[PRACTICE]

D4.2 NEW OR MODIFIED CONCEPT ELEMENTS

PRACTICE WP4 deliverable

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UNCLASS, project internal

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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 observables/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
  - o Subtask 4.1.1 Combine and structure the results of WPs 2 and 3.
  - o Subtask 4.1.2 Produce tables of responses and functions linked to relevant event-critical parameters.
  - o Subtask 4.1.3 Compare and combine the tables of handling C-, B- and R- and the traditional event thereby identifying similarities and differences.
  - o 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
  - o 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
  - o 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.
  - o 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

      o 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"

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This WP is led by the Norwegian Defence Research Establishment (FFI).

Contents

1. Executive Summary

This report, "New or modified concept elements", constitutes the second 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 work on this report has been performed in close cooperation with WP3.

The objective of the WP4 "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 observables/parameters. The concept will form the basis for the development of the actual Toolbox in subsequent work packages.

The report at hand builds on previous work in the PRACTICE project, starting with the functions identified in WP3 and refined in WP4. The number of functions is narrowed down to the ones most relevant for the Toolbox. The main criteria are that these functions either are CBRN specific or that they are traditional response functions being influenced by a CBRN environment.

An outline of the Toolbox concept is given, and the functionality of the Toolbox and the classes of tools to be introduced into the concept are presented. The types of Toolbox concept elements that would help improve the performance of the selected functions are suggested.