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A9-0120/2023

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REPORT

on Critical technologies for security and defence: state of play and future challenges
(2022/2079(INI))

Committee on Industry, Research and Energy

Rapporteur: Riho Terras

Rapporteur for the opinion of the associated committee pursuant to Rule 57 of the Rules of Procedure:
Dragoş Tudorache, Committee on Foreign Affairs

CONTENTS

	Page
MOTION FOR A EUROPEAN PARLIAMENT RESOLUTION.....	3
EXPLANATORY STATEMENT	10
OPINION OF THE COMMITTEE ON FOREIGN AFFAIRS.....	11
INFORMATION ON ADOPTION IN COMMITTEE RESPONSIBLE.....	18
FINAL VOTE BY ROLL CALL IN COMMITTEE RESPONSIBLE	19

MOTION FOR A EUROPEAN PARLIAMENT RESOLUTION

on Critical technologies for security and defence: state of play and future challenges (2022/2079(INI))

The European Parliament,

- having regard to the 2021-2027 European Defence Fund, with its dedicated budget for emerging disruptive technologies,
 - having regard to the Commission communication of 15 February 2022 entitled ‘Roadmap on critical technologies for security and defence’ (COM(2022)0061),
 - having regard to the Commission staff working document of 10 November 2022 entitled ‘First progress report on the implementation of the Action Plan on synergies between civil, defence and space industries’ (SWD(2022)0362),
 - having regard to its resolution of 7 June 2022 on the EEAS’s Climate Change and Defence Roadmap¹,
 - having regard to the opinion of the Committee on Foreign Affairs,
 - having regard to Rule 54 of its Rules of Procedure,
 - having regard to the report of the Committee on Industry, Research and Energy (A9-0120/2023),
- A. whereas a strong, sustainable, technologically advanced and competitive defence industry is crucial for Europe’s security and defence capabilities and therefore for its prosperity and for supporting its allies and friends;
- B. whereas Russia’s war of aggression against Ukraine has shown that Europe urgently needs to invest in its defence and security technologies, including ammunition production, on a scale reflecting the needs of the modern battlefield, with joint coordination, procurement and investment in research and development, including cybersecurity, and in an efficient and collaborative manner; whereas the Member States have set a target of 35 % for collaborative defence investments, but have shown little, and even decreasing, political will to meet this target, achieving only 11 % in 2020 and a record low of 8 % in 2021; whereas some Member States have been much more engaged in supporting Ukraine than others, both in financial and military terms;
- C. whereas there is an urgent need to establish a truly European defence equipment market, inter alia, by consolidating industrial capacities, reducing duplication and fragmentation and simultaneously adapting the market’s industrial basis, in particular its supply chains and skilled workforce, to the new security environment in Europe, which demands a rapid increase in production capacities;

¹ OJ C 493, 27.12.2022, p. 19.

- D. whereas a steady, sustainable and stable supply of critical raw materials, technologies and components is vital for Europe's defence sector;
- E. whereas cutting-edge technologies and corresponding human capital, in particular fast-evolving digital technologies and skills, are increasingly important factors for sustaining and strengthening Europe's security and defence industries;
- F. whereas the defence sector is structured differently in each Member State;
- G. whereas the fragmentation of Europe's defence sector and duplication efforts in the European defence market lead to the inefficient use of economic resources and reduced defence capabilities and should be avoided; whereas this amounts to collective losses of EUR 25 to 100 billion, according to the Commission;
- H. whereas some critical technologies which could be available for use in the defence sector originate in the civilian sector and could qualify for dual-use if obstacles were removed;
- I. whereas open research and innovation involving academia, private enterprise and the public sector have the potential to accelerate the development of Europe's cutting-edge technologies, which have the potential to address market fragmentation, provided that interoperability is ensured;
- J. whereas the increased involvement of small and medium-sized enterprises (SMEs) enhances the competitiveness of the security and defence sector;
- K. whereas the need for structured support for innovation and technological progress should take into account the fact that innovation essentially comes about through competition and the spirit of research, not through bureaucratic planning;
- L. whereas from 2017 to 2020, the Member States participating in the European Defence Agency (EDA) dedicated more than EUR 25 billion towards defence-related research and development (R&D), of which only a small portion has been spent collaboratively;
- M. whereas access to finance for the security and defence industries must not be restricted through EU regulations;
- N. whereas data sharing is key to analysing strategic gaps and realising the potential of technological progress, but the protection of intellectual property and sensitive business data must be guaranteed;
- O. whereas cooperation with strategic partners outside of the EU, especially NATO allies, but also associated and like-minded global partners, is key to enhancing innovation and technological progress;
- 1. Welcomes the Commission's roadmap for critical technologies for security and defence; emphasises the need for greater involvement of the EU in coordinating and facilitating the development of security- and defence-related technology, which should be, to the largest extent possible, compatible with the goals of the European Green Deal, without reducing operational effectiveness; underlines that the EU's global technological

competitiveness is highly dependent on R&D, innovation and the ability to transfer and deploy new technologies and train people rapidly;

2. Recognises the urgent need, highlighted in the roadmap, to identify technologies critical for EU security and defence, while maintaining the necessary flexibility for the development and application of ground-breaking and disruptive technologies; stresses that the proposal for a coordinated EU-wide strategic approach on critical technologies for security and defence to be taken from the outset is the right way forward;
3. Welcomes the Commission's proposal to overcome the current division between civil, defence and security research, development and innovation; calls on the Commission to better connect EU civil, defence and security programmes and instruments with the relevant stakeholders, in particular in the field of innovation; calls for better targeted investment in common R&D; underlines that increased defence and security research and innovation should not come at the expense of civilian projects;
4. Regrets the fact that the combined defence research and technology spending of the Member States in 2020 amounted to only 1.2 % of their total defence spending, which falls far below the 2 % benchmark agreed on under the EDA framework;
5. Underlines that the worsening of the security situation in Europe, especially in countries with external EU borders, following Russia's illegal, unprovoked and unjustified war of aggression against Ukraine demands a stronger and better coordinated effort by the EU and its Member States to invest in and, to the largest extent possible, procure critical security and defence technologies, including ammunition production, and to establish a European defence equipment market; is concerned that the growing global demand for conventional weapon systems, in the context of the war in Ukraine, may have a negative effect on investments in the development of new technologies;
6. Welcomes the Commission's establishment of an observatory of critical technologies; calls on the Commission to fully integrate the findings of the observatory into its classified report to the Member States on critical technologies and risks associated with strategic dependencies affecting security, space and defence; emphasises that the protection of intellectual property and sensitive business data must be guaranteed; stresses the need for the Commission, in cooperation with the EDA, to further coordinate, promote and facilitate cooperation and resource pooling among the Member States in order to address the existing and future gaps in technology, reduce the duplication of projects and increase the effectiveness and efficiency of spending; calls on the Commission to keep Parliament duly informed of the main outputs of this observatory;
7. Calls on the Commission to encourage the Member States to review all defence programmes and policy tools, following the approach of the Coordinated Annual Review on Defence (CARD), with a specific focus on critical technologies, to check if they are still fit for purpose and to summarise and share their findings with all other Member States where possible and relevant; calls for a thorough review of relevant defence initiatives, such as the capability development plan, in order to update them in the light of the provisions included in the Strategic Compass for Security and Defence and the gap analysis developed by the EDA; suggests that the EDA is well placed to

ensure the alignment of innovation activities among European actors in the defence sector; calls, in this regard, for the strengthening of its role in providing support, coordinating suggestions, including a strategic assessment of the findings, and presenting solutions to support common R&D and procurement projects;

8. Calls on the EDA to include the concept of critical technologies in its annual CARD procedure;
9. Notes that there is a risk of dependency for the supply of critical materials and of overstretched supply chains that may affect the EU's ability to stay competitive in the field of critical technologies for security and defence; calls on the Commission to promote circularity and to assess how to increase research on new materials for critical technologies in the critical raw materials act, so as to minimise the EU's dependency on non-EU countries;
10. Notes the danger of overdependence on non-EU raw materials and recommends strengthening efforts to avoid this;
11. Welcomes the creation of an EU defence innovation scheme and the ongoing work with various tools relating to defence and new and dual-use technologies in order to help innovative start-ups and SMEs overcome high technological, administrative, financial, regulatory and market entry hurdles; calls on the Commission to encourage the Member States, as the end users, to integrate cross-border innovation networks into their defence technology supply chains; underlines that these initiatives must aim to improve military capabilities and strive for a high level of EU technological independence; calls on the Commission to duly consider the specific sensitivities of security and defence when establishing initiatives under the EU defence innovation scheme; calls on the Commission to work closely together with the Hub for EU Defence Innovation established within the EDA;
12. Calls on the Commission to examine EU procurement directives with regard to barriers for start-ups and small businesses, especially in the area of innovation, where the risk of project failure is higher, and to encourage the Member States to avoid such barriers in their implementation;
13. Stresses the constant need for close coordination with associated and like-minded partners, such as the United States and NATO; welcomes the commitment by the Commission and the Vice-President of the Commission / High Representative of the Union for Foreign Affairs and Security Policy (VP/HR) to exploring EU-US cooperation in the context of the EU-US Trade and Technology Council; welcomes the commitment of the Commission and the VP/HR to exploring mutually agreed upon and beneficial interactions between EU and NATO initiatives focused on new technologies; stresses, however, the need for the EU to build an open strategic autonomy with a special focus on investment in European technologies;
14. Is concerned about the lack of investment in new, disruptive technologies in the defence and security industries despite the existence of the European Defence Fund Regulation²

² Regulation (EU) 2021/697 of the European Parliament and of the Council of 29 April 2021 establishing the European Defence Fund and repealing Regulation (EU) 2018/1092, OJ L 170, 12.5.2021, p. 149.

- (EDF); calls on the Commission to clarify strategic guidelines and regulations in order to foster investment in the defence industry and to establish the necessary cooperative tools and measures to encourage the defence and security industries to invest more in technological innovation in critical technologies for security and defence, in addition to producing existing weapon systems, in full compliance with and following the development of international law and the EU legislative framework;
15. Stresses the important role of SMEs and start-ups in innovation and development and calls for them to be included in specific programmes and instruments as part of the future implementation of the roadmap on critical technologies for security and defence;
 16. Stresses the need for closer cooperation between the Member States on capability development to boost innovation in critical technologies for security and defence; calls on the relevant EU bodies to prioritise joint projects for EU-financed and co-financed innovation in critical technologies for security and defence and to act as catalysts and accelerators to strongly encourage the Member States to effectively coordinate their capability development programmes; calls further on the Commission and the Member States to consider establishing an EU mechanism to pool national resources for R&D in defence and security, with the sound involvement of Parliament, where appropriate, in its implementation;
 17. Emphasises that EU-financed and co-financed innovation and development in critical and disruptive defence technologies should lead to a higher degree of interoperability and common procurement of defence equipment by the Member States once the technologies developed have reached an appropriate technological readiness level; stresses the equal importance of preventing the duplication of projects at EU level and underlines the importance of minimising existing overlaps and duplications; asks that the appropriate technological readiness level be defined by the Commission in cooperation with the Member States in line with the modern security environment and modern battlefield demands; highlights the need to more closely align the various EU research and innovation programmes in order to foster the development of critical technologies in Europe, while bearing in mind the possibility of making dual-use of existing technologies;
 18. Notes the Commission's efforts to support the joint procurement of security and defence technologies by the Member States, such as the proposal for a regulation establishing the European defence industry reinforcement through common procurement act;
 19. Highlights the need for close cooperation between the various stakeholders such as academia and the public and private sectors in order to utilise best practices in security and defence technologies; calls on the Commission to examine the potential of using 'multiple helix' models for innovation;
 20. Is concerned about the insufficient level of financing for defence and security from the EU funds and deplores the record low collaboration rate of the Member States on defence procurement; regrets the fact that the EDF's budget was cut by approximately 40 % relative to the Commission's proposal for the 2021-2027 multiannual financial framework (MFF), and the fact that the military mobility programme's budget was reduced by 75 %; stresses the fact that the current MFF will not be able to provide

sufficient financial resources to boost EU defence collaboration to an appropriate level, as the current security situation demands a quantum leap; urges the Member States to consider pooling considerable parts of their rising national defence budgets at EU level to jointly replenish depleted ammunition stocks and to jointly purchase weapon systems, including the most complex and expensive ones, such as fighter jets, warships and main battle tanks; calls on the Commission to further develop existing funding schemes and alternatives to significantly increase funding for critical technologies for security and defence under the current MFF, taking into account real needs in terms of industrial investment;

21. Emphasises that EU regulation, which may impact the European security and defence industries' access to finance, must be consistent with the EU's efforts to facilitate the European defence industry's sufficient access to public and private finance and investment;
22. Emphasises the need for better dual-use of existing civilian technologies and for cross-fertilisation among civilian, military and dual-use innovation in the field of critical technologies for security and defence and highlights the corresponding potential of furthering cooperation among EU programmes; stresses the need for better knowledge-sharing networks for existing and new technologies to enable potential end users and investors to make better use of technologies already on the market or to invest in high potential emerging technologies;
23. Encourages innovation based on increased resource efficiency, the development of new materials, the promotion of secondary raw materials and more sustainable joint public procurement and the use of environmentally sustainable technology solutions; calls on the Commission to explore, in cooperation with the EDA, the way forward on sustainable security and defence technologies and how the EU's resilience and its security and defence industries could benefit in line with the EU's climate change and defence roadmap and its resolution of 7 June 2022 on the very same topic, in particular by reducing the dependence of the EU's security and defence industries on fossil fuels, and by assessing their vulnerability to climate change and the corresponding need to adapt to it;
24. Underlines the need to increase investments in 'green' defence by dedicating a higher share of EU-financed R&D to carbon-neutral fuels and propulsion systems for military vehicles, in particular for future major weapon systems developed under the relevant EU frameworks; calls on the Commission and the Member States to consider energy, carbon and environmental footprints starting at the design phase when investing the relevant EU funds; recalls that the R&D actions under the EDF can improve efficiency, reduce carbon footprints and achieve sustainable best practices; calls for a mechanism to incentivise R&D for sustainable technologies in defence and security; welcomes the budget dedicated to energy resilience and environmental transition in the first annual work programme, but notes that this represents only 11 % of the overall annual EDF budget;
25. Highlights that Russia's war against Ukraine has repeatedly demonstrated the effectiveness of disruptive technologies that often come at relatively low cost, while having a powerful impact on the battlefield against large weapon systems and

formations; calls on the Commission to conduct a study, in cooperation with the Ukrainian Government and NATO partners, on the lessons identified from the war in Ukraine with regard to critical technologies for security and defence; stresses the need for an open-minded approach when carrying out the technological assessment and highlights the grave necessity of drawing the right conclusions from the biggest war in Europe since World War II;

26. Instructs its President to forward this resolution to the Council and the Commission.

EXPLANATORY STATEMENT

Europe's security situation has changed dramatically since Russian Federation launched a full-scale war of aggression against Ukraine on February 24th 2022. Russian Federation is waging a war against Ukraine with a strategic aim to undermine and eventually overthrow European security architecture.

European Union has clear obligation to stand up against a regime that is constantly violating international law, posing imminent danger against our people by utilising an array of different tools and tactics in order to accomplish its imperialist strategies.

European Union has made steady progress in the field of security and defence during the last decade. The Rapporteur believes that the EU must make much better use of existing framework of institutions and funds, and explore new ways and means in order to boost our resilience and build up necessary capabilities to protect our people.

The Commission's Roadmap on critical technologies for security and defence is a good start to increase EU's global competitiveness in this rapidly developing sphere of technology. Europe has the potential to keep up with its global competitors and even lead the way if we coordinate the effort between different actors such as Academia, Private sector and Governments.

It is evident that the evolving security situation is putting pressure on the governments and defence industry sector because of the increased demand for the existing weapon systems. This might have a negative effect on the financing and championing the innovation of new technologies.

The EU can step up and act as a catalyst and coordinator for innovation in the field of critical technologies for security and defence by following an EU-wide strategic and coordinated approach, setting up The Observatory of critical technologies and by creating and utilising different tools to fund and coordinate defence and security related innovation.

It must be underlined that the most critical pillar for innovation is the availability of adequate funding schemes, especially in the field of security and defence technologies, where private sector is very often hesitant to invest due to the limitations, regulations and very long market entry processes.

A competitive, technologically advanced Europe can better protect our values and our people. Thus, we need fast-track solutions to promote development of new technologies.

9.3.2023

OPINION OF THE COMMITTEE ON FOREIGN AFFAIRS

for the Committee on Industry, Research and Energy

Critical technologies for security and defence: state of play and future challenges
(2022/2079(INI))

Rapporteur for opinion (*): Dragoş Tudorache

(*) Associated committee – Rule 57 of the Rules of Procedure

SUGGESTIONS

The Committee on Foreign Affairs calls on the Committee on Industry, Research and Energy, as the committee responsible, to incorporate the following suggestions into its motion for a resolution:

1. Regrets that the European Union's defence sector is excessively fragmented, which creates costly redundancies and hampers competitiveness and interoperability; notes that this has resulted in unnecessary annual financial losses of between EUR 25 to 100 billion and has led to strategic vulnerabilities for the Union, the Member States and the European Defence Technological and Industrial Base (ETDIB);
2. Calls for more strategic cohesion in security and defence policies at Union level; welcomes, in this context, the Commission's launch of the European Defence Industry Reinforcement through common Procurement Act (EDIRPA) and encourages the Commission and Member States to take this initiative a step further by ensuring that future defence acquisitions focus on cutting-edge weapons systems and by striving towards a genuine defence union supported by a stronger and more competitive ETDIB, based on a strongly articulated common market for defence equipment;
3. Calls on the Member States to increase their cooperation in fostering the development of critical technologies and innovation in security and defence affairs; urges those EU Member States which are also NATO allies to work towards meeting the defence spending goal of 2 % of gross domestic product;
4. Underlines the urgent need to establish a truly European defence equipment market, inter alia by consolidating industrial capacities and reducing duplication and fragmentation while adapting the industrial base, in particular its supply chains and work force, to the new security environment in Europe, which requires rapidly ramped-up production capacities; calls for improving the role of the European Defence Agency (EDA) in coordinating Member States' efforts to establish technical norms for military interoperability and instruments, which would help to standardise military technology and guarantee interoperability;

5. Encourages the Member States to make full use of joint procurement and research and development (R&D) projects as tools for harnessing synergies in the EU defence sector and for generating the necessary competitiveness and technological edge in defence equipment and equipment production; calls, in this context, on the Commission to ensure the full enforcement in all Member States of Directive 2009/81/EC of 13 July 2009 on procurement in the fields of defence and security;
6. Recalls that in 2013 the European Council called on the Commission to develop a roadmap for a comprehensive EU-wide security of supply regime, which, unfortunately, has never been presented; urges the Commission to present this roadmap without further delay;
7. Calls on the relevant bodies to consolidate all relevant EU-level frameworks, instruments, legislation and standards for developing cutting-edge military technologies, equipment and capabilities in order to ensure a coordinated approach while maintaining a competitive market for the EU defence sector; underlines, in this regard, the need to invest collaboratively in the research and development of emerging and disruptive technologies;
8. Calls on the Commission to encourage the Member States to review all defence programmes and policy tools, following the Coordinated Annual Review on Defence (CARD) approach with a specific focus on critical technologies, check if they are still fit for purpose, summarise findings and share them with all other Member States when possible and relevant; calls for a thorough review of relevant defence initiatives such as the Capability Development Plan with a view to updating it in the light of the provisions included in the EU Strategic Compass and the Gap Analysis drawn up by the EDA; considers the EDA to be well placed to ensure the coherence of innovation activities among European actors in the defence sector; calls, in this regard, for an expanded role for the EDA in providing support, coordinating suggestions, including a strategic assessment of findings, and presenting solutions for supporting joint R&D and procurement projects;
9. Calls for the EU to agree on a common definition of what ‘critical technologies’ are and to agree on a list of key critical domains, as well as to decide on domains where EU action is a priority; calls on the EDA to include the notion of critical technologies in its annual CARD exercise;
10. Calls for a more pragmatic and efficient approach to military research in order to provide incentives for innovation in military technology, including by reducing or removing barriers to entry into the defence market, while preserving and enhancing the necessary levels of standardisation and interoperability; further calls for increased support for European companies in emerging technologies to ensure they remain competitive in international markets by reducing the bureaucratic burden and by stimulating investments on a par with the industrial policies conceived and implemented by other major economies;
11. Stresses the need to ensure and increase the participation of start-ups and small and medium-sized enterprises (SMEs) in defence initiatives by, inter alia, reducing the complexities of bidding procedures and facilitating increased capital investments and

growth via incubation; recognises, in this context, the importance of reducing technological, financial, administrative and regulatory barriers and calls for measures to raise awareness about EU programmes and funding opportunities and to provide further support to SMEs;

12. Recognises that an adequately skilled workforce is crucial to developing critical technologies in Europe; underlines the need to take an inclusive and accessible approach to reaching out to the entire available workforce with a view to ensuring a continuous and sustainable supply of skills and human capital; highlights, further, the need to stimulate the development of skills for innovation, EU-financially supported training programmes, R&D and fundamental research in critical areas related to emerging technologies, including in the fields of artificial intelligence, materials science, energy production, semi-conductors, nanotechnology, quantum computing and new-generation aviation;
13. Calls on the Commission to encourage the Member States to establish and fund defence innovation hubs, establish dedicated financial guidelines for defence spending allocated to R&D and support emerging clusters based on new projects and cooperation;
14. Underlines that many critical technologies for security and defence increasingly originate in the civilian sector and use dual-use components; stresses, in this regard, the need to strengthen synergies between civilian and defence research and the various European R&D programmes in order to support the development of critical technologies in Europe, reduce strategic dependencies, facilitate the sharing of best practices, enhance the use of dual-use products and broaden funding opportunities;
15. Notes that the adoption of common standards across sectors has the potential to contribute to cost savings, innovation and increased interoperability; calls, in this regard, on the Commission to accelerate work on the harmonisation of standards between civil, defence and space industries;
16. Underlines that the growing importance of artificial intelligence (AI), quantum computing and machine learning requires enhanced cooperation among the Member States, as well as coordination with like-minded partners, in order to ensure technical excellence in these fields; encourages, in this context, the joint development of interoperable AI capabilities;
17. Is concerned about the EU's multiple dependencies on raw materials, in particular from certain non-democratic countries and strategic rivals such as China, and calls on the Member States to reduce their vulnerabilities resulting from dependence on non-democratic suppliers of critical technologies and materials, avoid the emergence of new dependencies which risk weakening security of supply and enhance defence production chains in Europe by localising or nearshoring production; recalls that any dependence on critical technologies may lead to increased risks of blackmail regarding the common foreign and security policy and the common security and defence policy; underlines the need for increased resource efficiency, the promotion of material recycling and the uptake of sustainable technology solutions;
18. Recognises that a secure supply of critical materials, such as rare earth materials, components and technologies, is crucial for the European security and defence

industries and the EU's ability to safeguard its interests; underlines the importance of diversifying supply chains as a means of reducing dependencies on non-EU countries;

19. Expresses its support for the Observatory of Critical Technologies; calls on the Member States to commit and strengthen collaboration within the framework of the Observatory; calls for it to be further developed and for its analysis capabilities, including on reducing strategic dependencies, to be enhanced; recognises that the Observatory deals with highly sensitive and classified information; calls, in this regard, for setting up safeguards and building trust among stakeholders with a view to enabling the sharing of information and appropriate handling of data; calls on the Commission to implement a project to continuously map the need for critical materials, evaluate the EU's strategic dependencies, monitor supply and demand and changes in the behaviour or strategy of competitors and engage in foresight exercises to predict new needs in critical materials; urges the EU to take an active role in international cooperation forums in order to accelerate the diversification of production chains; considers that these efforts should be made jointly with our strategic partners, such as those in NATO, and included in the Secure Supply Chains Working Group of the EU-US Trade and Technology Council (TTC) in order to coordinate diplomatic efforts to secure supplies and ensure alternative sources; calls for measures to mitigate risks for companies that produce critical technologies and face acquisition by entities established in non-EU countries; expresses concern about critical infrastructure inside the EU being owned by strategic competitors and recalls the need to screen foreign direct investment in European companies in defence-related emerging technologies in order to avoid economic dependence and limit the risk of espionage and sabotage on EU critical infrastructure in line with the threats and challenges identified in the Strategic Compass; urges the Member States to put in place national screening mechanisms for foreign direct investment with potential implications for security;
20. Recalls that the risk of fragmentation is exacerbated by different national requirements and different national public spending and investment and procurement schemes; highlights, in this context, the importance of standard-setting, which is critical for reducing the risks of any strategic dependency as well as ensuring interoperability among the EU Member States and between the EU and its like-minded partners, such as NATO;
21. Recalls the importance of the European Defence Fund and the Horizon programme for investments in critical technologies and calls for a revision of the multiannual financial framework (MFF) in order to increase its budget; calls on the Commission to assess the coherence and complementarity of existing EU investment programmes in order to identify gaps and promote synergies; calls for this assessment to be taken into account when preparing the next MFF;
22. Regrets that the Member States' combined defence research and technology spending in 2020 amounted to only 1.2 % of their total defence spending, far below the 2 % benchmark agreed within the framework of the EDA;
23. Emphasises the need to secure and protect critical European infrastructure and ensure sufficient monitoring and surveillance; calls on the Member States and all relevant actors to work on a plan and investment scheme to update and strengthen the resilience

of critical infrastructure, such as nuclear power plants, electricity grids, water and food supply and telecommunications infrastructure, maritime and underwater infrastructures, undersea cables, energy pipelines and offshore wind farms, among others, for the digital age, including by adapting it to AI-assisted drone supervision and maintenance and in line with the new Critical Entities Resilience Directive and the Revised Directive on Security of Network and Information Systems; subsequently calls for the elaboration of an EU R&D and manufacturing strategy for advanced drones;

24. Calls on the Commission and the Member States to fulfil their commitment, as made explicit in the EU Strategic Compass, to enhance the EU's capacity to collect, provide and share accurate information, to protect critical maritime infrastructure and to develop joint operational and technological solutions, including by making the best use of the Permanent Structured Cooperation framework;
25. Calls on the Commission and the Member States to develop capabilities for testing, evaluating, validating and verifying complex defence equipment, including by means of AI-assisted technology, in order to identify vulnerabilities stemming from components produced in non-EU countries; stresses, further, that such efforts should be synergistic with the testing, evaluation, validation and verification regime called for in NATO's AI Strategy;
26. Urges the Commission and the Member States to strengthen cooperation between the European Innovation Council, the European Defence Fund and the European Investment Fund on the one side and NATO's Defence Innovation Accelerator for the North Atlantic on the other side by supporting joint projects, joint research and joint investment in cutting-edge defence technologies while respecting the decision to make all of the organisations involved autonomous;
27. Underlines the importance of a strong transatlantic bond as reflected in the EU Strategic Compass and the NATO Strategic Concept, and the need for further cooperation in the fields of security and defence; welcomes the signing of the Joint Declaration on EU-NATO Cooperation on 9 January 2023;
28. Notes the deteriorating state of multilateral export control regimes and their decreasing ability to enforce and regulate the flow and dissemination of critical technology; calls on the Member States to activate the full potential of the European Dual-Use Regulation and enforce the export control of critical technology;
29. Welcomes the initiative to create a NATO-EU taskforce on resilience and critical infrastructure and the establishment of the EU-US TTC;
30. Urges the Commission and the Member States to show global leadership in developing standards that reflect and promote the Union's interests and values and therefore encourages enhanced strategic partnerships with like-minded partners.

INFORMATION ON ADOPTION IN COMMITTEE ASKED FOR OPINION

Date adopted	9.3.2023
Result of final vote	+: 41 -: 2 0: 0
Members present for the final vote	Alexander Alexandrov Yordanov, François Alfonsi, Maria Arena, Petras Auštrevičius, Traian Băsescu, Reinhard Bütikofer, Włodzimierz Cimoszewicz, Michael Gahler, Sunčana Glavak, Raphaël Glucksmann, Sandra Kalniete, Dietmar Köster, Miriam Lexmann, Leopoldo López Gil, Antonio López-Istúriz White, Vangelis Meimarakis, Sven Mikser, Francisco José Millán Mon, Matjaž Nemeč, Gheorghe-Vlad Nistor, Tonino Picula, Thijs Reuten, Nacho Sánchez Amor, Mounir Satouri, Jordi Solé, Sergei Stanishev, Dragoș Tudorache, Viola von Cramon-Taubadel
Substitutes present for the final vote	Attila Ara-Kovács, Anna-Michelle Asimakopoulou, Andrey Kovatchev, Georgios Kyrtos, Sergey Lagodinsky, Javi López, Gabriel Mato, Tom Vandenkendelaere, Mick Wallace, Javier Zarzalejos
Substitutes under Rule 209(7) present for the final vote	Clare Daly, Francisco Guerreiro, Eero Heinäluoma, Janina Ochojska, Pina Picierno

FINAL VOTE BY ROLL CALL IN COMMITTEE ASKED FOR OPINION

41	+
PPE	Alexander Alexandrov Yordanov, Anna-Michelle Asimakopoulou, Traian Băsescu, Michael Gahler, Sunčana Glavak, Sandra Kalniete, Andrey Kovatchev, Miriam Lexmann, Leopoldo López Gil, Antonio López-Istúriz White, Gabriel Mato, Vangelis Meimarakis, Francisco José Millán Mon, Gheorghe-Vlad Nistor, Janina Ochojska, Tom Vandenkendelaere, Javier Zarzalejos
Renew	Petras Auštrevičius, Georgios Kyrtos, Dragoș Tudorache
S&D	Attila Ara-Kovács, Maria Arena, Włodzimierz Cimoszewicz, Raphaël Glucksmann, Eero Heinäluoma, Dietmar Köster, Javi López, Sven Mikser, Matjaž Nemeč, Pina Picierno, Tonino Picula, Thijs Reuten, Nacho Sánchez Amor, Sergei Stanishev
Verts/ALE	François Alfonsi, Reinhard Bütikofer, Francisco Guerreiro, Sergey Lagodinsky, Mounir Satouri, Jordi Solé, Viola von Cramon-Taubadel

2	-
The Left	Clare Daly, Mick Wallace

0	0

Key to symbols:

- + : in favour
- : against
- 0 : abstention

INFORMATION ON ADOPTION IN COMMITTEE RESPONSIBLE

Date adopted	28.3.2023
Result of final vote	+: 54 -: 4 0: 8
Members present for the final vote	Matteo Adinolfi, Nicola Beer, François-Xavier Bellamy, Hildegard Bentele, Tom Berendsen, Vasile Blaga, Paolo Borchia, Marc Botenga, Markus Buchheit, Martin Buschmann, Cristian-Silviu Buşoi, Jerzy Buzek, Maria da Graça Carvalho, Beatrice Covassi, Ciarán Cuffe, Josianne Cutajar, Nicola Danti, Martina Dlabajová, Christian Ehler, Valter Flego, Niels Fuglsang, Lina Gálvez Muñoz, Jens Geier, Nicolás González Casares, Bart Groothuis, Christophe Grudler, Robert Hajšel, Romana Jerković, Seán Kelly, Izabela-Helena Kloc, Łukasz Kohut, Andrius Kubilius, Marisa Matias, Dan Nica, Angelika Niebler, Niklas Nienaß, Johan Nissinen, Mauri Pekkarinen, Morten Petersen, Markus Pieper, Maria Spyrali, Beata Szydło, Riho Terras, Patrizia Toia, Marie Toussaint, Isabella Tovaglieri, Henna Virkkunen, Pernille Weiss, Carlos Zorrinho
Substitutes present for the final vote	Alex Agius Saliba, Rasmus Andresen, Tiziana Beghin, Franc Bogovič, Jakop G. Dalunde, Pietro Focchi, Klemen Grošelj, Martin Hojsík, Marina Kaljurand, Dace Melbārde, Rob Rooken, Bronis Ropé, Ernő Schaller-Baross, Jordi Solé, Susana Solís Pérez
Substitutes under Rule 209(7) present for the final vote	Pär Holmgren, Sven Simon

FINAL VOTE BY ROLL CALL IN COMMITTEE RESPONSIBLE

54	+
ID	Matteo Adinolfi, Paolo Borchia, Isabella Tovaglieri
NI	Tiziana Beghin
PPE	François-Xavier Bellamy, Hildegard Bentele, Tom Berendsen, Vasile Blaga, Franc Bogovič, Cristian-Silviu Buşoi, Jerzy Buzek, Maria da Graça Carvalho, Christian Ehler, Seán Kelly, Andrius Kubilius, Dace Melbārde, Angelika Niebler, Markus Pieper, Sven Simon, Maria Spyraiki, Riho Terras, Henna Virkkunen, Pernille Weiss
Renew	Nicola Beer, Nicola Danti, Martina Dlabajová, Valter Flego, Bart Groothuis, Klemen Grošelj, Christophe Grudler, Martin Hojsík, Mauri Pekkarinen, Morten Petersen, Susana Solís Pérez
S&D	Beatrice Covassi, Niels Fuglsang, Lina Gálvez Muñoz, Jens Geier, Nicolás González Casares, Robert Hajšel, Romana Jerković, Marina Kaljurand, Łukasz Kohut, Dan Nica, Patrizia Toia, Carlos Zorrinho
Verts/ALE	Rasmus Andresen, Ciarán Cuffe, Jakop G. Dalunde, Pär Holmgren, Niklas Nienaaß, Bronis Ropé, Jordi Solé, Marie Toussaint

4	-
ECR	Rob Rooker
NI	Martin Buschmann
The Left	Marc Botenga, Marisa Matias

8	0
ECR	Pietro Fiocchi, Izabela-Helena Kloc, Johan Nissinen, Beata Szydło
ID	Markus Buchheit
NI	Ernő Schaller-Baross
S&D	Alex Agius Saliba, Josianne Cutajar

Key to symbols:

+ : in favour

- : against

0 : abstention