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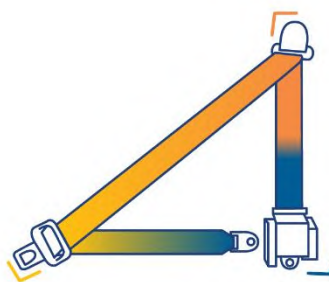


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COMMISSION STAFF WORKING DOCUMENT

**First progress report on the implementation of the Action Plan on synergies between
civil, defence and space industries**

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Executive summary

This document presents progress in implementing the '[Action Plan on synergies between civil, defence and space industries](#)' (COM(2021) 70). It outlines the state of play for each action for 2021-2022.

The Commission adopted the action plan on 22 February 2021. It was received positively by the Council, the European Parliament, the European Economic and Social Committee (EESC) and EU industry. Work on the 11 actions started immediately afterwards with a 'whole-of-government' approach: more than 30 Commission departments and agencies took part, and in addition the European Defence Agency (EDA) and the European External Action Service (EEAS).

Implementing the action plan often resulted in launching new measures. The work also identified constraints that prevent fully unleashing the synergies' potential.

Each action has a different timeline, deliverables, and target group. Specifically, six actions (1, 2, 7, 9, 10, 11) will be completed by the end of 2022: Actions 1 and 2 resulted in internal Commission reports that fed into subsequent communications; Actions 9, 10 and 11 led to adopting proposals for a regulation or a communication in 2022; Action 7 completed setting up the Cybersecurity Competence Centre. Actions 6 and 8 were integrated into a wider initiative, announced by a subsequent communication, to strengthen their impact. Action 4 will produce a first report in early 2023. Actions 3 and 5 are for the long term and advanced considerably. For details, see Table 1.

Interlinkages exist with the implementation of: (i) the 2020 EU Cybersecurity strategy, (ii) the 2021 updated industrial strategy; (iii) the February 2022 defence package and the space package; (iv) the 2022 Strategic Compass (especially the 'Invest' and 'Secure' chapters); and (v) the 2022 analysis of defence investment gaps.

Coordination at working level with the EEAS and the EDA ensures consistency with the implementation of the **Strategic Compass**.

Background

The action plan (the 'three-point belt plan') has three objectives aiming at:

- enhancing complementarity between relevant EU programmes and instruments to increase efficiency of investments and effectiveness of results (the 'synergies');
- promoting that EU funding for research and development, including on defence and space, has economic and technological dividends for EU citizens (the 'spin-offs');
- facilitating the use of civil industry research achievements and civil-driven innovation in European defence cooperation projects (the 'spin-ins').

The action plan also:

- presents a methodology which starts with identifying critical technologies, then develops roadmaps for those technologies and finally applies them to real projects. An observatory was set up to monitor and analyse critical technologies, the desired level of EU control over them, and existing gaps and dependencies across the civil, defence and space industries.
- launches a dialogue on and development of three flagship projects: drone technologies, secure space communications, and space traffic management.

- proposes measures in support of SMEs, dual-use innovation, standards, cybersecurity and defence, and disruptive technologies.
- promotes synergies by improving coordination of EU funding instruments.

The action plan is limited to EU programmes and instruments for which the Commission is responsible. The '[Roadmap on critical technologies for security and defence](#)' (COM(2022) 61), which was adopted 1 year after the action plan, went further and proposed a way forward for the EU and Member States to boost research, technology development and innovation, and reduce strategic dependencies on critical technologies and value chains.

This report shows progress and the main deliverables for each action.

Main achievements

Concretely, the action plan delivered or fed into:

- the Communication '**Roadmap on critical technologies for security and defence**' adopted in February 2022¹ (Action 2: Improving coordination of EU programmes and instruments, Action 4: Observatory of Critical Technologies, Action 6: Innovation incubator and cross-border defence innovation networks);
- the proposal for a regulation establishing the **Union secure connectivity programme for the period 2023-2027**² adopted in February 2022 (Action 10: Space-based global secure communication system);
- the Joint Communication with the High Representative '**An EU approach for space traffic management**³' adopted in February 2022 (Action 11: Space traffic management);
- the **EU Defence Innovation Scheme (EUDIS)**⁴ launched in May 2022 (Action 6: Dual-use innovation and cross-border innovation networks, Action 8: Disruptive technologies, and the Communication 'Roadmap of critical technologies for security and defence');
- the Communication '**Drone strategy 2.0**' planned for November 2022 (Action 9: Drone technologies).

The work started on the action plan also prepared the ground for other cross-sectoral synergies, which will soon result in separate initiatives, such as:

- the Joint Communication for a **cyber defence strategy** in November 2022;
- the Communication 'new action plan on **military mobility**' in November 2022;
- the joint Communication for an EU **space strategy for security and defence**, planned for early 2023.

Lastly, during the reporting period, the first concrete examples of the action plan's headline objective to 'facilitate civil-defence spin-ins' were witnessed. The EDF and its precursor programme (the European Defence Industrial Development Programme) selected **several**

¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022DC0061&from=EN>

² https://eur-lex.europa.eu/resource.html?uri=cellar:dbc3ef6c-8f41-11ec-8c40-01aa75ed71a1.0003.02/DOC_1&format=PDF

³ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022JC0004&from=EN>

⁴ https://defence-industry-space.ec.europa.eu/eu-defence-industry/eu-defence-innovation-scheme_en

research and development proposals for funding that bring civil industry research achievements and civil-driven innovation in defence cooperation projects⁵.

Further work is planned based on the results of the action plan so far, which include:

- the **first report of the Observatory of Critical Technologies**, planned for February 2023, and the **first technology roadmaps**, planned for the third quarter of 2023 (Action 4: Observatory of Critical Technologies and technology roadmaps);
- **coordinated calls in existing EU instruments and European Investment Bank loans** to support critical technologies and industrial capacity by developing strategic projects (Action 2: Synergies of financing instruments and Joint Communication ‘Defence investment gaps analysis and way forward’ of May 2022);
- preparing possible **amendments to the framework for dual-use research and innovation** to improve synergies between civil and defence instruments (Action 2: Improving coordination of EU programmes and instruments and Joint Communication ‘Defence investment gaps analysis and way forward’ of May 2022).

Progress overview

Table 1 presents an overview of the main achievements and findings. More detailed information for each action is available in the following pages.

⁵ For example: The DRONEDGE project is transferring an existing 3D swarm simulator to the real world, implemented on fixed-wing drones. The GEODE project is developing a standardised Galileo/GPS PRS navigation receiver for defence use. The NEMOS project is designing a mission of small optical satellites that can provide real-time surveillance for defence operations that require continuous tracking of thousands of kilometres of coastline, monitoring critical maritime infrastructure and scanning sea surface. The ACTING project is developing a network of advanced interconnected cyber ranges using sophisticated methods and techniques for simulating users, performance analysis of cyber operators, etc. The 5G COMPAD project is designing a reference architecture for a 5G-based resilient communication system that will enable new functionalities and improve lifecycle costs in defence platforms.

| Action | Description | Status | 2021 (second half) | 2022 (first half) | 2022 (second half) | Comment |
|--------|---|----------------------------|-----------------------------------|-------------------|--|---|
| 1 | Capability-driven approach in security sectors | Completed | Internal report (December 2021) | | | Summarised version will be published at the Commission's (DG HOME) website. |
| 2 | Improving coordination of EU programmes and instruments | Completed | Internal report (December 2021) | | | Followed up by measures announced in two 2022 Communications: 'Roadmap of critical technologies' and 'Defence investment gaps analysis'. |
| 3 | Start-ups, SMEs and RTOs | Ongoing / long term action | Targeted measures started in 2021 | | | Led to calls targeting SMEs announced under the EDF and to measures in the 2022 Communication 'Roadmap of critical technologies'. |
| 4 | Observatory of Critical Technologies | Ongoing / long term action | | | | Followed up by measures announced in the 2022 Communication 'Roadmap of critical technologies'. First classified report (expected in February 2023). |
| 5 | Hybrid standards | Ongoing / long term action | | | Report on knowledge mapping and best practices | 'An EU Strategy on Standardisation' (COM(2022) 31) announced that the Commission will present a plan to promote using existing hybrid standards and take the lead in developing |

| | | | | | | |
|----|---|-----------------------|--|--|---|--|
| | | | | | | new standards at international level. |
| 6 | Innovation incubator and cross-border defence innovation networks | Integrated into EUDIS | | Launch of EUDIS (May 2022) | | Led to the set-up of the EUDIS in May 2022. |
| 7 | Cybersecurity and cyber defence | Completed | | Multiannual work programme for the Cyber Competence Centre | Implementation of Digital Europe work programme 2021-22 | Competence Centre Governing Board and Network of National Coordination Centres are operational. Financial autonomy of the Competence Centre expected for the second half of 2023. |
| 8 | Disruptive technologies | Integrated into EUDIS | | Launch of EUDIS (May 2022) | | Led to the set-up of EUDIS in May 2022. |
| 9 | Drone technologies | Completed | | | Commission communication (expected in November 2022) | |
| 10 | Space-based global secure communication system | Completed | | Legislative proposal (February 2022) | | |
| 11 | Space traffic management | Completed | | Communication (February 2022) | | |

Table 1: Overview of deliverables for each action

Action 1: Capability-driven approach in security sectors



This action sought to promote practices in capability-driven approaches (CDA) that proved successful in defence and space.

The findings of the Commission's analysis resulted in a report which proposed that the Commission considers:

- drawing up roles and responsibilities for managing and implementing CDA in internal security and law enforcement;
- improving the alignment of capability needs and solutions with the programming of security funds⁶;
- preparing common vocabularies/taxonomies and decision-support knowledge that is widely available to civil security stakeholders, including those in industry and technology; and
- expanding planning capabilities to longer-term horizons and increasing EU autonomy and technological sovereignty.

As highlighted in the Commission staff working document 'Enhancing security through research and innovation'⁷, a CDA enables setting up processes that help expenditure decisions. This approach proved effective in defence and aerospace. However, the internal report showed that there are significant differences between defence, aerospace and civil security, and one overarching CDA for all domains is not feasible. It would therefore be impossible to simply replicate the architecture of their capability development processes.

The Action 1 report demonstrates that a first step towards a CDA in civil security was already taken under the European Border and Coast Guard Regulation of December 2019, which explicitly recognises a CDA associated to integrated planning. Other security domains still do not implement this approach, but the evidence shows that there is a need for a more forward-looking approach based on systematic planning.

Implementing this action has increased awareness about the value of capability-driven approaches and fostered their harmonised use in the different security domains while respecting the specific characteristics of each domain. More specifically, Action 1 has contributed to:

- understanding the situation in each security domain and the feasibility of a capability-driven approach;
- creating a common understanding of the concept of capability in the different security domains and of the necessary technological and financial enablers;
- identifying the role of the different stakeholders in implementing the capability development cycles in each domain;
- mapping the instruments that can contribute to developing security capabilities;
- determining the tools required for the early identification of capability needs, gaps, enablers and the processes that enable them to be integrated into the EU's financial instruments' long-term programming.

The Commission identified four building blocks for fostering CDA across security domains:

⁶ Such as the Internal Security Fund or the Border Management and Visa Instrument

⁷ https://home-affairs.ec.europa.eu/system/files/2021-12/SWD-2021-422_en.PDF

1. Establish roles and responsibilities for managing and implementing CDAs in Internal Security and Law Enforcement.
 - a. Develop terms of reference with the Europol Innovation lab to align security-related research and innovation with long-term capability objectives.
 - b. Establish a structured dialogue between the EU innovation hub⁸ and technology developers from the private sector.
2. Further align capability needs and solutions with programming of security funds.
 - a. Further improve the coordination between Horizon Europe and the Internal Security Fund & Integrated Border Management Fund.
 - b. Strengthen innovation in the implementation of the Internal Security Fund regulation.
 - c. Facilitate the dialogue between managing authorities in Member States.
3. Develop common vocabularies and decision-support knowledge and make it available to civil security stakeholders.
 - a. Develop and promote a taxonomy of security technologies.
 - b. Identify a subset of security technologies that are critical to sustaining EU security capabilities.
 - c. Gather high quality national security public procurement data from Member States.
 - d. Create a stakeholder's map showing a clear overview of main public buyers and suppliers of advanced security technologies in the EU security market.
4. Extend planning of capabilities to the long term
 - a. Kick-start early discussions with Member States on the challenges and needs for the next MFF building on the mid-term review of national programmes of the Internal Security Fund & Integrated Border Management Fund.
 - b. Develop technology roadmaps for critical civil security technologies.

Action 2: Coordination of EU programmes and funding instruments



This action identified measures to improve coordinating EU funding instruments with the aim of improving access to finance and increasing synergies between EU programmes. The 2018 Communication ‘A modern budget for a Union that protects, empowers and defends’ committed ‘to make it easier for different programmes and instruments to work together to boost the impact of the EU budget.’ As a result, analysis showed that the basic acts of most multiannual financial framework (MFF) programmes include provisions facilitating synergies between programmes and allowing combinations of funds. These provisions are described below.

- **Cumulative funding:** An action can receive a grant from more than one EU programme, including funds under shared management if contributions do not cover the same costs and do not exceed the eligible costs of the action.
- **Transfers:** Voluntary transfer of shared management resources to direct/indirect management instruments.

⁸ [EU Innovation Hub for Internal Security | Europol \(europa.eu\)](https://europa.eu/europol/innovation-hub)

- Seal of excellence: Awarded under EU programmes to proposals, identified during a call for proposals, that exceed the quality threshold but cannot receive support due to budgetary limitations.
- InvestEU framework: In the framework of InvestEU, financing and investment operations covered by the EU guarantee which form part of the blending operation can support risk-taking, combining different sources of EU and non-EU funding to crowd in public and private investors and help the investment support have a bigger impact.

In July 2022, the Commission adopted an interpretative notice⁹ on synergies between ERDF¹⁰ programmes and Horizon Europe explaining in detail the new provisions. This notice may be applied to other directly funded instruments provided they contain provisions similar to Horizon Europe. The notice sets out, among other, how to facilitate synergies between common provision regulation funds and directly managed programmes while avoiding the double funding of the same costs.

However, the Commission's analysis also found that unintended constraints impede synergies. The following measures were identified to unleash the potential of synergies between the civil, space and defence industries.

1. Provide central guidance to Commission departments on how to implement synergies-enabling articles in the regulations and share this guidance publicly with potential beneficiaries.
2. Move from technology neutrality to positive action in the use of space-based data from EU flagship space programmes by EU funded projects.
3. With a view to promoting upstream and downstream synergies between programmes, carry out a gap analysis of support from EU instruments on the pathway from R&D to deployment, right through to market uptake or public procurement, with the aim to see how one instrument could help where the other cannot. The result of this analysis could feed into planning the next MFF.
4. Identify a number of priority topics (e.g. CBRN¹¹) or clusters of instruments relevant to a policy domain (e.g. civil security or maritime security) where synergies seem possible and set up inter-departmental groups in the Commission to identify at least one 'synergy by design' when planning calls.
5. Raise awareness of Member States national authorities on possibilities of synergies of EU funding, including for example funds under shared management.
6. Propose amendments to the framework of dual-use research and innovation to ensure a consistent approach across all EU instruments.
7. Support new ways of integrated programming and planning based on setting priorities top-down that aim for synergies by design and not by coincidence. Select and launch new flagship projects that can prove the concept of 'synergies along the pathway from R&D to deployment, right through to market update or public procurement'.

Measure 6 above was included in the Communication 'Roadmap for Critical Technologies' of February 2022 and the Joint Communication 'Defence investment gaps analysis and way forward' of May 2022. Other measures may be part of new policy initiatives in the future.

⁹ https://ec.europa.eu/info/news/synergies-guidance-out-2022-jul-06_en

¹⁰ ERDF: European Regional Development Fund

¹¹ CBRN: Chemical, Biological, Radiological and Nuclear

Action 3: Start-ups, SMEs and RTOs



Under Action 3, the Commission launched measures to support start-up companies, SMEs and RTOs. These measures aim to raise awareness about EU programmes and funding opportunities, provide technical support and hands-on training, provide business-accelerating services, showcase innovative solutions and facilitate entering the defence, security, space and related civil markets.

Measures included:

1. organising four European thematic conferences with matchmaking opportunities in 2021 within the European Network of Defence-related Regions, i.e. on drones (Le Havre, France), advanced materials for defence applications (Gothenburg, Sweden), skills for aerospace and defence (Rzeszow, Poland) and soldier of the future (Copenhagen, Denmark);
2. setting up of the network of National Focal Points (NFP) for the EDF and, in 2022, facilitating four exchanges of best practices and networking between NFPs;
3. discussing defence cooperation and the EDF in the SME Envoy Network;
4. assigning the defence cooperation portfolio to an SME Envoy with the aim of building national synergies;
5. organising a defence cooperation session at the SME Assembly in November 2021;
6. distributing information about the EDF through the Enterprise Europe Network's channels and other relevant networks as well as promoting partnership activities and events (including cross-sectoral cooperation and cross-fertilisation between the civil and defence sectors);
7. organising national EDF info day roadshows throughout 2021 and 2022 in cooperation with national defence associations/clusters;
8. analysing the potential for the European Innovation Council to deliver business-accelerating services to civil companies that want to reach defence markets;
9. under the CASSINI initiative¹², delivering, from 2021, support for space-based entrepreneurship, hackathons, mentoring and competitions, and from 2022 onwards, business acceleration services, incubation, seed-funding and scaling up finance to space-based start-ups and SMEs that deliver solutions outside the space domain.

The Commission will continue to provide training and support to the NFPs and facilitate the exchange of best practices and networking between them. In 2022, four such opportunities were offered to NFPs. In 2022, a new framework contract was set up so the Commission can provide business coaching to help SMEs with the challenges they face, such as reducing the time to go from research to development, or from development to the market.

For identifying further measures, in particular for RTOs, the Commission will continue to collaborate with established networks such as the Association of the European Research Establishments (EREA).

Action 4: Observatory of Critical Technologies



Under Action 4 on critical technologies and technology roadmaps, the EU Observatory of Critical Technologies is currently being set up in the Commission. The Observatory will: (i) identify critical technologies in the interplay between the civil, space, and defence industries; (ii) identify and monitor risks associated with strategic dependencies (technologies and their associated value

¹² https://defence-industry-space.ec.europa.eu/eu-space-policy/space-entrepreneurship-initiative-cassini_en

chains and actors, etc.); and (iii) perform technology watch to identify emerging critical and potentially disruptive technologies with a significant potential impact on space and defence innovation and EU strategic interests.

The Observatory is a long-term endeavour. The February 2022 defence package specified that this ‘work complements broader efforts to address security of supply of critical civilian goods, in fields such as health and energy’¹³ and that when ‘the Observatory’s operations are well-established, the scope of its work could be extended to other industries, as indicated in the updated industrial strategy’¹⁴.

Various Commission departments and agencies are closely involved in this process. The EDA made an essential contribution to the defence aspects, and the Agency’s involvement can be further strengthened.

The Observatory will also build on information provided by external stakeholders: national authorities, industry, and RTO/academia in defence, space, security and related civil sectors:

- For industry and RTOs, the Commission Expert Group on Policies and Programmes Relevant to EU Space, Defence and Aeronautics Industry is consulted as well as its subgroup on critical technologies and supply chain (four meetings have taken place).
- A Commission expert group with Member States to support the Observatory was recently set up. The first meeting took place in October 2022, so no data from Member States has been collected yet.
- The Emerging Technology Expert Group (ETEG) which is part of the Commission’s technical expert groups with Member States on dual-use export control, expressed interest in continuing the exchange of information with the Observatory, including on the forthcoming Observatory report and the pilot projects

Methodologies are being developed and tested in two pilot projects, one on electronic components and another on autonomous systems. The relevant sensitive reports are currently being prepared. The action provides for producing a classified report every two years; the first one is planned for the first half of 2023. The report will be followed by technology roadmaps; the first of those will be ready before the end of 2023.

Critical technologies and supply chain vulnerabilities, especially for defence, are typically of dual-use nature and the relevant information is sensitive. As a result, the information, some of it classified, is not readily available or easily shared by companies and Member States. The Observatory deals with sensitive and classified information according to Commission standard procedures. To address this, information security operating procedures for the Observatory have been developed.

Challenges for the Observatory include: (i) a new and untested methodologies; (ii) delays in setting up the necessary security processes and infrastructure (clearance of staff, creating a security culture, and secure IT systems that can store and analyse classified information); and (iii) building trust with stakeholders so that the necessary information can be gathered.

¹³ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022DC0060&from=EN>

¹⁴ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022DC0061&from=EN>

Action 5: Hybrid standards



This action aims to identify existing standards and best practices that can be used across the civil, defence and space industries and promote their use in related EU programmes/instruments. There are several initiatives in place to implement this action.

Building on the recently adopted standardisation strategy (COM(2022) 31), the Commission is preparing a plan to promote using existing hybrid civil/defence standards and take the lead in developing new standards at international level. One possible measure is including defence requirements in future standardisation work to improve compatibility with defence needs. Opportunities for possible grants available to the European standardisation organisations have been identified.

In addition, the Commission adopted on 2 September 2022 the Decision to set up a High-Level Forum on European Standardisation to assist the Commission in anticipating upcoming standardisation priorities. The Forum will address specific industry needs and expectations, with the possibility of examining specific priorities in the civil, defence and space industries.

Furthermore, in the context of the recently announced Commission proposal for a Cyber Resilience Act¹⁵ which puts cybersecurity requirements on hardware and software, the Commission will encourage synergies with defence-related cybersecurity standards for digital products. When defence standardisation bodies develop new cybersecurity-related standards for products with digital elements for defence use, harmonised standards under the Cyber Resilience Act could be used as a baseline.

Other work carried out under Action 5 is described below.

1. For standards developed through the EDF projects' implementation, the Commission asked Member States to identify standards (civilian or military) that should be addressed by industry in submitted proposals. The Commission also encouraged EDF beneficiaries who own the end result of EDF research activities to make the results publicly available (e.g. by publishing in EDSTAR database¹⁶) and inform other stakeholders.
2. For work on standards that is not implemented by the EDF, the Commission reached out to the European Defence Standardisation Committee run by the EDF to ensure that standardisation efforts are based on end-user requirements and defence needs are reflected in new civilian standards.

In the future, Action 5 will also focus on anticipatory work with links to the rest of the action plan or the Strategic Compass. The other parts of the action plan will be analysed to identify any standardisation requirements (e.g. Action 9 on drones).

Action 6: Innovation incubator and cross-border defence innovation networks



This action explored the different options for developing an EU 'virtual innovation incubator' aimed at supporting breakthrough innovations and technologies for civil, defence and space applications. Such a virtual incubator would operate downstream from existing EU programmes and would not

¹⁵ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on horizontal cybersecurity requirements for products with digital elements and amending Regulation (EU) 2019/1020, COM/2022/454 final, [COM/2022/454 final](#)

¹⁶ <https://edstar.eda.europa.eu/>

interfere with their operating rules and legal constraints. This means that the incubator would focus on stimulating synergies (e.g. those described in Annex IV to the Horizon Europe¹⁷ Regulation), screening proposals and results, and sharing information as early as possible to identify possible applications, including in areas other than originally intended.

Under this action, the Commission analysed opportunities and constraints for strengthening support to dual-use technologies and innovation. One opportunity identified is that, at low technology readiness levels (TRLs), EU funding mechanisms can support breakthrough technologies and innovation with dual-use potential and can prove relevant for EU strategic trade and investment controls; this is the case in particular for the European Innovation Council's new Pathfinder scheme under Horizon Europe. One constraint identified is that, at medium and high TRLs, EU funding mechanisms have legal constraints obliging them to only focus on a single domain of application (either defence or civilian). As a result, the Commission investigated several options to ensure information on proposals and results were exchanged between Horizon Europe and the EDF to create synergies without violating the legal bases.

An analysis of the potential of cross-border defence innovation networks was also carried out. This showed that access to traditional, mainstream sources of funding is limited; there are also challenges around sharing classified/sensitive information between bodies. If there is more emphasis put on cross-border collaboration between entities across the EU, notably by the EDF, there will be more incentives and opportunities for them to work closer together. In addition, it may be possible for defence organisations to leverage existing civil industry innovation hubs.

Based on the results of this analysis, it was decided to develop Action 6 as part of: (i) the [EU Defence Innovation Scheme](#) (EUDIS) announced in the Communication 'Roadmap of critical technologies' of February 2022; and (ii) the dual-use action set out in the Communication on defence investment gaps of May 2022. Through EUDIS, the Commission will identify ideas, technologies and solutions that need support to mature them and integrate them into the capability development and support spin-offs to civil sectors. Through the dual-use action, the Commission will (i) in the short term identify and better exploit the dual use potential of research carried out under Horizon Europe, including in relation to the EU dual use export controls regime (ii) consider, in the medium term, proposals for possible amendments to the framework for dual-use research and innovation, e.g. for the next MFF.

EUDIS will also support innovative companies (e.g. matchmaking between investors and end users, business coaching to help companies solve business challenges). The scheme will also support cross-border defence innovation networks to incorporate the broader defence environment and to test and validate applications. The scheme will see a total investment of nearly EUR 2 billion in the current MFF, with EUR 1.46 billion coming from the EDF.

A call for proposals on the cross-border defence innovation network is currently planned for the 2023 EDF work programme.

¹⁷ 'The term 'Horizon Europe' in this document refers to the Specific programme implementing Horizon Europe and the European Institute of Innovation and Technology; activities carried out under them have an exclusive focus on civil applications.'

Action 7: Cybersecurity and cyber defence



Due to the fast-changing nature of cyber threats, the EU needs to be able to adapt quickly and continuously to emerging threats. This action's goal is to contribute to the new EU cybersecurity strategy through cybersecurity capacity-building activities across the EU. In particular, this would be done by supporting setting up the European Cybersecurity Competence Centre (ECCC) and the Network of National Coordination Centres (NNCC).

The ECCC and the NNCC will be the EU's main instruments to pool investment in cybersecurity research, technology and industrial development and carry out related projects and initiatives. The ECCC will manage cybersecurity-related funds in the Horizon Europe and Digital Europe programmes and will be open to other programmes where appropriate. In addition, the Commission started preparing a joint communication with the High Representative on an EU cyber defence policy, which will be presented in 2022.

The Commission has been working intensively to set up the Centre and is acting on its behalf until the Centre is fully autonomous. When setting priorities and carrying out community-building activities, the objective of achieving synergies between civilian and military cybersecurity has been taken into account.

Significant milestones included: (i) adoption of the Regulation setting up the ECCC and appointing its governing board (June 2021); (ii) setting up the NNCC – 23 of 27 Member States have nominated their national coordination centre (December 2021); (iii) six national centres making the first request for funding in a Digital Europe programme call (May 2022).

The immediate next steps include: (i) establishing the Strategic Advisory Group of the ECCC in March 2023; and (ii) the ECCC in Bucharest becoming operationally autonomous in March 2023.

Action 8: Disruptive technologies



This action aimed to support disruptive technologies through innovative forms of funding that can promote the participation of non-traditional players, attract start-ups and promote cross-fertilisation of solutions, building upon opportunities offered by EU programmes. Internal analysis showed a range of funding mechanisms for disruptive technologies in Horizon Europe and the EDF and its precursor programmes. Reporting on those mechanisms is done in the programmes concerned.

The analysis also showed some constraints. Non-traditional players are often small companies (e.g. SMEs, start-ups) that benefit from smaller individual grants or funding. However, this leads to a high administrative burden, which may create a barrier to such schemes.

After this initial analysis, the Commission decided to develop this action and funding for disruptive technologies as part of EUDIS (see also Action 6), announced in the meantime¹⁸. EUDIS can provide the necessary support for emerging and disruptive technologies in

¹⁸ See 'Roadmap for Critical Technologies for Security and Defence' (COM(2021)): 'Under this scheme, the Commission ... will play a central role in supporting innovation ... Given its defence expertise including in bringing together emerging and disruptive technologies, EDA will further connect and support Member States through its defence innovation hub'.

collaboration with the Defence Innovation Hub of the EDA, which was also announced in the meantime.

In addition, under its 2021 and 2022 work programmes, the EDF continues to ensure a broad coverage of key capability areas and of defence innovation (e.g. key enabling and disruptive technologies). EUDIS also has a defence equity facility to increase the overall level of investment in the defence industry. With this facility, using EUR 100 million from the EDF, the Commission expects to leverage additional equity investment worth more than EUR 400 million.

Action 9: Drone technologies



This action aims to strengthen the competitiveness of EU industry by identifying areas for cross-fertilisation. This means that defence projects can benefit from innovative developments from SMEs working with civilian drones and, conversely, civil aeronautics can benefit from developments in defence.

The EU drone technologies action (DTA), which will be part of the EU drone strategy 2.0 in November 2022, is the main initiative of Action 9.

The DTA will focus on the technology issues of the drone strategy, such as critical components, R&D priorities, standardisation and risk financing. It will address different aspects of drone operations, including drones themselves, technology building blocks for further automating drone traffic (e.g. detect and avoid), and counter-drone solutions.

Action 10: Space-based global secure communication system



This action aims to give access to high-speed secure connectivity through a multi-orbit space infrastructure, including low-earth orbit satellites, to EU institutions, Member States and the private sector.

A legislative proposal for a regulation establishing the Union secure connectivity programme was adopted on 15 February 2022¹⁹ which puts forward an ambitious plan for an EU space-based secure communication system.

In January 2022, the Commission launched two studies to gather technical input from industrial stakeholders. Results were presented to Member States at a workshop in September 2022.

In parallel, four workshops were conducted with experts from Member States to refine operational requirements for the future secure connectivity system.

In July 2022, the Commission launched a preliminary market consultation, which closed in October 2022, and its results are currently being analysed. The Council adopted a negotiating mandate on 29 June 2022 in view of negotiations with the European Parliament. In Parliament, the ITRE Committee voted on a negotiation mandate in October 2022 which was then adopted by the plenary session, paving the way to start of inter-institutional negotiations. The Commission hopes to conclude the inter-institutional negotiations and adopt the regulation before the end 2022.

¹⁹ [COM\(2022\) 57 final](#).

Action 11: Space traffic management



The action plan announced an EU strategy for space traffic management (STM). On 15 February 2022, the Commission and the High Representative adopted a Joint Communication on STM. The Presidency conclusions on the STM Communication were adopted at the June 2022 Competitiveness Council.

The Communication contains 10 specific measures aiming to develop an EU approach on STM. This approach focuses on four strands: (i) assessing STM requirements and impact on the EU; (ii) strengthening EU operational capabilities to support STM; (iii) fostering STM regulatory aspects; and (iv) promoting the EU STM approach at international level.

Before the communication was published, the Commission financed a STM pilot project, which was completed in March 2022. It gave a comprehensive picture of the existing and emerging legal and voluntary frameworks and practices and assessed their effectiveness and relevancy. As part of the pilot project, a conference was held on 23 March 2022 in the European Parliament in collaboration with the French Presidency focusing on the STM Communication.

Conclusion

In its first 2 years, implementation of the action plan has progressed well. It produced results and often launched new measures. This work also identified constraints that still prevent fully exploiting potential synergies, so measures are currently being considered to address this.

There are many synergies between the civil and defence industries. Beyond the action plan, several new initiatives were launched and more will follow. These include the defence and security packages of November 2022 and 2023, the Chips Act, and funding for industrial R&D projects that build on civil-defence synergies.

The Commission will continue to ensure an overview and coordination of all security and defence activities under its responsibility. Coordination at working level with the EEAS and the EDA will also ensure transparency with the implementation of the Strategic Compass.