CREATIF

Network of Testing Facilities for CBRNE detection equipment

CREATIF Advisory Committee

Preliminary Questionnaire results

SEIBERSDORF LABORATORIES DGA BAM Bundesanstalt für Materialforschung und -prüfung COTECNA FOI TNO

Standards for Testing - CBRN**E**

ECAC protocols (European Civil Aviation Conference)	
ASTM F 2069 – 00	Standard Practice for evaluation of explosives vapor detectors
ASTM E2520 – 07 (international/US)	Standard Practice for Verifying Minimum Acceptable Performance of Trace Explosive Detectors
DSTO-TR-2033 (Australia)	Standard Protocol for the Evaluation of Explosive Detection Equipment
NIJ Report 100-99 U.S. Dept. of Justice	Evaluation of a Test Protocol for Explosives Trace Detectors Using a Representative Commercial Analyzer

→ **NO European Standards,**
→ **for Aviation accepted protocols**

Standards for Testing - CB**RN**E

Nuclear Security Series 1, IAEA, 2006	Technical and functional specification for border monitoring equipment: reference manual
10 ANSI Standards + 6 Draft Standards	Alarm dosimeters – Spectroscopic systems Detectors for control of cargo and humans
3 IEC Standards + 4 Draft Standards	Detection systems agains Illicit Trafficking hand-held and Portal monitors

→ **Many standards for testing of detectors available**
→ **NO European Standards exist**

Standards for Testing - CBRNE

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No Standards available

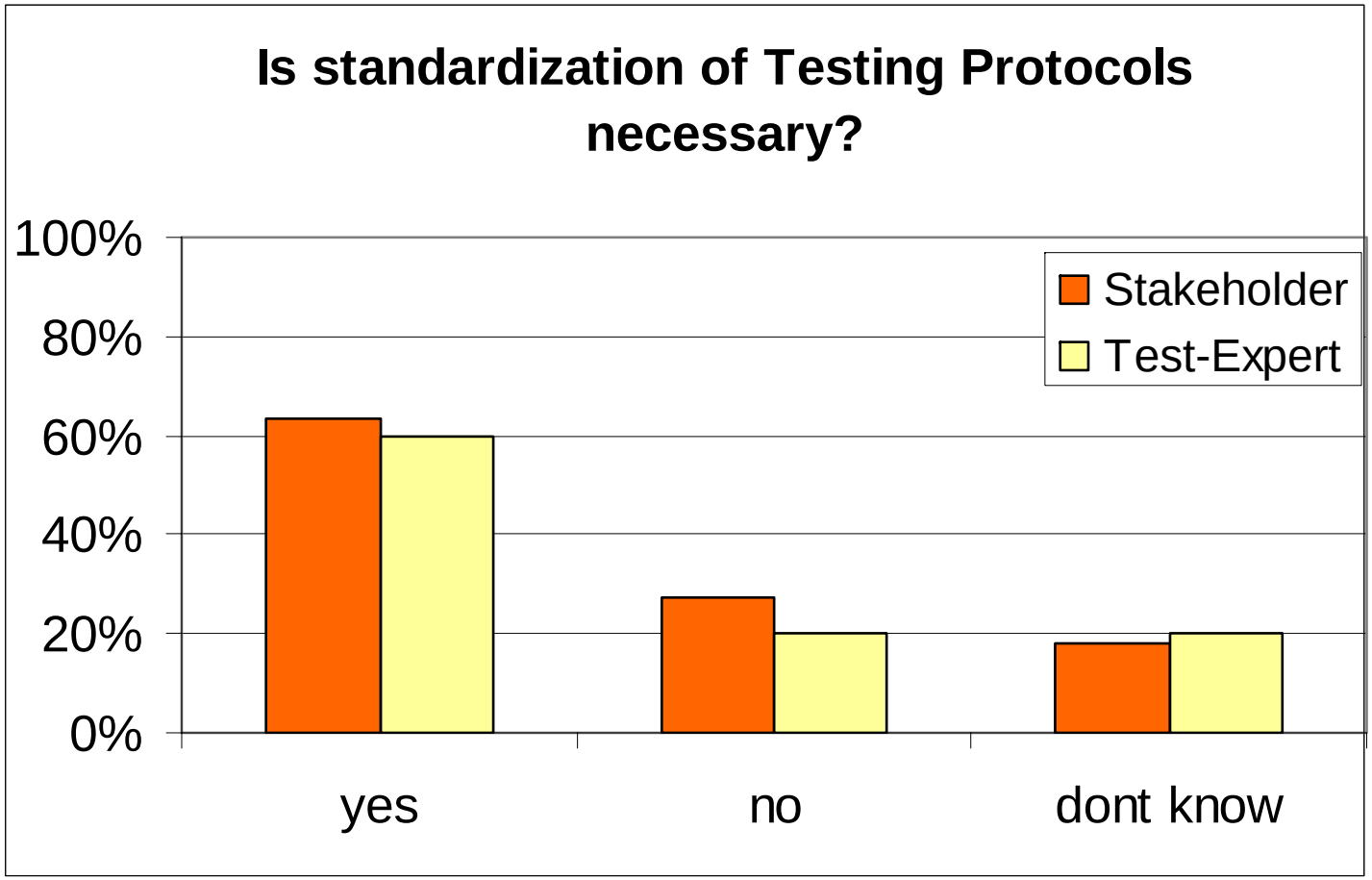
→ **only internal protocols used for testing of equipment**
→ **NO Standards exist, need to be developed**

Standards for Testing - CBRNE

NATO requirements, OPCW recommendations (no public information!)
No standards available

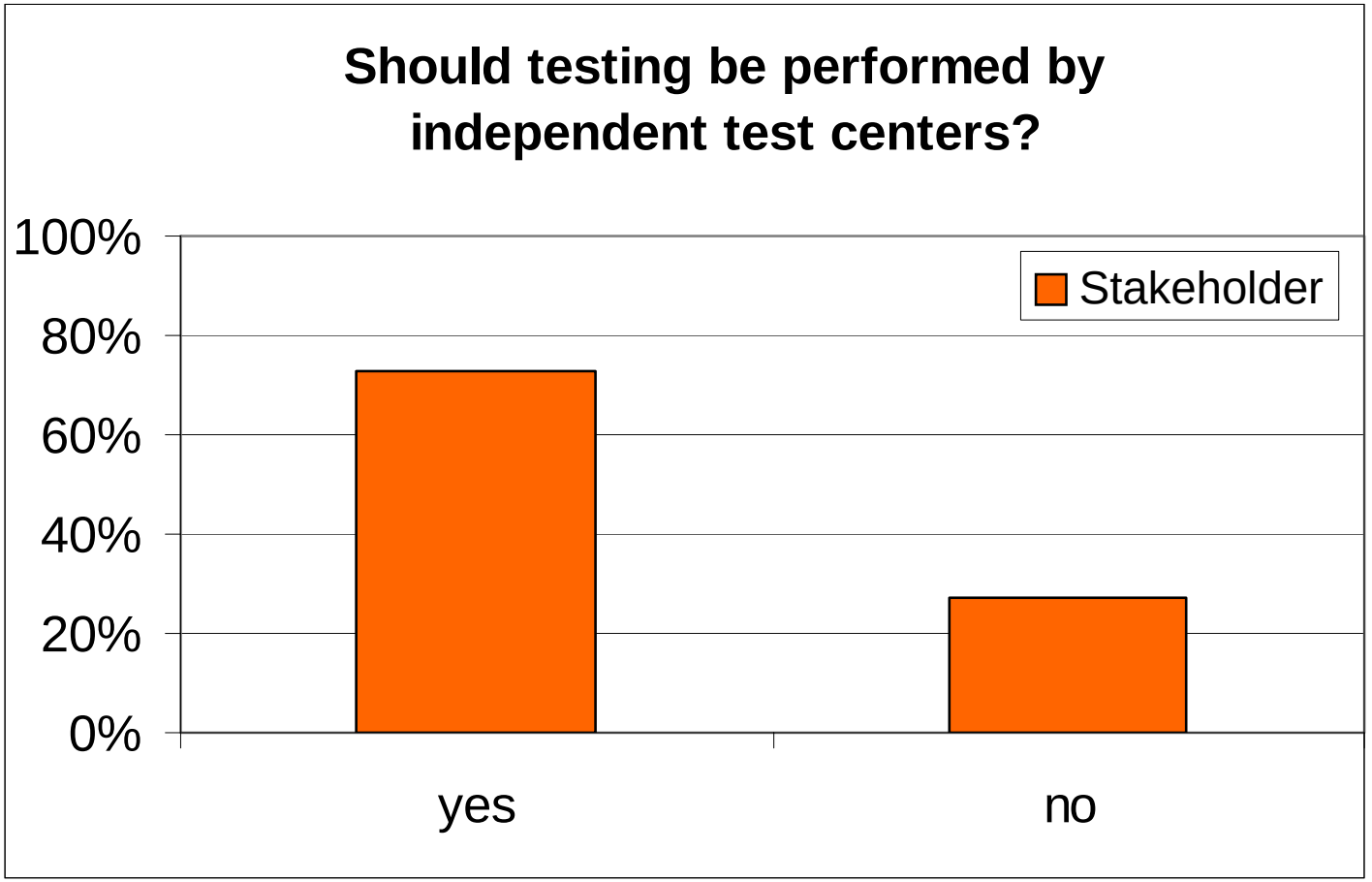
→ **military protocols used for testing of equipment**
→ **NO civilian standards exist**

CREATIF – Results of Questionnaire



N = 21

CREATIF – Results of Questionnaire II



N = 12

Citations

Standardisation is necessary, because….

- Will improve performance of detector by creating a point of reference accepted by users and manufacturers
- Most bio equipment evaluation is strongly linked to test procedures. Variation in procedure or metrological devices can lead to significant differences
- The need of common understanding of T&E testing protocols to provide users with reliable information about detector's capabilities
- For RN: any further standards should be based on IEC, IAEA or ANSI (don't reinvent the wheel!)
- End-user: difficult to compare similar equipment. Standardised testing materials & methods would help!
- …….

Citations

Important topics to be discussed

- Test procedures for fast and reliable measurements in the field – realistic scenarios
- Protocols regarding generation of B aerosols, use of simulants, reliable testing issues, accepted values
- As an end-user, it is hard to be confident in detectors (high false alarm rates, “no detection” rates; use limitations - usability)
- How to provide a framework for smoothly adaptable certification schemes for equipment
- Discrepancies between data provided by manufacturer with detection levels produced in real environments
- It is important to closely link the testing with the intended final application of a device
- ……..