



**STOCKHOLM INTERNATIONAL  
PEACE RESEARCH INSTITUTE**



**“INDUSTRIAL ANALYSIS OF CDP PRIORITY  
ACTIONS IN THE FIELD OF PROTECTION OF  
FORCES IN THEATRE (C-IED AND C-CBRNE  
(explosives) CAPABILITIES IN OPERATIONS)”  
(15.ESI.SC.145)**

**Executive Summary REPORT SUBMITTED TO THE  
EUROPEAN DEFENCE AGENCY**

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“The present study was ordered by EDA. The contractor who has undertaken the study remains responsible for its content.”



## **Executive summary: European C-IED/C-CBRNe industrial capabilities**

### **Background**

The European Defence Agency (EDA) Capabilities Development Plan (CDP) adopted in 2008 and updated in 2014 clarifies future capability needs of European States. It identifies counter-improvised explosive devices (C-IED) and counter-chemical, biological, radiological and nuclear explosives devices (C-CBRNe) as a priority for the “protection of forces in theatre”.<sup>1</sup>

In November 2015, the Stockholm International Peace Research Institute (SIPRI) was entrusted to provide the European Defence Agency (EDA) with a short study on “Industrial analysis of CDP priority actions in the field of protection of forces in theatre (C-IED and C-BRNE (explosives) capabilities in operations”. The short study covered four requirements, from an overview of the market trends and future developments in C-IED/C-CBRNe to the analysis of European industrial capabilities in this field, the identification of possible gaps and conclusions and recommendations.

### **The report**

Chapter 1 describes the sources and methods used to get a more granular understanding of the capabilities, demand trends, market and industry dynamics from stakeholders. It should be noted that no overview of European military demand for C-IED capabilities exists. Few Ministries of Defence or equivalent agencies in charge of C-IED/C-CBRNe acquisition responded to requests for information. National defence industries could not easily provide information, as they in general have not created C-IED clusters. However companies, especially SMEs, have participated and provided very valuable insights into the market. Another difficulty that was encountered was the lack of a common agreed definition of C-IED/C-CBRNe capabilities.

Chapter 2 highlights how IEDs and CBRNe continue to pose threats to armed forces in operations as well as to domestic security. It then discusses different definitions of IED/CBRNe, and the capabilities mobilised to counter them. For lack of a commonly agreed definition, a typology was constructed of C-IED/C-CBRNe capabilities, structured on seven specific capabilities, each covering several technologies: (a) military search; (b) IED exploitation; (c) Route clearance; (d) IED disposal; (e) mitigation; (f) detection and (g) tactics,

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<sup>1</sup> European Defence Agency, *Capability Development Plan (CDP). Executive Summary*, Bruxelles, 17 September 2014, p. 14

techniques and procedures. The chapter also presents the limits of the typology, such as overlap between the categories.

Chapter 3 consists of a short examination of global and European demand for C-IED/C-CBRNe. The chapter underlines that national spending for C-IED/C-CBRNe is hard to capture, as MoDs do not report procurement by types of equipment. However, all indications are that spending on C-IED/C-CBRNe is only a small portion of total defence spending. Following US and European military operations in Afghanistan and Iraq, C-IED became a standard component of military requirements, though C-CBRNe has received much less priority in the military context. Procurement of C-IED capabilities peaked during the height of the military operations in Iraq and Afghanistan and has levelled out. European cooperative procurement efforts in the area are scarce.

Chapter 4 provides an overview of global competitors to European C-IED/C-CBRNe. Due to operations in Iraq and Afghan, demand for C-IED capabilities surged in the USA resulting in the US Defence Industrial Base taking the lead in this market. Several EU firms benefitted from US spending in C-IED in the 2000s. However trans-Atlantic industrial links in this area in the shape of European companies owning US subsidiaries or vice versa are few. Other non-EU competitors in this market are Israel, South Africa, China and increasingly, emerging producers such as Brazil, South Korea and Turkey.

Chapter 5 presents a survey of European capabilities in C-IED/C-CBRNe, based on a set of 193 European companies active in this field. Following the general structure of the European defence industry, the C-IED capabilities are concentrated in a few countries: the UK, Germany and France. In terms of quantity of companies identified as active in the C-IED area, the UK is leading this market by far. However, most EDA member states have capabilities in at least one of the seven C-IED capability areas and often in more than one area. A large number of SMEs are involved in C-IED/C-CBRNe production, 109 compared to 84 larger companies. The distribution of companies per capabilities shows that in very niche segments, such as IED exploitation and military search, there are less companies and that they are mostly SMEs. Case studies highlight the fragmentation and lack of coordination of demand, the fact that for larger companies, C-IED/C-CBRNe is not a major segment of production and/or is intertwined with other capabilities. Profiles of SMEs show that they are highly specialized, often taking the initiative to introduce new products or technologies, and for several the US is one of their major markets.

Chapter 6 concludes that overall, the European industry can meet C-IED/C-CBRNe capabilities needs of member states, even if an assessment of the quality of the products on offer would need further assessment. Potential gaps

in two specific technologies should be further investigated: (a) biometric forensics (b) airborne IED detection. Other dimensions that could benefit from specific inquiry are the possible and existing synergies between civilian and military technologies (dual-use) in this field, and questioning the C-IED/C-CBRNe as a single industrial sector.