[PRACTICE]

D4.3 DESCRIPTION OF NEW VALIDATED TOOLBOX CONCEPT
D4.4 REQUIREMENTS LIST

PRACTICE WP4 deliverables

Dissemination level: Public

Nature: Report

UNCLASSIFIED

Please choose a classification for this document (UNCLAS, EU RESTRICTED, EU CONFIDENTIAL, EU SECRET):

UNCLASS

Title:	D4.3 & D4.4 Description of new validated Toolbox concept & Requirements list	
Date:	August 8, 2013	
Author(s):	Hanne Breivik, Kristi Mo, Björn Pedersen, Hans Christian Gran	Norwegian Defence Research Establishment (FFI)
	Pierre-Alain Fonteyne, Olga Vybornova	Université catholique de Louvain (UCL)
	Agneta H. Plamboeck	Swedish Defense Research Institute (FOI)
	Frédéric Perlant	Astrium
	With contributions from all WP4 partners	

This project has received funding from the European Community's Seventh Framework Programme. The views expressed in this document are purely those of the writer and may not in any circumstances be regarded as stating an official position of the European Community.

Summary Work Package 4

The overall aim of the project "Preparedness and Resilience Against CBRN Terrorism using Integrated Concepts and Equipment" (PRACTICE) is to improve the ability to respond to and recover from a Chemical (C), Biological (B), Radiological (R) or Nuclear (N) incident. The objective of the project is to create an integrated European approach to a CBRN crisis – *i.e.* a European Integrated CBRN Response System. This will be achieved through the development of an improved system of tools, methods and procedures that is going to provide EU with a capability to carry out a truly integrated and coordinated operational reaction following the occurrence of a CBRN crisis, whether it is caused by a terrorist act or an accident.

The objective of the work package (WP) 4 "Toolbox concept development" is to design an improved PRACTICE Toolbox for managing CBRN events. The Toolbox will combine and structure main response functions and sub functions and correlate these to critical event parameters. It will include identified best practices, analysis of gaps and shortcomings and improved sub concepts and functions. The concept will form the basis for the development of the actual Toolbox in subsequent work packages.

WP4 is divided into four tasks with associated deliverables:

- Task 4.1. Combine, structure and analyse responses and functions, best practices and gaps
  - Subtask 4.1.1 Combine and structure the results of WPs 2 and 3.
  - Subtask 4.1.2 Produce tables of responses and functions linked to relevant event-critical parameters.
  - Subtask 4.1.3 Compare and combine the tables of handling C-, B- and R- and the traditional event thereby identifying similarities and differences.
  - Subtask 4.1.4 Analyse the tables to identify best practices as well as gaps and shortcomings. Define (sub) concept elements or functions which are either missing or need to be replaced or modified; rank these elements in order of importance. Aspects of local culture, and local law and regulations will be included.
- Task 4.2. Requirements of concept elements
  - Subtask 4.2.1 Describe the requirements of the (sub) concept elements or functions identified in subtask 4.1.4. Special care to be given to the prioritized gaps identified.
- Task 4.3. Concept development, architecture and requirements for Toolbox
  - Subtask 4.3.1 Design and formulate the concept and architecture of a unified, integrated and improved total Toolbox concept by combining relevant best practice and improved sub concept elements from the map produced in Task 4.1. The design will be based on a living information system gathering functions/sub functions, standards interfaces definitions, sets of functions and rules into a tool describing the management of a CBRN event. It will include sets of recommendations, standards and protocols, sub-systems, software tools, sensors and equipment, and various supplier platforms and systems.
  - Subtask 4.3.2 Produce requirements that will serve as input in the production of the Toolbox in WP5.
- Task 4.4: Modelling and simulation
  - Subtask 4.4.1 Modelling and simulation of new concept to validate it and to improve on shortcomings in integration logics and structure before handing over to WP5.

The simulations will be based on experience from related scenario assessment work in WP2.

The deliverables are:

- D4.1 “Maps of events and responses”.
- D4.2 “New or modified concept elements”
- D4.3 “Description of new validated Toolbox concept”
- D4.4 “Requirements list”

Work Package team:

Hanne Breivik (LEAD)	Norwegian Defence Research Establishment (FFI)
Richard Amlôt	Health Protection Agency (HPA)
Erik Bakke	Bruhn Newtech
Ola Claesson	Swedish Defence Research Agency (FOI)
Stéphanie Damiot	CASSIDIAN
Lionel Expert	CASSIDIAN
Pierre-Alain Fonteyne	Université catholique de Louvain (UCL)
Dominic Kelly	CBRNE Ltd
Keith McGonigle	Bruhn Newtech
Kristi Mo	FFI
Ola Nerf	Södersjukhuset
Bjørn Pedersen	FFI
Frédéric Perlant	Astrium
Agneta Hånell Plamboeck	FOI
Olga Vybornova	UCL

The research leading to the results of PRACTICE has received funding from the European Community’s Seventh Framework Programme (FP7/2007-2013) under grant agreement n° 261728.

1. Executive Summary

This report, “Description of new validated Toolbox concept and Toolbox requirements”, combines the third and fourth deliverable of Work Package (WP) 4 “Toolbox concept development” of the EU FP7 project “Preparedness and Resilience Against CBRN Terrorism using Integrated Concepts and Equipment (PRACTICE)”. WP4 is led by the Norwegian Defence Research Establishment (FFI).

The report at hand develops the logic behind the PRACTICE CBRN Toolbox and the specific Toolbox concept. From this, the operational requirements for the implementation are derived. The output from this work is to be used in the actual Toolbox development in WP5 “Toolbox integration and development”.

The Toolbox concept consists of several integrated elements. A shared situational awareness system allows users at different organizations and at different positions within the same organisation to have simultaneous access to a common operational picture. A decision support system guides users through the available options given the known circumstances. Newly developed and already existing tools are integrated in the Toolbox, and will be suggested by the system when appropriate or can be accessed directly by the user.

The Toolbox is designed to be equally useful in threat assessment, prevention, preparedness, response and recovery; and especially in planning and training. For planning purposes, the static information can be consulted or updated or scenarios can be played out. In a training situation, scenarios can be used to run through different possible reaction paths, leaving the trainee better mentally prepared for a real CBRN incident. In threat assessment, prevention, preparedness, response and recovery, the availability of information and tools should optimize the use of resources and support the decision making process.

A subset of the scenarios developed by the preceding WP2 “Scenarios and critical event parameters” are modelled to test the Toolbox logic and to identify specific tools needed. Scenario “B1 Biological attack at airport” is a willful inducing of an influenza pandemic, “C5 Chemical attack inside building” is a terror scenario using a chemical warfare agent and “R1 Radiological dispersal in city” is an accidental event with great consequences.

Although this is the final deliverable of WP4, the work package does not officially end until the end of project PRACTICE. This is to be able to iterate on the concept in cooperation with WP5, in response to findings in the three scheduled validation exercises organized under WP6.