

ANNUAL REPORT **2022**



FOREWORD

AT THE END OF 2022, EDA MANAGED 97 JOINT CAPABILITY AND RESEARCH PROJECTS WORTH €672 MILLION

By Jiří Šedivý,
Chief Executive

The year 2022 marked a paradigm shift for security and defence in Europe with the return of all-out war to European soil. The unprovoked Russian invasion of Ukraine has shaken the foundations of Europe's defence architecture as well as its sense of security, pulling the continent back into conflict on a scale not seen since World War II. Still, the European Union and the Member States have reacted with determination and resolve, providing significant support to the Ukrainian armed forces. A visible sign of this paradigm shift is the increase in defence spending by the Member States. However, the war in Ukraine also highlights the existing gaps and potential future shortfalls in Member States' inventories and armed forces.

Given the urgency of the situation, the European Defence Agency (EDA) has stepped up its support to our EU governments as they debate the way forward for European defence. Prior to Russia's war of aggression in Ukraine, European militaries had been focused on low- to mid-intensity operations, less on territorial defence and more on expeditionary missions. Russia's invasion underlines the need for a full spectrum of military capabilities and the role that EDA can play to help. As our Head of Agency, EU High Representative Josep Borrell, said at EDA's Annual Conference 2022, we lack critical defence capabilities, and we now must compensate for years of underspending.

EDA, in 2022, directed its energies to help coordinate a joint response. With the approval of the EU's Strategic Compass for Security and Defence in March, the EU as a whole recognised the need to invest in defence, not just in Ukraine but beyond the EU's borders. The Strategic Compass marks a leap forward in the shared ambition to make the EU stronger and more capable – and last but not least, technologically enabled – in the field of security and defence. We must realise that those who define technological standards today will control the future.

EDA has recommended that Member States develop capabilities at scale across all domains. This means improving readiness, augmenting existing forces, and developing high-end capabilities. To that end, and in line with our mission enshrined in the Lisbon Treaty, EDA will continue to provide crucial support as we seek to develop EU defence together, to spend wisely and avoid wasteful duplication.

MILESTONES: CARD, PESCO AND HEDI

In this annual report, we provide an overview of EDA's milestones and achievements over the past year. Our highlights include our work in support of the Strategic Compass for Security and Defence, our 'Scoping EU Defence Investment Gaps' analysis, the Coordinated Annual Review on Defence (CARD) and management of cutting-edge military projects and exercises across all domains.

Both in the Strategic Compass and at the Versailles summit in March, EDA was tasked to look at EU shortfalls in defence investments. The Agency, in coordination with the Commission, conducted a thorough analysis of defence investment gaps in Europe. The analysis proposed mitigation measures to be implemented across three overlapping time horizons. Firstly, an immediate step in the short term should be to work on replenishing stocks and increasing combat readiness. Secondly, in the short-to-medium term, we must focus on increasing existing capabilities. Thirdly, we must work on modernisation for the possibility of large-scale, high-intensity operations.

In addition, EDA helped set up the Defence Joint Procurement Task Force designed to support the coordination of Member States' very short-term procurement needs, especially for stock replenishments as our European militaries deliver supplies to Ukraine.



The choice for the European Union is simple: defence innovation, or defence irrelevance."

Jiří Šedivý,
Chief Executive

In 2022, along with the European Union Military Staff (EUMS), we completed the second cycle of the EU's defence review, CARD, delivering a new set of recommendations that was approved by the EDA Ministerial Steering Board in November. They will serve as the basis for our common planning and capability development.

EDA deepened its involvement in Permanent Structured Cooperation (PESCO). Following the launch of the second PESCO phase (2021- 2025), the Agency, as part of the PESCO secretariat, provided support to participating Member States in projects. EDA also provided advice and expertise to support Member States and the European Commission in developing the European Defence Fund (EDF) annual work programme for 2022, together with its multiannual perspective. EDA continued to contribute to the implementation of two of the EDF's forerunners, the Preparatory Action for Defence Research (PADR) and the European Defence Industrial Development Programme (EDIDP), by acting as project manager for three EDIDP projects.

Finally, EDA launched its Hub for EU Defence Innovation (HEDI), a direct outcome of the Strategic Compass, which will provide Member States with a platform to stimulate, facilitate, and support cooperation on defence innovation. The choice for the European Union is simple: defence innovation, or defence irrelevance.

Overall, in 2022 the Agency managed 97 cooperative ad hoc projects and programmes in capability development, training, and joint procurement, as well as Research and Technology (R&T) and innovation, with a total estimated value of €672 million.

As Member States continue to increase defence spending, work continues along the lines that EDA suggested: doing more together to reinforce and modernise forces, increasing combat readiness, replenishing stockpiles, speeding up joint procurement and working towards future capabilities.

JOINT PRIORITYISATION

EDA: WHERE PARTICIPATING MEMBER STATES MEET TO SET DEFENCE PRIORITIES

EDA supports its Member States in improving their defence capabilities through European cooperation, acting as an enabler and facilitator for Ministries of Defence willing to engage in collaborative capability projects.

In 2022, the Agency continued to work with Member States in capability planning and prioritisation through its own prioritisation framework, which is built around the revised Capability Development Plan (CDP), the Overarching Research Strategic Agenda (OSRA) and the Key Strategic Activities (KSA):

- In 2022, the EDA Steering Board agreed to launch the revision of the CDP and its priorities, taking into account the return of full-scale war to Europe, threats on EU borders and the guidance provided by the Strategic Compass.
- In 2022, the EDA's Capability Technology Groups, known as CapTechs, were complemented by the new CapTech Space. The CapTechs continued to implement 143 technology roadmaps with concrete project ideas. The roadmaps support Member States in identifying common defence research objectives, and providing an input into projects with EDA and other EU funding. EDA held a series of technology foresight events focused on Space Technologies and Precision Air Drop of Supply. Furthermore, it started the review of OSRA to update the methodology, incorporating changes both on the battlefield and in capability planning, funding, and technology.
- In 2022, EDA continued to assess defence industrial and technological capacities within the EU with a view to delivering the required capabilities. The Steering Board approved a new set of analysis and agreed to a list of five additional capabilities and technologies that will be examined by the Agency within the KSA.





JOINT DEFENCE PLANNING & COOPERATION

THE EU'S DEFENCE REVIEW, CARD: THE SECOND CYCLE COMPLETED

In 2022, EDA completed the second cycle of the Coordinated Annual Review on Defence (CARD). From December 2021 to April 2022, EDA, together with the EU Military Staff (EUMS), consulted participating Member States, collected data, and identified concrete opportunities for Member States to engage in cooperative projects for capability development, research and technology.

EDA presented 41 collaborative opportunities on capability development and 42 on research and technology, as well as contributing to the six Focus Areas, which were already identified in the 2020 CARD report. These Focus Areas serve as eco-systems connecting capability development, innovation and the industrial dimension to foster clusters of projects and activities. Three Focus Areas were taken forward by the Member States in 2022: Defence in Space, where France and Spain agreed to become facilitators; European Patrol Class Surface Ships, where Italy agreed to become a facilitator; and Enhanced Military Mobility, where the Netherlands agreed to become a facilitator for lift capabilities.

The power of CARD is clear. From the first report in November 2020, Member States have launched new projects within the Permanent Structured Cooperation (PESCO), such as 'Strategic Air Transport for Outsized Cargo' (SATOC), 'Next Generation Small Remotely Piloted Aircraft Systems' (NGSR) and the 'Common Hub for Governmental Imagery' (CoHGI).



The deteriorating security situation in Europe is pushing Member States to accelerate capability development plans and refocus them. The CARD Aggregated Analysis found that unmanned aerial systems are one of the most pressing and promising areas for cooperation. Work on the European Medium Altitude Long Endurance Remotely Piloted Aircraft System (MALE RPAS) must be pursued and should include a combat dimension."

PERMANENT STRUCTURED COOPERATION (PESCO): FORGING AHEAD

In 2022, PESCO marked five years since its launch. Since the establishment of PESCO, the Agency has provided support to 11 PESCO projects. Over the years, EDA's involvement has evolved from modest administrative roles to include expert support and the establishment of projects at the Agency with EDA serving as project manager.

EDA agreed to provide support to the implementation of five PESCO projects in 2022:

- 'Maritime (semi) Autonomous Systems for Mine Countermeasures' (MAS MCM)
- 'Upgrade of Maritime Surveillance' (UMS)
- 'Geo-meteorological and Oceanographic Support Coordination Element' (GMSCE)
- 'European Union Network of Diving Centres' (EUNDc)
- 'Cyber and Information Domain Coordination Centre' (CIDCC).

Eight PESCO projects are still being supported, four of which are implemented in an EDA framework:

- 'Chemical, Biological, Radiological Nuclear Surveillance as Service' (CBRN SaaS)



In 2022, we achieved another important milestone in the management of EU-funded defence research projects. The Agency received the mandate from the European Commission to manage two EDF research projects, ARTURO and ECOBALLIFE. This is clearly a sign of recognition of our expertise."

Mila Batchvarova,

Project Officer Critical Defence Technologies of the Preparatory Action for Defence Research

- 'Deployable Modular Underwater Intervention Capability Package' (DIVEPACK)
- 'European Patrol Corvette' (EPC)
- 'Cyber and Information Domain Coordination Centre' (CIDCC)

EDA, as part of the PESCO secretariat, completed the annual assessment of updated National Implementation Plans (NIPs) submitted by Member States. Here, the Member States outline how they intend to meet PESCO's 20 more binding commitments. This analysis formed the basis for the EU High Representative's 'Annual Report on the Status of PESCO Implementation'. The report also took into account the changing security environment and the findings of the last CARD cycle. Furthermore, EDA has facilitated identifying opportunities for future PESCO projects

ANALYSING INVESTMENT SHORTFALLS

In 2022, EDA contributed to the Joint Communication by the High Representative and the European Commission with its analysis: 'Scoping EU defence investment gaps'. EDA drew on data gathered throughout the second CARD cycle to assess the additional investment needed. The analysis recommended that, in the short term, Member States should increase combat readiness and replenish weapons stocks. Then they should focus on increasing existing forces and capabilities.

In the mid-to longer term, the analysis showed the need to reinforce and modernise the EU's armed forces. This will have significant implications for EDA's participating Member States, creating a greater need to plan and develop together the next generation of capabilities and address sufficiently the possibility of large-scale, high-intensity operations.

JOINT PROCUREMENT

In 2022, following the adoption of the Joint Communication on Defence Investment Gaps on 18 May, the EU swiftly set up a Defence Joint Procurement Task Force bringing together EDA, the European External Action Service (EEAS), EUMS, and the European Commission. EDA took an active role, leading the first phase of the task force to collect Member States' urgent needs for stocks replenishment, before engaging in a dialogue with industry on production capacity. The Agency also offered its support to Member States to urgently procure ammunition, CBRN equipment and soldier equipment through three new Cat. B projects.

SUPPORTING THE EUROPEAN DEFENCE FUND

In 2022, the Agency continued its support to the European Defence Fund (EDF). EDF's aim is to reinforce the competitiveness of the European defence industry through financial support to defence research and defence development within the EU's long-term common budget. As an observer in the EDF Programme Committee, EDA shared its views and expertise with Member States and the European Commission, especially on the alignment of EU priorities and CARD.

Two projects from the 2021 EDF call for proposals were handed to the Agency for 'indirect management' - deploying and allocating funding nationally and financing from the EU budget - in 2022:

- Advanced Radar Technology in eUROpe (ARTURO)
- Research in eco-designed ballistic systems for durable lightweight protections against current and new threats in platform and personal applications (ECOBALLIFE).

The estimated total budget for both projects is about €30 million.

JOINT CAPABILITY DEVELOPMENT

At the end of 2022, EDA supported an overall portfolio of 97 cooperative projects and programmes (69 of which are related to research and technology, and 28 to capability development), with a total value of €672 million.

MILITARY MOBILITY

Military Mobility covers the movement of military personnel, goods and assets from one place to another in the European Union and NATO in Europe. EDA is committed to supporting its Member States to overcoming administrative hurdles to movement while ensuring coherence with NATO. In 2022, particular attention was given to the implementation of the two technical arrangements to optimise cross-border permission procedures in the land and air domains. Regarding the programme 'Harmonising Military Requirements Related to Customs', work focused on the assessment of the needs, gains, and risks for the development of electronic data for information exchange between customs and military forces. Furthermore, after Russia's invasion of Ukraine, Member States supporting the 'Multi Modal Transport Hub' project decided to make use of the "free run measure" of the technical arrangement for border crossing and transit for surface movement. All activities are in line with the 'Enhanced Military Mobility' Focus Area of the first CARD report.

AIR COMBAT TRAINING

EDA supports its Member States in the development of a European Air Combat Training capability, seeking

to optimise the use of fighter aircraft flight time in combat. In 2022, efforts focused on the provision of a practice enemy, known as a red air capability. To this end, EDA proposed common requirements for those governments interested in working further together. The Agency has conducted a preliminary market consultation. . Based on these findings, EDA elaborated a business case to propose options to take further the development of red air capabilities.

PROTECTION AGAINST AIRBORNE THREATS

Anti-Access/Area-Denial (A2/AD) - an attempt to deny an enemy's freedom of movement in a contested region - is another Focus Area identified in the first CARD report. The initial work has been on countering unmanned aerial systems (C-UAS). An A2/AD working group has been established in the Agency under the remit of EDA's Project Team Air Superiority. EDA is promoting the development of a toolbox to counter unmanned aerial systems (C-UAS), beginning with workshops to agree common operational requirements.

AIR MOBILITY

Work in 2022 centred on the implementation of the technical arrangement to cover the movements of fighter aircraft, rotary wing, and other specialised platforms. EDA helped in the development of common requirements, both for the 'Strategic Air Transport Outsized Cargo' (SATOC) and 'Future Mid-size Tactical Transport' (FMTC) activities. Together with Member States, EDA is also looking at ways to develop such activities with multirole helicopters.



After years of preparation, two major programmes to develop future platforms, namely SATOC and FMTC, take-off. These systems will form fleets that provide strategic autonomy to Member States' air mobility while fostering the European defence industry."

UNMANNED AIRCRAFT SYSTEM (UAS) INTEGRATION

Throughout 2022, EDA continued to support efforts for the integration of RPAS into European airspace. EDA funded a project to help develop safe flight termination landings of RPAS that experience loss of a control link and degraded performance, using Artificial Intelligence (AI). The 'Safe Autonomous Flight Termination' (SAFETERM) project was completed and demonstrated in June 2022 with a successful flight campaign in a live operational environment.

EDA's Single European Sky Unit worked with standardization bodies, such as EUROCAE, to ensure that military requirements are set into civil standards, supporting the development of dual-use technologies, and facilitating the certification process. Furthermore, EDA supported the integration of all types of drones in the airspace by promoting military needs and requirements in this context. EDA contributed to the implementation of the Drone Strategy 2.0 (COM(2022) 652 final) that identifies 10 out of 19 flagship actions linked to civil-military synergies.



At the Single European Sky unit, we focus on supporting the Member States in their efforts to execute missions in the most efficient manner, while supporting the integration of their weapon systems into airspace. EDA serves the Member States by providing funding and resources to support their interests and strategic goals."

EUROPEAN STRATEGIC TANKER CAPABILITY

The 'Multinational Multirole Tanker and Transport Fleet' (MMF), a project initiated and supported by EDA, grew further in 2022. The project has now delivered seven aircraft to the fleet's main operating base in Eindhoven. The MMF contributes to closing the significant air-to-air refuelling capability gap. The fleet has already provided six million litres – or about twice the volume of an Olympic-size swimming pool – of fuel to NATO allies. MMF aircraft were the first tankers to deploy over Poland in support of NATO air policing following Russia's invasion of Ukraine.

COUNTERING IMPROVISED EXPLOSIVE DEVICES (C-IED)

'Bison Counter C-IED Exercise Capability Building' (BC-EX) took place in 2022. This provided the opportunity to review previous editions and reflect them in the planning phase for the next exercise of this series, 'Bison Counter 23', which was launched simultaneously. BC-EX is the main multinational C-IED

exercise among Western allies and is conducted in Europe. This live field exercise series is a way to improve interoperability among Member States as they seek to better shield troops against improvised explosive devices.

In the C-IED maritime domain, EDA launched the project 'Technical Exploitation in the Maritime Environment' (TEXMAR), which aims at developing and testing standard Tactics, Techniques and Procedures (TTPs) to execute Technical Exploitation Level One in the Maritime Environment. Two diving workshops were conducted and addressed some of the critical aspects of underwater post-blast investigations in different scenarios, including hostile action on underwater critical infrastructure such as internet cables or pipelines.

Also in the Technical Exploitation domain, deployable laboratory capabilities - developed through the project 'Joint Deployable Exploitation and Analysis Laboratory' (JDEAL) - were employed in operations for the first time. This was in support of an International Criminal Court (ICC) operation investigating war crimes in Ukraine.



Countering Improvised Explosive Devices (C-IED) is a systematic approach supporting planning and conduct of military operations in any threat environment where explosive hazards and improvised threats challenge the freedom of manoeuvre. This is particularly relevant in current hybrid conflicts."



PERSONNEL RECOVERY

Military personnel carry the risk of being captured or maltreated by enemy forces in a hostile environment. Ensuring their swift and safe recovery encompasses diplomatic, civil and military coordination. At EDA, the 'Joint Personnel Recovery Education and Training Courses' (JPR-ETC) project continued to provide opportunities to all participating Member States to train their military staff as specialists in personnel recovery. Moreover, EDA's project 'Tactical Personnel Recovery Mission Simulator' (TPRMS) progressed and reached its Full Operational Capability (FOC) in December 2022. A follow-on project TPRMS pilot course has started, paving the way for the development of a common European approach in conducting personnel recovery training by simulation.

CBRN DEFENCE

As part of efforts to increase the safety of European armed forces and the wider population, the EU is developing a sensor network that can produce a recognised picture of a chemical, biological, radiological and nuclear (CBRN) threat over a specific area.

In 2022, EDA's 'Chemical, Biological, Radiological Nuclear Surveillance as Service' (CBRN SaaS) project entered the prototyping phase. The aim of this project,

which was launched as a PESCO project but then handed over to EDA for practical implementation, is to develop a rapidly deployable, round-the-clock, chemical, biological, radiological, and nuclear reconnaissance and surveillance capability.

In the meantime, this project has been synchronised with another project 'Chemical, Biological, Radiological Nuclear Reconnaissance Surveillance System', funded by the European Defence Industrial Development Programme (EDIDP). EDA is the project manager. Both projects will end with a final report in mid-2024.

MARITIME SURVEILLANCE: EUROPE'S EYES AT SEA

One of the longest-running projects undertaken by EDA, the 'Maritime Surveillance' (MARSUR) project, helps facilitate the exchange of operational maritime information and services such as ship positions, tracks, identification data, chat or images. Following on from work to develop the capabilities of the system, the Agency launched its third phase in 2020, MARSUR III, focused on the development of a next generation system. MARSUR III will enhance the system's interoperability with other maritime security regimes to enhance MARSUR's operational use in CSDP missions and operations.

Following the signature of a contract in November 2022, this technology should be ready in early 2024, including capabilities for the exchange of classified information at EU RESTRICTED level. Work on improving the connectivity between MARSUR and the EU Common Information Sharing Environment (CISE) continued in 2022 with EDA support.

EUROPEAN PATROL CORVETTE

The European Patrol Corvette is a major PESCO project for a new class of military ship. In October 2022, the four companies involved in the EDA-supported European Patrol Corvette project signed a preliminary agreement for the initial design of the new vessel, maximising collaboration in the European shipbuilding industry. The participating countries of France, Italy, Greece and Spain aim to see it in operation at the end of the decade.

SPACE

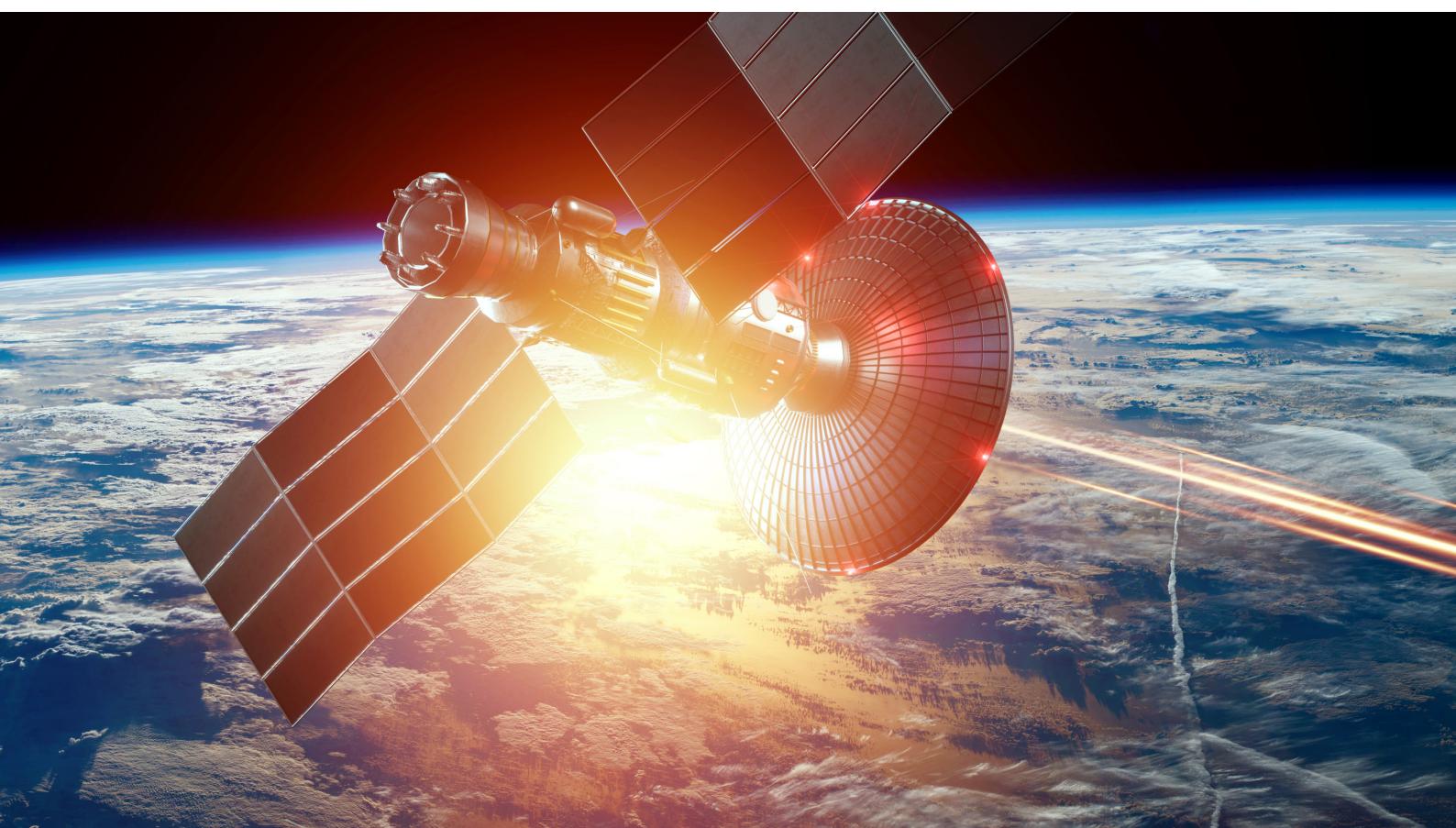
Defence in Space was identified as a Focus Area in the first CARD report, recommending that Member States collaborate to improve access to space services and protect space-based assets. Since then, several Member States have declared their interest in this Focus Area, with France and Spain becoming formal facilitators in 2022.

In governmental satellite communications (GOVSATCOM), the EDA 'GOVSATCOM Pooling and Sharing Demonstration' project increased the number of contributing members in 2022. That has led to an increase of the number of secure and guaranteed GOVSATCOM services to the EU Military Staff. For the first time, the EDA project supported the secure communications of an EU military operation in 2022.

As regards 'Space-Based Earth Observation' (SBEO), EDA continued to develop tools to assist imagery intelligence analysts to effectively improve the exploitation of synthetic aperture radar imagery for military operations. In the context of 'Position, Navigation and Timing' (PNT), EDA continued its work on the development of a planning support tool for 'Navigation Warfare' (GEONAV) operations.

CYBER DEFENCE: EDA SUPPORTS NATIONAL RESPONSE TEAMS

In November 2022, Ministers of Defence signed the new EDA project for the 'Military Computer Emergency Response Team Operational Network' (MICNET). The establishment of this operational network of national response teams, known as milCERTs, is a substantial step towards enhancing the level of cooperation in the cyber domain at EU level.



Eighteen countries have joined the EDA initiative, which aims to foster the exchange of information at a time when computer networks are increasingly contested and the number of cyber-attacks against the EU and its Member States continues to grow. MICNET will be managed by EDA.

EDA also maintained its cyber defence-related projects, including the 'Cyber Ranges Federation', and is developing a new framework for 'Cyber Defence Exercises' (CyDef-X). The aim is to develop regular, as well as annual, cyber training exercises for EDA's members.

COMMUNICATIONS AND INFORMATION SYSTEMS

EDA acts as project manager of the EDIDP 'European Command and Control System from strategic to tactical level' (ESC2) project. Work continued in 2022 to provide command-and-control tools designed to support decision-making, planning, and to conduct of CSDP missions and operations from the strategic to the operational level, with points of presence at the tactical level.

Separately, EDA, jointly with the European Union Satellite Centre, promoted the use of, and supported, the 'Geospatial Information Hub' (GeohuB), to ease decision-making at the EU Operational Headquarters

(OHQ) and at the national level. GeohuB was deployed at the Hellenic EU OHQ in Larissa, Greece, in October 2022.

AVIATION CYBER: CRUCIAL HINTS TO INVESTIGATE CYBER RESILIENCE OF MILITARY AVIATION

In 2022, EDA launched a call for tender for a framework contract for the CRUCIAL HINTS project, which focuses on cyber resilience in the air domain by taking into account elements including communication, navigation, surveillance, AI, radio spectrum, electromagnetic activities and supply chain security. EDA established the need for the project as Member States look to improve their cyber resilience against the background of a cyber-threat landscape that military aviation operations are increasingly exposed to. The project will seek potential solutions, as well as guidance, to develop a concept for a military aviation exercise in a cyber and electromagnetically contested environment.



JOINT RESEARCH & TECHNOLOGY (R&T) AND INNOVATION



Our ambition is to provide Member States with a preferred framework for collaborative defence research projects."

Moritz Haller,
Research, Technology and Innovation Coordinator

CAPABILITY TECHNOLOGY GROUPS (CAPTECHS)

In 2022, there were 18 new EDA R&T ad hoc Cat. B project arrangements worth €76 million. Automation was a theme common to many new projects such as the Combat Unmanned Ground Systems (CUGS), Automatic Air to Air Refuelling (A3R H&D I), and Autonomous Space-based Situational Awareness & Artificial Intelligence (ASSAI). The new projects add to the portfolio of projects already running, representing an overall value of €277 million. These results, as well as the accomplishments below, have been achieved within the framework of the CapTechs that are contributing to the development of future defence capabilities in their respective areas.

Here are the highlights:

- CapTech Aerial Systems (Air) focused on the areas of air superiority, air mobility and integration of military air capabilities in a changing aviation sector. The project on 'Automatic Air-to-Air Refuelling, Hose & Drogue' was kicked-off, and technical feasibility studies on the military transport drone domain continued in 2022.
- CapTech Ground Systems (Land) launched three projects in the area of power generation (ELUVAT, LITBAT and FUSS), and four others were established (ATRIT, SafeNGVA, PASEI II, and CUGS), addressing target acquisition, secure communication, protection and weaponisation

of unmanned ground systems. Two studies investigating new active protection solutions and anti-drone protection systems for land platforms were concluded.

- CapTech Naval Systems (Maritime) contributed to the development and standardisation of a protocol stack for self-configurable underwater acoustic networks for the finalisation of the SALSA project. The completed project SIMMO II developed a set of state-of-the-art methodologies and tools for the collection, fusion and analysis of maritime data.
- CapTech Missiles and Munitions kicked off two new projects. The EMPOF project will lead to a more independent Europe with respect to the production of all required energetic formulations, minimising the environmental footprint. The project EUDetCode is working to develop a state-of-the-art software tool for the European defence community to accurately predict the performance of energetic materials.
- CapTech Cyber Research & Technology (Cyber) concluded the study on homomorphic encryption, while a study relevant to fifth-generation (5G) security, and a project focused on Cyber Electromagnetic Resilience Evaluation on Replicated Environment CERERE, were both contracted in December 2022.

- CapTech Experimentation, System of Systems, Battlelab and Modelling & Simulation (Simulation) successfully concluded the project focused on 'Common Operational Picture in Disaster Crisis Management' (COPDCM).
- CapTech Space was established in December 2022 by the EDA Steering Board to continue the work of the 'Ad Hoc Working Group Space', which started operation in January 2021. The CapTech also contributed significantly to the EDA Technology Foresight Workshop on Space Technologies and the EDA Innovation Prize 2022 in the space domain. Its first 'Autonomous Space-based Situational Awareness & Artificial Intelligence' (ASSAI) was signed in 2022.
- CapTech Guidance, Navigation and Control (GNC) worked on projects covering technologies for areas including advanced positioning systems for soldiers in urban environments, beyond line-of-sight precision ammunition, and AI in GNC in the aerial domain.
- CapTech Radio Frequency Sensors Technologies (Radar) worked on projects aiming at increasing the recognition and classification of targets, the use of jammer-based passive radar, cognitive radar and communications and radars hardened with AI in electronic warfare (EW) environments. Other work included the development of a new system for 'Non-Cooperative Target Recognition' (NCTR) based on 3D radar imaging, studying novel smart electronic protection measures on mobile and airborne platforms.
- CapTech Technologies for Components and Modules (TCM) finalised the project PICTURE on photonic integrated circuits for radio frequencies, the project PACKOOL on thermal management, the project METALES 2 on metamaterials for antennas, the project EDA SoC 2 on system-on-chip and anti-tampering techniques, and the project MUSTANG on gallium nitride (GaN) components for wideband and narrow band applications.
- CapTech Materials and Structures (Materials) completed the ICARO programme consolidation, which is expected to be a reference for the future material developments at EU level. Examples of advanced materials developed within this CapTech are non-Newtonian fluids for advanced shock absorbers and auxetic materials for innovative ballistic protection.
- CapTech Chemical, Biological, Radiological and Nuclear (CBRN) and Human Factors' (CBRN & HF) managed projects focusing on methods for testing and evaluation of biological sampling, identification and detection equipment and the European Biodefence Laboratory Network, as well as on cold weather operations. A new project on serious gaming (SEGARES) was launched.
- CapTech Energy and Environment (Energy) worked on the study for Waste to Energy (WTE) Technologies in Defence aimed at providing suitable solutions to waste management by implementing WTE technologies in military camps. A platform for defence energy data collection and processing was created and will be developed further under a new project.

EMERGING DISRUPTIVE TECHNOLOGIES (EDTs)

Emerging Disruptive Technologies (EDTs) are expected to have an increasingly disruptive impact on defence and revolutionise future military capabilities and operations. EDA developed a 'Capability-Driven Emerging Disruptive Technologies Action Plan' to monitor EDTs and identify collaborative opportunities. The first EDT Annual Monitoring Document, delivered in late 2022, identifies trends and applications of emerging disruptive technologies in the civil and military domain, provides preliminary global market analysis, and maps EDT-relevant studies and projects in the EDA framework.

ARTIFICIAL INTELLIGENCE (AI)

In 2022, EDA continued the implementation of the actions foreseen in the 'EDA Artificial Intelligence Action Plan'. CapTechs kept up development on collaborative AI-based, ad hoc projects to further stimulate the application of AI in future defence activities. They include: 'AI for Detection, Recognition, Identification and Tracking of Difficult Targets' (ARTINDET) and 'Artificial Intelligence in Guidance, Navigation and Control For Aerial Assets' (AI-GNCAir).

EDA developed functional requirements for the use of AI to enhance air surveillance within the scope of the 'Integrate Military Air Capabilities in Single European Sky' (IMAC-SES) programme.

AUTONOMOUS SYSTEMS (AS)

In military context, autonomous systems provide operational benefits across a broad range of missions, from intelligence, surveillance, reconnaissance, and logistics missions to combat operations. Warfare with autonomous capabilities can be very different in terms of purpose and technical characteristics in the multi-domain battlefield of the future.

In 2022, EDA started the preparation of the EDA 'Action Plan on Autonomous Systems' (APAS). This action plan will define a strategy for developing the technology to address other challenges related to the development and deployment of AS for military operations.

DEFENCE INNOVATION

In 2022, EDA launched its 'Hub for EU Defence Innovation' (HEDI). This came after the EU Strategic Compass for Security and Defence called for the

creation of such a hub. The first result from HEDI was the European Defence Innovation Day, held in Brussels in May 2022. The event attracted a high number of participants, both physically and remotely, from across Europe and beyond. Participants benefitted from a conference, technical talks and an exhibition of innovation project results and prototypes by both the EDA-sponsored Capability Technology groups (CapTechs) and the Member States.

The second milestone for HEDI was the launch of the 'European Defence Innovation Network'. The first meeting of the network was held at EDA in Brussels in October 2022. The network focuses on the exchange of best practices, methodologies, experiences, lessons identified and learned, specific projects, initiatives, and state of play on EDTs. The network will follow developments in the field of defence innovation as well as propose concrete activities that could contribute to accelerating the implementation of defence innovation in Europe.



With the establishment of HEDI we have the perfect toolbox to speed up development of innovative solutions to the most pressing defence challenges."

Federica Valente,
Research, Technology and Innovation Coordinator



EDA DEFENCE INNOVATION PRIZE

The 'EDA Defence Innovation Prize' contest rewards companies and research entities that come up with innovative technologies, processes, or services applicable in the defence domain. In 2022, it was devoted to space-based surveillance and reconnaissance defence technologies (space domain) focusing on debris and artificial orbiting objects. The winner was Share My Space, a Toulouse-based 'NewSpace' company founded in 2017 and part of the emerging commercial space industry. The €30,000 prize was awarded at EDA's annual conference in Brussels in December 2022. The 2022 edition was done in collaboration with the European Space Agency (ESA), namely with Space Debris Office within ESA's Directorate for Operations.

EU-FUNDED DEFENCE RESEARCH

In 2022, EDA continued indirect management of the 'Preparatory Action on Defence Research' (PADR). EDA finalised three projects: ACAMSII, VESTLIFE and SOLOMON. It continued managing nine projects: TALOS, EXCEED, AIDED, ARTUS, CROWN, INTERACT, OPTIMISE, PILUM and QuantaQuest. The ongoing projects cover the following topics: electromagnetic spectrum dominance; future disruptive defence technologies; unmanned systems; a European high-performance, trustable (re)configurable system-on-a-chip for defence; and a European high power laser effector.

COOPERATION ENABLERS & INCENTIVES



The geopolitical environment requires that Members States have in place the capabilities and procedures to move faster and efficiently during peacetime and in times of crisis. Military Mobility is high on the political agenda and we are addressing the future challenges with a holistic approach. A lot was achieved by Member States in 2022, but more needs to be done"

Apostolia Gkouliani,
Project Officer Military Mobility

STANDARDISATION

The harmonisation of applied defence standards in Europe allows greater interoperability of materiel used by European forces. In March 2022, EDA organised a pilot webinar on standardisation training, bringing together more than 100 participants, aimed at raising awareness on European defence standardisation tools and processes.

The 'European Defence Standardisation Committee' (EDSC) and the 'European Defence Standardisation Management Group' (EDSMG) were set up in 2021. The 'Joint Maintenance Group' (JMG) - managing the 'European Defence Standardisation Reference System' (EDSTAR) - was established in October 2022. This new governance enables smooth and efficient interaction in European defence standardisation.

NEW AIRWORTHINESS ROADMAP

EDA's 'Military Airworthiness Authorities' (MAWA) Forum has been tasked by the Ministers of Defence to agree common 'European Military Airworthiness Requirements' (EMAR) based on the European Aviation Safety Agency's (EASA) regulations. In 2022, EDA continued its support to work on the 'Airworthiness Roadmap', which is nearing completion. EDA is tasked to investigate potential next steps. Updates to the

'European Military Airworthiness Requirements' (EMARs) are proceeding as planned. In addition, an EMAR training programme has been agreed by participating Member States, aiming for the first course to be carried out in 2024.

SATCOM

EDA's EU Satellite Communications (SatCom) Market provides an efficient option to source commercially available SatCom and CIS services to its members. Between the end of 2022 and 2012, the total number of satellite communication orders delivered through EDA's EU SatCom Market was over 630. There are four specific contracts running for 'Common Information Sharing' (CIS) services, including an EU-Restricted Network to connect the 'Military Planning and Conduct Capability' (MPCC) headquarters, with all EU training missions in the field, as well as in operations. EDA will also work on a 'Day Zero Deployable' solution to support MPCC during 2023 and 2025 in line with the guidance given by the EU's Strategic Compass.

EDA's 'J1 Functional Area Service' (J1FAS), a specialist software tool aimed at facilitating and supporting the management of human resources in national and international military missions, is deployed in the EU military operation ATALANTA.

Between 2012 and 2022, the total number of satellite communication orders delivered through EDA's EU SatCom Market was over 630.



For more than a decade, EDA's helicopter programmes have provided highly valuable training to Member States, supporting them to improve their multinational interoperability levels and their preparation to engage in new operational scenarios. In 2023, EDA's effort will be focused on ensuring a successful transfer of responsibility of those helicopter programmes to the Multinational Helicopter Training Centre (MHTC)."

José Pablo Romera,

Project Officer Rotary Wing

TRAINING AND EXERCISES

In the air domain, EDA's fixed wing initiative 'Transport Pilot Training Capacity' was completed in 2022. The training programme was endorsed by nine participating Member States. As a result of this effort, the schools of France, Italy, and Spain are categorised as European Defence Airlift Schools. Furthermore, 17 participating Member States have signed the common technical arrangement for air transport training and exercises, which allows the signatory nations to take part in training and exercises without dedicated arrangements as in the past.

A new initiative aimed at standardising common fixed wing tactical MEDEVAC procedures and enhancing interoperability within C-295 aircraft operators is ongoing, with training carried out in December 2022 in Prague.

The 'Multinational Helicopter Training Centre' (MHTC) programme reached a major milestone in June 2022 with the signature of the technical arrangement by 13 participating Member States and Serbia. The MHTC will reach its Initial Operational Capability (IOC) at the end of 2023, when EDA's helicopter programmes will be transferred to the Portuguese Airbase n°1, in Sintra, Portugal.

During 2022, EDA provided 42 weeks of multinational helicopter tactics training. This included the 'Fire Blade 2022' exercise, which was the 16th multinational helicopter exercise performed in the context of the EDA 'Helicopter Exercise Programme' (HEP) in June in Hungary and the 13th Helicopter Tactics Symposium, which took place in Salzburg, Austria. It also comprised a total of eight basic and advanced helicopter tactics courses, three electronic warfare courses and two composite air operations planning courses, delivered in the EDA Helicopter Training Centre in Sintra.

At the end of 2022, EDA celebrated a decade of management of its helicopter programmes in the area of training and exercises, which have become one of the most recognised programmes of the Agency.

VAT EXEMPTION

In the area of financial incentives for Member States, additional projects and programmes incorporating the provisions relating to VAT exemption have been concluded. Considering that the overall value of these projects is over €218 million, the actual financial benefit of the VAT exemption for Member States stands at approximately €44 million, based on the signed contract values.

EDA AS A BRIDGE BETWEEN THE MILITARY AND WIDER EU POLICIES

MILITARY MOBILITY

In November 2022, the European Commission, along with EDA, presented the second Military Mobility Action Plan, responding both to Russia's invasion of Ukraine and the EU's Strategic Compass on Security and Defence. After the two technical arrangements were signed in 2021 by more than 20 EU Member States addressing regulatory issues for cross-border movement permissions, recommendations for the transport of dangerous goods in the land and air domains have now been established for the Member States who signed the technical arrangements, with a view to expanding the scope also to the maritime domain. EDA has also pushed for the inclusion of Air Traffic Management (in relation to Single European Sky) into the Action Plan and into the 2023 edition of the Military Requirements.

In 2022, a special "EU 302" form was taken up by Member States to reduce formalities for cross-border military movement involving customs. The harmonised form can encompass all necessary information related to military movement. Having implemented the EU form 302, Member States can now move towards the digitalisation of military customs-related activities to reduce the administrative burden and ease customs-related activities.

ENERGY & ENVIRONMENT

With the European Green Deal, the EU - the world's third-biggest greenhouse gas emitter – aims to become climate neutral by 2050. This has huge security implications for EU armed forces who should also reduce their carbon footprint to help meet that goal.

Throughout 2022, EDA and the European Commission continued to implement the third phase of the 'Consultation Forum for Sustainable Energy in the Defence and Security Sector' (CF SEDSS III).

In June, EDA organised the fourth CF SEDSS III plenary conference in Bordeaux, France. This conference was combined with the first CF SEDSS III 'Energy Technology Solutions' (ETS) conference and an onsite exhibition on strategic autonomy in the defence energy sector. The conference marked the finalisation of the first cycle of the project and paved the way for further strengthening the energy resilience and autonomy of the defence sector.

In August, EDA signed the grant agreement with the European Climate, Infrastructure and Environment Executive Agency (CINEA) for the Symbiosis-Offshore Renewable Energy for Defence project. The project was launched in October for 30 months with an EU contribution of €2 million. The Symbiosis project is set to produce a map of maritime areas reserved for military activities and suitable for offshore energy development. The project will also propose solutions to foster co-existence between offshore renewable energy installations and defence systems. Symbiosis is seen as a precursor to future defence energy projects that could explore further the interlinkages between the defence sector and civilian energy.

EDA also developed the Incubation Forum for Circular Economy in European Defence (IF CEED).

In September, EDA's chief executive opened the first annual general conference IF CEED. About 150 defence experts from over 20 European countries discussed how the defence sector can mitigate its environmental footprint by applying and promoting the principles of a more circular economy in European defence. Funded by the European Commission and the Directorate of Defence of Luxembourg's Ministry of Foreign and European Affairs, IF CEED is a two-year programme managed by EDA.

In November, the fifth CF SEDSS plenary conference took place in Prague, under the auspices of the Czech Presidency of the Council of the EU and hosted by the Ministry of Defence of the Czech Republic. The



EDA's new Symbiosis project acknowledges that co-existence between the defence and civil sectors is crucial to harnessing the full benefits of offshore renewable energy, ensuring a cleaner and safer future for all."

Constantinos Hadjisavvas,
Project Officer Energy

Forum showed the way ahead to support the defence energy transition. The conference also contributed to implementing broader EU actions, including the EU's Climate Change and Defence Roadmap, Member States' defence strategies for climate change adaptability, the EU's offshore energy strategy, and the Action Plan on Military Mobility.

Separately, EDA's 'Defence Energy Managers' Course' (DEMC) was completed in 2022. In seven editions, DEMC trained over 100 participants from over 50 national military installations across 12 Member States, bringing considerable savings in terms of energy, CO2 emissions, and water consumption.

SINGLE EUROPEAN SKY

In the context of implementing the Air aspects of the Strategic Compass, EDA co-organised with the French Air and Space Force the 'EU Wings Seminar', initiating a commitment for the implementation of the Strategic Compass linked to the air domain. Particularly, the report of the event fed the strategic reflection to ensure a free, safe and secure European access to airspace.

EDA supported its Member States in monitoring and raising military concerns during the Single European Sky reform legislative process. At the request of several Member States, EDA has also created a 'Military Air Traffic Controller' (ATCO) working group which has been working on developing a non-binding European basic training programme for military ATCOs to be used as a reference by the military.

In 2022, EDA supported its Member States in assessing regulatory proposals in the air traffic management domain developed by the European Aviation Safety Agency. EDA continued to provide the military view into the European Commission led 'Higher Airspace Operations' initiative. In 2022, EDA also worked alongside the Commission in the Drone Strategy 2.0 and ensured that defence and security requirements were taken on board. For the 'Single European Sky ATM Research' (SESAR), EDA supported Member States in monitoring and contributing to SESAR-related activities.

PARTNERS

RELATIONS WITH THIRD STATES

In 2022, the Agency conducted a review of the involvement in EDA activities and projects of third parties which whom it has concluded an Administrative Arrangement (AA). To date, the Agency has entered into an AA with four countries (Norway, Switzerland, Ukraine, and Serbia) and two international organisations (OCCAR and ESA). To provide the Steering Board with a comprehensive overview of the full breadth of third parties current involvement in EDA activities, including potential imbalances in the cooperation, this review was presented in September 2022.

ADMINISTRATIVE ARRANGEMENT (AA) COUNTRIES

In the meantime, EDA further developed its relations with the four AA countries.

Norway remained the most involved of them, after 16 years, with cooperation extending to all four areas and over 30 areas of work in which it is involved. Research & Technology (R&T) is the area where cooperation with Norway is the deepest.

Switzerland's involvement in EDA continued to be mainly focused on R&T, even though cooperation also developed in other areas, notably cyber and helicopter training.

The scope of limited cooperation with **Serbia** was reduced in 2022 as a result of the national decision to suspend participation in multinational exercises. Serbia remains involved in EDA standardisation activities, as well as in the Consultation Forum on Sustainable Energy in the Defence and Security Sector (CF SEDSS).

Russia's unprovoked invasion of **Ukraine** has prevented Kyiv from participating in EDA activities under the Administrative Arrangement concluded in 2015. During the dedicated dialogue in September 2022, Member States confirmed their readiness to make best use of the AA to support Ukraine, where relevant, which was welcomed by the Ukrainian representative.

U.S. REQUEST FOR AN ADMINISTRATIVE ARRANGEMENT (AA) WITH EDA

Based on the negotiation mandate approved by the Steering Board in November 2021, the Agency initiated negotiations with the **United States** Department of Defense. Negotiations continued in 2022 and were successfully concluded in early 2023. The aim is to enable a substantial defence dialogue on all topics within EDA's remit, as well as invitations for both sides to attend relevant meetings in both institutions. The cooperation is set to include participation in the open sessions of the European Defence Standardisation Committee. The scope of cooperation may, upon mutual consent, progressively develop in the future. Capability development, as well as R&T, are set to remain outside the scope of cooperation.

DENMARK TO JOIN EDA

The decision from **Denmark** to abolish its opt-out related to EU defence allowed, from 1 July 2022, its full participation in the EU's Common Security and Defence Policy (CSDP). The Danish Government expressed its intention to join EDA, subject to parliamentary approval. It has since notified its intention to the Council and informed the High Representative. Denmark became a full participating member of EDA in 2023.

Even though Denmark was neither a member nor linked to the Agency through an Administrative Arrangement in 2022, it was still linked to discussions within EDA directly related to wider EU policies and regulations, and activities for which funding from the EU budget is envisaged. The Agency also worked to ensure that Denmark might benefit from the use of MARSUR maritime surveillance in the pilot case of the Coordinated Maritime Presences in the Gulf of Guinea off the coast of West Africa.

NATO

In 2022, the Agency's close cooperation with the North Atlantic Treaty Organisation (**NATO**) focused on ensuring coherence between EU and NATO defence planning processes, and respective capability development efforts in areas such as military mobility, cyber, hybrid, air-to-air refuelling, military aviation, and standardisation.

The EDA Chief Executive provided an update on EDA's work to the NATO Conference of National Armament Directors in April and September 2022, while NATO provided an update to EDA National Armament Directors in March and September 2022.

The Agency also supported Member States in ensuring that there is no unnecessary duplication between PESCO projects and activities undertaken in other frameworks in NATO. EDA has continued to take part, together with the EU Military Staff (EUMS), in seven out of eight activities of the 'Multinational Capability Development Campaign' (MCDC), a multinational framework supported by NATO, and focused on different projects.

OCCAR

Bilateral cooperation with the Organisation for Joint Armament Co-operation (OCCAR) in the framework of

the Administrative Arrangement continued. OCCAR and EDA kept supporting the 'Multinational Multi Role Tanker Transport Fleet' (MMF), with the first seven aircrafts already delivered.

Other cooperation included the 'European Secure Software Defined Radio' (ESSOR), standardisation, 'Military Airworthiness' and the 'European MALE RPAS' programme. In April 2022, EDA and OCCAR signed their support to the second stage of MALE RPAS.

In December, EDA, OCCAR and the European Commission signed contribution agreements to delegate the implementation, under indirect management, of four strategic defence projects under the European Defence Fund (EDF).

OTHER PARTNERS

The cooperation with other partners such as the European Aviation Safety Agency (EASA), Eurocontrol, the Single European Sky Air Traffic Research Joint Undertaking (SESAR JU), the SESAR Deployment Alliance, the European Air Transport Command (EATC), EU SatCen and the European Security and Defence College (ESDC) continued in their respective areas of activities.



IN-HOUSE

EU CLASSIFIED INFORMATION (EUCI)

EDA focused its efforts on the electronic handling of EU classified and sensitive information to improve information security. During 2022, EDA obtained the necessary security accreditation and approval to operate to handle EU Classified Information up to the SECRET EU/EU SECRET level of classification.

In 2022, the EU CI projects have evolved significantly. Work continues to build two separate networks, one accredited to handle classified information up to SECRET UE/EU SECRET and the other up to RESTRICTED UE/EU RESTRICTED.

ANNUAL CONFERENCE

In December 2022, EDA held its annual conference, entitled "Investing in European Defence". Bringing together speakers including senior officials from the outgoing Czech EU presidency of the Council, the incoming Swedish EU presidency of the Council, the U.S. ambassador to NATO and figures in the EU defence industry, the conference was opened by Head of Agency and EU High Representative Josep Borrell.

The event was well attended, with more than 1,300 registered participants, with 270 external participants onsite and more than 1,000 people viewing online. The event was widely covered in international media, with a particular focus on the annual defence data for 2020-21, released on the day.

DEFENCE DATA

EDA published its annual defence data report for 2020-2021 in December 2022, detailing defence spending by the EDA's 26 Member States. In 2021, total European defence spending reached a new high of €214 billion, marking a 6% increase in 2020 and the seventh year of consecutive growth. EDA's report found that Member States are investing more than ever in the procurement of defence equipment and research and development with a 16% rise compared to 2020, totalling a record €52 billion.

ACCESS TO DOCUMENTS

EDA will continue to publish documents on its website under "EDA DOCUMENTS" in order to make them directly available to the public without the need to submit an access to documents request and to increase transparency and the availability of information about EDA's activities. If, however, an EDA document has not been published yet, a request for access can be made. Applications shall be made in writing and sent to the Agency by email to accesstodocuments@eda.europa.eu.



As an EU Agency acting under the authority of the Council to support Member States, EDA is in a unique position in the EU institutional landscape: it operates under EU law in a domain which is, in essence, intergovernmental. This duality carries with it a breadth of legal considerations and challenges which make the Legal Office a key enabler to successfully achieve the Agency's objectives in a legally sound and coherent way."

Clarisse Ribeiro,
Legal Adviser/DPO, Head of the Legal Office



EUROPEAN
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ANNUAL CONFERENCE | 08.12.22
Brussels + Online

INVESTING
IN EUROPEAN DEFENCE

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EDA PORTFOLIO

Number of projects, programmes and activities which were in progress at year-end 2022:



EDA Operational Budget

**€5.63
million**



Ad hoc Capability and R&T

97

(28 CAP, 69 R&T)



Generic & Supporting Activities

87



Support to PESCO projects

8

(including those in an EDA framework)

Member States' contribution to ongoing ad hoc Capability and R&T programmes and projects

**€234.54
million**



(with effect end – 2022, in million €)*

**€42.57
million**



Industrial Contribution

**€19.99
million**



Total:

**€319.69
million**

**€22.59
million**



PESCO projects that are supported by EDA:

Support as **ad hoc Cat. B**:

- CBRN Saas
- DIVEPACK
- EPC
- CIDCC

Support as **ad hoc non Cat. B** (providing temporarily expertise in a specific item)

- GMSCE
- EUNDC
- MAS MCM
- UMS
- FMTC
- SATOC

EDA Budget 2022

EDA's budget consists of the general budget, the budgets associated with ad hoc projects or programmes and budgets resulting from additional revenue for a total budget of

€151.847
million **



* Where formal agreements have been concluded

** 2022 figures are provisional

*** Ad hoc budget figures include only financial contributions directly managed by EDA

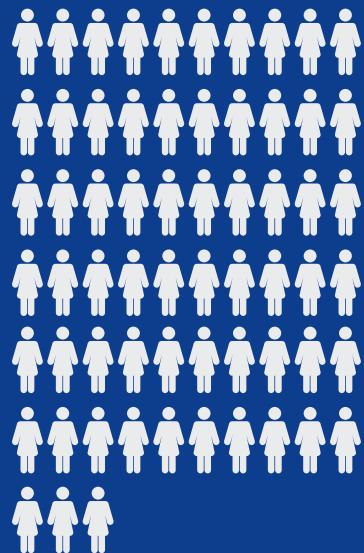
EDA Staff

171

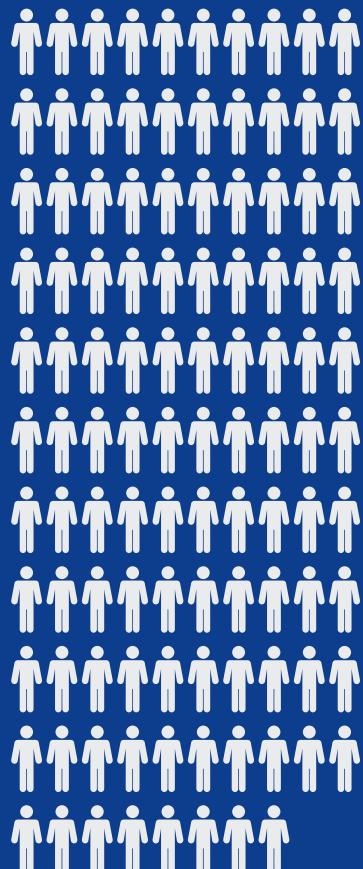
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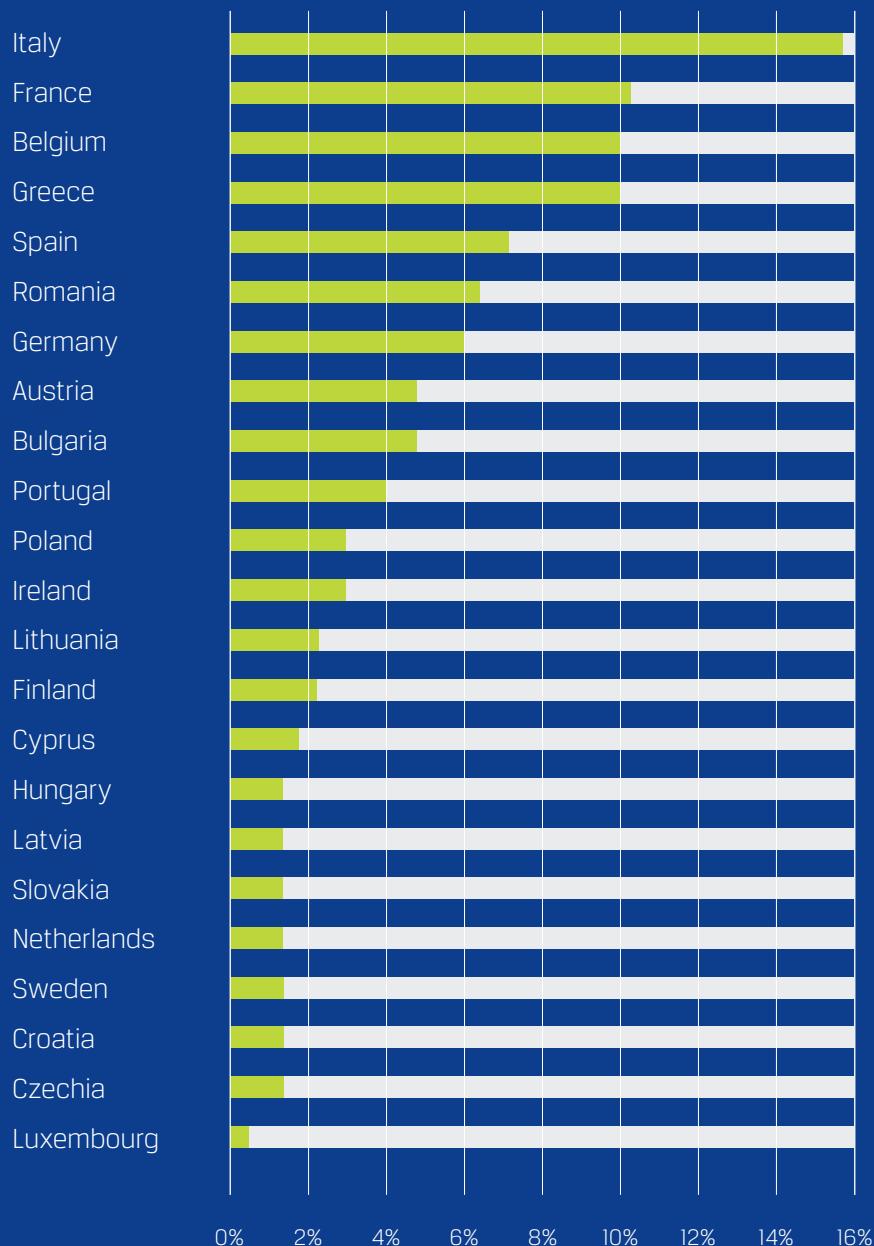
Gender distribution:

Female 37%



Male 63%



Nationality distribution:

EDA MANAGEMENT AS OF FEBRUARY 2023



Josep BORRELL,

Head of the European Defence Agency, in his role as High Representative of the Union for Foreign Affairs & Security Policy/Vice-President of the European Commission.



Jiří ŠEDIVÝ,

Chief Executive



André DENK,

Deputy Chief Executive



Emilio FAJARDO,

Director Industry,
Synergies & Enablers (ISE)



Stefano CONT,

Director Capability,
Armament and Planning (CAP)



Jean-François RIPOCHE

Director Research,
Technology and Innovation (RTI)



Ginette MANDERSCHEID,

Director Corporate Services
Directorate (CSD)

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please see our website: www.eda.europa.eu
and our biannual magazine, European Defence Matters

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