



Strategy Paper of the Federal Government on Strengthening the Security and Defence Industry

I. Introduction

This strategy paper serves as a guideline for the Federal Government's policy regarding the security and defence industry. It replaces the Strategy Paper on Strengthening the Defence Industry from 2015 and the Strategy Paper on Strengthening the Civil Security Industry from 2016.

This strategy paper also serves as a framework for Germany's EU policy in the area of the security and defence industry.

For the purposes of this paper, the security and defence industry includes the entirety of all companies that develop or produce products, technologies and technical services for civil security purposes or military use, and that generate a large part of their revenues with this business.

This strategy paper will be implemented within the scope of the Federal Government's budget and financial planning.

II. The security and defence policy environment

In recent years, the challenges in the area of security and defence policy that Germany, the EU and NATO have been facing have become bigger, more volatile and more complex. The rules-based national and international order, whose organisations and institutions define the framework for political actions by the Federal Republic of Germany, must be strengthened and further developed.

In the area of domestic security, the security architecture in Germany needs to be adjusted to the present and future challenges. At the same time, the potential of digitalisation must be used to ensure domestic security.

In Germany, Islamist terrorism and right-wing extremism pose major threats. In the fight against national and transnational terrorism and extremism, the analytical capabilities of the security authorities must be reinforced, and it must be ensured that they are equipped with appropriate and practicable powers enabling them to detect threats at an early stage. In addition, the fight against politically motivated hate crimes must be intensified.

The increase in military activities at the external borders of the EU and NATO, as well as the increasing employment of hybrid instruments, have far-reaching implications for security in Europe and especially for the eastern EU member states. As a result, the focus must once again be shifted towards a credible strengthening of deterrence and defence capabilities as well as towards increased resilience in Germany, Europe and within NATO, combined with the willingness to engage in dialogue. The provision of crisis management capabilities is equally important.

Transnational terrorism will continue to be a major challenge for our security. Combating terrorism is a matter of both domestic and external security policy.

One of the technological challenges for our security and defence is the field of digitalisation and artificial intelligence. Ensuring cyber security is a basic prerequisite for the advancing digitalisation of state, economy and society, and is equally important for Germany's and Europe's sovereignty.

Advances in research and in the development of new technologies such as in the fields of digitalisation, artificial intelligence, unmanned systems, hypersonic technology, biotechnology and cyber instruments will have fundamental effects on future security and defence-related systems. This also raises questions on the possible potential for destabilisation and on compliance with international law that are linked to the introduction of new technologies in weapon systems. Given the changing security environment, civilian and military use of space will also become an increasingly important aspect of security and defence policy.

In terms of security policy, Germany is firmly embedded in the Euro-Atlantic structures. Strengthening NATO's capacity to act and intensifying the EU Common Security and Defence Policy are declared goals of the Federal Government. Our established frame of reference is based on European integration, transatlantic partnership and an active role in the United Nations and other international organisations to create a world order of peace.

III. The need for an effective and competitive German and European security and defence industry – maintaining and promoting key security and defence technologies

The fundamental tasks of a state include ensuring internal and external peace, and the security of its citizens. A key requirement for fulfilling this task is providing the civil security agencies, the Bundeswehr and its allies with the best possible equipment.

The provision of equipment and availability of functioning critical infrastructures must be ensured at all times. Furthermore, the legal powers and technical instruments of security authorities must be adapted to the new threat situations. To this end, the competence of the security authorities must be synchronised at the digital and analogue levels, and central investigative powers and capabilities must be made fit for the future.

Police intelligence must be modernised in order to facilitate the exchange between the federal and state police forces, as well as cooperation with national and international partners.

The key technologies required for this purpose should be procured from manufacturers that are trustworthy in the long term, and without becoming dependent on third states outside the EU.

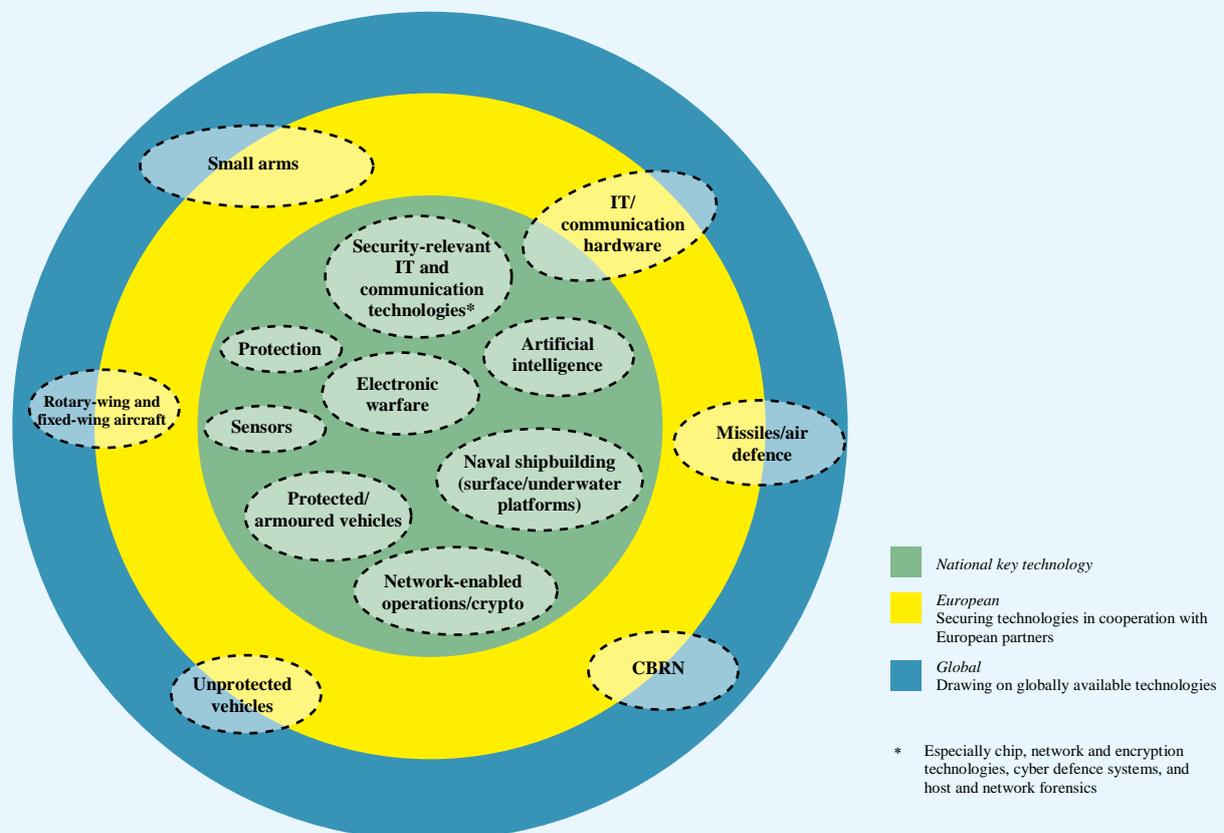
This requires an innovative, strong and competitive security and defence industry in Germany and the EU with adequate highly qualified staff.

The security and defence industry is of strategic significance not only in terms of security and defence policy, but also when it comes to technological and industrial policy. These companies play a particularly vital role in the provision of equipment to civilian authorities and organisations with security tasks, and to the Bundeswehr, and therefore significantly contribute to the protection of citizens in Germany and Europe. This makes the security and defence industry an industrial sector of national and European interest. An innovative, strong and competitive security and defence industry is also a fundamental element of Germany's and the EU's ability to cooperate and honour obligations within alliances, especially within NATO. In this context, the Europeanisation of armament projects is intended to increase the forces' interoperability within the alliances while retaining key national technologies, and to reduce costs through economies of scale. In this regard, close coherence with NATO's capability planning is of vital importance.

In the context of comprehensive political considerations, the Federal Government therefore aims at further improving the conditions for companies in this industry. Given the sometimes lengthy procurement cycles, an improvement in planning predictability for the industry is crucial.

Industrial core capabilities and strategically relevant development capacities should be maintained and promoted at German and European sites. In this regard, it is important to remember that, once abandoned, technologies and capabilities can only be restored with major investments of time and funds, if at all. At the same time, the cost advantages of stronger European cooperation should be used.

In this context, the Federal Government has identified key security and defence technologies, as shown in the overview below:



The availability of the identified key security and defence technologies must be ensured for essential reasons of national security. Depending on the classification of the technologies, this may also be achieved within the scope of European and transatlantic cooperation through bilateral or multilateral agreements.

In order to maintain and/or reinforce key security and defence technologies, the Federal Government will particularly promote and protect them, especially within the scope of the measures specified below in the areas of research, development and innovation (V.1.), production (V.2.), procurement (V.3.), export promotion and export control (V.4.) and investment control (V.5.).

Funding and promotion in the defence sector require that the weapon systems in question comply with international law. In this context, the eligibility of actions linked to new defence materiel or technologies must also be subjected to developments in international law.

IV. The situation and prospects of Germany's security and defence industry

Germany is home to a strong security and defence industry that is organised along private-sector lines and covers all phases of the value chain, extending from research and innovation to supply of components and to complex system integration. In light of the advancing digitalisation, information technology, which is increasingly introducing new technologies in the area of defence and security, is becoming increasingly important.

The security and defence industry's range of offers can be roughly divided into civil security technology and military defence technology. Both industrial sectors are closely intertwined and benefit from a reciprocal exchange of knowledge, experience and technology.

Medium-sized companies play a key role as independent actors, in collaboration with other medium-sized companies and as partners of system suppliers.

It is important to note that, due to the special role of the state, the market for products of the security and defence industry is a very specific one. Security and defence interests, legislative measures and the state's role as consumer have a significantly greater impact on market activities than in other economic sectors. Governmental export control also plays a special role.

In addition, the defence industry in other countries is often state-run or very closely intertwined with the government, which creates unequal conditions of competition.

Not least due to different national requirements, the security and defence industry in the EU still has a strong national focus and remains highly fragmented. In particular, an internal defence market has, for all practical purposes, not yet been implemented. In many cases, this leads to considerable disadvantages in terms of expenses, international competitiveness and cooperation. **For this reason, the Federal Government will work towards increased industrial consolidation within Europe and do what it can to support the necessary processes to promote economic synergies and coherence. European cooperation and a greater Europe-wide integration of the German security and defence industry could be important steps in this direction.**

With the Permanent Structured Cooperation (PESCO), the European Defence Fund (EDF) and synchronisation of the Member States' defence policies through the Coordinated Annual Review on

Defence (CARD), the foundations for a European Defence Union (EDU) have been laid in recent years, which will strengthen Europe and NATO.

In order to obtain an up-to-date picture of the security and defence industry, the Federal Government will commission a new study. This study is intended to investigate key figures, industries and structures, products and markets of the security and defence industry, as well as its prospects and opportunities.

V. Strategic goals and measures for strengthening the security and defence industry

1. Strengthening research, development and innovation

Increased investments in research, development and innovation are an essential element of targeted further technological development in the security and defence industry. This also requires the companies to take action. **At the same time, the Federal Government will step up its efforts to promote innovative technologies relevant to security and defence at the national and European levels.**

Investments in civil security research and defence research lay the foundation for achieving these goals. The high level of national requirements for certification of products and services, as well as ensuring adequate security and a high level of data protection while accounting for market requirements, are competitive advantages of the German security industry that should be expanded upon.

The objective of the Agency for Innovation in Cyber Security (Cyber Agency), under the direction of the Federal Ministry of Defence and the Federal Ministry of the Interior, is to help Germany achieve technological sovereignty in the field of cyber security. The agency is tasked with identifying pioneering innovations and awarding concrete contracts for the development of solutions. **The Cyber Agency will invest in future innovations in the field of cyber security and in related key technologies.**

Within the scope of the “Research for Civil Security 2018 – 2023” framework programme, the Federal Government is taking on its current and future responsibility for improving security and order in an interconnected world. **For this purpose, research will be conducted on innovative solutions, which are then tested in a realistic manner based exclusively on civil scenarios, with the aims of increasing the security and quality of life of our citizens and of protecting vital infrastructures.**

The establishment of centres of excellence, cutting-edge research clusters or innovation labs is a central element to link scientific work even more closely to the users’ practical requirements. The transfer of innovations and practical experience will be supported by new promotion programmes, which will enable large-scale testing of security solutions or their targeted development as flagship projects. Technology-oriented start-ups play an important role in transferring knowledge and technology. Developing new perspectives and approaches to solving global problems of civil and military security requires cooperation projects with strong European and international research and technology partners. **Therefore, the Federal Government will expand its bilateral and multilateral research activities. The selection of research and technology partners will be based on its security and defence interests.**

A primary goal of research cooperation in the European Union is to link national and European activities in civil security research and to benefit from the resulting synergies. The actors in the national research community support numerous projects and initiatives with their expertise, ensuring that the European

security architecture meets future requirements, and strengthening the competitiveness of the European security sector.

Where necessary, the Federal Government will further expand and reinforce the advisory structures and supporting measures for German companies in the security and defence industry to allow them to participate in relevant European research, development and innovation programmes.

The European Defence Fund has the potential to become an important catalyst for an increasingly integrated European defence industry and will improve the interoperability of the armed forces through the promotion of joint developments. **The Federal Government will endeavour to ensure that this instrument is also used for further consolidation of the European defence materiel market with the long-term political goal of using an internal defence market. This also includes future cooperation among the EU member states regarding the funding of defence-related projects.**

2. Creating the basic conditions for efficient production

New developments in “Industry 4.0”, meaning intelligent, digitally connected systems and production processes, are also gaining importance in the security and defence industry.

Existing funding programmes such as “Autonomics for Industry 4.0” and “Smart Services World”, centres of excellence and agencies as well as testing environments for medium-sized companies should be used more frequently by the security and defence industry so that it can also benefit from innovations in the field of digitalisation. The security and defence industry can also draw on the “Plattform Industrie 4.0” initiative with its pooled expertise, its international network and the many kinds of support offered for medium-sized companies.

The increasing complexity of goods and production processes in the security and defence industry, especially due to digitalisation, means additional requirements for the workforce. **The Federal Government is putting a great deal of effort into counteracting the shortage of specialists. This also concerns the fields of IT security and Industry 4.0. Where possible and appropriate, the relevant competencies will be integrated into vocational education programmes.**

In addition to research and development, working cluster structures established in the area of production can also improve efficiency for companies and help to integrate small and medium-sized companies. Strategic networking and exchange of knowledge between civilian and military areas can be used to diversify companies, to establish regional innovation systems and to strengthen production sites. **Accordingly, the Federal Government will continue to support networking between production sites of the security and defence industry through its existing cluster support programmes. In addition, the Federal Government recommends that national economic clusters enter into strategic European cluster partnerships, which are supported by the EU programme COSME (Competitiveness of Enterprises and Small and Medium-sized Enterprises). To this end, existing EU-wide tools and networks such as the European Network of Defence-related Regions should also be used.**

3. Optimising the procurement system

In the fields of civil security and defence, the state is the primary consumer for innovations. Measures in support of a procurement system that encourages innovation can accelerate the transfer of research results into marketable and procurable products and services, and facilitate the users’ access to innovations. Furthermore, they promote the industry’s international competitiveness.

The leeway granted by European and national legislators for application of the derogation provided for in Article 346 of the Treaty on the Functioning of the European Union (TFEU) should be used to safeguard essential national security interests, and especially to maintain national sovereignty. **In order to flesh out these aspects in German procurement law, the Federal Government has presented a bill¹ that expressly refers to “key security and defence technologies” as an issue that could affect essential interests of security, as specified in Article 346 of the TFEU, in the Act against Restraints of Competition (*Gesetz gegen Wettbewerbsbeschränkungen – GWB*).**

As an additional measure to accelerate contract award procedures in the field of defence and security, the bill introduces an amendment to § 12 of the Defence and Security Award Ordinance (*Vergabeverordnung Verteidigung und Sicherheit – VSVgV*). In certain cases, § 12 of the VSVgV permits the award of contracts in negotiated procedures without a call for competition. Practical application of § 12 of the VSVgV is to be facilitated by adding general examples.

Furthermore, the Federal Government will make increased use of the legal means already provided for under procurement law to promote practical procurement processes.

At the same time, the Federal Government will advocate greater harmonisation of procurement procedures in the EU, for example through common standards and specifications to make even better use of Europe’s added benefits from cooperation in the fields of defence and security. This could create fair access conditions for all companies and facilitate cooperation projects between the industries and governments of the member states. This also applies to maintenance and repairs.

The Federal Government is working towards an early integration of the industry into the procurement process to make greater use of its technical and professional expertise.

IT security issues and the trustworthiness of the different manufacturers are also to be considered in the award procedure.

The award of contracts for binational and multinational developments and procurements must be based on industrial efficiency and performance. Appropriate participation by German companies will be pursued on this basis.

Repair and maintenance aspects throughout the entire product life cycle must also be considered during procurement.

4. Political support for and responsible control of exports

The Federal Government is committed to a restrictive and responsible arms export control policy based on the EU Common Position of 8 December 2008 as amended on 16 September 2019, on the “Political Principles Adopted by the Government of the Federal Republic of Germany for the Export of War Weapons and Other Military Equipment” in the stricter version of 26 June 2019, and on the “Arms Trade Treaty”.

The export of dual-use items to third countries is subject to the Dual-Use Regulation. In this regard, the Federal Government particularly focusses on the development of new technologies (emerging technologies), which may not yet be subject to export controls, in order to ensure appropriate controls and prevent an undesirable outflow of technology.

¹ The bill is currently undergoing parliamentary procedures and is scheduled to be approved by the Bundesrat on 14 February 2020.

Based on the Common Position and on the Dual-Use Regulation, further harmonisation of decisions on export control policies for defence materiel and dual-use items is being pursued within the EU.

In addition, the Federal Government continues to pursue further optimisation of the application and approval processes involved in export control.

Exports, and especially exports to EU and NATO countries as well as countries with a NATO-equivalent status², are in the interest of Germany's security and defence policy. They result in higher production quantities, reducing procurement and in-service costs for civil authorities and organisations with security tasks, as well as the Bundeswehr. Moreover, exports support the objective of increasing interoperability with allied forces, and promote employment and technological development in Germany.

For these reasons and following review of each case at hand, the Federal Government will use foreign-trade instruments and other instruments to support export activities of companies based in Germany, particularly to EU and NATO countries and to countries with a NATO-equivalent status. This especially applies if:

- Germany's security, defence or foreign policy interests can be promoted in this way
- The products are considered key security and defence technologies
- Political support for competitor products from other states distorts competition on the export markets
- This is a requirement for participation of other EU member states in European cooperation projects

Support for arms exports to third countries after prior assessment of compliance with the arms export control policy by the Federal Government is only permitted on a case-by-case basis if the export of war weapons is found to be favourable to Germany's key foreign policy and security interests, taking into account Alliance interests, or if the export of other defence articles within the framework of foreign trade and payments legislation does not jeopardise foreign relations or the peaceful coexistence of peoples.

The coordination of export promotion among the relevant federal ministries will be further institutionalised through a permanent steering committee. It will serve as a central point of contact for the industry in matters related to export promotion.

The Federal Government will conclude bilateral arrangements or agreements with partner states where such action improves the chances of German companies being awarded important foreign procurement contracts and when this is in line with Germany's foreign policy and security interests.

At the European and international level, the Federal Government will work for a restriction of the offset arrangements common in the international defence industry.

² Australia, Japan, New Zealand, Switzerland.

5. Protection of security interests

Maintaining key security and defence technologies in Germany and Europe requires effective protection against interference by third countries that poses a security risk.

The Federal Government's measures to ensure this include investment reviews according to the Foreign Trade and Payments Act (*Außenwirtschaftsgesetz – AWG*) and to the Foreign Trade and Payments Ordinance (*Außenwirtschaftsverordnung – AWV*).

Furthermore, the Federal Government played an important role in promoting the establishment of an EU regulation on the creation of a European framework for the control of foreign direct investments.

In order to achieve digital sovereignty and resilience in the face of hybrid threats, dependency on foreign information technology is to be reduced. If it is necessary to maintain control over technologies that have already been identified but will not be relevant for productive use on a large scale until some point in the future, it must be possible to take measures at an early stage to prevent these technologies from being sold off. This particularly applies to key technologies. The verification mechanisms of the Foreign Trade and Payments Ordinance cannot do this. The ordinance is a reactive tool for protecting existing security interests. Flexible instruments that can be employed strategically are needed to respond to the risk of selling off future key security and defence technologies. **The Federal Government is working on appropriate approaches to achieve this goal. In particular, these efforts are to be promoted by setting up an IT security fund to actively counteract unwanted takeovers.**

VI. Public acceptance

The prospects and the acceptance of the security and defence industry greatly depend on the sociopolitical discussions on the industry's importance for national and European domestic, foreign, security and defence policy as well as for the resilience of society as a whole to hybrid threats.

In light of the current international challenges, the Federal Government takes the view that an open debate within our society is required in order to enter into a dialogue with the general public on the role of the security and defence industry in preventive security in Germany, Europe and beyond.

For this purpose, it will accompany the implementation of this strategy paper with a number of dialogue forums to include the industry and representatives of our society:

- Industry dialogue with the defence industry in order to discuss subjects of fundamental importance from the perspective of the companies and of the workforce, led by the Federal Ministry for Economic Affairs and Energy
- Industry dialogue with the security industry in order to discuss subjects of fundamental importance from the perspective of the companies and of the workforce, led by the Federal Ministry for Economic Affairs and Energy
- Dialogue with civil society stakeholders on subjects related to the security and defence industry, with special focus on arms export control, led by the Federal Ministry for Economic Affairs and Energy

- Dialogue with civil society and the industry on arms control and new technologies, led by the Federal Foreign Office
- Structured dialogue with the defence industry on improving armaments and operational readiness as well as on innovation and future viability, led by the Federal Ministry of Defence
- Structured dialogue with the civil security industry on strengthening digital sovereignty with regard to critical infrastructure requirements, led by the Federal Ministry of the Interior