

ENTERING A NEW PARADIGM IN EUROPEAN SECURITY

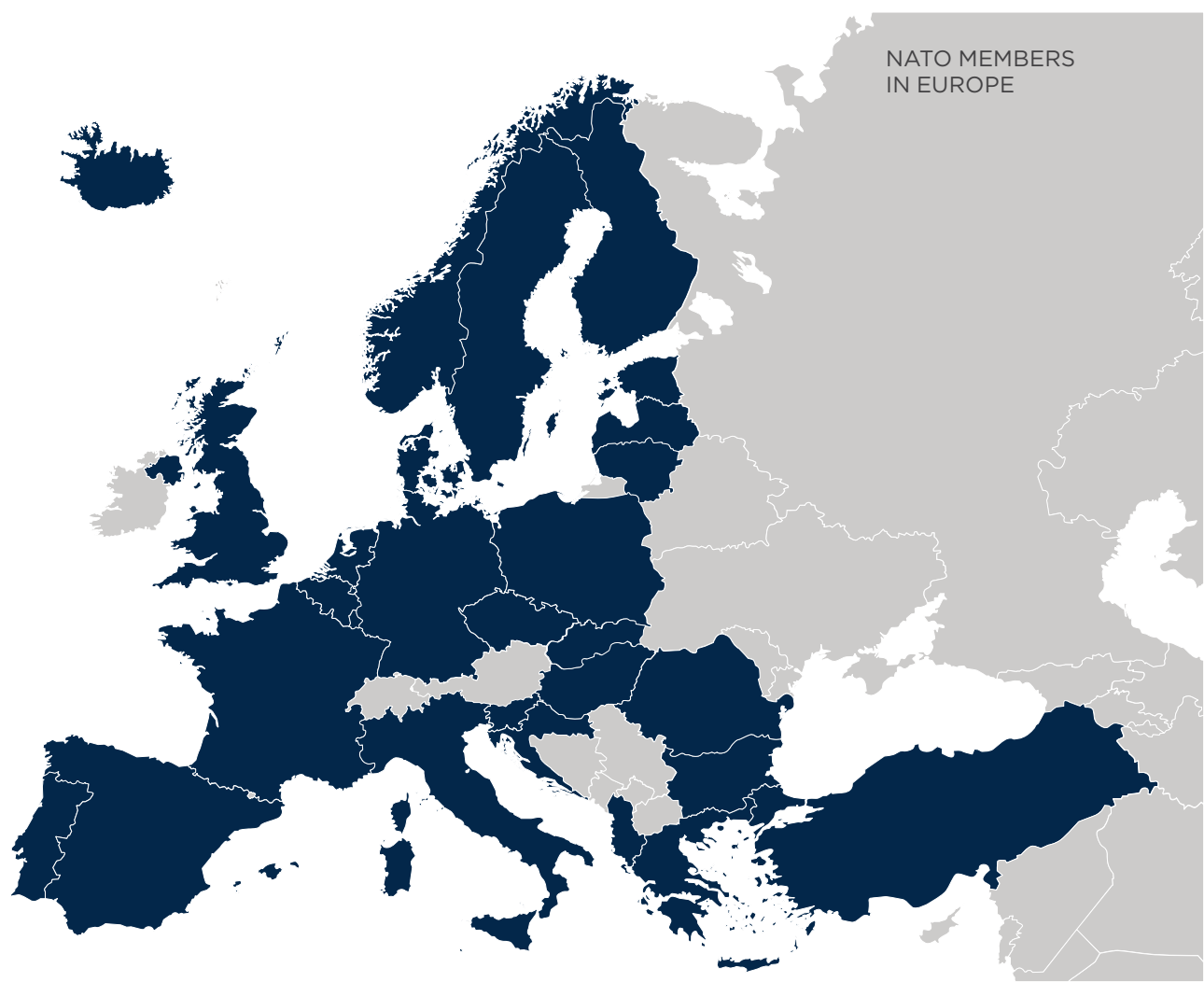
*How Swedish SMEs can capture growing opportunities
in European defence and security*

EXECUTIVE SUMMARY

HOW CAN SWEDEN BOLSTER EUROPE'S NEW SECURITY LANDSCAPE?

Sweden and Finland have entered NATO, global conflicts are on the rise and calls for European defense have intensified. Europe's new security landscape presents both challenges and opportunities for Swedish SMEs looking to grow global sales. In this Executive Global Insight, we explore the emerging opportunities in NATO and EU-funded collaboration initiatives, and take a deeper look at export regulations for dual-use items. In an era marked by escalating global tensions, geopolitical realignment, and evolving security challenges, the European defence and security sector finds itself at a critical juncture. A confluence of factors including geo-strategic rivalries, transnational threats, and technological advancements has prompted a paradigm shift in defence strategies and spending across the continent. Against this backdrop of uncertainty, small and medium-sized enterprises (SMEs) can become pivotal actors – if they seize the moment to tap into rising opportunities within the European defence and security domain.

European nations have in recent years embarked on ambitious defence modernisation programmes, leading to a significant uptick in defence spending. This surge in investment is not only aimed at bolstering conventional military capabilities, but also more disruptive technologies such as AI, unmanned systems, and advanced communications. Recognising the strategic importance of innovation and technological superiority, the EU and NATO are increasingly seeking partnerships with agile and innovative



SMEs to drive the development of their defence agendas. A growing high-tech focus also presents opportunities for traditional companies to expand towards defence clients – so-called dual-use items (civil technologies with military applications) – but with additional bureaucracy to ensure compliance with export controls.

Swedish SMEs in the defence and security sector stand to benefit from deeper collaboration and new partnerships. While NATO membership itself has less impact on companies, SMEs can rely on Sweden's reputation for high quality and leverage the newsworthiness of our new membership. SMEs can now participate in multinational defence projects, joint procurement initiatives and technology sharing programmes – but with increased competition from other allies. In Europe, the EU provides a supportive ecosystem to drive growth including funding, research collaboration and market access. The rapid advances in defence and security also provide opportunities for suppliers of dual-use technologies to tap into new revenue streams, which also requires extra scrutiny.

This report provides SMEs with actionable insights and recommendations to capture the growing opportunities within NATO, Europe, and the dual-use category. SMEs can position themselves as key contributors to European defence and security while fostering economic growth and technological advancement across the continent.

KEY RECOMMENDATIONS

To navigate the evolving European defence landscape and maximise opportunities, Swedish SMEs should consider the following key recommendations:

FOR NATO PROCUREMENT:

- **Master the maze:** Deepen your understanding of the procurement processes for various NATO programmes and agencies such as NSPA to ensure your bids meet all the requirements.
- **Partner up:** Collaborate with established prime contractors to increase your bidding capabilities and gain access to new opportunities.
- **Innovation engine:** Leverage Sweden's industrial strengths, advanced technologies, and high-quality solutions to stand out from the competition – but price is important.

FOR EU FUNDING:

- **Funding focus:** Diligently track calls for proposals from EU programmes such as EDF to identify projects and funding that align with your expertise and capabilities.
- **Team up for success:** Build partnerships with other European companies and leverage matchmaking tools to participate in consortia and joint projects.
- **Leverage networks:** In both Sweden and at the EU level, networks can help you to stay informed, build your contacts, and help ensure you can rapidly respond to developments.

FOR DUAL-USE ITEMS:

- **Identify dual-use potential:** Proactively assess your product portfolio for potential military applications and consider expanding your offerings to new markets and customers.
- **Stay informed and compliant:** Maintain a strong understanding of the evolving dual-use regulations and criteria to ensure responsible trading practices and export control compliance.
- **Develop contingency plans:** Prepare for potential changes that might trigger new regulatory obligations and consider alternative approaches to mitigate export control risks.

INTRODUCTION

SECURITY TAKES CENTRE STAGE IN UNCERTAIN TIMES

Global defence spending has been on an upward trend since 2015, rising significantly after Russia's annexation of Crimea the preceding year, especially in Eastern Europe. Following Russia's full-scale invasion of Ukraine in 2022, Western European countries have followed suit. Sweden's defence budget increased by 28 per cent since 2023 and national defence expenditure is expected to reach 2 per cent of GDP in 2024, meeting the defence expenditure target set by NATO.

The foundations of Europe's globalised economy have also shifted as supply chains have become increasingly vulnerable – first as a result of the pandemic but also recently due to conflict. European industries were severely hit by high energy prices following the shift away from Russian fossil fuels, spurring on economic hardships. The conflict in the Middle East has also resulted in attacks on ships passing through the Red Sea, disrupting a critical trade route that accounts for upwards of 15 per cent of global trade, not only prompting higher shipping costs but also greater risk of delays or longer lead times.

On the geopolitical front, Europe has also seen a slow but shifting power dynamic as China has seeks to counterbalance the United States' dominance. China has invested heavily in major infrastructure investments via the *Belt & Road Initiative*, as well as in critical industry and digital infrastructure like 5G. Meanwhile, US support for NATO and the transatlantic relationship was heavily questioned under President Trump's administration. Europe has therefore in recent years called for increased "strategic autonomy" against the region's reliance on both China and the US, calling for increased investments in European industry, competitiveness and defence.

The nature of conflicts is also changing as new domains of warfare play out including unmanned technologies and disinformation campaigns. Navigating this increasingly volatile world order full of unprecedented threats requires new security solutions. This spurs innovation, but also fuels higher competition for both talent and suppliers. Stricter supplier qualifications and protectionism are additional consequences, challenging the cross-border cooperation that may be required for European industry to innovate.

As geopolitical uncertainties aggregate, 2024 marks an inflection point as a "super election year" unfolds when over 60 countries and an estimated 2 billion people head to the polls. This not only makes 2024 the biggest election year in history, it also pushes up the risk of hybrid warfare, disinformation and cyber conflicts. As governments and politics may change, so too may the global landscape.

Sweden's 2024 accession to NATO marks a historic departure from neutrality against this backdrop of growing uncertainty. This is now giving Swedish SMEs in defence and security a new platform for participating in international procurements, allowing them to seek funding and access a customer base beyond the Swedish Armed Forces. However, besides more complexity and bureaucracy, SMEs should be aware of the increased level of competition as Sweden's armed forces can now rely on NATO mechanisms and may increasingly evaluate sourcing from other countries' suppliers, rather than relying on an inherently Swedish industrial base.



NATO MEMBERSHIP UNLOCKS NEW HORIZON OF OPPORTUNITY

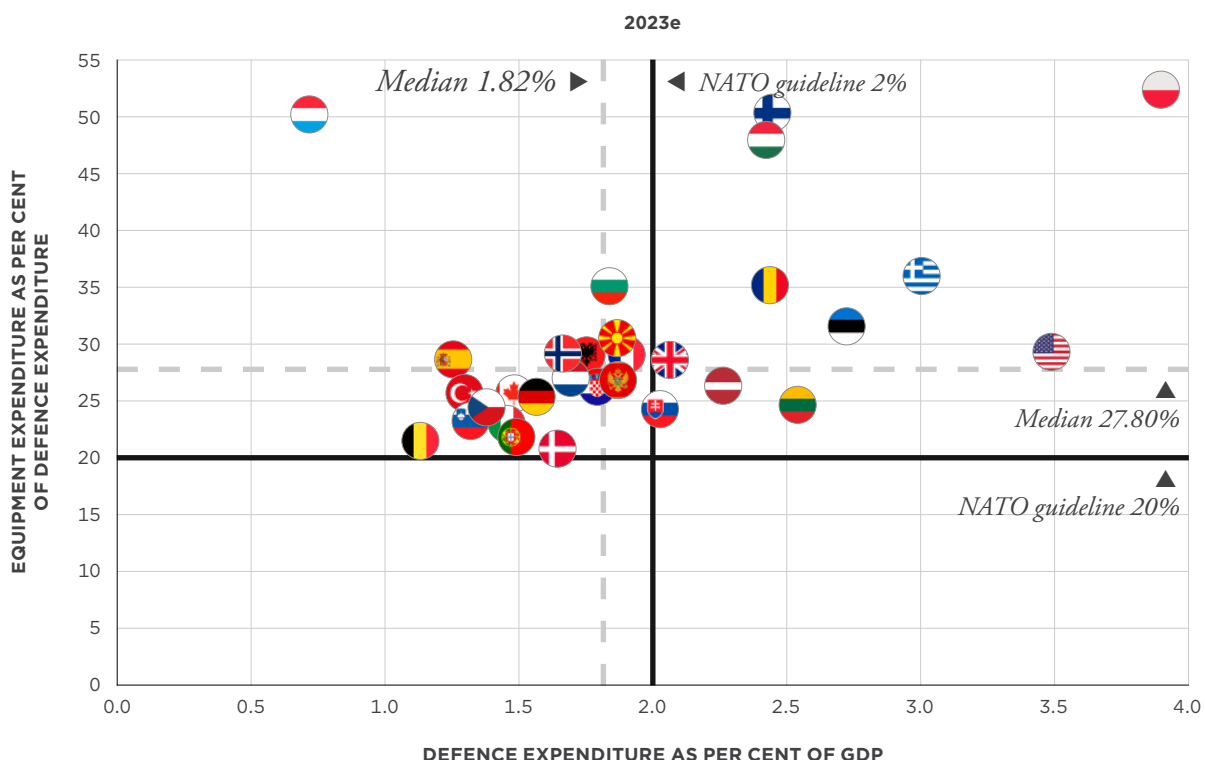
Sweden's newfound membership with NATO not only gives Sweden security guarantees, it also opens doors for SMEs. The rapid advancements in the defence industry means that Swedish companies specialising in emerging technologies are in prime position to tap into new business opportunities via NATO. For example, companies like Carmenta and Xolaris, who offer highly advanced geospatial technologies and intelligence software, have great potential to bolster the capabilities of our new allies. But in this new reality, Swedish companies now also compete with companies from 31 other NATO countries – which means that understanding procurement processes will be key to maximise the chance of closing deals.

It is important to remember that NATO is a military alliance. Its members therefore maintain their sovereignty, and decisions are taken by consensus. NATO itself also has no operational

forces, so it does not procure personnel equipment, weapon systems or platforms – members are responsible for their own military spending and assign equipment, budget, and forces to the organisation. This is known as the “costs lie where they fall” principle. Most of NATO's funding therefore comes from national military budgets or indirect contributions.

This ‘common funding’ also funds NATO programmes and applies to mainly three budget streams: the NATO civil budget; the NATO military budget; and the NATO Security Investment Programme (NSIP). Common funding plays a key role in ensuring the objectives of the Alliance and facilitates deterrence, interoperability and defence. The costs for common funding are based on an agreed cost-sharing formula which is taken from the economic size of NATO's member countries.

DEFENCE EXPENDITURE AS A SHARE OF GDP AND EQUIPMENT EXPENDITURE AS A SHARE OF DEFENCE EXPENDITURE



A HYBRID AND COMPLEX ORGANISATION

There is no central NATO procurement organisation. Instead, various NATO programmes each have their own organisation responsible for procurement, each with their own funding, procurement methods and buyers. Due to NATO's complexity, getting acquainted with the way these entities work is key for SMEs looking to capture business opportunities.

Swedish companies need to understand first which entity to focus on, which opportunities are available to them, and which rules apply. Like regular public procurement, NATO entities will often announce a *request for information* (RFI), *request for proposal* (RFP), *future business opportunities* (FBO) and *notice of intent to solicit bids* (NOI).

After a company is familiar with the rules, it is crucial to obtain a so-called *Declaration of Eligibility*. This document is needed to bid on NATO opportunities and is issued by the national Ministry of Defence (MOD). Once a company is considered an eligible bidder, the company may receive an *Invitation to Bid* from the host nation that is overseeing the project in question.






When Swedish companies are ready to tap into the potential of NATO procurement opportunities they must prepare themselves in the best way

possible. With NATO procurement being so complex, it is critical that companies know precisely which areas to pinpoint and to keep up with the latest updates and opportunities. Two places to consider are the *NATO Support and Procurement Agency* (NSPA) and the *Allied Command Operations* (ACO).

Once SMEs have identified which project or bid is of interest to apply to, it is important to take into consideration that bids will likely be required to use either one of NATO's *official languages* (English or French) or possibly the official language of the country doing the procurement. Bids also often encompass the full project scope, rather than specific sub-contracts, making it difficult for an SME to place a bid alone. This is often why prime contractors are key players in defence procurement.

Prime contractors are often larger defence companies who have the capability to support large project bids, but in turn often rely on many sub-suppliers to fulfil the contracts. Swedish SMEs should also seek to build relations with these larger companies who can potentially be key allies in participating in NATO-coordinated procurements. Various networking activities such as defence industry days or trade fairs are optimal places for Swedish SMEs to meet representatives of the larger defence companies and find synergies to collaborate.

DEFENCE SPENDING BY SWEDEN'S FIVE LARGEST EXPORT PARTNERS

COUNTRY	EXPORT VALUE (2023)	QUOTES ON DEFENCE AMBITIONS (2024)	LARGEST CATEGORY OF DEFENCE* (2023)	EXAMPLES OF PROCUREMENTS (2020-2024)
	221 bSEK	"I am proud to say that this year we will spend over 2 per cent of our GDP on defence. I am also realistic enough to see that this might not be enough in the years to come." Boris Pistorius, Federal Minister of Defence	36.7% personel	1.3 bEUR purchase of air defence system
	205 bSEK	"The security situation nationally and internationally requires that we strengthen our defence now. Norway will meet NATO's 2 per cent guideline this year." Jonas Gahr Støre, Prime Minister	34.2% personel	19.7 bNOK purchase of over 50 Leopard 2 battle tanks
	189 bSEK	"When we see that the Russians completely deliberately and very quickly build up a very large production of military equipment which puts pressure on Europe and NATO in many ways, we have to react." Troels Lund Poulsen, Deputy Prime Minister and Minister for Defence	54.4% operations & maintenance and other expenditures	0.54 bDKK purchase of 5 Thales ground master 200 multi mission compact radars
	148 bSEK	"We must continue to adapt, advance and innovate at speed and at scale across all domains, prioritizing China as the pacing challenge, and Russia as an acute threat." Adm. Christopher Grady, Vice Chairman of the Joint Chiefs of Staff	42.8% operations & maintenance and other expenditures	6.2 bUSD purchase of ca. 70 F-35 fighter jets
	145 bSEK	"It seems to me that the level of defence spending of 2 per cent of GDP agreed by NATO countries will not be enough to cover everything that Europe has to do." Gen. Timo Kivinen, Chief of Defence	50.8% major equipment, incl. related R&D	9.6 bUSD purchase of over 60 F-35 fighter jets

NATO MEMBERSHIP AND PROCUREMENT OPPORTUNITIES

Sweden is now a formal member of NATO, and despite a warm welcome from the alliance, this does not automatically give any preference towards Swedish companies seeking to pursue procurement opportunities. The Swedish defence and security industry can rely quite a bit on Sweden's strong image of quality and innovation, but companies must familiarise themselves with how procurement is structured to maximise their chances in a highly competitive market.

PROCUREMENT CONTRACT WITH NATO'S MAIN AGENCIES

NATO Support and Procurement Agency (NSPA): One of the key agencies to turn to is the NATO Support and Procurement Agency (NSPA). The NSPA is NATO's main services provider which offers acquisition and logistics support to allies. This includes defining projects, coordinating multiple countries, managing contracts, and realising projects. It effectively acts as an outsourced procurement wing for national Ministries of Defence.

There are no specific programmes or bidding preferences for SMEs. Instead, companies must register with the NSPA database as a prerequisite for tendering. Additional requirements to bid may include past performance, present capability, financial capacity, legal residency or national eligibility status.

Allied Command Operations (ACO) and Allied Command Transformation (ACT): The Allied Command Operations (ACO) and Allied Command Transformation (ACT) are the two strategic commands of NATO. The ACO is tasked with planning and executing NATO military operations and has its own Acquisition Management

Branch. Supply and delivery of vehicles and renovation of properties are just two examples of recent business opportunities that have opened up.

The ACT meanwhile oversees the relevance, capability and credibility of NATO's military structure and strength in line with the evolving global landscape. The ACT consists of three entities that have their own contracting portals: the Joint Force Training Centre, the Joint Warfare Centre and the Joint Analysis & Lessons Learned Centre. Companies interested in doing business with ACO or ACT, like the NSPA, must register prior to making a bid and SMEs are not given any preferential treatment.

PARTNERSHIPS AND PROJECTS WITH MEMBER STATES

Another potential route is to participate in cross-border partnerships and projects with other NATO members. Within the NATO framework, joint funding arrangements can be established between several member countries when there is a need for a specific initiative. In such cases, NATO members can identify large-scale requirements for a mission or procurement, ranging from the development and production of naval equipment, to support for an information system. This is especially interesting for smaller member countries who can team up with larger countries, like when Belgium joined the Netherlands in 2019 to jointly acquire 12 new mine-hunting vessels for their respective navies from France's Naval Group.

The management structure differs for each programme, but a NATO agency is often involved to oversee the project. They are also able to coordinate other activities, such as R&D, standardisation, and intelligence-sharing. To exploit opportunities

"Sweden's accession to NATO will reap benefits for SMEs, however it is too soon to draw conclusions on the chances Swedish companies will have within NATO procurement. A worst-case scenario will see Försvarsmakten now source from other countries like the USA, which may increase competition for Sweden's smaller defence companies."

Swedish Defence Attaché

NAVIGATING NATO PROCUREMENT IS KEY TO SUCCESS

There are mainly three ways for Swedish SMEs to pursue opportunities within NATO:

1. A procurement contract with one of NATO's agencies
2. Collaborative projects and partnerships with other NATO member countries to contribute to multinational defence projects
3. Innovation and technology development

in such joint funding arrangements, Swedish companies are recommended to establish contact with the Swedish government – primarily Försvarsdepartementet and Utrikesdepartementet, who are the primary stakeholders managing relations with NATO via e.g. the Swedish delegation to NATO.

Another way for Swedish SMEs to build relations is to attend events and fairs. Examples of relevant events and fairs at the NATO level include:

- **NSPA Industry Days:** organised regularly by the NSPA, these days welcome representatives from the defence sector including companies and government agencies, to better understand procurement processes and opportunities. Companies often have the opportunity to present capabilities and share experiences.
- **NATO Communications and Information Agency (NCIA) Industry Days:** NSPA Industry Days are regularly held and focus on individual countries, hoping to raise awareness of ongoing and future defence-related initiatives to increase engagement and participation of local defence industries.
- **Eurosatory:** a biennial international exhibition, Eurosatory is the global land and air benchmark event for defence and security. Held in Paris, France, the event brings together more than 100,000 visitors and is next scheduled for June 2024. www.eurosatory.com
- **International Defence Industry Exhibition “MSPO”:** an annual trade fair hosted in Kielce, Poland, the MSPO is one of the largest defence trade fairs in Europe focused on NATO’s eastern flank, attracting participants from some 35 countries. Next scheduled for September 2024. www.targikielce.pl/en/mspo
- **Defense and Security Equipment International:** a biennial trade exhibition hosted in London, UK, the DSEI places defence and security manufacturers directly in front of global military and specialist procurement teams. Next scheduled for September 2025. www.dsei.co.uk

Several Swedish initiatives also exist including the industry days co-hosted by *Säkerhets- och Försvarsföretagen (SOFF)* and *Försvarets materielverk (FMV)*. Other Team Sweden actors such as Business Sweden regularly arrange activities to support the global growth of Swedish defence and security companies, for example by organising official delegations, tailored matchmaking, or supporting strategic positioning for companies related to large tenders.

INNOVATION AND TECHNOLOGY DEVELOPMENT

Sweden has world-leading defence innovations including submarines, advanced radar equipment, and air combat capabilities. In this arena, Swedish SMEs can make significant contributions and position themselves as innovation and technology frontrunners. Two NATO initiatives focus specifically on innovation.



Defence Innovation Accelerator for the North Atlantic (DIANA):

DIANA is a newly established organisation where investors, innovators and industry partners are brought together to promote deeptech solutions with dual-use capabilities. As an accelerator programme, it brings together startups with system integrators, scientists and end users and consists of a network of over 200 affiliated test centres and accelerator sites across NATO.

Companies that have been granted admission to the programme can benefit from demonstrating their dual-use solutions in one of the many test centres, financial backing to accelerate technology development and showcase initiatives as well as guidance from industry partners, engineers and end users. DIANA is most beneficial for emerging startups as well as SMEs with limited experience in defence and security.



NATO Innovation Fund (NIF):

The NIF is a standalone venture capital fund which aims to be a commercialisation machine, supercharging innovative companies and the development of disruptive and emerging technologies. The NIF focuses specifically on

“Swedish companies do have an edge at least in terms of positioning. Sweden has a reputation for innovation and quality. But often this is not enough, the cost also plays a role, and this is often why we have lost bids.”

CEO, Swedish defence subsidiary in Europe

AI, space, biotechnology, manufacturing, and energy and propulsion.

Companies can capitalise on vast market opportunities across the contributing countries. By taking advantage of some 90 NATO-affiliated test centres and patient capital with initial funding up to 15 million euros, Swedish innovators can get support to develop deep tech solutions. There are two ways to get funding, either via applying directly through the NIF's website or by contacting the member representative at NATO.

KEY STRATEGIC CHANNELS TO BOOST BIDDING POTENTIAL

Once suitable tenders and business opportunities have been identified, there are mainly four channels worth establishing contact with to increase market and procurement insights and take full advantage of tender proposals.

1. The Swedish government: As NATO military spending stems from national budgets, SMEs in Sweden should connect with the Ministry of Defence and inform them of their companies' capabilities. The Swedish Defence Materiel Administration (FMV) also has dedicated NATO/NSPA advisors. Finally, the Ministry of Foreign Affairs is also worth pursuing, including a network of defence attachés stationed at embassies abroad and also the Swedish Delegation to NATO. Many of these actors can assist companies in determining their eligibility to bid. With established contacts, SMEs can track various procurement opportunities, stay informed about upcoming requirements, and enroll on a list of approved providers for prioritised procurement.

2. Defence Industry Association: Joining associations such as the Swedish Security & Defence Industry Association (SOFF) or the Industry Organisation for Small and Medium-sized Enterprises in the Swedish Defence Sector (SME-D) enables companies to stay on top of the latest procurement opportunities. These organisations receive frequent updates on new projects and studies where Swedish companies can participate, and works with its members to ensure that the best conditions are in place for doing business.

3. Prime contractors: Working with prime contractors gives Swedish companies improved bidding potential. While there is no official list, these mainly comprise of large companies capable of taking full responsibility for projects, such as GKN, Thales, Lockheed Martin and Saab. Swedish SMEs can benefit from the contractors' procurement experience and fill capability gaps that contractors may have. More established contractors often have innovation departments, with the main purpose to screen for technologies and services that external companies offer.

4. End users: End users are present across various NATO agencies as well as within national military branches. As the ones in need of a product or solution, end users have a distinct role to fulfil within the acquisition process. SMEs that have a deep understanding of the challenges end users face can leverage their insights and strategies and position themselves effectively for acquisition and procurement opportunities.

BAE Systems – ARCHER artillery systems to Sweden

In 2023, Sweden's BAE Systems signed a contract with the Swedish Defence Materiel Administration (FMV) worth an estimated USD 500 million, to supply 48 new ARCHER artillery systems for the Swedish army. Designed and produced by BAE Systems Bofors in Sweden, the systems will be built on Germany's Rheinmetall MAN military vehicle for delivery in 2025. Previous versions were built on Volvo all-terrain vehicles. Sweden has also donated several ARCHER units to Ukraine, and the system has been downselected in Switzerland's procurement of new artillery in 2023.

FUNDING PATHWAYS VIA THE EUROPEAN UNION

The EU was never intended as a military alliance, leaving the responsibility of national defence and security to the Member States. However, Europe's recent focus on strategic autonomy and defence investments has shown that there is a high degree of inefficiency. Over 2,500 SMEs operate in Europe's defence sector from across 27 Member States, but cross-border cooperation remains limited. The European Commission estimates that the lack of cooperation on defence among EU member states costs EUR 25–100 billion annually.

Since Russia's annexation of Crimea in 2014, the EU has slowly begun to evaluate how to fund the defence sector. Bound by the various treaties, the EU is unable to directly procure defence materiel, so instead funding has evolved to target areas such as R&D, innovation and cross-border initiatives.

A GROWING FOCUS ON COMMON DEFENCE

In 2017, the European Commission launched the *European Defence Fund (EDF)* which intends to incentivise cross-border defence investment and development to maximise output and quality of member state's defence investments. With a budget of EUR 8 billion for 2021–2027, the EDF funds cross-border research and development in prioritised areas, conducted by consortia of actors. Like most EU workstreams, the EDF develops an annual Work Package targeting specific areas, and thereafter a Call for Proposals is published outlining specific areas of R&D (e.g. cyber or space capabilities) which are eligible for EDF funding.

Consortia are invited to submit project proposals. To qualify, they must consist of at least 2–3 defence firms from different EU member states and all recipients and subcontractors must be

based in the EU. They may not be controlled by a non-associated third country. The EDF can provide funding for up to 100 per cent for awarded research projects, and 20–80 per cent for development activities. SME involvement is encouraged as proven by higher funding rates and a tendency to favour projects that include SMEs.

The *Act in Support of Ammunition Production (ASAP)* was founded as a response to Russia's invasion of Ukraine and aims to make the production of ammunition and missiles in the EU more responsive and better able to meet needs as they arise. The instrument intends to directly support production, as well as supply chains. As with the EDF, Calls for Proposals are published to select and fund projects. The first ever calls went out at the end of 2023.

Selected projects reflect the bottle necks identified in the current ammunition production supply chain, and thus involve explosives, missiles, shells, powder, and testing and reconditioning certification. The budget is EUR 500 million and may be allocated to both provision of grants and assistance in procurement procedures. The goal is also to stimulate private spending, building resilience through blended funding.

In early 2024, the European Commission proposed the *European Defence Industrial Programme (EDIP)* to set out the ambitions voiced in the *European Defence Industrial Strategy (EDIS)*. EDIS presents a vision and strategy for the European defence industry and EDIP is a regulation for the implementation of concrete measures outlined in EDIS. While ASAP is a reactive initiative intended to ramp up ammunition production quickly, EDIP is proactive, intending to better the European defence industry's competitiveness and readiness in the long

“Expanding ammunition production in Europe and Sweden is crucially important for the defence capabilities of Sweden, Europe and Ukraine.”

Minister for Defence
Pål Jonson



Land Tactical Collaborative Combat (LATAACC) was awarded EUR 49 million via the EDF for a three-year project to enable the rapid operational coordination of European land combat systems. French defence company Thales will coordinate the project with 34 private firms and research institutes from 13 participating European countries. Some of the systems in co-development include France's Scorpion, Belgium's CAMO, Germany's DLBO, Spain's BMS-ET, Italy's FNEC, and Norway's MIME. Sweden is represented by the two participating companies Saab and Clavister.

8 CALLS

€ 1.1 BILLION BUDGET

The European Defence Fund is the Commission's instrument to support Research and Development in defence. It is implemented through annual work programmes.

The fourth European Defence Fund (EDF) work programme is organised around 6 thematic calls and 2 calls dedicated to SMEs, consisting of 32 topics in total.

CATEGORIES	TOPICS	BUDGET (in million euros)
 1. Defence medical support; Chemical, Biological Radiological & Nuclear, biotech and human factors	<ul style="list-style-type: none"> Defence medical countermeasures Alliance Research actions (R) Defence medical countermeasures Alliance Development actions (D) 	25
 2. Information superiority	<ul style="list-style-type: none"> AI-based multifunctional aperture and transceiver (D) Defence multi-dimensional communication standard (D) Small enhanced European UAS (D) Medium altitude long endurance RPAS (D) 	181
 3. Advanced passive and active sensors	<ul style="list-style-type: none"> Advanced radar technologies (R) Multi-sensor integration for robust autonomous drone navigation - Technological challenge (R) 	62
 4. Cyber	<ul style="list-style-type: none"> Next-Generation Cooperative Cyber Range (D) 	48
 5. Space	<ul style="list-style-type: none"> Multi-source satellite image analysis - Technological challenge (R) Secure waveform for satellite communications (D) 	50
 6. Digital transformation	<ul style="list-style-type: none"> Automated structural modelling for effect prediction (R) 	15
 7. Energy resilience and environmental transition	<ul style="list-style-type: none"> Energy-independent and energy-efficient systems for military camps (D) 	40
 8. Materials and components	<ul style="list-style-type: none"> Electronic components (R) 	25
 9. Air combat	<ul style="list-style-type: none"> Concept study on advanced air-to-air missiles (R) Unmanned collaborative combat aircraft (UCCA) systems (R) Next generation rotorcraft (R) 	150
 10. Air and missile defence	<ul style="list-style-type: none"> Countering hypersonic glide vehicles (D) 	78
 11. Ground combat	<ul style="list-style-type: none"> Intelligent weaponry and ammunition systems (R) Multipurpose unmanned ground systems (D) Beyond the line-of-sight close combat (D) Next generation armoured infantry fighting vehicle (D) 	130
 12. Force protection and mobility	<ul style="list-style-type: none"> Future mid-size tactical cargo aircraft (R) 	30
 13. Naval combat	<ul style="list-style-type: none"> Functional smart system-of-systems under an integral survivability approach for future naval platforms (D) 	45
 14. Underwater warfare	<ul style="list-style-type: none"> Secured and adaptive underwater communications for UUSs (R) Autonomous heavy minesweeping system (D) 	54
 15. Simulation and training	<ul style="list-style-type: none"> Methods for bridging reality gaps (R) Simulation and training for medical emergencies (D) 	25
 16. Disruptive technologies	<ul style="list-style-type: none"> Quantum technologies (R) Non-thematic research actions targeting disruptive technologies for defence (R) 	40
Non- thematic calls for innovative and future-oriented defence solutions focused on SMEs	<ul style="list-style-type: none"> Non-thematic calls dedicated to SMEs and research organisations (R) Non-thematic calls dedicated to SMEs (D) 	67
Other actions	<ul style="list-style-type: none"> Business Coaching for all successful SMEs Business accelerator to support a sustained commercial growth of SMEs and scaling up companies Matchmaking events for investors, SMEs and Mid-Caps Defence equity facility under InvestEU for SMEs and Mid-Caps European Defence Fund Hackathon events EDF outreach and communication Technical and administrative assistance for the EDF implementation 	33.2

term. The budget set for 2025–2027 is EUR 1.5 billion, and the scope of projects that can receive support extends across the entire supply chain, from research and development to procurement.

While the past few years have motivated the European Union to be proactive on defence, the ambition to increase military cooperation between member states is nothing new. The *European Defence Agency (EDA)* was established in 2004 as a means of facilitating defence cooperation between the EU member states with the main objective to trace European defence capabilities and guide development. This is done through the coordination of joint trainings, innovation projects, and priorities. The EDA also aims to connect industry stakeholders and actors in the defence sector with available EU funding.

HOW EU INCENTIVES FOR JOINT PROCUREMENT BENEFIT SMES

European defence integration is not necessarily confined to research and development, as joint procurement is becoming an increasingly central aspect. While the EU lacks the ability to directly procure weapons and ammunition, Russia's invasion of Ukraine has resulted in several initiatives promoting cooperative procurement and has moved the boundaries of what the EU has traditionally done in the defence domain.

The *European Defence Industry Reinforcement through common Procurement Act (EDIRPA)* was adopted in 2023. This is an instrument that aims to incentivise cooperation in defence procurement between the EU member states by using a EUR 300 million budget to partially fund collaborative procurement, as long as the procurement is done jointly by three or more Member States. The instrument recognises the importance of SMEs in the defence industry by offering funding of up to 20 per cent if they are involved in the activity, giving SMEs major opportunities to benefit from cross-border cooperation.

The *European Peace Facility (EPF)* was established in March 2021. With EUR 17 billion in budget 2021–2027, the EPF is financed through missions and operations, as well as assistance

measures for partner countries. After Russia's invasion of Ukraine, the EPF was altered to allow Member States to be reimbursed for donations of materiel, marking a shift in the EU's defence landscape. As of March 2024, the EPF has supported Ukraine with some EUR 11 billion in lethal and non-lethal military equipment and supplies, such as personal protective equipment, first aid kits, fuel, ammunition and missiles.

EU DEFENCE INTEGRATION: OPPORTUNITIES AND STRATEGIES FOR SMES

Increased integration of European defence industries, more cooperation across borders and access to EU funding unlocks many opportunities for SMEs in the defence industry. At the European level, possibilities mainly derive from cooperative projects sought by the European Commission. Establishing links with other actors in the European defence sector and establishing or joining consortia can lead to funding from the EDF, ASAP and the upcoming EDIP.

Matchmaking tools are available to companies who lack connections and networks to participate in consortia. Partnering opportunities can be explored via the *Enterprise Europe Network*, or through initiating contact with the relevant *European Network of Defence-Related Region (ENDR)* office. ENDR is a broad network that brings together defence-related regional organisations and clusters with SMEs, suppliers, and manufacturers to share knowledge and best practices on dual-use and defence-related activities.

EU funding models are structured so that funding may only be made available if applied for. This means that it is beneficial to keep track of Calls for Expression of Interests, strategy documents that feed into them, and other developments in European defence. For SMEs lacking the knowledge and resources needed to stay tuned to these developments, outsourcing regular monitoring of defence developments can be beneficial. They can also entrust branch organisations with monitoring an application support – while learning to properly utilise the tools made available by the institutions.

EU grants supporting four projects through ASAP: In March 2024, the EU announced that four projects would receive grants under the Act in Support for Ammunition Production (ASAP). Sweden's ammunition producer Nammo is set to triple its ammunition production capacity in Karlskoga after receiving EUR 12 million from the EU, and additionally EUR 14 million financed by the Swedish government. Nammo will invest the remaining amount needed to achieve the desired level of ammunition production.

NAVIGATING THE GROWING COMPLEXITY OF DUAL-USE ITEMS

The rise of new conflicts has led to an accelerating focus on the defence sector, and dual-use items serve as both catalysts and products of this development. Dual-use items include products, technology, services and software that serve civilian purposes but also can be used as components in military equipment or operations. The multiple fields of application reveal a number of opportunities for Swedish producers, customers, and innovation at large, but also underscores the need for responsible trading practices. Staying well-informed about dual-use technology and regulation is essential for businesses to ensure compliance with international standards, effectively navigate export controls and seize opportunities for innovation and expansion.

LEVERAGING THE DUAL-USE POTENTIAL

Soaring defence budgets are accompanied by a general build-up of military forces around the world. At the heart of this development are dual-use items, which can be used as components in military equipment or operations, beyond the classical ‘civil’ domain. Examples of dual-use items range from drones to cryptography, micro-organisms and certain chemicals.

Thanks to its technologically advanced

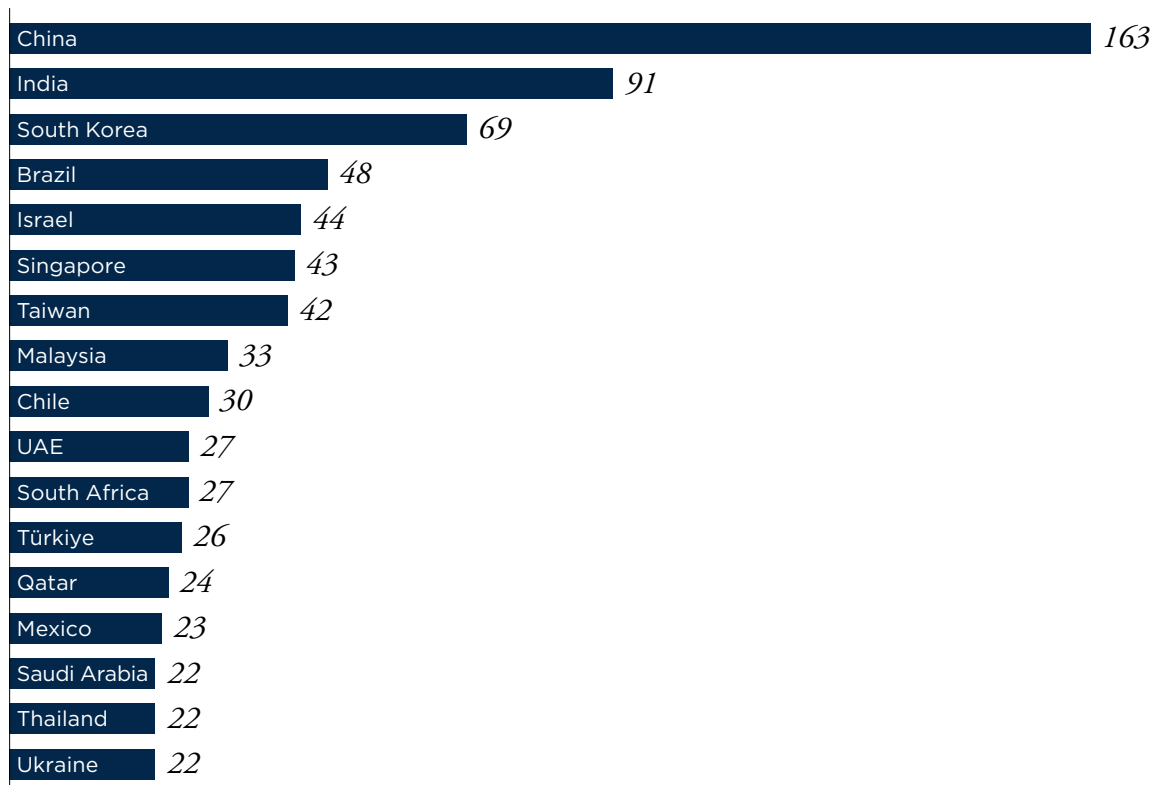
industries and an export-oriented approach to trade, Sweden is now in the spotlight on the dual-use stage. These conditions create fertile ground for Swedish companies to capture the dual-use potential of their products. By doing so, they can not only expand their product range but also tap into new markets and bolster revenue streams. This, in turn, can increase turnover and boost resilience to economic cutbacks affecting either defence or civil activities. Sweden’s world-class expertise in production of military equipment also adds a possibility of technological spillover between the civil and defence sectors. The value of such exchange is increasingly being realised as proven in civil technologies – consider for example AI and quantum computers – which are gaining significant attention for their potential in military applications.

In the broader context, the growing convergence of technology between military and civil products fosters innovation across both sectors. This not only allows large companies to incorporate civilian technologies into defence production, but also opens up doors for SMEs whose expertise may be in demand as a result. Closing the gap between the defence and civil sectors further provides an opportunity for the reduction of R&D costs for both private and public actors through shared knowledge and application.

DUAL-USE CATEGORIES AND EXAMPLES OF POTENTIAL GOODS

CATEGORY 0	CATEGORY 1	CATEGORY 2	CATEGORY 3	CATEGORY 4
Nuclear materials, facilities & equipment Nuclear reactors and related components and equipment or software	Special materials and related equipment Body armour and components, full face masks, camouflage gear, riot control agents	Materials processing Machine tools, machinery parts, specialty materials and industrial machinery, certain chemicals	Electronics Numerous types of circuits and micro-circuits, certain microwave power amplifiers and modules	Computers Semiconductors and advanced electronics, laptop computers
CATEGORY 5	CATEGORY 6	CATEGORY 7	CATEGORY 8	CATEGORY 9
Telecommunications & "information security" Software for encryption devices optical fibres, telemetry equipment for UAVs, telemetry software	Sensors and lasers Object detection systems, hydrophones, acoustics software	Navigation & avionics Accelerometers, gyros, compasses, radio navigational aid apparatuses	Marine Life jackets, wet-suits, masks, inflation cartridges, dive computers, underwater equipment software	Aerospace & propulsion Drones and components, engines, motors and servomotors, hobby/toy drones

COUNTRIES WITH THE MOST APPROVED SWEDISH EXPORT LICENSES FOR DUAL-USE PRODUCTS (2023)



EU REGULATIONS FOR DUAL-USE ITEMS

The EU controls the export, brokering, transit and technical assistance of dual-use items for Member States. The general rule is that dual-use items may be freely traded within the EU – a license is only required for exports to non-EU countries. According to Swedish government estimates, more than 50 per cent of the exports of dual-use items from Sweden can take place without a license. However, particularly sensitive items such as missile-and nuclear technology, may require authorisation even for transfers within EU borders.

The objective of export control is to prevent certain products or technology from reaching end-recipients that may use them for undesirable purposes, including threats to public security and human rights or proliferation of weapons of mass destruction. Such potential recipients encompass a wide spectrum, ranging from terrorist groups to state actors.

Products and technologies that count as dual-use items in the EU are broadly arranged into ten categories and classified in the EU Dual-Use Regulation 2021/821. An amended version of the original regulation was published by the EU in December 2023 and can be found here below. Unlisted products may also be subject to control if the exporter or licensing authorities suspect that the product in question may be used for military purposes or creation of weapons of mass destruction; a “catch-all” mechanism.

RIISING NEED FOR EXPORT CONTROL

Due to their multiple fields of application and consequent risk of being misused, dual-use items need to be exported with extra caution. Increased demands are being put on export controls, which has a significant impact on Swedish companies given their heavily internationalised industries. Importantly, it is each company’s own responsibility to ascertain whether their product falls under the classification of a dual-use item, underscoring the importance for companies to understand this domain.

Approximately five per cent of Swedish exports classify as dual-use with a significantly larger portion, 16–18 per cent, containing components that classify as dual-use. Heavy emphasis is currently being put on identifying the potential of dual-use functionality among products that are not yet classified as dual-use. Companies that might be subject to such scrutiny are subcontractors to defence industry manufacturers whose products are implemented several steps before final assembly of end products, but also businesses working with emerging technologies. The broadening scope of what classifies as dual-use items is also proven by the regular updates of the EU regulation that outlines the basis for classification.

The primary destination for Swedish dual-use exports outside of the EU is China, and frequently exported dual-use items include bioreactors, infrared cameras, centrifuges, medical

NUMBER OF APPROVED SWEDISH EXPORT LICENSES FOR DUAL-USE PRODUCTS (2023)

CATEGORY	INDIVIDUAL LICENSE	GLOBAL LICENSE	TOTAL
Category 1: <i>Special materials and related equipment</i>	44	4	48
Category 2: <i>Materials processing</i>	300	8	308
Category 3: <i>Electronics</i>	68	5	73
Category 4: <i>Computers</i>	3	0	3
Category 5: <i>Telecommunications & "information security"</i>	140	37	177
Category 6: <i>Sensors and lasers</i>	71	3	74
Category 7: <i>Navigation & avionics</i>	3	2	5
Category 8: <i>Marine</i>	2	0	2
Category 9: <i>Aerospace & propulsion</i>	8	2	10

equipment, software, and data collection cards. Affected industries include aerospace, security, life sciences, energy, and pharmaceutical industries, to mention a few. The impact of export controls is felt throughout the operational spectrum, from research and development to production and the trading of the product.

UNDERSTANDING EXPORT LICENSING

Export licences come in four variations: Individual licences, Global licences, National General Export Authorisations (NGEAs), and EU General Export Authorisations (EUGEAs). Individual licences are granted to one exporter and covers the export of a specific quantity of a specific good to a single receiver. Global licences are granted to one exporter and may cover exports of undefined quantities to multiple receivers. NGEAs enable a particular EU member state to export designated dual-use items to a predetermined recipient country if certain conditions are met. Unlike NGEAs, EUGEAs are EU-wide and allow export of dual-use items to certain destinations outside of the union under certain conditions.

While the EU regulates the export of dual-use items, Member States are responsible for implementing the required provisions nationally. The Swedish Radiation Safety Authority oversees and regulates exports of products in category 0; nuclear products and related technology. The Swedish Inspectorate of Strategic Products (ISP) is responsible for controlling and granting licences to exporters who fall under any of the remaining

categories. In their licence assessment, ISP considers the product, the recipient country, the end use, and the end user. The controls carried out by the ISP involve review of submitted declaration, compliance visits to exporters, as well as continuous checking of data and documentation. The ISP is further authorised to enforce sanctions on organisations that fail to comply with EU regulations for the export of dual-use items.

WHAT DOES THE FUTURE HOLD FOR DUAL-USE?

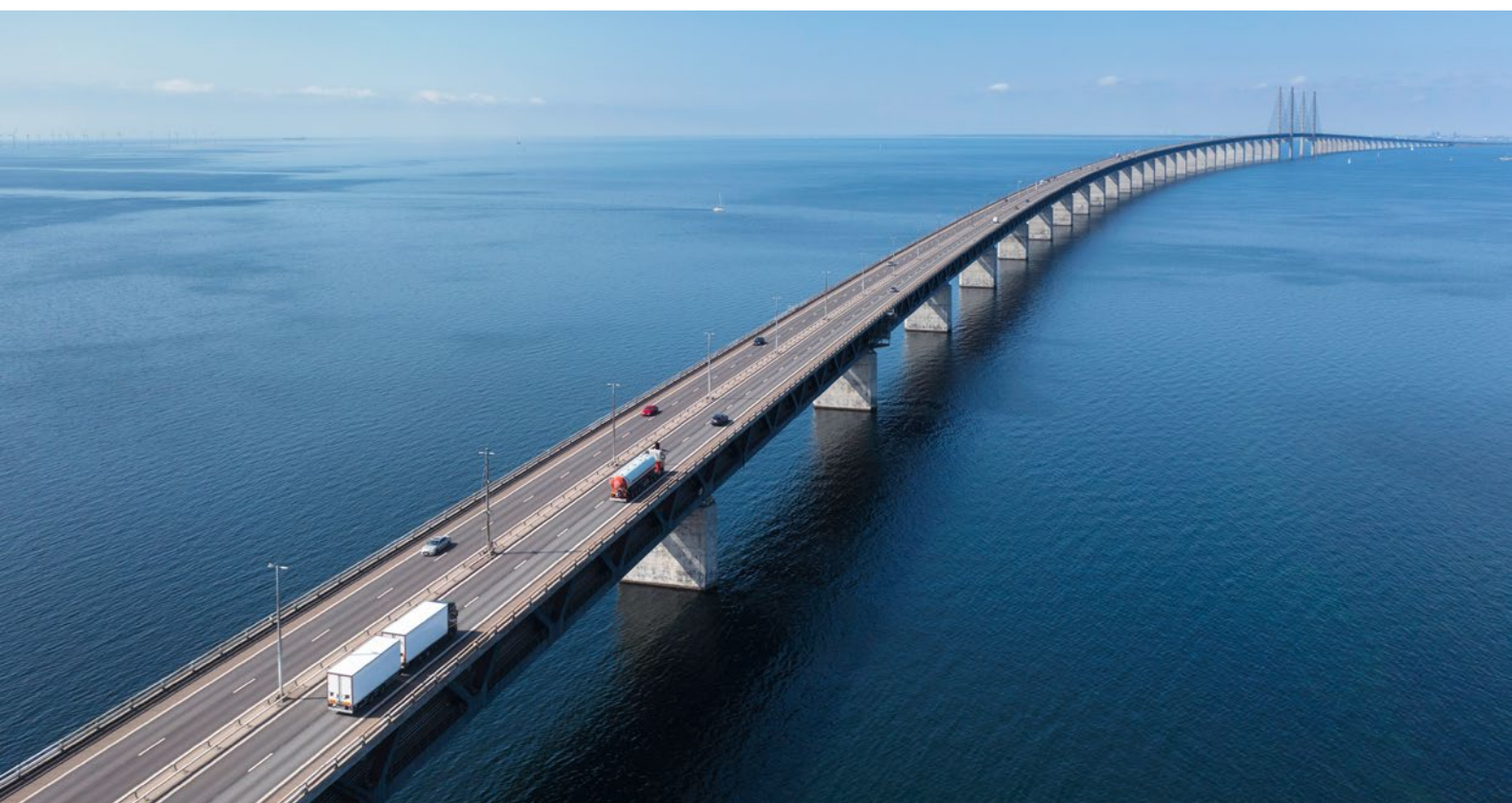
Looking ahead, we can expect a significant expansion of the list of dual-use classified items. This is not only driven by rapid innovation but also by a broader and more inclusive definition of the term itself. This may involve challenges whereby products are suddenly classified as dual-use, triggering regulatory obligations under export controls. Nevertheless, innovative advancements – both within the dual-use sector and as a result of dual-use utilisation more broadly – hold promise for both SMEs and the wider business community. By embracing responsible practices, collaboration, and proactive measures, SMEs can position themselves for success in this dynamic and evolving landscape.

CONCLUSIONS

THE ROAD AHEAD FOR SWEDISH SMES

The European security landscape is undergoing a significant transformation, driven by escalating global tensions, geopolitical shifts and evolving security challenges. This presents a unique set of opportunities and challenges for Swedish SMEs in the defence and security sector.

- Swedish NATO membership unlocks access to a wider market with substantial funding for collaborative projects and technological advancements. By familiarising themselves with NATO procurement procedures and forging partnerships with established players, Swedish SMEs can gain a competitive edge. But this also increases competition, as national defence sectors can coordinate purchases from other countries and not just Sweden.
- The European Union offers a supportive ecosystem for innovation and growth through various funding instruments. The EDF, ASAP, and EDIP initiatives provide financial backing for R&D activities, incentivising cross-border collaboration and fostering a more robust European defence industry.
- Dual-use items offer the potential to expand markets and revenue streams, but require a thorough understanding of export control regulations. By staying informed and adhering to strict regulations, Swedish companies can ensure responsible trading practices and capture the potential of this growing market segment.
- To thrive in this dynamic environment, Swedish SMEs must adopt a proactive approach. Building strategic networks, actively pursuing funding opportunities, and capitalising on their expertise in advanced technologies will be instrumental for success. By embracing innovation and collaboration, Swedish SMEs can become key players in shaping a more secure and technologically advanced European defence landscape.





BUSINESS SWEDEN CAN SUPPORT YOU

Business Sweden's defence industry specialists can help you capture opportunities in Europe's evolving security landscape. By teaming up with us, you will get dedicated support to successfully navigate NATO procurement procedures.

Our experts can help you build a deeper understanding of export control regulations, funding instruments, public tenders and cross-border collaboration opportunities. We stand ready to position Swedish SMEs in the new security era.

With a unique mandate from the Swedish government and the business sector, our global team offers strategic advice and practical support in more than 40 markets worldwide.



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*We help Swedish companies grow global sales and
international companies invest and expand in Sweden.*

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