



Joint Investment Program on CBRN Protection

Joint Investment Programme CBRN (JIP CBRN)

- ❑ The EDA steering Board established the Joint Investment Programme CBRN (JIP CBRN) in spring 2010
- ❑ Contributing Members: AT, BE, CZ, DE, ES, IE, IT, FR, NL, PL, PT, SE and NO with a Budget of 12 million EURO
- ❑ Programme Arrangement signature 22 March 2012 by Ministers. 14 Contracts signed in 2012-2015.
- ❑ Addressing the following shortfalls:
 - ❑ stand-off detection C threats
 - ❑ point detection B threats
 - ❑ mixed CBRN samples handling
 - ❑ modelling and simulation of CBRN architectures
 - ❑ decontamination management
 - ❑ sensor networking for CBR
 - ❑ protection equipment



❑ Next generation Collective Protection

❑ RIAQ (new filter technologies for COLPRO)

- ❑ A reliable, responsive, smart, multi-functional and cost effective filtration for buildings to protect soldiers, inhabitants, workers and visitors from airborne hazards.

❑ Next generation Individual Protection

❑ PRO-SAFE (low burden PPE development)

- ❑ Develop a system to detect the concentration of chemical warfare agents on textile substrates.

❑ SWITCH PROTECT (low burden PPE development)

- ❑ An adaptive membrane is being developed that will give a new dimension to personal protective clothing.

❑ Improved Decontamination

❑ DCLAW (DECON wipes development)

- ❑ Highly man-portable, broadly-specific and high throughput decontamination method that is safe and presents minimal risk to military and defence equipment and personnel.

❑ QUIXOTE (new DECON concepts)

- ❑ A biological and chemical decontamination unit from Cold Plasma Technology

❑ DECON control

❑ RACED (DECON control technologies and methods)

- ❑ Obtain insight into the health risk from possibly residual hazard remaining on decontaminated objects and contribute to the solution of the how-clean-is-clean challenge.

❑ CBRN Sensor networking

❑ CENSIT (CBRN sensors fusion and networking)

- ❑ What improved operational performance is possible to achieve by fusion of sensor information in tactical networks in order to enhance the CBRN situational awareness.

- ❑ Modelling and Simulation of CBRN architectures
 - ❑ MASC (development of CBRN protection architecture plug and play M&S tools)
 - ❑ Modules allowing for the evaluation of CBRN defence architectures that are currently implemented in the National Defence organizations
- ❑ European approach for mixed CBRN samples handling
 - ❑ BFREE (development of validated procedures to separation and preparation of potential mixtures into distinct samples)
 - ❑ Efficient sample processing and risk mitigation methods for ensuring safe handling and preparation of mixed CBRN samples
- ❑ Stand off C detection
 - ❑ AMURFOCAL (detection using amplified quantum cascade laser technology)
 - ❑ To explore different operational aspects of CWA detection and to create the library of reflectance spectra
 - ❑ MICLID (detection using Mid Infrared LIDAR)
 - ❑ Developing a new generation lidar system for stand-off detection of chemical warfare agents.
- ❑ Next generation B point detection
 - ❑ IPODS (detection using single cell MALDI-TOF mass spectrometry linked to a Quick Immune Detection System)
 - ❑ Objective of “CBRN situational awareness” and, “biological point detection” in field and urban environments and operations.
 - ❑ RAMBO (detection using combination of Surface Enhanced Raman Spectroscopy with Phages and PCR)
 - ❑ Advanced methods, instrumentation and sensing strategies/protocols for continuous monitoring of air particles against biological threats
 - ❑ BIOTYPE (detection using antibody lab-on-chip technology with Photonic Integrated Circuits)
 - ❑ A sensor system for the early detection and identification of B-threats.