

SPI CBRN meeting 30 Jan 2014
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## JIP CBRN within EFC



# EDA = Catalyst for Enhanced Cooperation in Defence



# EDA is "The place to go" for **European Defence**Capability Development & Cooperation

- Improving Europe's Defence performance
- Steering Board meets at the level of Defence Ministers; intergovernmental
- Head of the Agency = HR = Catherine Ashton
- Chief Executive = Claude-France Arnould
- 27 Member States (all EU except Denmark)
   + Norway & Switzerland
- ~120 staff members
- 3 functional Directorates: CAT, CPS and ESI



### **CapTechs: New R&T Structure**

Capability, Armament & Technology

**European Synergies and Innovation** 

Information Superiority

Intervention & Protection

Innovative Research

Sup

CIS & Networks

Munitions Ground Systems & their Environment

Energetics, Missiles &

Naval Systems & their Environment Aerial Systems & their Environment

Components

RF Sensor Systems & Signal Processing Optical Sensor Systems & Signal Processing

Materials & Structures
Guidance & Control

Human Factors & CBRN Protection

Energy



### JIP CBRN 'state of play'



- The EDA steering Board established the JIP CBRN in spring 2010 within European Framework Cooperation as EDA contribution
- Contributing Members: AT, BE, CZ, DE, ES, IE, IT, FR, NL, PL, PT, SE and NO
- Budget 12 million EURO

Programme Arrangement signature <u>22 March 2012</u> by Ministers

- JIP CBRN includes 2 calls for Proposals
- Call 1 implementation: 7 Call 1 projects selected and contracts signed in 2013
- Call 2 launch 1 July 2013; 7 Call 2 projects selected and contracts to be signed in 2014



### **Technical Topics JIP CBRN First Call**



- Improved Stand off detection of Chemical threat agents (2)
- Next generation point detection for Biological threat agents (3)
- Simultaneous analysis of CBR agents (mixed samples) (1)
- M&S of CBRN system architectures
   (1)







### JIP CBRN - Call 1 Selected Proposals



#### Stand off C detection

- AMURFOCAL (detection using amplified quantum cascade laser technology) To be signed (soon)
- ➤ MICLID (detection using Mid Infrared LIDAR) Contract signed, KOM 12 Sep 2013

#### Next generation B point detection

- ➤ IPODS (detection using single cell MALDI-TOF mass spectrometry linked to a Quick Immune Detection System) Contract signed, KOM 26 June 2013
- ➤ RAMBO (detection using combination of Surface Enhanced Raman Spectroscopy with Phages and PCR) Contract signed, KOM 29 May 2013
- ➤ BIOTYPE (detection using antibody lab-on-chip technology with Photonic Integrated Circuits) Contract signed, KOM 12 April 2013

#### European approach for mixed CBRN samples handling

- ➤ BFREE (development of validated procedures to separation and preparation of potential mixtures into distinct samples) Contract signed, KOM 9 July 2013
- Modelling and Simulation of CBRN architectures

PROMASC (development of CBRN protection architecture plug and play M&S tools)

Www.eda.europa

Contract signed KOM 8 Nov 2013

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### **Technical Topics JIP CBRN Second Call**



- Next generation Collective Protection (1)
- Next generation Individual protection (2)
- Improved Decontamination (2)
- DECON control (1)
- CBRN Sensor networking (1)







### **Overview of other CBRN R&T activities**



#### **'CapTech CBRN Protection & Human Factors'**

- CBRN Protection work strand includes research in the areas of Chemical, Biological, Radiological and Nuclear (CBRN) threats detection, identification & monitoring (DIM) and all hazard risk management including decontamination and CBRN modelling and simulation and countermeasures
- CBRN Protection work strand Provides standardization for test and evaluation (T&E) for DIM and personal protective equipment
- Human Factors work strand includes research in Human Factor areas of human system integration, selection and training, personal performance tracking and enhancement, group performance and dynamics, cognitive modelling, humans in command and Cyberspace, performance under complex and severe conditions and medical support
- Cat B projects running or under preparation:
  - T&E standards for DIM and Personal Protective Equipment, B threat reference database, Modelling of chemicals dispersion in urban environments and All Hazard Decision Support for military

High G Training Research, Impact of Demographic changes, Psychological screening, EUSOCIAL Cultural modelling and Cognitive modelling.