

Understanding skills gaps in the European defence sector

The European defence industry requires a wide-ranging and continually changing array of skills to keep pace with the evolving defence landscape. As a result, the sector faces a number of challenges to develop and sustain the skills required to help safeguard Europe's strategic interests and autonomy.

The demand for these skills is mainly driven by defence equipment programmes, and new and emerging technologies. Recruiting and training personnel with the optimal skillsets can ensure the sector has the equipment, products and services required by the national armed forces of EU Member States for their operational and deployment needs.

The European Defence Action Plan (EDAP) in 2016 confirmed the European Commission's commitment to support the implementation of measures and initiatives addressing defence-industry skills requirements. However, before a comprehensive skills strategy can be developed, research is needed to understand the factors that influence job skills for the defence sector.

RAND Europe, in cooperation with Fondazione Giacomo Brodolini, a foundation committed to evidence-based policy, was commissioned by the European Commission to:



develop an overview of the existing and future defence-skills landscape in the EU



identify and analyse the skills gaps and assess the causes of these gaps



deliver a mapping of initiatives used to address the skills gaps.



A key component of this research was the establishment of the European Defence Skills Partnership (EDSP), an industry-led initiative designed to consolidate stakeholder cooperation on skills. It has allowed the project to draw on a much broader evidence base that, crucially, includes SMEs and other lower-tier suppliers across 20 different EU countries. The research included:



Data gathering and analysis

- 17 EU-level policies and funding tools
- 371 defence-related skills initiatives across 16 EU Member States
- 51 expert and stakeholder interviews
- 81 defence industry survey responses



Findings validation

- 39 expert and stakeholder validation interviews
- 9 workshops with experts and stakeholders of the EDSP
- Independent QA process

Findings

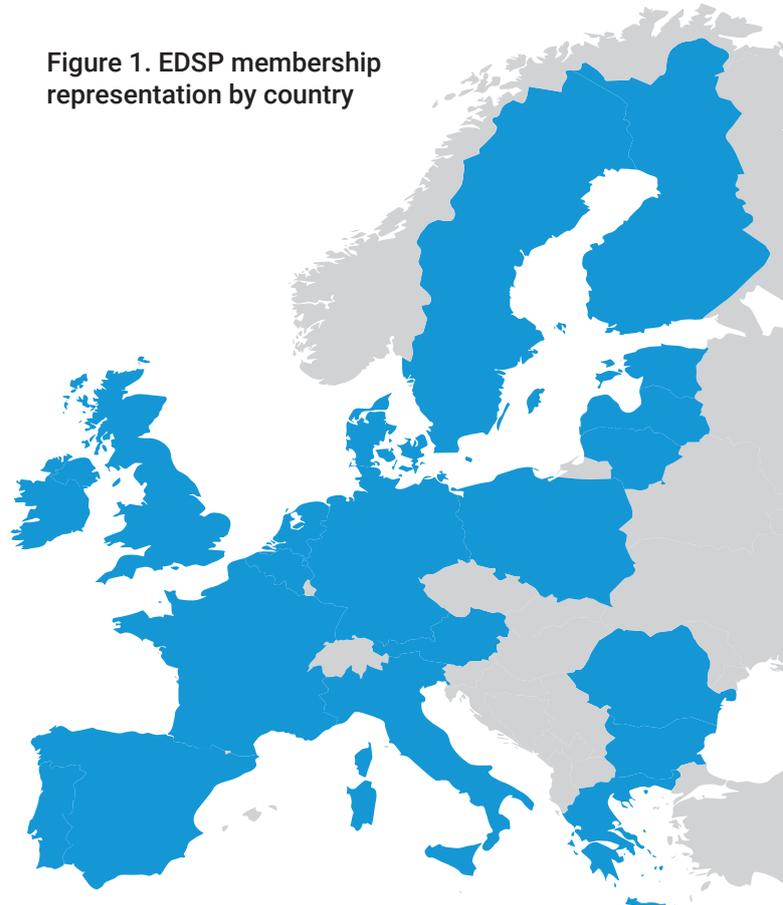
A number of factors shape the demand for skills in the defence industry.

First, the relationship between demand and the supply of skills is influenced by the fragmentation of European-level demand and the monopsony of the national market, as EU Member State governments act as a regulator and a sole customer for multiple defence companies.

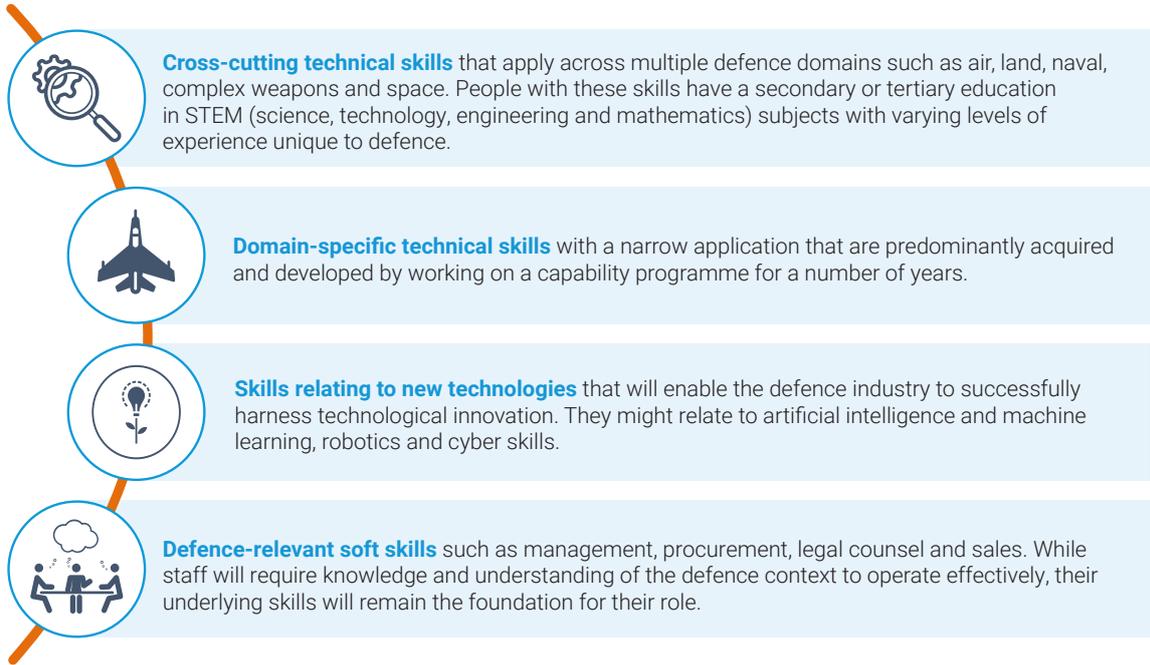
Second, fiscal pressure on European defence spending and a lack of new acquisition programmes or investment in research and development have all contributed to rising concerns over the availability of many of the skills needed for a vibrant and competitive European Defence Technological and Industrial Base.

And third, the integration of new technologies into defence products and services will affect the nature of industrial skills required in future.

Figure 1. EDSP membership representation by country



Researchers identified the following common areas of skills gaps and mismatches within the European defence industry:



A combination of factors drives these defence skills gaps and mismatches. These include:

- Demographic challenges, such as when senior and experienced workers potentially retire without adequate replacements or knowledge transfer.
- A mismatch between employer needs and educational/training output in terms of the volume and composition of the skilled workforce produced.
- Competition for skilled workers from non-defence sectors, some of which may be attributed to perceptions of defence as unattractive, less dynamic and less well-paid.
- Insufficient demand for skills because of low defence investment at national and/or European level. Declining defence budgets and relatively low levels of defence investment over the past two decades have resulted in an overall stagnation of industrial skills and learning across Europe.

The research team reviewed a number of past and current initiatives aimed at addressing defence-related skills, but with mixed results. These are:

- **EU initiatives.** Increasing recent focus of EU-level policymaking on defence and important initiatives, such as EDAP, contributed to raising awareness about the funding opportunities and need to tackle skills challenges of the defence sector.
- **National and regional policies and programmes.** These include initiatives by education and training institutions to encourage uptake of STEM skills relevant to the sector, but these are less able to supply critical, defence-specific skills and adapt rapidly to changes in skills requirements.
- **Industry-led policies and programmes.** These programmes are aligned with the right skills requirements, however shortages persist because of the difficulty of attracting STEM talent.
- **Joint programmes.** Programmes between industry, government bodies and the education sector were found to aid the pooling of resources, as well as the development of valuable skills. However, the restrictive work culture and regulations in the defence industry tends to limit worker mobility across the defence and civil sectors.



Considerations for future action

- A number of defence-industry skills are difficult to source across the EU, but a focus on the four broad skills groups – cross-cutting technical skills, domain-specific skills, skills relating to new and emerging technologies, and soft skills – could help the industry to address existing and future skills gaps.
- Demographic challenges could be tackled by introducing initiatives to retain staff, and by encouraging relevant national authorities and the industry to conduct long-term thinking and planning for providing skills in defence.
- A steadier and more tailored talent pipeline could be achieved by improving communication and collaboration between the industry, government and the education and training sector, as well as by developing a more accurate understanding of the skills that will be needed in the short-, medium-, and long-term futures.
- Given that the industry reported a lack of ‘raw talent’, it is important to design a joint skills profile – with a focus on agile learning and defence-relevant soft skills – to broaden the pool of talent that both defence and commercial sectors could draw upon.
- The somewhat outdated image of the defence industry as a siloed, inflexible and male-dominated workplace is changing, and companies are keen to promote diversity and raise the attractiveness of the defence industry to potential recruits.
- Declining defence budgets and low levels of defence investment have resulted in an overall stagnation of industrial skills and learning across Europe. However, the European Defence Fund could help streamline EU investments, and national defence funding has also been increasing in recent years, supporting the development and maintenance of skills.

This summary describes work done by RAND Europe and Fondazione Giacomo Brodolini documented in *Vision on defence-related skills for Europe today and tomorrow* by Katerina Galai, Lucia Retter, Julia Muravska, Marta Kepe, Alice Lynch, Anna Knack, Jacopo Bellasio, Antonia Ward, Sofia Meranto and Davide Maistro (RAND Europe); and Liga Baltina and Terence Hogarth (Fondazione Giacomo Brodolini), EP-67991 (available at www.rand.org/t/ep67991). To view this summary online, visit www.rand.org/t/rb10094. RAND Europe is a not-for-profit research organisation that helps to improve policy and decision making through research and analysis. RAND Europe's publications do not necessarily reflect the opinions of its research clients and sponsors. RAND® is a registered trademark.

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