

Strengthening Science-Policy-Industry links in the CBRN-E sector

Brussels, 30th January 2014

Janet Martha Blatny

janet-martha.blatny@ffi.no

TWOBIAS

Two Stage Rapid Biological Surveillance
and Alarm System for Airborne Threats



BFREE

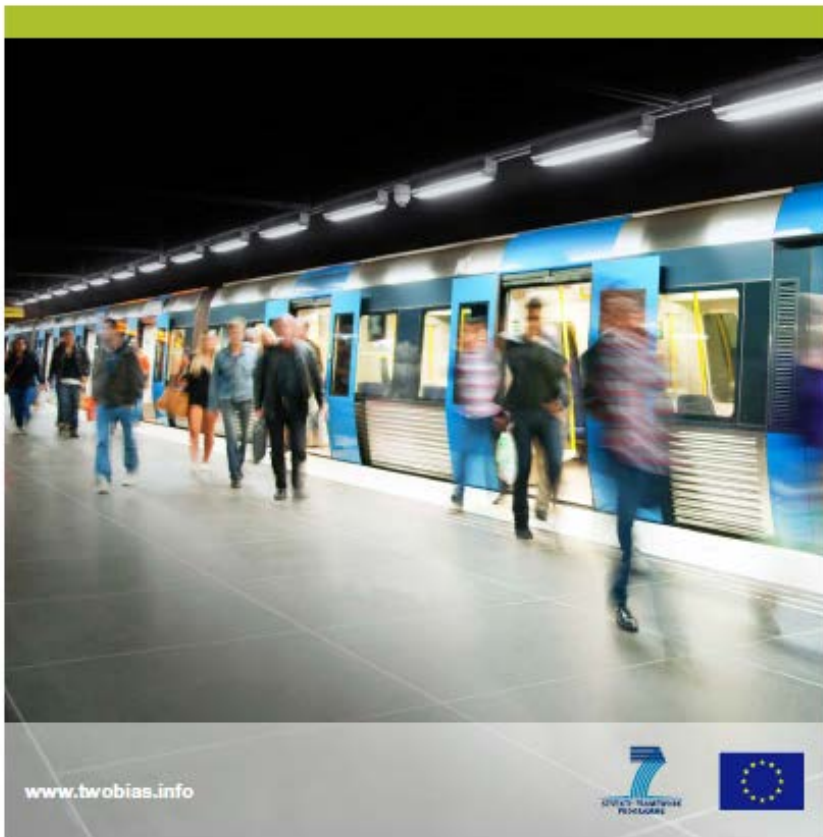
Safe handling and preparation of
CBRN mixed samples: Biological
challenges and solutions





TWOBIAS

Two Stage Rapid Biological Surveillance
and Alarm System for Airborne Threats



www.twobias.info



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Technology development

Alarm algorithm improvement

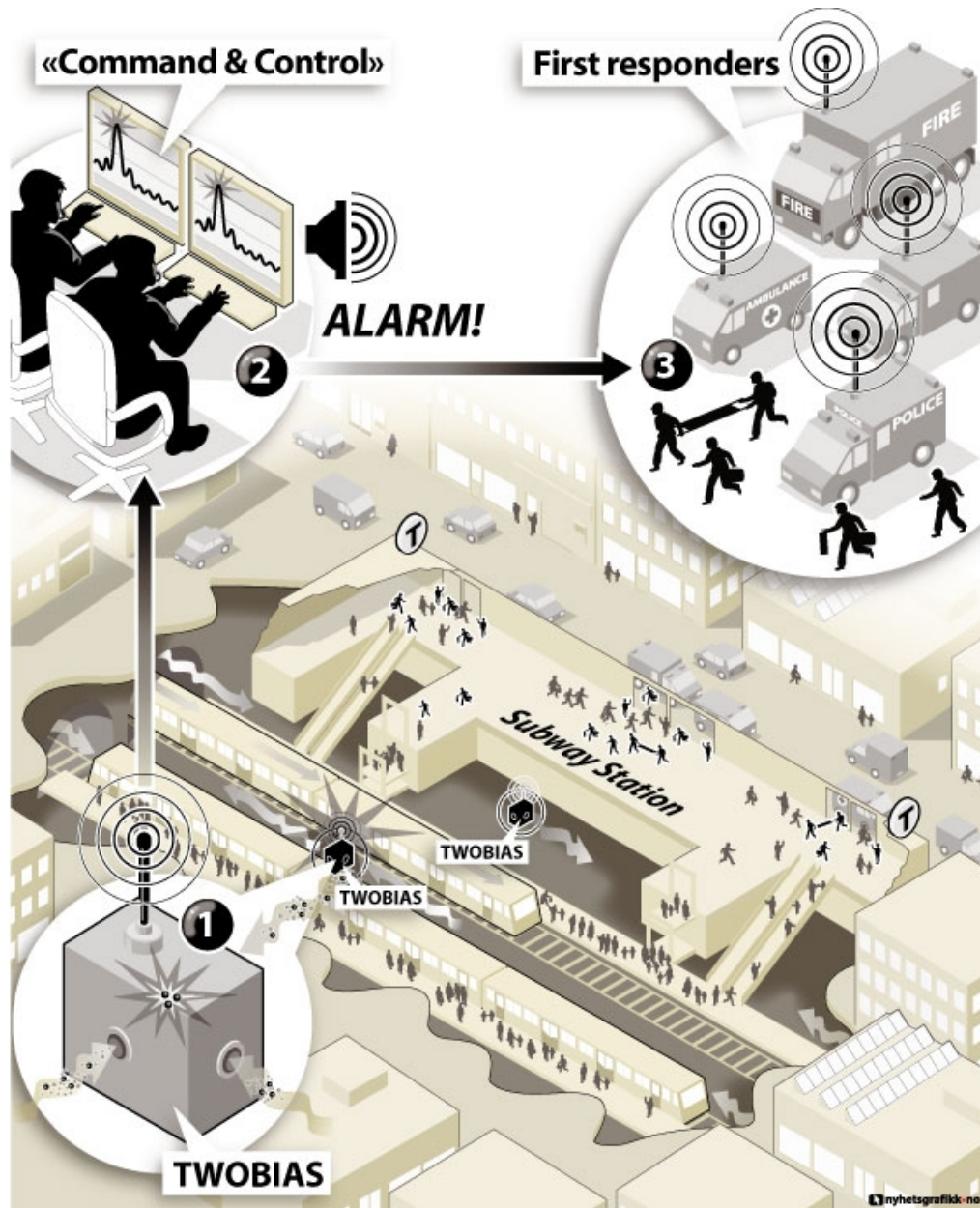
System architecture

Use of real-life test facility



Partners

Beneficiary Number	Beneficiary name	Short name and nation
1 (coordinator)	FORSVARETS FORSKNINGINSTITUTT	FFI Norway
2	MINISTERE DE LA DEFENSE	DGA France
3	DYCOR GLOBAL SOLUTIONS Ltd	DGS Cyprus/Canada
4	TOTALFORSVARETS FORSKNINGSINSTITUT	FOI Sweden
5	Q-LINEA AB	QL Sweden
6	STATNI USTAV JADERNE, CHEMICKE A BIOLOGICKE OCHRANY	SCB Czech Rep
7	THALES SA	TRT France
8	THALES COMMUNICATIONS & SECURITY	TCS, France
9	UPPSALA UNIVERSITET	UoU Sweden



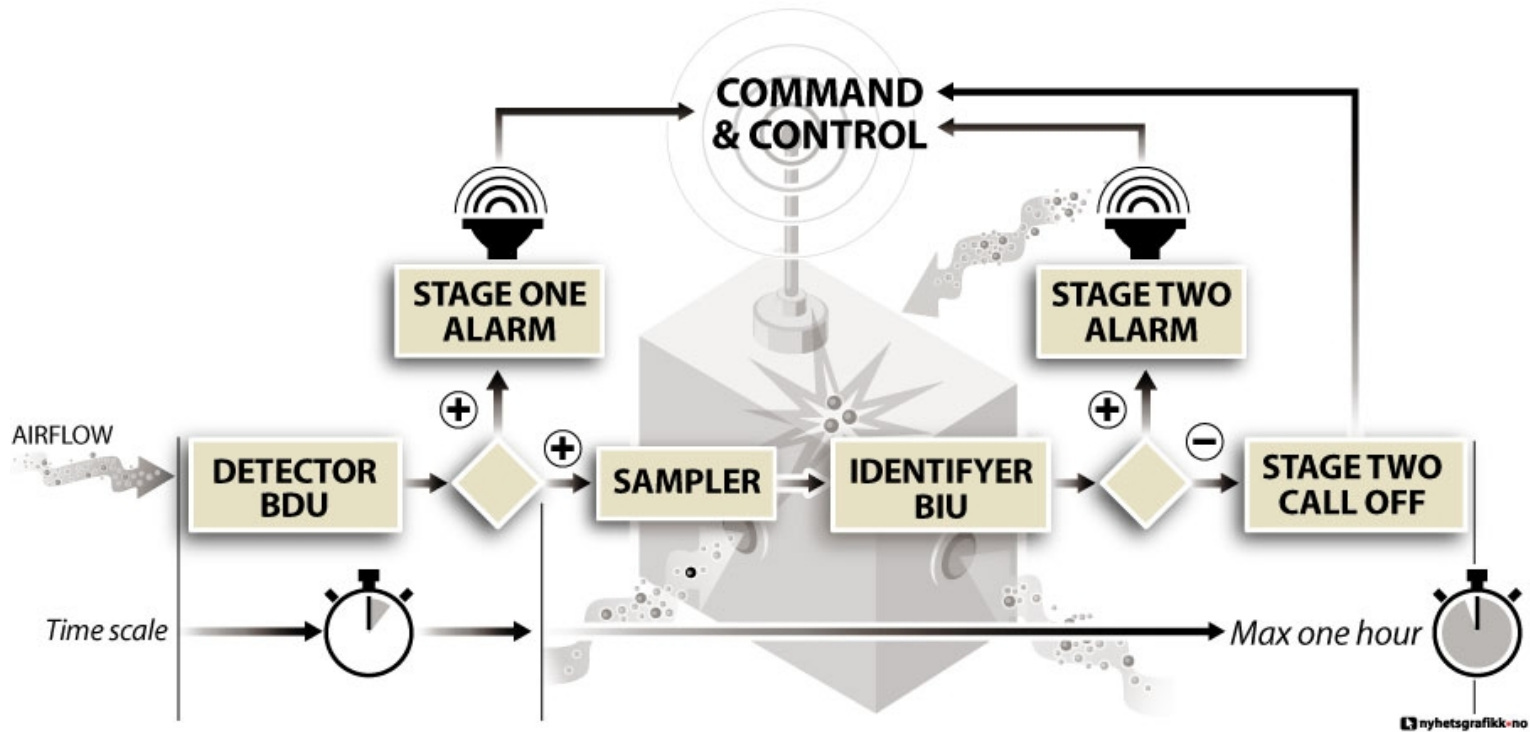
AIM

To develop a modular and demonstrator of a stationary, rapid, reliable Two Stage Rapid Biological Surveillance and Alarm System for Airborne Threats (TWOBIAS) with low false alarm rates

To provide reliable information to a command control system and to first responders

To enhance security against biological threats at high profile public sites

Two Stage Rapid Biological Surveillance and Alarm System for Airborne Threats -TWOBIAS



T&E system for testing at a real life facility

Alarm algorithms allowing reduced false alarm rates

Sensitive/selective system for identification on site

Decision-making actions

Surveillance system for airborne pathogens

Suitable for detecting and identifying infectious diseases

EDA JIP CBRN BFREE

Safe handling and preparation of CBRN mixed samples: Biological challenges and solutions

AIM

To obtain an efficient sample processing and risk mitigation method for ensuring safe handling and preparation of the mixed CBRN samples for the following identification analysis of the CBRN agents.

OUTCOME

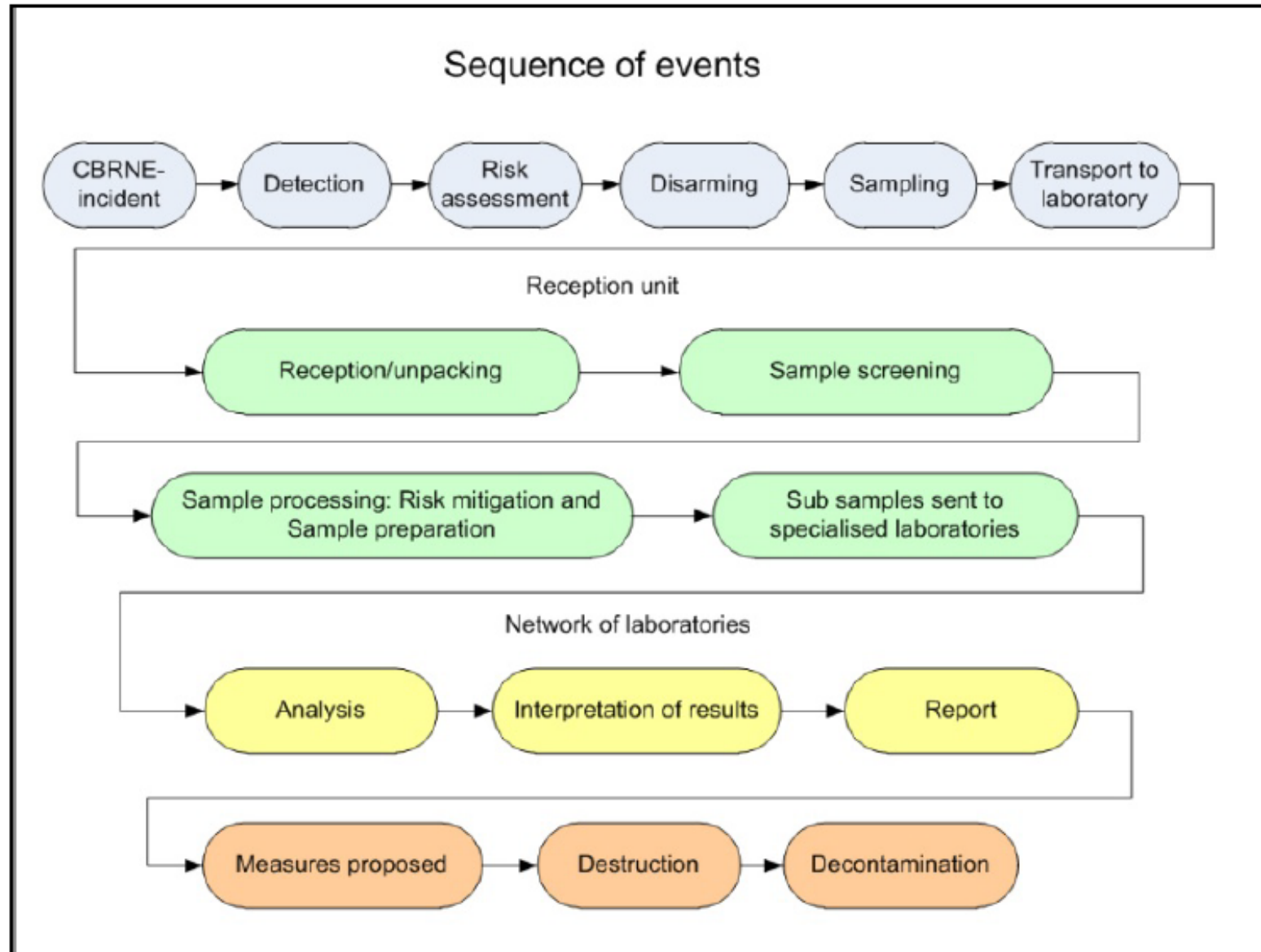
Will provide European harmonized approaches for civilian and military laboratories and which could be part of future standardized operating procedures for handling such samples in laboratories

BUILDS ON and TAKES FURTHER results from

- EU FP7 SLAM
- EU FP7 IMPACT
- NATO Mixed samples laboratory exercise

Chain of events upon a CBRN incident

BFREE



Partners

Beneficiary Number	Beneficiary name	Short name and nation
1 (coordinator)	Norwegian Defence Research Establishment	FFI Norway
2	Swedish Defence Research Agency	FOI Sweden
3	Defense Laboratories Department/ Biological threats unit	DLD-Bio Belgium
4	Bundeswehr Research Institute for Protective Technologies NBC Protection	WIS Germany
5	The Netherlands Organization For Applied Scientific Research	TNO The Netherlands
6	Ministere de la Defense	DGA CBRN France
7	Armaments and Defence Technology Agency	ARWT Austria

Scientific research

Development of methods/protocols for removal of B agents with no impact on the CRN agents

- Ensure safety for personnel when analysing C and RN agents.

Validation of the methods by 2 testing schemes:

1. 1st minor laboratory exercise at 4 laboratories (4-Core test) to test various reviewed and proposed methods
2. 2nd extended inter-laboratory exercise including User Laboratories to validate the most promising methods by the 1st minor laboratory exercise

TWOBIAS EU FP7



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Military and Civilian Collaboration