

COUNTER IMPROVISED EXPLOSIVE DEVICES (CIED)



What is NC3A?

The mission of the NATO Consultation, Command and Control Agency (NC3A) is enable NATO's success through the unbiased provision of comprehensive Consultation, Command, Control, Communications, Intelligence, Surveillance and Reconnaissance (C4ISR) capabilities.

What is Counter Improvised Explosive Devices?

An Improvised Explosive Device (IED) is the most used asymmetric threat and has the potential to achieve disproportionate effects when complemented with inexpensive, off-the-shelves technology. It represents the major cause of death in current operations between coalition forces.

The proliferation of IEDs as an asymmetric threat in current and future conflicts presents a significant threat to NATO forces and NATO Nations' interests, IEDs are demonstrably effective weapons in common use by potential NATO opponents who may be unable to challenge NATO Forces with conventional means.

Counter IED (C-IED) is defined as the collective efforts at all levels to defeat the IED system in order to reduce or eliminate the effects of all forms of IEDs used against friendly forces and non-combatants according to the mission. C-IED activities are cross-functional and are part of the overall operational plans and endeavor.

*An IED fall into three categories:
 Command IED (Command Wire, Remotely Controlled)
 Victim IED (Pressure, Infra-red, Trip, Light sensitive, tilt)
 Time IED (Mechanical, Electronic, Chemical)*

The CIED Strategy is based on the following three lines of operations:

*Defeat the IED system
 Defeat the Device
 Doctrine and Training*

Defeating the IED System, the Device, Doctrine and Training can be accomplished in terms of key functions as prediction, prevention, detection, neutralization, protection/mitigation and exploitation. All these functions are CO-dependent and interrelated. Their synergy is essential in minimizing, reducing or eliminating the effects of the IED.

What is the Scope of a typical CIED Project?

The acquisition and implementation for a CIED capability does encompass the full spectrum of activities, from capturing particular system requirements, detailed requirements specification, acquisition and procurement, provisioning, physical installation, validation and testing, training, documentation, to ultimately the final commissioning and hand-over of the

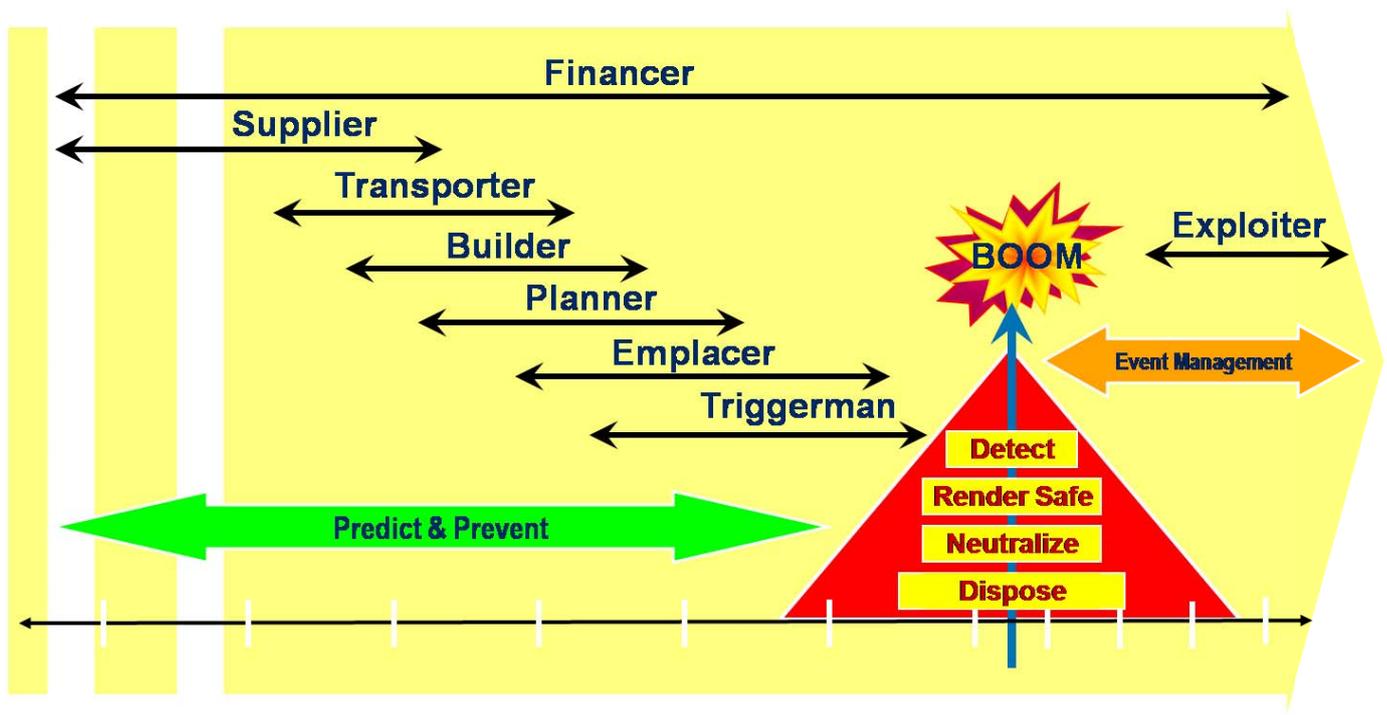
CIED capability to the final customer (ISAF, Nations).

Furthermore, Research and development activities in this area, as well as analysis, feasibility study and field tests of promising technology to counter the IED threat in order to validate its potentials, are key to keep up with the dynamicity of the IED threat.

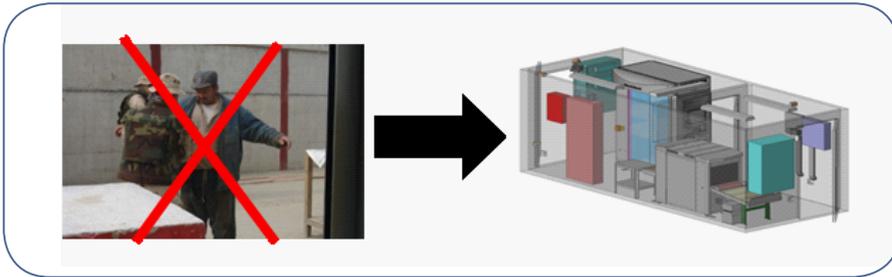
What can NC3A offer to Nations?

NC3A can provide valuable support in the acquisition and implementation processes of a CIED capability. In case of common NATO funding the NATO Security Investment Programme (NSIP) requires sound justifications in support of a new capability. This typically demands the compilation of a cost estimate in the format of a NATO-standardised Type-B Cost Estimate (TBCE). The TBCE is the 'Business Case' for authorisation by the NATO Infrastructure Committee (IC). The TBCE shall prove that the NATO Minimum Military Requirements (MMR) are met, but not exceeded, identify risks and propose mitigation actions, and include implementation as well as Operations and Maintenance cost estimates.

Based on its extensive experience matured in Afghanistan Theatre of Operation with a record of delivering CIED sensors well ahead of schedule, NC3A offers the necessary technical expertise to support not only the detailed technical requirements specification and acquisition processes, formalised with



Personnel and vehicle screening systems for IEDs in a stand-off mode



the definition of the Statement of Work (SoW) and the issuing of an Invitation for Bid (IFB) to Industry, but also to provide the required technical consultancy in the best technology available to counter the specific IED threat . In particular:

- Entry Control Point sensors for Explosives and radioactive materials identification in vehicles (vehicle scanners) and personnel (body scanners),*
- Jammers against remotely controlled IEDs (RCIEDs)*
- Stand-off detection of IEDs hidden beneath clothing.*
- Software for frequency deconfliction to provide jammers programming advice and disruption of friendly communications*
- Research & development activities in the area of jamming deconfliction*
- Development of Concept of Employment (COEMP) and Operation (CONOPS)*

NC3A has an extensive track record on the evaluation of Industry proposals in order to identify the most attractive Bid from the technical point of view as well as from the financial aspect. Evaluation processes are executed following standardised and proven procedures and involving multi-national subject matter experts in determining the

best offers. Evaluation can be done in a Best Value Evaluation methodology (BV), or alternatively by selecting the Lowest Compliant Bid (LCB). NC3A has successfully implemented and optimised both evaluation methodologies with great success.

NC3A possesses the project management capabilities and technical expertise to follow-up such acquisition projects during the execution of the work by the Contractor up to the final commissioning of the system.

What are the services provided by NC3A?

In particular, NC3A can provide the following services:

1. Capturing of user requirements:

Estimates are to be defined for the radio network traffic. Territorial and RF interference characteristics of potential GAG sites are to be evaluated, defining the quantity of sites, their locations and radio

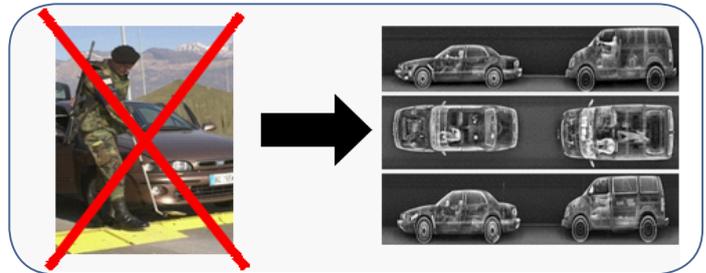
power levels, as well as bandwidth requirements on the network.

2. Developing a cost estimate in the required NATO formats:

The NATO-standardised Type-B Cost Estimate (TBCE) is to be elaborated, covering all cost items, and ultimately to be authorised by the respective NATO bodies.

3. Developing a detailed technical Statement of Work:

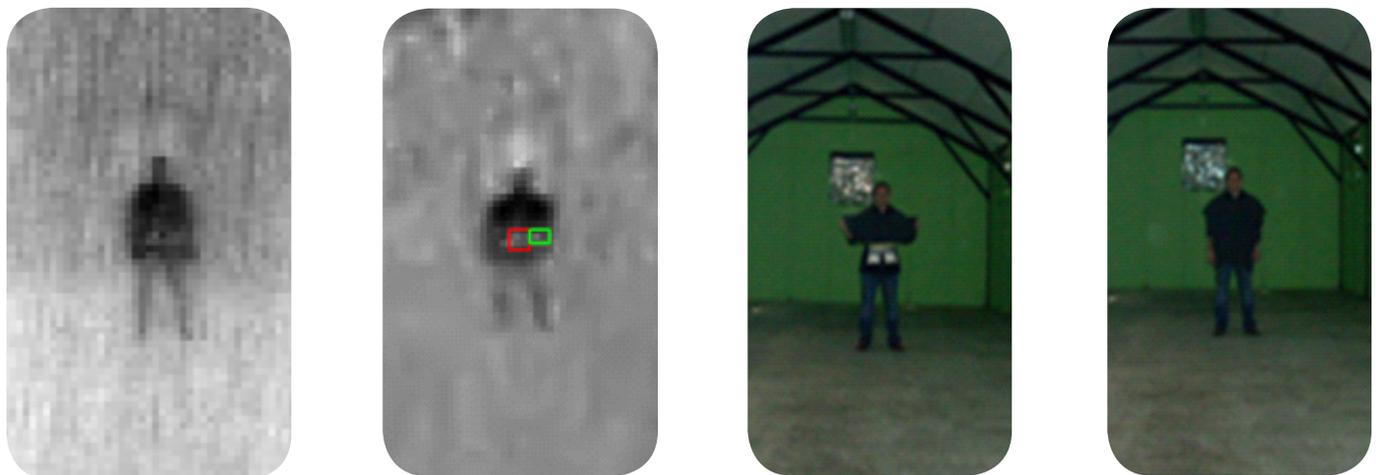
The detailed technical Statement of Work (SoW) has to be developed, covering all aspects



and requirements on the CIED system, incl. requirements on project management, civil works, logistics support, documentation and training.

4. Issuing an Invitation for Bid, and inviting Industry to submit Bids:

The Invitation for Bid (IFB) and all associated documents are to be issued in an open competition in order to receive detailed technical proposals and price quotations



Stand-off detection of explosives using PASSIVE sensors at 10m distance



from Industry. This ranges from organising a Bidders Conference, responding to clarification requests, up to including the IFB closure by receiving Bids from Industry.

5. Evaluating Industry proposals and selecting the best Bid:

The Industry Bids will be thoroughly evaluated from the technical and financial viewpoint. The final result of the proposal evaluation will identify the most attractive Bid.

6. Assigning the Contract, Monitoring and Control of the Work:

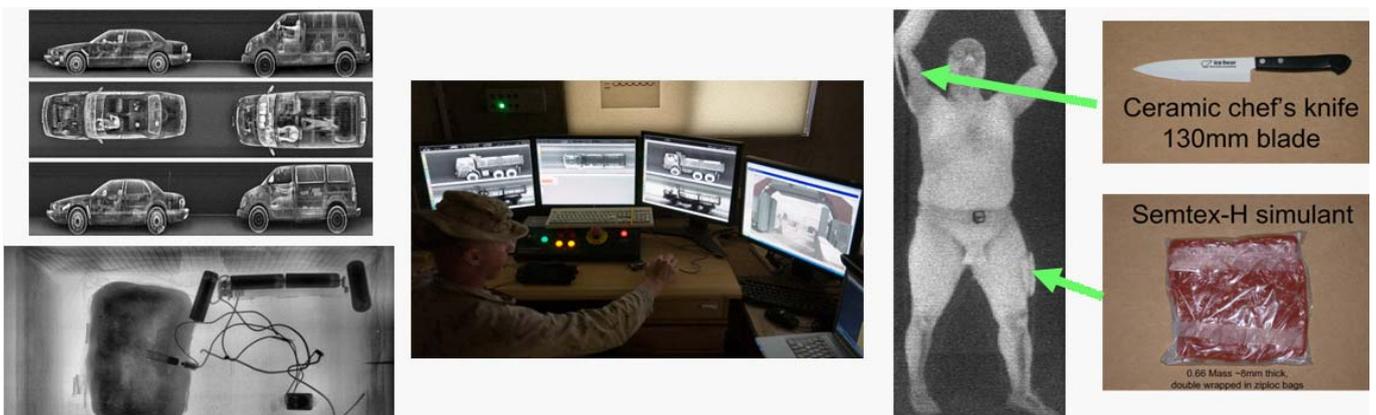
Upon selection of the Bid, a Contract is going to be negotiated with the selected Contractor, following the applicable NATO standards and rules. The project will be kicked-off and the work can commence. The progress will be closely controlled to ensure that all work is performed in line with the contractually agreed activities and the SoW.

7. Acceptance and Hand-over of the final CIED capability to the Nation

All systems and sub-systems put into place and configured will undergo thorough testing and verification, witnessed by the Purchaser.

Once all verification has been successfully concluded, the CIED capability is formally accepted and will be commissioned, as well as all user documentation, manuals and training is going to be delivered to the Purchaser respectively handed over to the Nation.

Kandahar (Afghanistan) vehicle, hand luggage and body scanner sensors for IED and weapons detection



Location Brussels
 Boulevard Léopold III, B-1110 Brussels, Belgium
 Telephone +32 (0)2 707 4111

Location The Hague
 P.O. Box 174, 2501 CD The Hague, The Netherlands
 Telephone +31 (0)70 374 3000
www.nc3a.nato.int



NATO C3 Agency
 Sponsor Account NATO and Nations (DSA N&N)
 Telephone +32 (0)2 707 8547
 Fax +32 (0)2 707 8771
 Email: DSANN@nc3a.nato.int
www.nc3a.nato.int/Pages/nations.aspx