

CREATIF



Network of Testing Facilities for
CBRNE detection equipment



content



- **Motivation**
- **Objectives**
- **Membership / Advisory Committee**
- **Project Details**
- **Next Steps**



CREATIF - Motivation



close gaps

- availability of **Standards and Test Protocols**
- presence/availability of **Test Centers**
- **Practice of Testing**
- **Harmonization of Testing**
- **comprehensive** testing of **CBRNE** systems
- **Information Transfer** between **Stakeholders**

Standards - CBRNE



Standards for Testing of Explosive Detection Equipment (expert opinion)	
ASTM E2520 – 07 (international/US)	Standard Practice for Verifying Minimum Acceptable Performance of Trace Explosive Detectors
ASTM F2069-00 withdrawn - no replacement	Standard Practice for Evaluation of Explosives Vapor Detectors
DSTO-TR-2033 (Australia)	Standard Protocol for the Evaluation of Explosive Detection Equipment
NIJ Report 100-99 U.S. Department of Justice	Evaluation of a Test Protocol for Explosives Trace Detectors Using a Representative Commercial Analyzer

Standards - CBRNE



IAEA Standards for Testing RN Detection Equipment

**Nuclear Security
Series 1, IAEA, 2006**

Technical and functional specification for border monitoring equipment: reference manual



Standards - CBRNE



ANSI Standards for Testing RN Detection Equipment

N42.32 2006	American National Standard Performance Criteria for Alarming Personal Radiation Detectors for Homeland Security
N42.33 2006	American National Standard for Portable Radiation Detection Instrumentation for Homeland Security
N42.34 2006	American National Standard Performance Criteria for Handheld Instruments for the Detection and Identification for Radionuclides
N42.35 2006	American National Standard for Evaluation and Performance of Radiation Detection Portal Monitors
N42.37 2006	American National Standard for Training Requirements for Homeland Security Purposes Using Radiation Detection Instrumentation for Interdiction and Prevention
N42.38 2006	American National Standard Performance Criteria for Spectroscopy Based Portal Monitors Used for Homeland Security
N42.39 draft	American National Standard for Performance Criteria for Neutron Detectors for Homeland Security
N42.41 2007	American National Standard Minimum Performance Criteria for Active Interrogation Systems Used for Homeland Security

Standards - CBRNE



N42.42 2006	American National Standard Data Format Standard for Radiation Detectors Used for Homeland Security
N42.43 2007	American National Standard for Performance Criteria for Mobile and Transportable Radiation Monitors Used for Homeland Security
N42.44 draft	Performance and evaluation of checkpoint cabinet x-ray imaging security-screening systems
N42.45 draft	Evaluating the image quality of x-ray computed tomography security-screening systems
N42.46 draft	Measuring the performance of imagining x-ray and gamma-ray systems for cargo and vehicle security screening
N42.47 draft	Measuring the Imaging performance of X-ray and Gamma-ray Systems for Security Screening of Humans
N42.48 2007	American National Standard for Performance Requirements for Spectroscopic Personal Radiation Detectors (SPRDs) for Homeland Security
N42.49 draft	Performance Criteria for Personal Emergency Radiation Detectors (PERDs) for Exposure Control

Standards - CBRNE



IEC Standards for Testing RN Detection Equipment	
IEC 62244 2006	Radiation protection instrumentation - Installed radiation monitors for the detection of radioactive and special nuclear materials at national borders
IEC 62327 2006	Radiation protection instrumentation - Hand-held instruments for the detection and identification of radionuclides and for the indication of ambient dose equivalent rate from photon radiation
IEC 62401 2007	Radiation protection instrumentation - Alarming personal radiation devices (PRD) for detection of illicit trafficking of radioactive material
IEC 62533 draft	Highly sensitive hand-held instruments for photon detection of radioactive material
IEC 62534 draft	Highly sensitive hand-held instruments for neutron detection of radioactive material
IEC 62484 draft	Spectroscopy-Based Portal Monitors used for the Detection and Identification of Illicit Trafficking of Radioactive Material
IEC 62618 draft	Radiation protection instrumentation – Spectroscopy-based alarming personal radiation devices (SPRD) for detection of illicit trafficking of radioactive material

CREATIF - Objectives



- **Database** on Test Facilities
- offer/coordinate **Comprehensive** (combined!) **Testing**
- **harmonize** Standards & Test Protocols
- map EU Portfolio of **CBRNE Expertise**
- **Support of End User Discussion Forum** for All Stakeholders
- promote **best Practice of Testing**



CREATIF - Objectives



- develop **Roadmap for Future Development of Testing** (including standardization & certification)
- suggest **Minimum Requirements** of Testing Facilities and Service Providers
- agree **Certification Strategies** for Facilities, Service Providers and Devices
- improve **Testing Procedures** to cover Human Factors and Operational Issues
→ ***scenario-based testing***



CREATIF – Benefit for Test Centers



- **Full Members** of CREATIF Network (only EU-27)
- **Present Capabilities** in Data-Base
- **Exchange Knowledge** with other Experts
- Find **Synergies and Complementary** Expertise
- Contribute to Development of **Protocols / Standards**
- Get Access to **End-User Viewpoints**



CREATIF - Advisory Committee

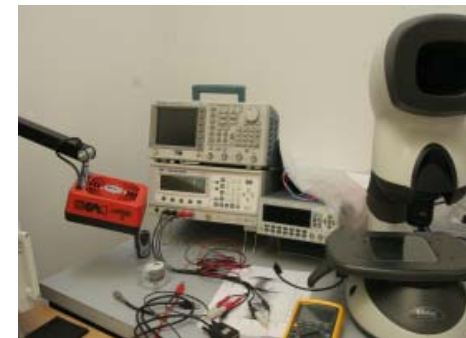
Stakeholders (from EU-27)



End-users, Manufacturers, Decision makers,
EU-policy makers
CEN, JRC

- **Contribute to Discussion** of Relevant Topics
- Participation in **Workshops**
- **Get Newsletter** and **Contribute News**

informal and open!



CREATIF - Consortium



- **ARC** – Seibersdorf Laboratories (AT)
- **DGA/CEB** - Centre d'Etudes du Bouchet (Ministere de la Defense, FR)
- **DGA/ETBS** - Etablissement Technique de Bourges (FR)
- **COT** - Cotecna Inspection S.A. (CH)
- **BAM** - Bundesanstalt für Materialforschung und –prüfung (DE)
- **FOI** - Totalförsvarets forskningsinstitut (The Swedish Defence Research Agency, SE)
- **TNO** - Netherlands Organization for Applied Scientific Research (NL)



CREATIF - Next steps 2009



- **CREATIF Workshop Nov. 4.-5.th 2009**
 - Stakeholder Discussions
 - Technical Topics: Testing & Standardization
- **Network building over the Summer**
 - Collect information from invited Stakeholders and Testing Centers
- summarize **State of the Art** of European **CBRNE-Testing**



CREATIF - Project Details



- Duration: 30 months
- Programme: FP7-Security, Coordination Action
- Proposal No. 217922
- Starting date: February 2009
- End date: July 2011
- EU-funding: 831.300 Euro

<http://www.creatif-network.eu>



SEIBERSDORF
LABORATORIES



 **BAM**
Bundesanstalt für
Materialforschung
und -prüfung

COTECNA



FOI





CREATIF - Main Deliverables



- Data Base on **Test Facilities** for CBRNE **Detection Equipment**
- **Outline** for Joint Testing Exercises
- Report on **Standards** for **Detection Equipment Testing**
- **Workshops** (link end users, manufacturers and test centers)
- Road map for an **European Certification System** for CBRNE Detection Systems
- Report “**The Future of Testing Security Related Products**”
- Periodic **Newsletter** and **CREATIF Web-Site**
- **Business Plan** for independent **Body of Test Facilities**