EUROPEAN
DEFENCE
AGENCY

ANNUAL
REPORT
2018

FOREWORD BY JORGE DOMECQ, EDA CHIEF EXECUTIVE

2018 was a remarkable year for EU defence cooperation in general, and for the European Defence Agency (EDA) in particular. Following the launch of several new EU defence initiatives in 2017, first successful steps were taken in 2018 towards their implementation, with EDA contributing to all of them.

A substantial part of our work in 2018 was devoted to the revision of the Capability Development Plan (CDP) and the update of the Overarching Strategic Research Agenda (OSRA) which provides a necessary link between R&T efforts and the military tasks and long-term capability needs of the CDP. Prepared in close cooperation with our Member States and with the active contributions of the EU Military Committee (EUMC) and the European Union Military Staff (EUMS), the revised CDP – and the eleven EU Capability Development Priorities derived from it – were endorsed by EDA's Steering Board in Capability Directors' composition in June. This is of strategic significance as the revised CDP serves as a key reference for the implementation of the afore-mentioned initiatives, namely the Coordinated Annual Review on Defence (CARD), the Permanent Structured Cooperation (PESCO), and the European Defence Fund (EDF). Importantly, all of them are strongly interlinked: the CDP identifies the capability priorities Member States should focus their common efforts on; CARD provides an overview of existing capabilities in Europe and identifies opportunities cooperation; PESCO offers options how to develop prioritised capabilities in a collaborative manner; and the EDF provides EU funding to support the implementation of cooperative defence projects, with a bonus for PESCO projects. The CDP implementation is underway and will remain high on EDA's agenda in 2019 with the elaboration of Strategic Context Cases for each of the eleven priorities.

The completion of the CARD trial run, launched in October 2017, was another milestone in the Agency's 2018 work programme. As the CARD Secretariat, EDA first compiled all available information on Member States' defence expenditure, capability development and European cooperation before engaging into bilateral dialogues with all 27 Ministries of Defence between October 2017 and May 2018. A first aggregated analysis presented

to Member States' Capability Directors in June was followed by our final CARD Trial Run Report presented to Defence Ministers in November. All in all, the trial run proved a useful, informative and to some extent eye-opening exercise whose findings, recommendations and lessons learned will surely contribute to making the best out of the first full CARD cycle which will be launched in autumn 2019.

2018 also saw the baptism of fire for PESCO, after its launch in December 2017. As part of the PESCO Secretariat (together with the EEAS including the EUMS), EDA helped participating Member States to identify and assess the 34 projects approved so far. Looking back, we can say that a lot has been achieved under PESCO in a very short timeframe. Its potential remains very high provided Member States remain focused on fulfilling their PESCO commitments. The Agency is already working on the first annual assessment of those commitments, due in 2019.

EDA also supported preparations for the two windows (research, capability) of the future European Defence Fund (EDF). Whereas the Pilot Project (PP) on defence research launched three years ago was successfully completed in 2018, the implementation of the Preparatory Action (PA) by the Agency also made outstanding progress. 2018 saw the signing and implementation of all the grant agreements related to the 2017 calls for proposals, as well as the publication of the 2018 calls in which 85 different entities from 20 countries participated. Regarding the EDF's capability window, EDA played its upstream role in the preparation of the European Defence Industrial Development Programme (EDIDP) work programme, ensuring coherence with the CDP priorities and assisting Member States in the consolidation and assessment of EDIDP project proposals.

Meanwhile, the Agency continued its efforts to support Member States in strengthening their defence capabilities – from planning, research and standardisation to development, procurement and training. In 2018, EDA signed 14 new project and programme arrangements, almost three times as many as in 2017 (five). Regarding the Agency's Research & Technology (R&T) ad hoc portfolio, the total value of new projects signed in 2018 reached

€56,8 million – an increase of 315% compared to the value of projects signed in 2015. The Agency currently manages 110 Ad Hoc R&T and Capability programmes and projects, three Joint Procurement Arrangements and more than 207 other activities related to capability development, research and technology and the defence industry.

Progress was also made on the EDA's four key capability programmes agreed by the EU leaders in 2013. The MALE RPAS Training Technology Demonstrator was successfully deployed to nine of the ten designated countries (the 10th has been deployed in February 2019). In the cyber domain, EDA successfully supported the establishment of the Education, Training, Exercise and Evaluation (ETEE) platform within the European Security and Defence College. The GOVSATCOM Pooling & Sharing Demonstration project arrangement was finalised which allowed the kick-off its implementation in January 2019. Finally, on Air-to-Air Refuelling, the Multinational Multi-Role Tanker Transport Fleet (MMF) programme, initiated by EDA, expanded in 2018 and now counts five participating countries. Last year also saw decisive progress in the area of standardisation as EDA Member States approved a European Defence Standardisation Strategy.

Important headway was also made regarding the development of new enablers and incentives for defence cooperation. I would notably highlight the Cooperative Financial Mechanism (CFM) for which a programme arrangement was finalised in October, also thanks to the involvement of the European Investment Bank (EIB) with whom the Agency signed a Memorandum of Understanding in February. We also saw first results as regards our ambition to increase Military Mobility. In February, EDA delivered a roadmap as a basis for the Military Mobility Action Plan presented later on by the Head of the Agency and the European Commission. EDA will continue to serve as a hub for all stakeholders involved in this important domain.

I started this foreword by saying that 2018 was a remarkable – because particularly productive – year. Even though a lot remains to be done, based on what was achieved last year, we can look forward to 2019 with optimism.

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TTING JOINT PRIORITIES

2018 Capability Development Plan – baseline for national and European defence planning

2018 was an important year for European defence capability prioritisation as the revised Capability Development Plan (CDP) was approved in June by EDA's Steering Board in Capability Directors' composition. Deriving from the new CDP, 11 EU Capability Development Priorities were defined, covering the following domains: Enabling capabilities for cyber responsive operations; Space-based information and communication services; Information superiority; Ground combat capabilities; Enhanced logistic and medical supporting capabilities; Naval manoeuvrability; Underwater control contributing to resilience at sea; Air superiority; Air mobility; Integration of military air capabilities in a changing aviation sector; Cross-domain capabilities contributing to achieve EU's level of ambition.

The new CDP benefited from the contribution by the EUMC regarding CSDP capability shortfalls, from the lessons identified by the EUMS and Member States on military operations and missions, from the EDA's long-term trend analysis (technological and threat evolution for the next 20 years+) and from an analysis of cooperation potential drawn from Member States' national plans and programmes recorded in the Collaborative Database (CODABA). The Capability Requirements Planning tool acquired by the NATO Communications and Information Agency (NCIA) was also used in the process.

The revised CDP and the eleven priorities will not only inform and support governments' national defence planning for the years to come but also serve as a baseline and key reference for the implementation of the EU defence initiatives launched following the 2016 EU Global Strategy, such as the CARD, the PESCO, and the EDF. These initiatives are all interlinked: the CDP identifies the capability priorities Member States should focus their common efforts on; CARD provides an overview of existing capabilities in Europe and identifies opportunities cooperation; PESCO offers options how to develop prioritised capabilities in a collaborative manner; and the EDF provides EU funding to support the implementation of cooperative defence projects, with a bonus for PESCO projects. The new CDP is there to guide all these initiatives and ensure they produce a more coherent set of usable, deployable, interoperable and sustainable capabilities and forces available to EU Member States for national and multinational (EU CSDP, NATO, UN, etc.) missions and operations. Furthermore, the revised CDP provides for the necessary coherence of output with NATO's Defence Planning Process (NDPP), ensuring complementarity and avoiding unnecessary duplication at project level.

The 2018 CDP priorities are designed to help guide Member States' capability development efforts irrespective of the framework and level (national, multinational, EU) at which they will be implemented. Therefore, their scope is larger in comparison to the 2014 CDP priorities, which primarily focused on potential cooperation to be conducted in an EDA framework.

The implementation of the priorities is already underway: EDA has started working on the elaboration of 'Strategic Context Cases' (SCC) for each of the 11 priorities. The SCCs will present an overview of the capability landscape and possible opportunities for collaborative projects accompanied by roadmaps with dedicated objectives and milestones for those areas where Member States task EDA to be involved. The SCCs are being prepared by EDA with the support of a wide network of experts from Member States, EU,

NATO, other relevant multinational stakeholders, as well as defence industry representatives. Going forward, the CARD will help operationalise the CDP by reviewing Member States' implementation of the 2018 EU Capability Development Priorities and identifying additional opportunities for cooperation.

Overarching Strategic Research Agenda (OSRA)

Efforts to streamline Member States' and European defence research and technology (R&T) priorities also made progress in 2018 with the review of the Overarching Strategic Research Agenda (OSRA) approved by EDA's R&T Steering Board in December 2018. The new OSRA is set to guide and inform all relevant European funding instruments and collaborative European defence research activities, be it at multinational level, in the EDA framework or under EU-funded research frameworks. Practically speaking, the revised OSRA identified a total of 139 R&T areas, the so-called Technology Building Blocks (TBBs), in which a cooperative approach at the European level would bring an added-value to support the development of defence capabilities. This information is expected to help Ministries of Defence to decide whether to lead or contribute to cooperative ad-hoc R&T projects and will also inform funding decisions taken in the context of the EDF. As a next step, and in close cooperation with the participating Member States, EDA will continue to update the TBBs and investigate cooperation opportunities for each of them, including the appropriate funding instruments.

Key Strategic Activities (KSA)

The Agency continued its work on Key Strategic Activities (KSA) throughout 2018, designating the technologies, skills and industrial manufacturing capabilities underpinning European strategic autonomy. The KSA concept has been further refined in light of test cases proposed by Member States and eligible EU funding has been identified in a tailored manner through the dedicated EDA's 'IdentiFunding for KSA' methodology. In 2018, EDA also started applying the KSA methodology to the afore-mentioned EU Capability Development Priorities and the OSRA review, with the aim of guiding future EU or Member States' investment.

DEFENCE PLANNING &

Coordinated Annual Review on Defence (CARD)

In 2018, in its capacity as the CARD Secretariat, EDA pursued and concluded the CARD Trial Run launched in 2017. EDA first compiled all available information on participating Member States' defence expenditure, capability development and European cooperation. This was then followed by bilateral dialogues with the 27 Ministries of Defence between October 2017 and May 2018, supported by the EUMS, in order to complete, discuss, clarify and validate the data. The consolidated data, aggregated at EU-level, provided the basis for the analytical work that resulted in the CARD Aggregated Analysis presented to Member States' Capability Directors in June 2018. The final CARD Trial Run Report, which was derived from there, was subsequently presented to Defence Ministers at the Agency's Steering Board on 20 November 2018. The report highlighted an overall positive trend in defence investment but raised some concerns with the decreasing R&T spending. A notable part of investment is devoted to activities that support priorities agreed through the CDP, confirming the relevance of this process. Tailored collaborative opportunities were well received and will serve as a useful link to the first full CARD cycle to begin in 2019. Ministers agreed to establish CARD as a standing activity with the first full cycle to be launched in autumn 2019. CARD is to act as a pathfinder for identifying opportunities where Member States can join their efforts to develop and/or procure defence assets collaboratively. The 2019 cycle will be based on the 2018 CDP which have a wider scope than the 2014 CDP priority areas which were used as the reference for the CARD trial run.

Permanent Structured Cooperation (PESCO)

Following the launch of PESCO in December 2017, EDA took up its role as part of the PESCO Secretariat together with the European External Action Service (EEAS), including the EU Military Staff (EUMS). The Secretariat provided Member States with initial feedback on the PESCO National Implementation Plans and contributed to clarifying the governance of PESCO projects. A standardised template and a description of assessment criteria were distributed to PESCO Member States with a view to ensuring consistency in the submission and analysis of PESCO projects proposals. The Secretariat also supported the development of a Council Recommendation concerning the sequencing of the fulfilment of the more binding commitments undertaken in the PESCO framework and specifying more precise objectives.

Still as part of the PESCO Secretariat, EDA also assisted participating Member States in preparing the second wave of 17 additional PESCO projects adopted in November 2018, notably with the assessment of project proposals, covering both the capability perspective and the operation view. Finally, the PESCO Secretariat developed a 'Common Workspace' serving as a repository of PESCO-related documentation and as an information exchange platform for which the Agency is currently providing training to participating Member States.

Throughout 2018, EDA also supported Member States (at their request) on the development and implementation of PESCO projects. By the end of last year, eight PESCO projects benefited

COOPERATION

this way from specific EDA assistance and expertise. Furthermore, a structured approach on the Agency's support to PESCO projects was developed.

Support to the European Defence Fund (EDF)
EDA pursued its work and support activities related to the two dimensions (research, capability) of the future EDF.

As regards research, the way towards a European defence research programme under the EU's next Multiannual Financial Framework (2021-2027) is being paved by the ongoing Preparatory Action on Defence Research (PADR) which is implemented by EDA on the basis of a Delegation Agreement signed with the European Commission in May 2017. Prior to the PADR, EDA also implemented the Commission's Pilot Project (PP) on defence research, the first EU-funded defence research activity which was successfully completed in 2018 (see page 15). Both the PP and the (ongoing) PADR have allowed EDA to gain significant expertise in implementing EU budgets related to defence and to interact efficiently with the Commission under EU funded activities. In order to take full advantage of the PP/PADR experiences, and to advice Member States and the Commission on the future research dimension of the EDF, the Agency has developed in 2018 a document on 'lessons identified' which was welcomed by its Steering Board in June.

Regarding the EDF's capability dimension prepared by the EDIDP, EDA has been supporting the preparation of the EDIDP work programme to ensure its coherence with the updated 2018 CDP. EDA also assisted Member States in the consolidation and assessment of some 50 potential project proposals in view of the EDIDP. It has also started providing its views and expertise to the EDIDP Programme Committee, in line with the EDIDP regulation.

Military Mobility
In February 2018, EDA presented to its Steering Board a roadmap on military mobility developed by the Agency's ad hoc working group on cross border military transport, in close coordination with the EEAS, the EUMS, the Commission and other stakeholders. The roadmap was subsequently used as a basis upon which the Head of the Agency, HRVP Federica Mogherini, and the European Commission drafted the Military Mobility Action Plan.

In addition, two new ad hoc programmes in the areas of 'Customs' and 'Cross Border Movement Permissions' were established by EDA as a further contribution to the Military Mobility Action Plan, along with other military mobility-related ongoing EDA projects such as Multimodal Transport Hub (M2TH) and Diplomatic Clearances.

On 7 June 2018, EDA and the the Bulgarian EU Presidency also co-organised a high-level symposium on 'Military Mobility – Key to European Security' in Brussels during which political and military decision-makers from Member States, EU institutions and agencies, NATO, and other relevant stakeholders discussed the challenges and opportunities of increased European military mobility.

SUPPORTING TE

CHNOLOGY & CAPABILITY DEVELOPMENT

Air-to-Air Refuelling (AAR)
EDA continued its support to the Multinational Multi-Role Tanker Transport Fleet (MMF) programme which grew further in 2018 (Belgium joined in February) and now consists of five countries (Netherlands, Germany, Luxembourg, Norway, Belgium) having commonly procured eight Multi Role Tanker Transport (MRTT) aircraft in total to be operated in a pooling arrangement. In September 2018, the Agency organised the first ever AAR Conference in Europe where political and military decision-makers addressed and acknowledged the remaining shortfall in this area which is recognised as a key enabler and force multiplier.

European MALE RPAS
In 2018, EDA continued to support the definition phase of the European Medium Altitude Long Endurance Remotely Piloted Aircraft System (MALE RPAS) programme in close cooperation with OCCAR, notably by facilitating air traffic integration of the future system and the integration of additional Member States into the upcoming development phase. To that end, bilateral information meetings and multilateral information workshops were co-organised throughout 2018 by EDA and OCCAR, and additional Member States have expressed interest in joining the development phase of the programme. The MALE RPAS Training Technology Demonstrator (RTTD) project reached significant milestones in 2018 with the addition of the Czech Republic as a participating Member State and its successful deployment to eight of the ten designated sites. Efforts to establish links between the European MALE RPAS Programme and EDA's work on the MALE RPAS RTTD were launched.

Cyber Defence
The Strategic Research Agenda (SRA) on cyber defence agreed by the Cyber R&T Ad Hoc Working Group in February 2018 was a key outcome of the Agency's cyber-related activities in 2018, given the SRA's potential to orient future cyber-related R&T. EDA also supported the establishment of the Education, Training, Exercise and Evaluation (ETEE) platform within the European Security and Defence College (ESDC) which was inaugurated in November 2018. EDA, the European Union Agency for Network and Information Security (ENISA), Europol's European Cybercrime Centre (EC3) and the Computer Emergency Response Team for the EU Institutions, Agencies and Bodies (CERT-EU) signed in May 2018 a Memorandum of Understanding (MoU) to establish a cooperation framework by exchanging expertise and best practices in the areas of cyber security, cyber defence and investigating cybercrime.

Communication and Information Systems (CIS)
In 2018, EDA finalised the project arrangement for the Governmental Satellite Communications (GOVSATCOM) Pooling and Sharing Demonstration which entered its execution phase in mid-January 2019 with 15 participating Member States. Besides GOVSATCOM and EU SatCom Market activities, EDA also continued to assess the medium and long-term capability requirements for satellite communications. After the approval of the Military Satellite Navigation Policy in March 2017, the Common Staff Target on Military Positioning, Navigation and Timing (PNT) was approved in June 2018. The Agency also made headway in 2018 on the establishment of the Common Staff Requirements and the Business Case for the Earth Observation capability requirements for 2025-2030.

The Agency is implementing a joint study with the European Space Agency (ESA) on Earth Observation requirements and, in parallel, a classified analysis has been launched for the benefit of EDA Member States only. The project on Geospatial Information to Support Decision-Making in Operations (GISMO4) was launched in July 2018 and is being implemented in close cooperation with the European Union Satellite Centre (EU Satcen). It will reach an important milestone with its Geohub geospatial information software achieving full operational capability at Operational Headquarters (OHQ) Sophia.

Main Battle Tank (MBT) capabilities in Europe

Throughout 2018, EDA continued to support Member States in elaborating a business case with an initial focus on the Leopard 2 (OMBT-Leo2). The focus of the business case is to assess to what extent the surplus of Leopard 2A4 MBTs owned by some Member States could be made available and transferred to those Member States requiring additional MBT capabilities and wishing to upgrade them to one of the latest versions available. Following a request for information to the European defence industry, the Agency also supports Member States in drafting the Programme Arrangement.

Anti-Tank

EDA's Anti-Tank Experts Group focused its work in 2018 on identifying possible ways to reduce Member States' anti-tank capabilities as well as to mitigate existing technology shortfalls in this important domain. The Agency also launched a study to identify the main operational requirements for the future generation of anti-tank weapon systems (beyond 2030), as well as the related key areas where research should be pursued.

Maritime Surveillance (MARSUR)

The MARSUR Networking Community made significant efforts in 2018 to integrate the MARSUR technology into Member States' national systems. The EU SatCen, Croatia and Malta joined the MARSUR Community which, at the end of 2018, comprised 19 participating Member States plus Norway. Slovenia is also in the process of joining. A milestone plan is currently under development to further improve MARSUR capabilities and ensure their adaptability to the European Maritime Surveillance landscape with a view to the European Commission's Common Information Sharing Environment (CISE) and the OCEAN 2020 programme.

Maritime Mine Counter Measures (MCM)

EDA's ad-hoc project on Maritime Mine Counter Measures – Next Generation (MMCM-NG) was concluded in October 2018. Its results already fed several new activities, such as the MCM vessel procurement project and the PESCO project on Maritime Autonomous Systems for Mine Countermeasures (MAS MCM).

Counter Improvised Explosive Devices (C-IED)

A European Centre for Manual Neutralisation Capabilities (ECMAN), developed through an EDA project involving seven participating Member States, was inaugurated in February 2018 in Vienna. The two existing Joint Deployable Exploitation and Analysis Laboratories (JDEAL) were kept in full operational capability while the JDEAL training facility continued its activities throughout 2018. By the end of the year, it had trained more than 200 students since its opening.

Medical Support

After the signing of a Programme Arrangement by participating Member States in July 2018, EDA's Multinational Medical Modular Unit (M3U) programme moved to the implementation phase with the development of a Multinational Medical Treatment Facility (MTF) with connected training activities to collaboratively address the differing standards, procedures, legislation, credentials and equipment. Good progress was also made on the Agency's Multinational Medical Evacuation Training (MN MEDEVAC Trg) project for which a Project Arrangement is set to be signed in 2019.

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STIMULATING

RESEARCH & INNOVATION

The upward trend in the generation of ad hoc R&T projects within the Agency, already apparent in the last years, continued also in 2018 with 39 new projects under negotiation at the end of the year, worth a total of approximately €166 million. These projects will add to the current EDA R&T portfolio of 77 ongoing ad hoc projects, bringing the total value of R&T activities performed in the Agency since its inception to well above €1 billion.

Pilot Project (PP) on CSDP related research

As the implementing agency of the Pilot Project (€1.4 million) on behalf of the European Commission, EDA successfully accomplished the three PP-financed activities (development of unmanned heterogeneous swarm of sensor platforms, inside-building awareness and navigation for urban warfare, standardisation of detect-and-avoid systems for unmanned aerial vehicles UAV) in the first semester of 2018. All other remaining PP-tasks delegated to the Agency by the Commission were completed before the end of the year. EDA also worked to ensure the uptake of PP results. Building upon the research carried out in the first of the three PP domains, an R&T ad hoc project related to autonomous, unmanned swarms of vehicles is currently under preparation.

Preparatory Action on Defence Research (PADR)

The evaluation of the proposals received for the first three PADR calls launched in 2017 was completed and all related grant agreements were signed in 2018, among them the technological demonstrator grant agreement (OCEAN 2020) as well as three grant agreements on soldier systems-related projects. In line with the 2018 work programme, three additional PADR calls for proposals were published in March, followed by an Information Day and brockerage event organised by EDA for industry and other interested parties in April. As a result of the 2018 calls, a total of eight proposals coming from 85 different entities from 20 countries were received. By December, the technical evaluation of the proposals was completed while legal and financial verifications were still ongoing. The signings of the grant agreements are set to take place in the first quarter of 2019.

Innovation

The Agency developed a specific technology watch and foresight tool to identify innovative and emerging technologies relevant to defence. In February 2018, EDA also launched the 'EDA Defence Innovation Prize' rewarding companies and research entities which come up with the most innovative ideas for new technologies, products, processes or services applicable in the defence domain. The Prize is designed to attract innovative R&T actors (such as SMEs and start-ups) to EDA's R&T working groups.

Exploitation of Dual User Synergies

Throughout 2018, EDA continued to engage with a range of civilian stakeholders, such as the European Commission, FRONTEX, the Joint Research Centre, the European Institute for Innovation and Technology or the European Space Agency (ESA). Dual-use synergies and avenues for cooperation were identified with the European Commission in several areas including electronic components, advanced materials or cybersecurity. A workshop was organised with the Commission (DG CONNECT) to discuss projects related to autonomous land vehicles, explore the similarities in the needs of the civilian and military communities and debate the ways to improve cooperation.

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ABLERS & INCENTIVES

Cooperative Financial Mechanism (CFM)
Substantial progress was made in 2018 towards the setting up of a CFM the aim of which is to support cooperative projects, inter alia where unsynchronised defence budgets hinder or impede the launch or implementation of such projects. In May, the Agency's Ministerial Steering Board welcomed the involvement of the European Investment Bank (EIB) in the project following the signature of an EDA-EIB Memorandum of Understanding in February. A CFM Programme Arrangement (PA) was finalised in October. It stipulates that the CFM will be structured around two pillars: one involving the EIB as sole lender, and another foreseeing State to State support on voluntary basis to ease the launch phase of cooperative projects. The aim is to have the PA signed in 2019.

Standardisation
In 2018, EDA Member States approved a European Defence Standardisation Strategy which emphasises the relevance of this critical enabler for defence capability development. EDA also introduced the Project Standardisation Management Plan (PSMP) as a tool for project officers to systematically identify standardisation needs at the earliest stages of a project and throughout its life cycle. This will contribute to the regular updates of the European Defence Standards Reference (EDSTAR) database in support of industrial cooperation and Member States' interoperability.

Military Aviation
In 2018, several national military airworthiness/aviation authorities engaged in mutual recognition activities following the successful development of the European Military Airworthiness Requirements (EMARs) for airworthiness management, aircraft maintenance, training/licencing and certification. In May 2018, EDA's Military Airworthiness Authorities (MAWA) Forum approved a new airworthiness roadmap for the development and implementation of a harmonised European Military Airworthiness System. In February 2018, EDA's Steering Board in National Armament Directors composition agreed to the progressive introduction of a Total System Approach to Military Aviation (TSAMA), which in practical terms means the extension of the airworthiness approach to other domains of military aviation. An important first step has been achieved with the development of a proposal for an initial project, aiming at the continuous improvement of interoperability and the efficient use of military assets. The project focuses on two pilot cases, Large RPAS and Military Transport Fleet Operations, and will be further defined in detail in 2019.

Defence Test and Evaluation Base (DTEB)
As a part of EDA's Test and Evaluation Strategy, a gap analysis study is currently under way aimed at comparing current European test capabilities with the requirements derived from the new 2018 EU Capability Development Priorities. In order to focus on specific test and evaluation needs and collaborative projects, domain-specific subgroups have been established within the DTEB framework.

Ammunition Safety
EDA pursued its work on the standardisation of requirements and test procedures, using the European Defence Standards Reference System (EDSTAR). Relevant standards identified within the European Network of National Safety Authorities on Ammunition (ENNSA) are evaluated and revised by means of inter-laboratory comparison activities (Round-Robin Tests) with wide participation of ammunition test facilities of the participating Member States.

Armaments Cooperation

In 2018, EDA completed the handover of the annual European Armaments Cooperation Course to Austria which will organise the course going forward. A pilot course for a new armaments training initiative, focussing on the unique requirements of the Central and Eastern European countries, was completed in March 2018.

Education, Training & Exercises

❭ Fixed-Wing

The European Tactical Airlift Centre (ETAC), which was established in Zaragoza in 2017, provided in 2018 four European Advanced Airlift Tactics Training Courses (ETAP-C), four European Advanced Tactical Instructor Courses (ETAP-I) as well as one European Airlift Transport Training (ETAP-T), with the financial support of EDA. The Agency also organised for the last time the European Air Transport Symposium (ETAP-S). Work progressed on the development of a Transport Pilot Training Capacity concept aiming at establishing a common training syllabus and a common requirement for a future training platform for the future European Military Transport Pilot. Within the C27J Spartan Cooperation ad hoc Programme, EDA also supported the development of a common type training using existing training facilities and including an annual live exercise. With the support of EATC, work started on preparing a common technical agreement to facilitate cross-participation of Member States in their various national exercises.

❭ Rotary-Wing

Throughout 2018, a total of eleven training courses related to Helicopter Tactics and Electronic Warfare, as well as one Helicopter Tactics Symposium and one Multinational Helicopter Exercise ('Hot Blade 2018') were held with a view to enhancing crews' multinational interoperability and capability to deploy and operate in complex and demanding operational scenarios. Preparatory work on a concept for a Multinational Helicopter Training Centre also made progress in 2018. The Business Case is being considered by the Steering Board with a view to agreeing a new ad hoc project which includes building a Multinational Helicopter Training Center (MHTC) by 2021.

Support to CSDP Operations/Missions

Various EDA projects (EU SatCom Market, cyber awareness seminars, human resources management software, MARSUR networking, Geohub, Contractor Support to Operations web platform) were used in 2018 by EU military operations or civilian missions. In particular, the number of contributing Members in the EU SatCom Market, an EDA project offering commercially available SATCOM as well as other Communications and Information Systems services (e.g. secure networks and terrestrial communications), increased to 28 (including 19 EDA Member States, one third State, the Athena mechanism and seven EU civilian missions). In 2018, the total value of services contracted through the SatCom Market reached €15 million, bringing the total volume of orders since the inception of the project close to €34 million. Work is also progressing on a similar project, AIRMEDEVAC, providing commercially available in-theatre aeromedical evacuation services through multiple Framework Contracts managed by EDA, to which four Member States already subscribed and which is expected to be in place by February 2019.

VAT exemption

Remarkable progress was noted in 2018 as regards the increased number of EDA managed ad hoc projects with the VAT exemption incentive applicable. Eleven additional collaborative projects benefitted from it last year, bringing the total number to 20. Throughout the year, EDA continued to encourage Member States to make an even better use of this incentive.

INTERFACE

ON WIDER EU POLICIES

Single European Sky (SES)
EDA, in its twofold role to facilitate the coordination of military views and to act as an interface with the EU institutions and related bodies, allowed the insertion of military views in key documents such as the New EASA Basic Regulation, the Performance-based Navigation (PBN), the Network Manager Functions, Performance, and the 13th ICAO Air Navigation Conference. This contributes to appropriately consider the security and defence dimension in a SES context. Regarding SESAR (Single European Sky ATM Research) and based on EDA's continuing support to Member States in the framework of the EDA SES Military Aviation Board, participating Member States obtained an additional €5,1 million in EU co-funding, bringing the total amount of EU funds obtained by participating Member States over the last three years to €93 million. Military requirements have been also integrated in the SESAR ATM Master Plan 2018 and in SESAR Wave 2 solutions. EDA also organised an aviation cyber seminar bringing together stakeholders from the civil and military aviation to achieve a common understanding of the current and future challenges emerging from the modernisation of the Air Traffic Management system. It permitted to identify five core categories of potential engagement for the military in the field of Aviation Cyber Security.

RPAS Air Traffic Integration
EDA's work in this field, carried out together with the EASA, the SESAR Joint Undertaking and the European Commission, aims to allow the accomodation of MALE RPAS in non-segregated airspace during the 2020/2025 timeframe, in preparation of the full integration as of 2025. Two dedicated studies were conducted by EDA in 2018. The EDA industry exchange platform on RPAS ATI built on the technology gaps identified in 2017 by identifying potential R&D solutions to enable the air traffic integration of large and certified category military RPAS (e.g. detect and avoid, autonomy and C2 link).

Space

Together with ESA, the European Commission and industry, EDA continued to identify critical space technologies for European strategic non-dependence, thereby contributing to efforts to establish a common European list of critical technologies in view of coordinating investment efforts. EDA also implemented R&T projects, related to critical space technologies, e.g. by supporting the establishment of European supply sources, providing synergies between defence and space needs. Cooperation with EU SatCen increased in 2018, especially in the framework of the REACT (radar imagery), GISMO (geospatial information to support operations) and METEOR (earth observation) projects.

Radio spectrum

EDA continued to support Member States' activities to maintain sufficient access to radio spectrum as a critical enabler for any system for communication, positioning and enhanced surveillance and target acquisition. The Agency also established closer links to the Radio Spectrum Policy Group, a high-level advisory group that assists the European Commission on radio spectrum policy, by attending a workshop in preparation of a future EU Spectrum Strategy.

Cyber

EDA closely follwed the implementation of the European Commission's Joint Communication on cybersecurity adopted in September 2017 as well as the subsequent Council Conclusions, notably related to the Network of Cybersecurity Competence Centres and the planned European Cybersecurity and Research Centre, in order to ensure coherence, avoid duplication and represent the defence communities' views. In May 2018, a Memorandum of Understanding for more structured cooperation was signed with EU agencies ENISA, EC3/EUROPOL and CERT EU, opening up new possibilities for civil-military synergies in the field of cyber. Together with the EEAS, EDA also concluded the revision of the Cyber Defence Policy Framework, in close consultation with the Member States.

Maritime

In 2018, EDA contributed to the revision of the EU Maritime Security Strategy (EUMSS) Action Plan and pursued its support to its implementation. Together with the Commission (DG MARE, DG HOME, DG GROW), the EEAS and the Joint Research Centre (JRC), the Agency also contributed to the development of the joint civil-military Maritime Research Agenda. EDA initiated a cooperation with FRONTEX to raise mutual awareness and exchange best practices in naval training, and the development of a Joint Training Programme was agreed. To launch this initiative, EDA and FRONTEX organised in October 2018 a seminar with Member States to address shortfalls and requirements: a first joint pilot course is planned to take place in early 2019 with a focus on the humanitarian crisis in the Mediterranean.

Energy, Environment

In 2018, the Agency pursued with the implementation of the roadmap for activities helping Member States' Armed Forces and the defence industry to mitigate the impact of the European Chemical Regulation REACH on defence. Building on the achievements of the first phase (2015-17), the second phase of the Consultation Forum for Sustainable Energy in the Defence and Security Sector (CF SEDSS II) continued in 2018 with the objective to assist Member States' Ministries of Defence in complying with relevant EU legislation and to identify projects for improving energy efficiency (some 30 potential projects were identified in 2018). Work on the Smart Camps Technology Demonstrator continued in EUTM Mali to assess the scope for the implementation of a broad range of energy and environmental technologies to improve the management of the camp and reduce costs. The New Energy storage research project saw the development of a prototype of an innovative energy storage system for use in military applications. In addition, the pilot phase of the Defence Energy Managers Course was concluded successfully. Also, a database on Member States' defence energy data was developed. EDA also concluded a study which identified prominent business cases and good practices for the application of Circular Economy to defence. The identified business cases are being analysed in EDA's respective Capability Technology groups (CapTechs) for further action.

Engagement with industry

In February and December 2018, EDA's Steering Board welcomed the progress made in the implementation of the Agency's priorities related to industry engagement and supported the continuation of the Agency's engagement with industry by focusing on key areas. Throughout the year, EDA pursued its dialogue with the defence industry on key topics such as the Capability Development Plan, the development of the Strategic Context Cases and the Key Strategic Activities. The Agency also continued to encourage industry's participation in EDA R&T activities and to attract innovative industries to the defence sector. The industry was actively engaged in R&T-related working groups to contribute to the definition of Technological Building Blocks. Moreover, EDA engaged with industry in other relevant areas such as SES/SESAR, particularly in the framework of the RPAS ATI Industry Exchange Platform. Moreover, EDA continued its work to improve information sharing to industry including SMEs, encourage the creation of cross-border partnerships and support the defence industry to benefit from available EU tools.

Access to EU funding

Following some networking events organised by EDA, the EU Programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises (COSME) awarded – for the first time – funding to two defence-related consortia. In February 2018, EDA launched an 'Erasmus+ Web Platform for Defence': a first project relevant to defence was awarded €3 million in 2018. Building on pilot cases, EDA also developed a new methodology (the 'IdentiFunding') to match a wide range of potential EU funding sources with each defence-related priority, project and activity (e.g. OSRA-TBBs, KSAs, energy).

W

ORKING WITH PARTNERS

Administrative Arrangement (AA) countries

EDA further developed its relations with the four third countries which have concluded an Administrative Arrangement (AA) with the Agency. Cooperation with Norway further intensified, especially in the area of R&T where Norway is now present in all relevant EDA fora. Ukraine was further involved in EDA's working groups on standardisation as well as relevant work on Single European Sky (SES). Switzerland formally joined the standardisation working group on Military Clothes and advanced in the process towards participation in EDA CapTechs where this proves mutually beneficial. Serbia was invited to EDA meetings related to standardisation and ammunition to investigate opportunities for cooperative initiatives with Member States. In 2018, EDA Chief Executive Jorge Domecq met with the Ministers of Defence of all four afore-mentioned countries. The Agency continued to implement the key principles for engaging with third parties endorsed by Ministers in November 2017.

European Space Agency (ESA)

Cooperation with ESA, in the framework of the existing Administrative Arrangement, was mainly focused on the implementation of established projects in areas such as GOVSATCOM, Remotely Piloted Air Systems, Intelligence Surveillance and Reconnaissance, critical space technologies and on Unmanned Maritime Systems. A new joint study on space-based Earth observation was launched. EDA and ESA have started exchanging on respective REACH regulation activities with a view on potential cooperation. Possible new avenues for cooperation are currently being explored.

OCCAR

Cooperation with OCCAR in the frame of the Administrative Arrangement has further evolved in 2018 through close cooperation on the Multinational MRTT Fleet and the European MALE RPAS programmes. More areas have been investigated in 2018 such as standardisation, REACH and Military Airworthiness where OCCAR has joined the MAWA Forum. EDA and OCCAR pursued activities to further implement their interface document for cooperation with a focus on Through-Life Management as well as to exchange experience and best practices on corporate issues. EDA and OCCAR regularly consulted on how to best support defence cooperation, including in view of the EDF.

NATO

EDA continued in 2018 to develop staff-to-staff cooperation with NATO and related Agencies, thereby contributing to the implementation of 30 out of the 74 common proposals which followed the 2016 EU-NATO Joint Declaration. The Agency is involved in six out of seven areas of cooperation, striving for coherence of output and timelines between the respective projects but also between the EU and NATO defence planning processes. Apart from the coherence pursued between CDP/CARD and the respective NATO processes, such as NDPP, EDA notably made progress in areas such as military mobility, cyber training, implications of hybrid threats on defence capability development, ways that counter-terrorism may benefit from defence capability development, AAR and military aviation.

Other third parties

In January 2018 EDA, the European Air Transport Command (EATC) and OCCAR-EA signed a Letter of Intent on common in-service support for the A400M capability within the remit of EATC. In July 2018, EDA launched its cooperation, on the basis of an Exchange of letters, with the European Centre of Excellence for Countering Hybrid Threats (Hybrid COE). In the frame of Military Mobility and in order to ensure that inputs from all relevant stakeholders are considered in the Agency's work, the US and Canada (upon Member States' agreement) were invited to relevant meetings held in EDA.

EDA Annual Conference

The 2018 EDA Annual Conference, which took place on 29 November in Brussels, focused on unmannd & autonomous systems in defence. It gathered some 400 attendees and participants from national governments, armed forces, European and euro-atlantic institutions, industry, academia and media. The conference was opened by the Head of the Agency, High Representative and Vice-President of the European Commission, Federica Mogherini. Among the keynote speakers were also the Chairman of the European Union Military Committee (EUMC), General Claudio Graziano, the European Commissioner responsible for Digital Economy and Society, Mariya Gabriel, the Chief of Defence of Estonia, General Riho Terras and the Secretary General of the Ministry of Defence of Austria, Dr Wolfgang Baumann (representing the then Austrian EU Presidency).

IN-HOUSE

Project and Portfolio Management (PPM) system
The Agency's PPM system became fully operational, allowing Project Officers to track the stages of development of their projects and to escalate any unforeseen issues or risks within the management hierarchy. The system has also been coupled with a Business Intelligence application that enables generation of real-time management information relating to project progress with reports specific to individual internal management tiers. The Business Intelligence application has been shared with Member States, allowing them to access real-time management information, filtered to their specific needs. Member States can also see financial data over a rolling 5-year period allowing them to better plan for their budgetary contributions; four licences have now been made available to Member States allowing access by key personnel such as R&T Coordinators, Capability Points of Contact.

Access to documents
In 2018, EDA received 14 access to documents requests under the Regulation for public access to documents – Regulation 1049/2001, which represents an increase compared to the six requests received in 2017. Four of the requests were fully granted. EDA refused access to two requests and one of the requests was devoid of purpose as EDA was not in possession of the documents requested. In two cases EDA provided full access to some of the documents access to which was sought and partial to the other subject of the request. EDA granted partial access in two of the submitted requests. Two of the requests registered in 2018 are still ongoing.

The exception(s) used by the Agency in the cases of refusal of partial access were the one set out under Article 4 of Regulation 1049/2001 and in

particular, Article 4(1)(a) second indent – defence and military matters and Article 4(1)(b) – privacy and integrity of the individuals in accordance with the Union legislation regarding the protection of personal data.

> All access to documents requests submitted to EDA were received electronically.
> EDA received one confirmatory application in 2018.
> In addition to the above, EDA handled one request for information under the EDA Code of Good Administrative Behaviour. Some of the information sought was provided to the applicant.

Furthermore, a dedicated space on public documents has been created on the EDA's website under the INFO HUB section, namely EDA DOCUMENTS. EDA will continue to publish all public documents under EDA DOCUMENTS in order to make them directly available to members of the public without the need for them to submit an access to documents request and to increase transparency and the availability of information about EDA's activities.

Applications for access to EDA documents must be made in writing and sent to the Agency by email to info@eda.europa.eu or by postal mail to: European Defence Agency, Rue des Drapiers 17-23, 1050 Bruxelles.

Data protection
The adoption of new data protection rules for the EU institutions and bodies in 2018 represents a crucial step forward in the development of a comprehensive EU framework for data protection. On 11 December 2018, the so called

EU DPR (Regulation 2018/1725) entered into force aligning in this way the data protection rules applicable to EU institutions and bodies with the high standards of data protection provided by the General Data Protection Regulation – GDPR (applicable to companies, organisations and public bodies within the EU Member States).

The new rules reinforce the concept of accountability, requiring the EU institutions and agencies, including EDA, to actively demonstrate compliance with the data protection rules and prioritise practical safeguards for individuals. In addition, the notions of Data Protection Impact Assessment (DPIA) and notification of Personal Data Breach were introduced.

The entry into force of the EU DPR required preparation and extensive work in order for EDA to be able to meet its obligations under the new rules. To this end, all existing notifications (to be called Records now) have been revised and uploaded in a Record Register available online to the public on the EDA's website. Also, Guidelines on performing DPIAs and an EDA Policy on handling personal data breaches have been adopted as part of the internal EDA rules and procedures. A dedicated space on Data Protection providing the main information on the existing legal framework and how personal data are handled within EDA has been added to the EDA's website.

The DP Office successfully assisted its external and internal stakeholders in a large number of requests relating to data protection.
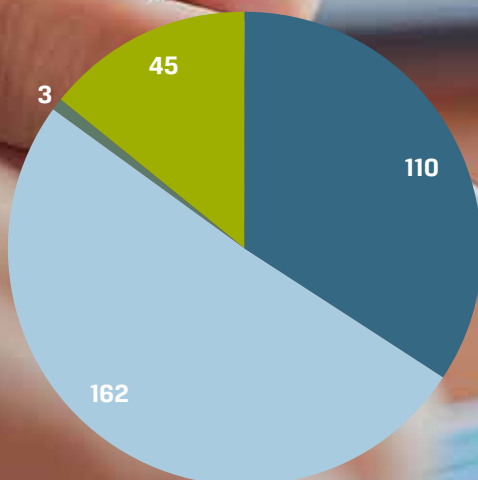
No requests for access to personal data were received from data subjects in 2018.
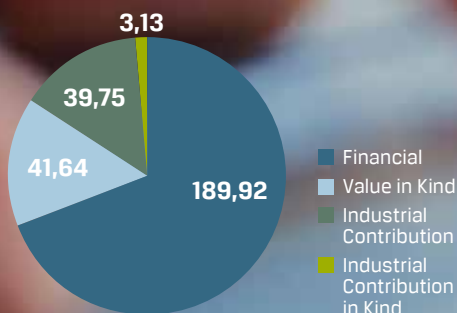
FACTS & FIGURES 2018

EDA PORTFOLIO

Number of projects, programmes and activities which were in progress at year-end 2018

- 45
- 3
- 110
- 162

- Ad hoc Capability and R&T
- EDA Operational Budget
- Joint Procurement Arrangements
- Generic & Supporting Activities

Member States' contribution to ongoing ad hoc Capability and R&T programmes and projects (with effect end – 2018, in million Euros)**
Total: €274.44 million

- 3,13
- 39,75
- 41,64
- 189,92

- Financial
- Value in Kind
- Industrial Contribution
- Industrial Contribution in Kind

EDA BUDGET 2018

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 93.6 million Euro.*

General Budget
33 million Euro

Ad hoc budget
19.3 million Euro***

Additional revenue
41.3 million Euro

EDA STAFF

151
(on 31/12/2018)

* 2018 figures are provisional
** where formal agreements have been concluded
*** Ad hoc budget figures include only projects and
    contributions directly managed/implemented by EDA

YOUR EDA AS OF JANUARY 2019

EDA MANAGEMENT

Jorge DOMECQ
Chief Executive

Olli RUUTU
Deputy Chief Executive

Emilio FAJARDO
*Director Industry,
Synergies & Enablers*

Martin KONERTZ
*Director Cooperation,
Planning & Support*

Denis ROGER
*Director Research,
Technology &
Innovation*

Luigi SANDRIN
*Director Corporate
Services*

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