity of the EU to respond to a CBRN attack or a CBRN incident and focusing primarily on the needs of end-users. In May 2010, two feasibility studies for a research demonstration programme on CBRN have been launched (DECOTESSC1 and CBRNEMAP). The demonstration programme in itself is expected to be implemented in 2012-2014.