



## **PROGRESS REPORT ON THE IMPLEMENTATION OF THE EU CBRN ACTION PLAN, May 2012 *(public version)***

### **1. Background**

The EU CBRN Action Plan was adopted in December 2009 by the EU Council and aims to strengthen CBRN security throughout the EU. Based on an all-hazard approach, the Action Plan's overall goal is to reduce the threat of, and damage from CBRN incidents of accidental, natural and intentional origin, including terrorist acts. The Action Plan contributes to the implementation of the EU Counter Terrorism Strategy and is in line with the Internal Security Strategy.

The Council in its Conclusions noted that any new EU measures in this field should be based on risk and threat assessments as well as a cost-benefit assessment, and should draw upon existing work, avoid duplications and provide an added value for the Member States, while ensuring a coherent and consistent approach to security cooperation. The Council, furthermore, encouraged the Member States and the Commission to promote an enhanced security culture inter alia by focusing on the enhancement of knowledge in Member States in the field of CBRN security by way of risk assessments, research, the exchange of best practices and joint training and exercises; and by contributing to an adequate perception of the risks associated with CBRN materials by disseminating experience and knowledge to relevant stakeholders such as public authorities, first responders, researchers, the general public, security managers and staff.

The Action Plan comprises 124 actions regarding prevention, detection, preparedness and response of which 14 actions have been identified as key actions. The actions are, furthermore, divided on the basis of subject matter, i.e. chemical (C), biological (B) and radiological-nuclear (RN), and also include horizontal (H) actions. The Action Plan sets the implementation period between 2010 and 2015.

The Action Plan is implemented by EU bodies, such as the European Commission, the European External Action Service and Europol, Member States' public authorities, and other relevant stakeholders such as the private sector, the health care sector, and academic institutions. The International Atomic Energy Agency and Interpol are closely associated to the implementation of the Action Plan.

The Council Conclusions invite the Commission to report back to the Council on a regular basis on the implementation of the Action Plan and to submit a comprehensive progress report two years after its adoption. Member States and Commission services as well as the European External Action Service and Europol have been involved in preparing this progress report on the implementation of the CBRN Action Plan.

This report does not aim to present new policy initiatives as it is not a review of the CBRN

Action Plan. Nevertheless, the report tries to identify both achievements and shortcomings in implementation, outline the areas requiring further efforts and, beyond the implementation of individual actions, and sketch out how the CBRN Action Plan may head towards more streamlined EU activities to ensure CBRN security within the Union.

## 2. State-of-play of implementation

### 2.1. General overview of the implementation of the CBRN Action Plan

**The main achievements** address some of the priority issues, including the selected key actions. **The agreement in 2011 by the CBRN Advisory Group on three EU lists of high-risk substances**, respectively in chemical, biological and radiological-nuclear fields, may be considered as the key deliverable so far. The three lists have since then formed the basis for EU work in implementing the Action Plan. Member States are encouraged to make use of these lists in planning and carrying out their implementation work at national level.

DG Home Affairs (HOME) is responsible for the **overall coordination of the implementation** and organises most stakeholder meetings. The body set up to coordinate the work of the Member States and EU bodies is the **CBRN Advisory Group**. Additionally, subgroups have been established to support the implementation of the Action Plan: subgroups for coordinating issues related to chemical, biological and radiological-nuclear security, respectively **C, B and RN subgroups**. Since 2010, in total twelve meetings have been held, either in the format of the Advisory Group or subgroups.

DG HOME will continue to coordinate the work via the subgroups but, furthermore, intends to **convene also thematic and ad hoc meetings**, for instance in order to make progress in the area of horizontal matters such as scenarios of CBRN incidents, CBRN detection technology, insider threat, vetting of staff or others. Convening thematic meetings would be done on ad hoc basis and in cooperation and consultation with Member States according to current priority areas.

**Progress has been made in all the areas, C, B, RN and H**, with many examples of successful activities in all these domains, however, it can be noted that **the implementation of the actions has been relatively uneven**, the Member States and EU bodies have made progress in the same actions to a varying extent, and many of the activities carried out so far are of preparatory nature vis-à-vis the full objectives and deliverables of the Actions. Therefore, **work should be taken forward in continuing to implement the majority of the C, B, RN and H actions**, nevertheless, focusing on some of the **more generic and comprehensive ones** in order to streamline efforts and ensure more tangible results.

For example, **further work and a structured approach** is needed to carry out activities in the framework of this Action Plan in the field of **detection**, including development of detection technology, in C, B and RN fields. Continued and further streamlined **research** into the CBRN areas is also crucial for overall progress in achieving security from CBRN threats. Furthermore, existing actions addressed to finding **low-risk alternatives** to substances in the EU lists of high-risk materials should be a priority, as well as **enhancing links between different authorities and bodies**, i.e. various national authorities, including the law enforcement, with the private sector, academia, international organisations and others, covering the C, B and RN fields.

In order to ensure a structured approach and progress in all the fields, but in particular in areas where specific studies and research has been taken forward, it is important to **keep track on and disseminate the results** of such work, be it carried out by EU bodies or Member States. It is, furthermore, important to **systematically build upon the relevant results** when drawing up EU and national CBRN-policies as the results serve as an additional basis for coordinating and directing future work and avoiding duplication.

The CBRN Action Plan with its 124 actions presents a real **challenge** to the Commission and Member States, both in terms of its sheer size, i.e. the number of actions, as well as coordination requirements.

### ***2.1.1. Ongoing projects and studies coordinated by DG Home Affairs***

As of April 2012, DG HOME is coordinating 13 **projects and stock-taking studies** to implement the CBRN Action Plan. They cover both the horizontal (H), chemical (C), biological (B) and radiological-nuclear (RN) workstreams of the Action Plan. DG HOME has given a mandate to the Joint Research Centre to technically support the implementation of the Action Plan and carry out projects, studies or other preparatory of implementation activities for that purpose. Furthermore, studies are conducted also by consultancies specialising in CBRN matters. The Advisory Group and sub-groups are kept informed of the results of the studies and their follow-up is discussed in these fora.

There are five **projects**, carried out by the Commission's Joint Research Centre via administrative arrangements, which focus on the **H and RN** actions: setting up an EU Radiological-Nuclear Security Training Centre for the Law Enforcement Community (EUSECTRA) (RN. 20 and RN. 24); developing a CBRN Glossary in all EU languages (H. 53); assessing and validating existing modelling tools and decision support systems for CBRN releases (H. 39 and RN. 23); evaluating and comparing the performance of available detection equipment relevant for radiological and nuclear security (ITRAP+10) (RN. 25); and assessing the International Atomic Energy Agency's Illicit Trafficking Database regarding its capabilities and scope, including whether it provides sufficient information on illicit trafficking of radiological and nuclear materials for the law enforcement community (RN. 13 and RN. 14).

DG HOME has, furthermore, commissioned eight **studies** that focus on **H, C and RN** workstreams in order to prepare for different measures implementing actions under these fields. The studies have been started in the beginning of 2012 and will last from 9 up to 15 months. They cover a wide number of areas and actions: an analysis of the penal legislation concerning CBRN terrorism and acts of WMD proliferation by non-state actors (H. 67); stocktaking study on good practices on reporting of suspicious transactions in relation to CBRN materials (H. 9 and H. 10), good practices in CBRN transport security (H. 11) and good practices regarding dialogue between chemical facility security managers and law enforcement authorities (C. 1); study on the applicability of existing chemical industry safety provisions to enhancing security of chemical facilities (C. 2, C. 4 and H. 5); study on the availability of high risk chemicals to the general public and in particular on the risks associated with trade of chemicals over the internet (C. 7 and C. 10); study on the current status of radioactive sources in the EU, the consequences of the loss of control over radioactive sources and strategies of detection and recovery of orphan sources (RN. 8 and RN. 9); study on the implementation of IAEA Guidance on the Import and Export of

Radioactive Sources by the EU Member States and on the need and feasibility to draw up common EU criteria for authorising imports and exports (RN. 11, RN. 16 and RN. 17).

**In 2012 and 2013**, DG HOME intends to launch eight more **projects and studies**, falling under the **H, B and RN** actions. Three of them would **follow up ongoing projects in H and RN fields**: assessing existing CBRN modelling tools (H. 39 and RN. 23), developing the CBRN Glossary (H. 53) and evaluating detection equipment for radiological and nuclear materials (ITRAP+10) (RN. 25). Another three projects to be launched are **new**, falling under the **H, RN and B** workstreams, though they would be based on existing work carried out in the field: development of a hands-on and virtual reality based training capability for border security on the detection and response of radiological and nuclear materials (H. 55, RN. 24 and RN. 25), the development of a mechanism for enhanced operational support to Member States in the area of nuclear forensics (RN. 25 and H. 21) and the development of reference materials of biological agents for both clinical and environmental samples to achieve quality assurance in detection as well as setting minimum requirements for sampling, detection, identification and monitoring of pathogens and toxins within a civilian security context (B. 10 and B. 11). Furthermore, two **studies**, falling to the **H and RN** categories, would be initiated: a study on vetting of personnel having access to or handling high-risk CBRN materials along the supply chain (H. 58) and a study on the influence of weather conditions on the capability of vehicle portal monitors to detect radioactive and nuclear materials (RN. 25).

In addition, during 2012, DG HOME in cooperation several Member States will be launching practical detection trials aimed to measure the C and B detection performance of mobile equipment. These detection related activities will take place in the context of Euro 2012 Football Championship and airport security operations. These practical trials are expected to offer valuable input on the C and B detection performance and best practices on operational methodologies in different operational environments.

### ***2.1.2. Implementation activities by Europol***

Based on an all-hazards approach to the threat, **Europol** conducts several activities that are aimed at assisting EU Member States in developing their capacity to prevent and respond to CBRN incidents. Europol is responsible for and a partner in the implementation of several actions within the Action Plan.

Underlining Europol's role in the field of CBRN and directly responding to Action H. 38, in May 2011 the Council adopted conclusions on the creation of a **European network of specialised CBRN law enforcement units** aiming to facilitate the exchange of information and good practices and organise joint training exercises. The lead role was assigned to Europol. The Danish Presidency and Europol organised the first meeting of the network of CBRN law enforcement units in the framework of the bi-annual conference of the European Explosives Ordnance Disposal Network (EEODN) in Copenhagen in May 2012. The conference was the first occasion for EEODN to meet in the new configuration of two working groups - one on EOD and the other on CBRN matters. The next EEODN meetings are scheduled to September and October 2012.

Europol is leading the development and maintenance of the **EU Bomb Data System (EBDS)** containing information on incidents, threats, reports and analysis with regard to explosives and CBRN. The system, operational since 2010, comprises incident databases, specialised libraries and discussion forums where experts can share technical intelligence, experience and

best practices. So far, 25 EU Member States and Norway have been connected to the System. Some linguistic problems regarding the texts entered by countries still have to be solved. Europol has also been actively involved in the implementation of the **Early Warning System** (EWS) for incidents related to explosives, CBRN and firearms. As a joint project between Europol and Interpol, regular assessments of nuclear and radiological criminality in the EU are issued in the framework of **Project Rutherford** since the beginning of 2012.

### ***2.1.3. Implementation activities by other Commission services and EEAS***

**DG Energy** (ENER) is actively supporting the implementation of the CBRN Action Plan, taking forward the priorities within the RN-workstream and co-chairing the work of the RN-subgroup. It contributes in particular to actions pertaining to enhancing control over high risk CBRN materials, enhancing the security of transport of radioactive materials, strengthening the import-export regime and improving information exchange within the Union and internationally.

The activities of DG ENER in implementing the RN-actions in the Action Plan are linked to its competences exercised in the framework of the Euratom Treaty. Through this Treaty, in force since 1957, the EU operates an effective regional nuclear safeguards system, implementing inspections, reporting and providing technical and scientific support to its Member States, in close partnership with the International Atomic Energy Agency (IAEA). The Treaty is an important cornerstone of the EU engagement in nuclear safety and security and can serve as a model of excellence for other regions worldwide.

**DG Health and Consumers** (SANCO) is also actively supporting the implementation of the CBRN Action Plan, taking forward the priorities within the B-workstream and co-chairing the work of the B-subgroup. With regards public health protection, DG SANCO is coordinating together with the EU Member States through the EU Health Security Committee preparedness and response to CBRN events and threats. With the perspective of reinforcing this coordination, it has put forward a proposal for a Decision of the European Parliament and of the Council on serious cross-border threats to health. The aim of the proposed Decision is to streamline and strengthen EU capacities and structures for effectively preparing and responding to major public health emergencies.

**DG Enterprise and Industry** (ENTR) contributes to the implementation of the CBRN Action Plan from two angles. On the one hand, with regard to the activities in the C-workstream, DG ENTR is co-chairing the work of the C-subgroup. In the context of ensuring a well-functioning internal market for goods, including chemicals, DG ENTR, together with DG ENV, is coordinating the legislation governing the placing of chemicals on the market. This ensures the free movement of goods while taking into account the need for safety and to protect the environment, with some provisions also having an impact on CBRN security.

On the other hand, following the priorities of the Action Plan, DG ENTR Security Research Unit co-funds up to 60 projects on CBRN (and explosives) under the **Seventh Framework Programme** (2007-2013), with a total funding volume of around EUR 200 million. The projects cover a wide number of areas of CBRN safety and security, and may be divided as capability, integration or demonstration projects, coordination support actions or networks of excellence.

As examples the following **CBRN projects** may be mentioned: CATO: Toolbox for CBRN

crisis management; COCAE: Handheld detector for radioactive sources; FRESP: Respiratory protection system for first responders; IMSK: Integrated CBRN mobile security kit for large events; MULTIBIODOSE: Bio-dosimetric tools for mass casualty radiation accident; PRACTICE: Preparedness and resilience against CBRN attack; SecurEau: Detection of contaminated water distribution system and decontamination; IF REACT: Improved first responder ensembles against CBRN terrorism; and SLAM: Roadmap for CBRN measurement standards. As examples of projects to be launched in the second semester of 2012, the following may be mentioned: a very large CBRNE demonstration project (ca EUR 35 million of which EUR 25 million is EC funding) which aims at demonstrating the capabilities of preventing, detecting and response to CBRN events (system of systems); several projects to improve drinking water and food security against CBRN-related contamination in major municipalities and the development of mobile laboratories to support assessment of CBRN events.

**DG Humanitarian Aid and Civil Protection (ECHO)** has significantly contributed to the implementation of the Action Plan, carrying out its CBRN activities under the **CBRN resilience programme for civil protection**. This includes the enhancement of the EU CBRN response capacity to natural, technological or man-made disasters in Europe, inter alia via civil protection modules, and the organisation of regular exercises under the Community Civil Protection Mechanism. Furthermore, in 2011 a Working Group on EU CBRN Resilience in Civil Protection was set up by DG ECHO.

The **civil protection modules** have been developed as pre-defined arrangements of response resources. They are composed of mobile/moveable resources that are able to work independently as well as together with other modules and provide assistance inside and/or outside the EU, are self-sufficient, interoperable and can be dispatched at very short notice (generally within 12 hours following a request of assistance) and are equipped, trained and operated in accordance with acknowledged international guidelines. Two of the 17 types of modules that have been defined at European level are CBRN specific – CBRN detection and sampling, and search and rescue in CBRN conditions.

Through **the Centres of Excellence** initiative, the EU is contributing to the development of CBRN capacities in the third countries (five regional Centres being created at the first stage covering 32 countries). The initiative "EU CBRN Risk Mitigation - Centres of Excellence (CoE)" is being taken forward jointly by the European External Action Service (EEAS), DG Development and Cooperation - EuropeAid (DEVCO) and the Joint Research Centre (JRC). The implementation of the initiative is supported by the United Nations Interregional Crime and Justice Research Institute (UNICRI).

Taking into account the call by the European Parliament in its report from December 2010 for a close link and mirror effect between security inside and outside the EU, the EU should consider taking example and establishing its own CBRN Centres of Excellence also with the objectives of encouraging expert networking, improving the capacity to control exports and preventing illegal trafficking in CBRN substances, and further strengthening the regulatory framework. Financing for possible EU Centres of Excellence should be available through EC funding programmes.

## **2.2. Detailed overview of implementation of C, B, RN and H actions**

### **2.2.1. Implementation of C-actions**

In actions in the field of chemical security, progress has been made both by Member States, EU bodies and the industry. A large majority of the **15 C-actions** are being covered by some of the activities.

**Member States** have reported good progress in for instance enforcing security awareness programmes and Codes of Conduct for the industry regarding high risk chemicals (C. 11), establishing security management systems of high-risk chemical facilities (C. 2), are providing training to first responders and the industry regarding hazardous materials (C. 13) and carrying out exercises to improve preparedness and response in case of incidents involving high-risk substances (C. 14).

**The Commission** (DG HOME) is currently preparing for certain actions by funding analytical studies in the chemical security area under the **Prevention and fight against crime programme (ISEC)**: study on the applicability of existing chemical industry safety provisions (C. 2, C.4 and H. 5), study on the identification of good practices with regard to dialogue between facility security managers and law enforcement, including the topic of providing security advice (C. 1), and study on the availability of high-risk chemicals to the general public and in particular on the specific risks associated with trade of chemicals over the internet (C. 7 and C. 10). The results of the studies will be available in the end of 2012 and in 2013. Furthermore, the Commission has analysed the state-of-play of two of the C-actions, existence of security plans and security management systems in high-risk chemical facilities (C. 2) and provision of training to specialists handling hazardous materials (C. 13), through separate questionnaires distributed to Member States.. On the basis of the results the Commission and Member States will decide how to take the work forward in these two areas.

Under the **Seventh Framework Programme**, 18 projects contributing to C-actions have been or are being financed. Some projects are of generic nature and others implement in particular the action C. 15.

Through the **Seventh Framework Programme** the Commission (DG ENTR) has also financed several projects related to chemical threats. The project CREATIF has contributed to the implementation of action C. 12 (improve communication on technical requirements for C sampling and detection), having established a network of testing facilities for CBRNE detection equipment, created a discussion platform for users of detection technology and developed a roadmap for testing, standardisation and a certification strategy. The development of reference materials of highly pathogenic toxins, standard measurement methods and inter-laboratory proficiency testing schemes under the FP7 EQUATOX project, which started on 1 January 2012, will be carried out by MS' key representative laboratories including the EC Joint Research Centre.

The Commission (DG SANCO) also regularly finances **table-top exercises** to evaluate and improve preparedness for public health emergencies in the EU that involve chemicals whether accidentally or deliberately released (C. 14). For training purposes (C. 13), a toolkit to enhance public health response to chemical incident emergencies has been developed in the framework of a three-year project (2008-2011) funded from the **Health Security Programme**. The toolkit, aimed for public health professionals and trainers, contains factsheets, training manuals, scenario cards, sample questionnaires, guidance for conducting training exercises and information for the general public.

The **industry**, in particular the European Chemical Industry Council (CEFIC), has made efforts to make the principles and guidelines of the European Security Code of CEFIC's Responsible Care Programme better known to its national member federations which are responsible for overseeing the implementation by the companies (C. 3 and C. 4). The Responsible Care Programme, initiated in 1985, is a global initiative aiming to improve the standards of the chemical industry. The European Security Code helps companies to enhance their security performance, addressing not only the handling of chemicals but all the company activities as well as interfaces with stakeholders. By adopting the Security Code, the company commits, inter alia, to carrying out periodical analysis of threats and vulnerabilities, using a risk-based approach.

Representatives of the industry, European Chemical Industry Council (CEFIC), European Association of Chemical Distributors (FECC), European Industrial Gases Association (EIGA), as well as of the Organisation for the Prohibition of Chemical Weapons (OPCW) and Europol and Interpol have attended **C-subgroup meetings**.

### ***2.2.2. Implementation of B-actions***

In the field of biological security, work has been carried out in areas covered by the Action Plan by Member States, EU bodies and other stakeholders such as laboratories. Most of the B-actions are being implemented by various steps taken by Member States and EU bodies.

**Member States** have achieved good results in several fields, for instance further developing mechanisms for monitoring and assessing laboratory bench level procedures (B. 1); implementing the European Committee for Standardisation (CEN) Workshop Agreement 15793 on Laboratory Biorisk Management Standards (B. 4); establishing Codes of Conduct in bio-issues for laboratories, biosafety and biosecurity professionals and others (B. 5); developing detection models for different biological pathogens and toxins (B. 8); and providing training and education for professionals working with, having access to or handling high-risk agents, including on bio-safety, bio-security and bio-ethics (B. 15).

The **Commission** (DG HOME) is financing, through the Prevention of and fight against crime programme (ISEC) a three-year (2010-2013) **project on bio-preparedness** measures concerning prevention, detection and response to animal bioterrorism threats, coordinated by Sweden. The project, initiated in 2010, aims to improve EU capacity to counter biological animal bioterrorism threats through awareness, prevention and contingency building on the basis of security, forensic, bio-safety and modelling expertise (B. 11, B. 14, B. 15 and H. 1).

In the field of **detection of biological agents**, the Commission (DG ENTR) is funding the project BIO-PROTECT to develop a fast-alert, easy-to-use device for detection and identification of airborne bacteria, spores, viruses and toxins. The device will provide security personnel with a viable tool to take fast effective countermeasures on biological threats and will reduce the potential impact of terrorist aggressions or accidental release of bio-agents from laboratories (B. 9 and B. 17). The project is financed under the FP7 Security Research budget.

Under the Public Health Programme, the Commission (DG SANCO) has carried out a **study** on the Establishment of Quality Assurances for Detection of Highly Pathogenic Bacteria of Potential Bioterrorism Risk (2008-2011) creating a **repository with reference materials**,

**biosafety and biosecurity checklist for BSL3 labs**, and dealt with issues pertaining to transport, import and export as well as control samples (B. 10).

The development of **reference materials of biological agents** (both clinical and environmental samples) will also be followed up by DG HOME in the framework of a **study** to be launched in 2012, carried out by the Joint Research Centre and financed from ISEC. The study will also look into setting minimum requirements for sampling, detection, identification and monitoring of pathogens and toxins within a civilian security context (B. 10 and B. 11).

In order to develop the capabilities of national authorities to ensure bio-safety and bio-security, various **exercises and trainings** are being held and **networks** are being established at EU level. As an example, the Commission (DG SANCO) is funding a three-year project (2011-2014), **Quality Assurance Exercises and Networking** on the Detection of Highly Infectious Pathogens (QUANDHIP), coordinated by the Robert Koch Institute (Germany) (B. 3, B. 8, B. 9, B. 10, B. 11, B. 12, B. 13, B. 15 and B. 16). Furthermore, with support from the Public Health Programme a **European Network of P4 laboratories** (ENP4Lab) has been created (2005) to enhance and maintain cooperation, communication and exchange of information as well as to harmonise and standardise practices between European Bio-safety Level 4 (BL4) laboratories (B. 3, B. 10, B. 12, B. 13, B. 15 and B. 16). This in order to enable rapid, effective and coordinated responses to health threats to European population resulting from natural infection by class 4 agents or their deliberate release. In addition, the Commission is organising thematic meetings and workshops to further exchange best practices in the bio-security field.

Under the aegis of the Danish Presidency, the **European Biosecurity Workshop – Biothreat Prevention in Practice** will be held in Copenhagen in June 2012. The event will be hosted by the Danish Centre for Biosecurity and Biopreparedness. The aim will be to share knowledge on best practices and lessons learned in the field of biosecurity.

Under the **Seventh Framework Programme**, 18 projects contributing to B-actions have been or are being financed. The projects implement in particular actions B. 10, B. 12, B. 13 and B. 17.

**A Network of Excellence** is being established in the framework of the project Plant and Food Biosecurity (PLANTFOODSEC) aiming to create a virtual research network to improve the quality and impact of plant and food biosecurity training and research in Europe. The project will create a virtual research network in order to improve the quality and impact of training and research in relation to crop and food biosecurity research in Europe. It will, furthermore, improve disease surveillance and detection systems (B. 11 and B. 13). The five-year project started in 2011 and is funded under the FP7 Security Research budget.

The **European Centre for Disease Prevention and Control (ECDC)** plays an important role of ensuring bio-safety and bio-security. The EU agency aims to strengthen Europe's defences against infectious diseases through identifying, assessing and communicating current and emerging threats to human health posed by infectious diseases. Its working mandate is under revision and should allow further emphasis to bio-security issues covered by the CBRN Action Plan. ECDC has contributed particularly to increasing cooperation and networking among laboratories dealing with high-risk biological agents and toxins (B. 12).

### **2.2.3. Implementation of RN-actions**

In the field of radiological and nuclear security, work has been carried out in areas covered by the Action Plan by Member States, EU bodies as well as international organisations such as the International Atomic Energy Agency and Interpol. A vast majority of the **25 RN-actions** are being implemented by various activities undertaken by these actors.

**Member States** report good progress in various areas, for example ensuring that law enforcement authorities keep the operator of facilities in which high-risk radioactive sources are present informed of potential threats (RN. 1), making sure that national source registries contain comprehensive information on all high-risk sources and their holders (RN. 4); ratification of an Amendment from 2005 to the Convention on the Physical Protection of Nuclear Materials (CPPNM) which i.a. expands the scope of the Convention to improve the physical protection of nuclear material and facilities and help reduce the vulnerability of states to nuclear terrorism (RN.18 and RN. 19); and carrying out research into detection and response, including development of technology in the area of radiological and nuclear security (RN. 25).

**Europol** in cooperation with several Member States has set up an **Early Warning System** for incidents related to explosives, CBRN materials and firearms, when terrorist involvement is suspected or not discarded, providing an early notification on incidents such as thefts, losses or recoveries of high-risk sources (RN. 10). Europol and Interpol jointly coordinate the **Project Rutherford** issuing regular analytical assessments of nuclear and radiological criminality in the EU (thefts, losses, attempted sales, smuggling, illegal disposal, and terrorism) based on incident data from both Europol and Interpol Member States, IAEA's Illicit Trafficking Database and open sources. The first Project Rutherford Situation Report was published on the 20 January 2012 (RN. 10).

Under the Prevention of and fight against crime programme (ISEC), the Commission (DG HOME) is currently coordinating **five RN-projects and stock-taking studies** focusing on various sub-topics within the area of radiological and nuclear security. These projects and studies described below either implement the RN-actions directly or prepare for taking other measures to achieve results set out in the actions.

On the request of DG HOME, the Joint Research Centre is managing **three projects** which concern setting up an EU Radiological-Nuclear Security Training Centre for the Law Enforcement Community (EUSECTRA) (RN. 20 and RN. 24); evaluating and comparing the performance of available detection equipment relevant for radiological and nuclear security (ITRAP+10) (RN. 25); and assessing the International Atomic Energy Agency's (IAEA) Illicit Trafficking Database (ITDB) regarding its capabilities and scope, including whether it provides sufficient information on illicit trafficking of radiological and nuclear materials for the law enforcement community (RN. 13 and RN. 14).

**Two stock-taking studies** are being carried out by consultancies specialising on CBRN matters: a study on the current status of radioactive sources in the EU, the consequences of the loss of control over radioactive sources and strategies of detection and recovery of orphan sources (RN. 8 and RN. 9); and a study on the implementation of IAEA Guidance on the Import and Export of Radioactive Sources by the EU Member States and on the need and feasibility to draw up common EU criteria for authorising imports and exports (RN. 11, RN. 16 and RN. 17).

**In 2012 and 2013** DG HOME intends to launch **four new projects and studies** in the RN-field. One of them would follow up the ongoing project evaluating detection equipment for radiological and nuclear materials (ITRAP+10) (RN. 25). **Other two projects** would concern the development of a hands-on and virtual reality based training capability for border security on the detection and response of radiological and nuclear materials (H. 55, RN. 24 and RN. 25) and the development of a mechanism for enhanced operational support to Member States in the area of nuclear forensics (RN. 25 and H. 21). Furthermore, a **study** would be initiated on the influence of weather conditions on the capability of vehicle portal monitors to detect radioactive and nuclear materials (RN. 25).

**DG ENER** is actively participating in the work of the RN-subgroup and ensuring general coordination in most RN-actions of the Action Plan. Most recently, it is closely involved in guiding **the implementation of two of the stock-taking studies**: a study on the current status of radioactive sources in the EU, the consequences of the loss of control over radioactive sources and strategies of detection and recovery of orphan sources (RN. 8 and RN. 9); and a study on the implementation of IAEA Guidance on the Import and Export of Radioactive Sources by the EU Member States and on the need and feasibility to draw up common EU criteria for authorising imports and exports (RN. 11, RN. 16 and RN. 17). Other Commission services, the European External Action Service and Europol are also participating in this work.

Through its ongoing work on further developing the European Community Urgent Radiological Information Exchange (**ECURIE**), DG ENER also contributes to the action on assessing the existing platforms for information exchange during radiological emergencies (RN. 22). ECURIE serves for the early notification and exchange of information in the event of a radiological or nuclear emergency. There is an agreement with the IAEA to exchange notifications by fax with IAEA's early notification system ENATOM. It is foreseen to harmonise the ECURIE and ENATOM data-formats to achieve automatic exchange of relevant notifications between the two notification systems. DG ENER manages also the European Radiological Data Exchange Platform (**EURDEP**), which is a network for the exchange of automatic monitoring data from national radiological monitoring networks.

With regard to RN-actions, the Commission is working closely with international organisations, such as **IAEA and Interpol**, through attending working group meetings, sharing information and reports, including those issued in the framework of Project Rutherford (RN. 10) as well as, in case of IAEA, assessing jointly the IAEA Illicit Trafficking Database (ITDB) (RN. 13 and RN. 14).

Under the **Seventh Framework Programme**, 16 projects contributing to RN-actions have been or are being financed. The projects are either of generic nature or implement in particular actions RN. 21 and RN. 25. The projects on radiological-nuclear security currently represent about EUR 54 million.

Regarding making sure that **national source registries** contain comprehensive information on all high-risk sources and their holders (RN. 4), it can be noted that there are nearly one thousand holders of nuclear materials in the EU. In 2011, they generated 1,9 million lines of accountancy data. A corps of inspectors checks that the physical reality corresponds to the operators' declarations.

#### **2.2.4. Implementation of H-actions**

Regarding the **67 H-actions**, work has also been carried out in various areas but the overview below will focus on some of the key actions set out by the Action Plan.

The establishment of the **three EU lists high-risk substances** (H. 1) may be considered as the biggest and most tangible deliverable of the EU CBRN Action Plan so far. The lists that comprise C, B and RN substances, including volumes and concentration thresholds, were developed by 2011. Even though the lists agreed so far are not of binding nature and need to be further updated and amended, they constitute a step forward in forming a basis for different activities and actions related to high-risk substances in the EU bodies and Member States.

In terms of **providing training and exchanging good practices** (H. 6), action has been taken in various workstreams but one of the most practical outcomes may be the action in the RN-area, setting up an EU Radiological-Nuclear Security Training Centre for the Law Enforcement Community (EUSECTRA), to be located in the Joint Research Centre in Karlsruhe and Ispra. The project is now in the pilot phase but good progress has been made already by now through the work undertaken by of the Joint Research Centre.

Practical day-to-day action is carried out in conducting **exercises at local, regional, national, EU and international** level, based on risk assessment (H. 31). Member States as well as Commission services, in particular DG ECHO, are carrying out such exercises, focusing on national or regional risk areas, on a regular basis.

Another example of practical deliverables resulting from an action is the establishment of the **European network of specialised CBRN law enforcement units (H. 38)**. The Network, to be set up back-to-back with the European Explosives Ordnance Disposal Network (EEODN) will be coordinated by Europol and aims to facilitate the exchange of information and organise joint training exercises in CBRN matters for law enforcement officers. Under the aegis of the Danish Presidency, the first conference and exercise of the Network will take place in Copenhagen in May 2012 together with a meeting of EEODN.

Also the **Early Warning System (EWS)** for law enforcement authorities for incidents related to high risk CBRN materials as well as explosives and firearms has been set up under the coordination of Europol and several Member States (H. 54). Since some technical problems regarding the EWS's interface with the IT infrastructure of some of the MS' designated central police offices still have to be solved, only very few MS are actually connected to EWS by now. The System, operational since 2010, has been used for circulating warning messages in the abovementioned fields, however, national authorities are invited to make use of it more actively.

The action envisaging the developing a **CBRN Glossary** in all EU languages (H. 53) has also yielded tangible results as the first version of the Glossary has been drawn up and translated into all EU languages, and is in the phase of finding technical solutions for its publishing on a dedicated website to allow access for experts. A second phase of this Glossary, to be launched in 2013, aims to make the Glossary available on a smartphone.

There are several H-actions, mainly **studies** coordinated by DG HOME, that are in the preparatory phase, for instance assessing and validating existing modelling tools and decision support systems for CBRN releases (H. 39 and RN. 23); analysis of the penal legislation

concerning CBRN terrorism and acts of WMD proliferation by non-state actors (H. 67); stocktaking study on good practices on reporting of suspicious transactions in relation to CBRN materials (H. 9 and H. 10), and identifying good practices in CBRN transport security (H. 11). Furthermore, a study will be launched on vetting of personnel having access to or handling high-risk CBRN materials along the supply chain (H. 58).

Considerable efforts have been made in the area of **security research into CBRN matters**, in particular under the Seventh Framework Programme. As of April 2012, 23 projects contributing to H-actions have been or are being financed from that programme. The projects are either of generic nature or implement in particular actions such as H. 23, H. 28, H. 39, H. 46 and H. 63. These projects are often combined with activities in C, B or RN fields.

Also in case of H-actions, it can be noted that a high number of the actions are being covered by activities of different bodies and good progress has been made in several actions.

### **3. Future of and beyond the CBRN Action Plan**

In the longer run (beyond the life cycle of the Action Plan) it would be important to get away from a pure "shopping list" of individual actions and **develop a more strategic and overarching approach to CBRN policies**.