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ABOUT US

CBRN workstrand in EDA
Introduction

Common Security and Defence Policy
Common Security and Defence Policy

Launch of the CSDP in 2000

with focus on Crisis Management Operations, building on military and civilian capabilities

- Some 30 operations/missions launched since 2003
- Need for capability improvement has been the key driver since the creation of the Agency

LISBON TREATY: Comprehensive approach

Provisions on the Common Security and Defence Policy (Article 42 TEU):

- Member States shall make civilian and military capabilities available to the Union for the implementation of the common security and defence policy
- Member States shall undertake to progressively improve their military capabilities
Institutional setting

Federica Mogherini
High Representative of the Union for Foreign Affairs and Security Policy
Vice-President of the European Commission
Head of Agency

EDA Steering Board
27 Defence Ministers

European Defence Agency

European Council
Heads of State and Government

GUIDELINES REPORTS

Foreign Affairs Council
Foreign/Defence Ministers

PSC
Ambassador level

CHODs
EUMC

CONSULTATION

EEAS
EUMS - CMPD
About us

Together for a stronger Europe
Facts & Figures

Only Agency whose Steering Board meets at ministerial level

27 Member States
(all EU members except Denmark) & Administrative Arrangements with Norway, Serbia and Switzerland

Operational budget 2015
30,5 Mio

Value project portfolio (2014, Cat-A and Cat-B):
78,4 Mio

Number of new ad-hoc projects 2014:
18

Established
2004

Based in
BRUSSELS

120 staff
connected with
2,500 experts in Member States

Jorge DOMEcq
EDA Chief Executive

www.eda.europa.eu
Mission

… to support the Council and the Member States in their effort to improve the European Union’s defence capabilities for the Common Security and Defence Policy.*

* Treaty of Lisbon, signed in 2007, entered into force in 2009
A catalyst: from Member States to Member States

Member States Requirements

- In-house analysis & studies
- Promotes cost-effective cooperation
- Launches new initiatives
- Introduces innovative solutions
- Investing more together

Improves Defence capabilities
EDA priority workstrands

**SUPPORT**
the development of **key capabilities**
structuring European defence

- **STIMULATE**
defence **R&T**
to prepare the capabilities of tomorrow
and support the EDTIB

- **ENSURE**
that military interests are taken into account in **wider EU policies**
A proactive hub for the European defence community

EDA stakeholders

EDA capability development
(e.g. NATO)

Key partners in civil-military coordination
(e.g. European Commission, ESA, SESAR)

Partner organisations in improving European military capacities
(e.g. OCCAR)

Industry,
through ASD & NDIAs
EDA and NATO Complementarity

**TWO INSTRUMENTS**

**EU – NATO**
Capability Group
(with Member States)

**Informal Staff – Staff contacts**
(with ACT NATO, NATO HQ-IS & Agencies)

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### Examples of Complementarity

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Mission of Research and Technology in EDA

- To support medium and long-term European Capabilities needs
- To define R&T priorities
- To manage and coordinate R&T projects (on behalf of the Member States)
- To promote less dependence on critical key technologies
- To contribute to building a competitive European Technological and Industrial Base (including SME and research centers)
- To find synergies with civil programme of European Commission - security research
- Promote Technology Watch and Assessment
## CAPTechs – Technology domains & networks

### Capability, Armament & Technology

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### European Synergies and Innovation

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| Energy WG |

The detailed technical coverage of each group is posted on the [EDA WEBSITE](http://www.eda.europa.eu).
CBRN work strand in EDA
CDP and CBRN

Topic CBRNE and CIED part of original and CDP update 2014 and its priorities list!
Conceptual work: CBRN Counter Measures Concept for EU led military missions

**Timing:** PT CBRN CM worked on CM until 2012; handed over to EU Military Staff in 2013. Approval in July 2014.

**Aim:** to strengthen European military capabilities to operate successfully and safely in a CBRN environment and to contribute to civilian-led consequence management actions if required.

**Other deliverables of Project Team:**
- CBRN CM Functional Analysis
- CBRN Incident Commanders Course
- CBRN Intelligence Course
Capabilities driven preparation of Armaments programme work: Biological Detection Identification Monitoring Equipment Development and Enhancement Programme (BIO EDEP)
R&T work:
CBRN research activities

Running Cat B projects within CapTech CBRN Protection and Human Factors

- Dbase B and EBLN: Design and organization of a shared database with reference typing data which is a necessary common resource for typing and identification of B-agents

- MODITIC and follow on: Modeling of dispersion of toxic chemicals in urban environments

- T&E BIODIM and follow on: Protocols for Test and Evaluation of B Detection, Identification and Monitoring techniques
**R&T work:**

**CBRN research activities**

*Cat B projects within CapTech CBRN Protection and Human Factors under preparation*

- TRACE MI: thresholds standards for exposure of C
- T&E PPE: Protocols for T&E of Personal Protective Equipment
- MCM management: Management of medical counter measures
- C-CBR IEDs: tools for risk management for C-CBR IEDs
R&T Work
CBRN research activities

EDA Operational Budget study

Stand off detection for Biological Threat Agents (2013)

• State of the art of stand off detection for B

• Feasibility of different technologies (range, specificity and efficiency)

• Cost estimation for follow on developments and roadmap for implementation
CBRN research activities

Projects within Joint Investment Programme on Force Protection (JIP -FP)

**PATHOIDCHIP**: Robust and autonomous airborne threat detection system as lab on a chip device with integrated optoelectronic sensors (stand alone automated PCR analyzer)

**EPI DARM**: European protective individual defence armour

**GUARDED**: Urban area robotized detection of CBRNE devices
R&T Work
CBRN research activities

Project within Joint Investment Programme Innovative Concepts and Emerging technologies (JIP ICET)

PATCH: Personal Biological Aerosol Tester for Exposure Control with High efficiency (smart filter based on Nano Fibres)

Follow on in FP 7 (IFREACT)
R&T Work: JIP CBRN

• 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 22 March 2012 by Ministers

• Call 1 launch May 2012; Call 1 implementation: 7 Call 1 projects selected and contracts signed in 2013

• Call 2 launch 1 July 2013; Call 2 implementation: 7 Call 2 projects selected and contracts in 2014 and 2015
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)

(x) number of selected projects
JIP CBRN – Call 1 Selected Projects

• **Stand off C detection**
  - AMURFOCAL (detection using amplified quantum cascade laser technology) **Contract signed, KOM June 2014**
  - 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**
  - MASC (development of CBRN protection architecture plug and play M&S tools) **Contract signed KOM 8 Nov 2013**
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)
JIP CBRN – Call 2 Selected Projects

• Next generation Collective Protection
  - RIAQ (new filter technologies for COLPRO) Contract signed; KOM 25 June 2015

• Next generation Individual Protection
  - PRO-SAFE (low burden PPE development) Contract signed; KOM 13 May 2015
  - SWITCH PROTECT (low burden PPE development) Contract signed; KOM 1 Dec 2014

• Improved Decontamination
  - DCLAW (DECON wipes development) Contract signed; KOM 7 April 2015
  - QUIXOTE (new DECON concepts) Contract signed; KOM 27 November 2014

• DECON control
  - RACED (DECON control technologies and methods) KOM in Dec 2015

• CBRN Sensor networking
  - CENSIT (CBRN sensors fusion and networking) Contract signed; KOM 19 March 2015
EFC coordination goes on

• EFC coordination to align civil and Defence research; avoiding duplication by sharing expertise and results

• EFC coordination letter on CBRN signed by EC and EDA during the this EFC JIP CBRN workshop 15 September 2011; JIP CBRN is EDA contribution

• EC (DG GROW) in Management Committee of JIP CBRN and EMG’s of projects, EDA in FP7 Advisory Boards (such as IFREACT, EDEN)

• Ongoing coordination (EDA and EC) and events/workshops organised

• EDA part of Community of Users initiative of DG HOME
EU-NATO relation on CBRN

- CBRN protection capabilities part of agenda of EU/NATO Capability group

- Informal EU/NATO staff-to-staff talks on CBRN protection
  → Awareness on each others work: avoid duplication

- Informal EU/NATO staff-to-staff talks between Scientific Advisor and EDA R&T
European CBRN Standardization

- EC mandate to CEN to establish CBRN standards
  - M487 and TC 397/Wg on CBRN
  - Detection and/or DECON

- Discussion about further CBRN standards
  - “Hybrid” (CIV-MIL) standards

- Protocols for T&E of B detection equipment (in CapTech portfolio)

- Standards for T&E of PPE (under preparation in CapTech – under staffing by pMS)
Why do we need CIV/MIL collaboration?

- CBRN threat is there and makes no distinction between man in green or blue

- Both CIV and MIL needs to prepare

- Both in CIV and MIL: from “Plan and Pray” to “Sense and Respond” (see new Action plan on CBRNE). Many (detection) technologies are Dual-Use

- Create awareness, coherence and interoperability: fruitful discussions with EC (HOME, GROW, TAXUD); Council Conclusions from Dec 2013 on Dual use and civ-mil cooperation helps!

- Operational procedures may differ, but interoperability urges for collaboration in R&T and standards

- Learn from each other!
Thank you for your attention!