EUROPEAN
DEFENCE
AGENCY

# ANNUAL
# REPORT
# 2020

# FOREWORD

**By Jiří Šedivý,**
EDA Chief Executive

End of 2020, EDA managed:

**5**

PESCO projects receiving dedicated
EDA support

**123**

ad hoc R&T and capability
programmes and projects

**240**

other activities related to capability
development, research and
technology and the defence industry

"The Agency's activity portfolio grew further in 2020, reflecting the central role it continues to play for the functioning and coherence of the EU defence instruments."

**Jiří Šedivý,**
EDA Chief Executive

The COVID-19 pandemic was certainly the all dominant theme of 2020, with dramatic repercussions on our lives. Yet, when it comes to EU defence cooperation, last year has also brought its fair share of encouraging developments and achievements.

One of them - in which the European Defence Agency was called to play a leading role - is the European Union's first ever Coordinated Annual Review on Defence (CARD). Launched in autumn 2019, the CARD successfully delivered on its double goal which was to review participating Member States' defence activities in order to provide a realistic picture of Europe's defence landscape and to promote cooperation opportunities for joint defence capability development. The final report our Agency presented to Ministers in November is a wake-up call: Europe's defence landscape is fragmented and lacks coherence and only few Ministries of Defence (MoD) consider multinational capability development an essential part of their national defence planning.

We probably knew this before but never had such compelling evidence than what is described in this first CARD report. That leaves only one conclusion: a change of mindset is needed to make defence cooperation the new norm. Fortunately, there is no shortage of potential areas of cooperation as the CARD identified more than 100 of them in different research and capability domains. Therefore, there is no pretext left for not acting: all available tools and fora, including EDA, must be used if the Europe of Defence, our shared ambition, is to become a reality in the near future.

Meanwhile, the Agency's activity portfolio grew further in 2020, also reflecting the central role it continues to play for the functioning and coherence of the EU defence instruments, be it the revised Capability Development Plan (CDP), the CARD, the Permanent Structured Cooperation (PESCO) where it acts as the secretariat, or the European Defence Fund (EDF).

A significant part of the Agency's work last year was devoted to supporting Member States implement the PESCO projects they decided to be part of. An increasing number of MoDs reached out to EDA for PESCO-related assistance, be it in the form of administrative support, consultancy and expertise services or the launch of a proper EDA ad hoc project which, and this is the advantage of the Agency's flexible working framework, can then be joined by other Member States at any time. End of 2020, five PESCO projects were receiving dedicated EDA support, three of which were being implemented as Agency projects. In total, 14 out of the 47 PESCO projects launched since 2018 have or are still benefitting in one or another form from Agency help at the request of the Member States involved in those projects. Their growing reliance on EDA for PESCO implementation support is an encouraging acknowledgment of the Agency's expertise and bodes well for its future.

Besides that, EDA continued to support its Member States enhance their defence capabilities - from planning, research and standardisation to development, procurement and training. Altogether, at the end of 2020, the Agency managed 123 ad hoc R&T and capability programmes and projects as well as some 240 other activities related to capability development, research and technology and the defence industry. In the research domain, the Agency put a special emphasis on innovations and emerging and disruptive technologies which, for sure, will revolutionise defence in the years ahead. Helping defence planners and industries in keeping up with developments in areas such as artificial intelligence or autonomous systems is, and will a remain, a core mission of the Agency. Several new projects were launched in these domains while others (some 37 across all research areas) were still under negotiation at the end of the year. Once agreed, they will add to EDA's existing R&T

portfolio of some 48 ongoing ad hoc R&T projects, representing an overall value of some €278M.

Tangible headway was also made in the domain of support to CSDP missions and operations, especially with the activation, in 2020, of several framework contracts concluded with international aeromedical providers in order to provide Member States with an efficient and cost-effective option to order commercially available fixed and rotary wing in-theatre aeromedical evacuation services in Africa and Europe.

The Agency also continued to play its role as interface for Member States towards wider EU policies , further broadened its working relations with the European Commission and other EU agencies and pursued its engagement with other stakeholders and third parties.

Finally, I would not want to conclude this preview of the 2020 Annual

Report - the first since I took up my new role as Chief Executive in May 2020 – without thanking the Agency's management and staff for the remarkable resilience, commitment and adaptability shown throughout this very challenging year 2020. Without them, EDA could not have achieved what I invite you to discover in the following pages.

# JOINT PRIORITISATION

"EDA's Strategic Context Cases (SCC) are a critical component as they guide the implementation of the agreed EU Capability Development Priorities and enhance the European capability landscape"

**David Byrne,**
Project Officer CDP Implementation

**Strategic Context Cases**
- Naval Manoeuvrability for the Maritime Situational Awareness module
- Space-Based Information and Communication Services for the Space Situational Awareness module
- Information Superiority for the Intelligence, Surveillance and Reconnaissance Networked Capabilities module

**OSRA**
- 95 detailed agendas

**Key Strategic Activities**
- Critical skills
- Industrial manufacturing capacities



*Informal meeting of European Defence Ministers | August 2020 | Berlin, Germany*

## Implementation of the EU's Capability Development Priorities

In 2020, the Agency pursued its work on consolidating and finetuning the EU's capability development prioritisation framework build around the revised Capability Development Plan (CDP), the Overarching Research Strategic Agenda (OSRA) and the Key Strategic Activities (KSA):

- The **Strategic Context Cases (SCC)** which help Member States implement the 11 European Capability Development Priorities defined in the 2018 CDP revision, were completed and updated. Three updated SCC were endorsed by EDA's Steering Board: on the Naval Manoeuvrability for the Maritime Situational Awareness module, on the Space-Based Information and Communication Services for the Space Situational Awareness module, and on the Information Superiority for the Intelligence, Surveillance and Reconnaissance Networked Capabilities module. As for the remaining SCC, already endorsed in 2019, the Steering Board identified implementing activities that can now be carried forward in the framework of the Agency.

- **OSRA** was translated into technology roadmaps with no less than 95 detailed agendas developed by the Agency in 2020 for the implementation of specific Technology Building Block (TBBs) and deepened technology foresight activities. A specific focus was put on autonomous systems and hypervelocity systems.

- New **Key Strategic Activities**, i.e. critical skills and industrial manufacturing capacities supporting the development of strategic technologies and European non-dependence, were identified and assessed by the Agency in 2020, in consultation with Member States and industrial stakeholders.

# JOINT DEFENCE PLANNING & COOPERATION

"CARD is unique as it follows a structured approach compiling Member States' information to generate an overview of the EU defence landscape and identify promising opportunities for cooperation. This is to be used by the MoDs to inform their national planning and facilitate their involvement in EU collaborative projects which benefit both their national profiles and the EU's capability coherence."

**Philippe Leopold,**
Head of Cooperation Planning Unit



"The fact that the Agency was asked by Member States to support several PESCO projects is a confirmation of the added value that EDA brings to joint capability development. This is of particular importance given that PESCO's ambition is to generate tangible output and results."

**Alessandro Cignoni,**
Head of PESCO Unit

## A first Coordinated Annual Review on Defence (CARD)

In 2020, the Agency steered the first ever comprehensive defence review at EU level as the CARD penholder in close coordination with the EU Military Staff (EUMS), conducting an unprecedented series of in-depth bilateral dialogues with its 26 Member States' national defence planners. The final CARD report presented to Defence Ministers in November 2020 delivered for the first time a comprehensive review and analysis of the European defence landscape regarding Member States' defence spending, defence planning and defence cooperation trends over the short, medium and long term. It also identified the most promising, most needed and most pressing collaborative opportunities and recommended participating Member States to prepare future investment and cooperation in six focus areas:

- Main Battle Tank
- Soldier Systems
- European Patrol Class Surface Ship
- Counter-Unmanned Air Systems (UAS) – Anti-Access/Area-Denial
- Defence in Space
- Enhanced Military Mobility.

The CARD also identified areas for enhanced investment and cooperation in the fields of defence research and technology (R&T) and operational engagement.

## Advancing the Permanent Structured Cooperation (PESCO)

As part of the PESCO Secretariat (together with the EU Military Staff, EUMS), EDA continued to play a key supporting role for the smooth running of PESCO.

In particular, EDA provided growing assistance to Member States, upon their request, in the practical development and implementation of PESCO projects, in the form of administrative support, consultancy and expertise as well as the establishment of an EDA ad hoc project which other Member States can choose to join at a later stage. At the end of 2020, five PESCO projects were receiving EDA assistance (beyond simple administrative support): the CBRN Surveillance as a Service (CBRN SaaS) project coordinated by Austria; the Deployable Modular Underwater Intervention Capability Package (DIVEPACK) project coordinated by Bulgaria; the European Secure Software Defined Radio (ESSOR) coordinated by France; the European Patrol Corvette (EPC) project coordinated by Italy and the Materials and Components for technological EU competitiveness (MAC-EU) project coordinated by France.

EDA also contributed to the PESCO Strategic Review held in 2020 to provide guidance, improvements and set objectives for the next implementation phase (2021-2025). The Agency, alongside the European External Action Service (EEAS) and the EUMS, also submitted the PESCO Projects Progress report to the Council and contributed to the High Representative's annual report on the status of PESCO Implementation by assessing participating Member States' achievements and fulfilment of commitments made under PESCO.

## Supporting the European Defence Industrial Development Programme and the European Defence Fund

Throughout 2020, EDA continued to support the implementation of the European Defence Industrial Development Programme (EDIDP) as well as the preparation of the European Defence Fund (EDF). As an observer in the programme committee for the EDIDP and in the expert group for the EDF, the Agency provided its views and expertise to Member States and the Commission in the upstream work on the EDIDP 2020 work programme and in the preparations for the EDF 2021 work programme. The Agency also organised one 'marketplace' workshop to facilitate the exchange information among Member States on EDIDP possible projects. Upon request by Member States, EDA prepared itself to take a project manager supporting role on projects selected for funding from the EDIDP 2019 calls.

# JOINT CAPABILITY DEVELOPMENT

"It is good to see that a project initiated by EDA has continuously grown over the years and, with the arrival of the first MRTT in 2020, is now taking shape in a way that will undoubtedly help to fill a major European capability shortfall."

**Dion Polman,**
Project Officer for Aviation
& Air-to-Air Refuelling



**2020 saw the Agency's portfolio of collaborative capability development activities further expand, due to a growing number of new ad hoc projects as well as rising demands by Member States to support the implementation and management of PESCO projects. The Agency also enhanced its activities in domains which directly support the conduct of CSDP missions and operations, such as satellite communications and CIS, geospatial information to support decision-making in operations (GISMO), medical evacuation by air (AIRMEDEVAC), maritime surveillance and imagery analysis.**

### European Strategic Tanker Capability

The Multinational Multirole Tanker and Transport Fleet (MMF), initiated by EDA almost a decade ago, reached a significant milestone in 2020 with the delivery of the first two Multi-Role Tanker Transport (MRTT) aircraft to the fleet's main operating base in Eindhoven. In total, the fleet will count up to nine (and in the future perhaps up to 11) Airbus A330 MRTT aircraft which can provide a range of critical capabilities such as strategic transport, air-to-air refuelling and medical evacuation to the six countries that so far participate in the programme (Netherlands, Germany, Belgium, Luxembourg, Czech Republic, Norway).

### RPAS Air Traffic Integration in Single European Sky

EDA continued its support to the full integration of Medium Altitude Long Endurance Remotely Piloted Aircraft Systems (MALE RPAS) into European airspace between 2025 and 2030, including by completing the joint MALE RPAS Training Technology Demonstrator (RTTD) project with 10 Member States and the European Air Group. Regarding the development of technical enablers aiming to facilitate RPAS Air Traffic Integration into the Single European Sky (SES), the Agency successfully completed the Enhanced RPAS Automation (ERA) project aimed at standardising a set of key technical enablers for the operation of both civil and military RPAS in Europe. EDA also initiated the Safe Autonomous Flight Termination (SAFETERM) project aiming to assess different technological and certification approaches to RPAS autonomy. Furthermore, the Agency initiated in 2020 the development of a Counter Unmanned Aerial Systems (C-UAS) capability, with a first focus on the harmonisation of operational requirements.

### Space

The Agency pursued its work on the 'Governmental Satellite Communication Pooling & Sharing Demonstration' project which supports the 17 contributing Member States as well as the EU's CSDP missions and operations by providing reliable, secure and cost-effective access to governmental satellite systems capacities and services through available pooled resources. Furthermore, in 2020, the Agency's REACT project, which aims at improving geo-information and satellite imagery analysis, delivered its prototype capability which was installed in some Member States' premises (France, Italy, Poland and Spain) and at the European Union Satellite Centre (EU SatCen). Another initiative to exploit Artificial Intelligence (AI) tools in imagery intelligence was launched in cooperation with the EU SatCen.

By the end of 2020, there were

## 37

**new R&T projects under negotiation.**
They will further add to EDA's existing R&T portfolio of currently around

## 50

**ongoing ad hoc R&T projects,**
representing an overall value of some

## €278M.

> "Our year-long cooperation efforts are paying off and we now have a stable and operational system. With MARSUR III, we are moving towards a maritime surveillance network that will benefit future CSDP missions and operations."
>
> **Georgi Georgiev,**
> Project Officer for Maritime Capabilities

## Maritime Surveillance (MARSUR)

EDA's longstanding MARSUR network project, which involves all coastal EDA Member States plus the European Union Satellite Centre (EU SatCen), entered a new phase in November 2020 when the Agency launched its third phase, focused on the development of a next generation system. MARSUR III will enhance the system's interoperability with other maritime security regimes and investigate options for the exchange of classified information within the network. The objective is to enhance MARSUR's operational use in CSDP missions and operations in line with the EU Maritime Security Strategy. The operational added value of MARSUR was confirmed in 2020 when EU Member States chose to rely on MARSUR as their information exchange network for the pilot case of the Coordinated Maritime Presence Concept (CMP) in the Gulf of Guinea. MARSUR was also chosen in 2020 as the network of choice by the Member States participating in the 'Upgrade of Maritime Surveillance' PESCO project.

## Cyber

EDA continued the implementing of its various cooperative cyber defence projects, with a special focus on the system engineering framework for defensive cyber operations, cyber education, training & exercises, cyber ranges federation, the Cyber Situation Awareness (CySAP) project as well as deployable cyber forensics. Together with EU SatCen, the Agency also promoted the use of its Geospatial Information Hub (GeohuB) by Member States and EU CSDP missions and operations' operational headquarters.
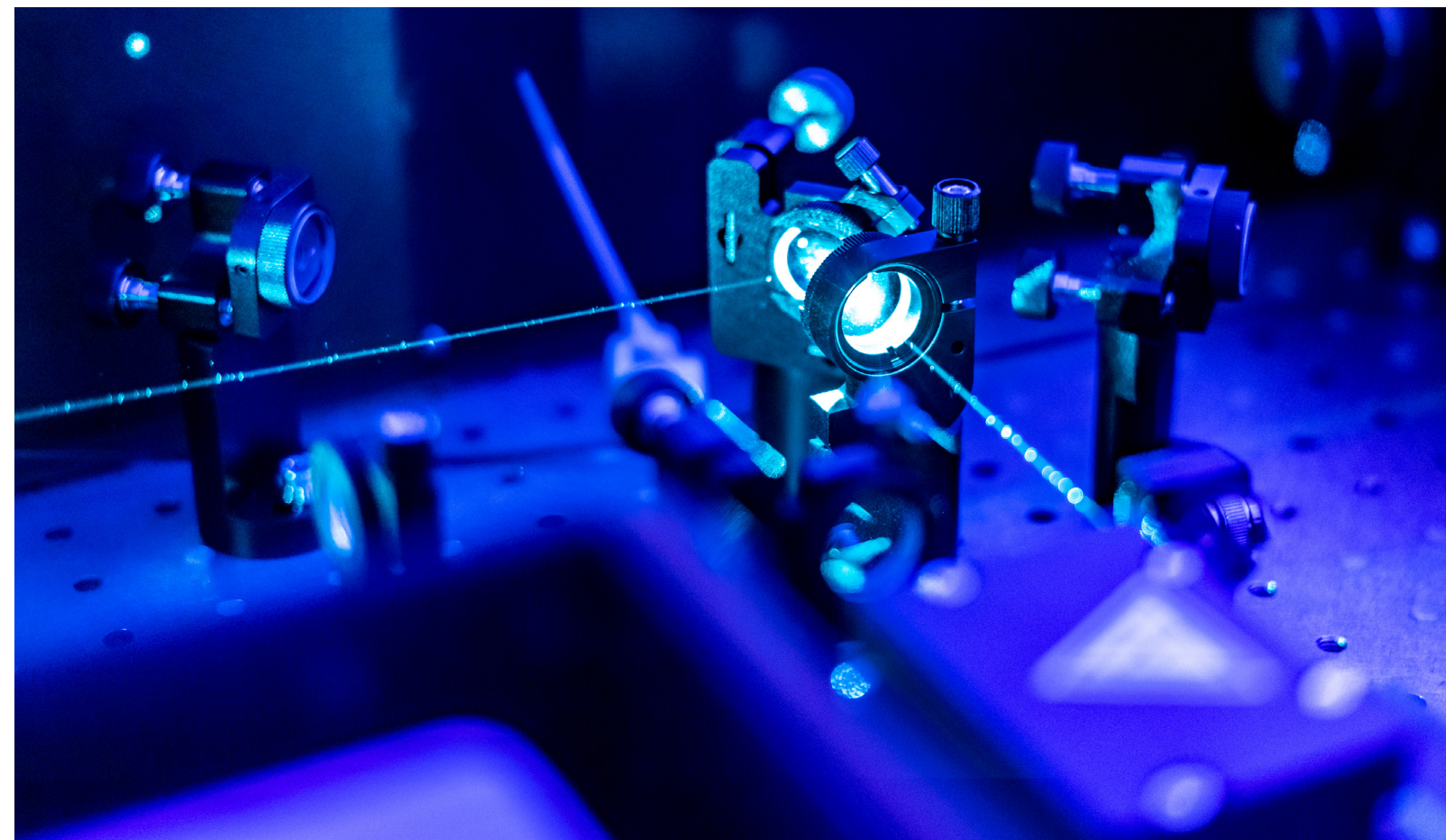
## Personnel Recovery

EDA continued the work on progressing its Tactical Personnel Recovery Mission Simulator (TPRMS) project, using Virtual Reality (VR) technology serving as a blueprint for future training simulators. The Agency also launched the collaborative Joint Personnel Recovery Education and Training Courses project which enables participating Member States to train its staff through specialised courses. Similar training activities have been developed in the area of non-lethal capabilities.

## Counter-IED

The new Smart Future Counter-Improvised Explosive Devices Field Laboratory project was launched in 2020 with the aim to better align the current technological and industrial developments in the C-IED domain with the Armed Forces' operational requirements. The project offers the possibility of cooperation and information sharing about national training, testing and experimental events in a multinational format, addressing requirements ranging from stand-off detection of chemical, biological, radiological, nuclear and explosives (CBRNe) substances, C-UAS, to blast mitigation and the protection of infrastructures.

# JOINT RESEARCH & TECHNOLOGY (R&T) AND INNOVATION



## Capability and Technology Groups (Captechs)

Member States continued in 2020 to bring additional ad hoc R&T projects into EDA, taking benefit of the Agency's expertise and incentives. Innovative and promising projects are underway or in preparation in key technologies of the future, such as artificial intelligence (AI), robotics and automation, innovative materials or electronic components.

By the end of 2020, there were 37 new R&T projects under negotiation. They will further add to EDA's existing R&T portfolio of currently around 50 ongoing ad hoc R&T projects, representing an overall value of some €278M. Dual-use synergies, including with European Commission services, are being pursued on a systematic basis.

## Preparatory Action on Defence Research (PADR)

EDA continued its work in 2020 as the managing and implementing body of the EU's Preparatory Action for Defence Research (PADR), based on a European Commission mandate. Following the final calls for proposals published in March 2019, seven new defence research projects were selected in 2020 for funding under PADR, for a total of more than €19 million. All seven projects deal with technologies that have a high disruptive potential in the defence sector such as AI and quantum technologies or focus on other critical defence technologies for electronic warfare and military unmanned systems. In 2020, two PADR projects were concluded: Generic Open Soldier System Reference Architecture (GOSSRA)

and Predictive methodology for Technology Intelligence Analysis (PYTHIA). Several PADR projects launched over the past three years have already delivered tangible results, such as the first large-scale technology demonstration in the Mediterranean Sea carried out in November 2019 by the OCEAN2020 project, and the open soldier system architecture developed under the GOSSRA project.

## Additive Manufacturing (AM)

EDA conducted two workshops on AM (or 3D-printing) in 2020 with a view to setting up common standards and fostering cooperation among Member States in their efforts to introduce this promising technology into the military. A dedicated R&T project is under development on Additive Manufacturing Techniques for Energetic Materials (AMTEM). This project will allow to produce new propellants and possibly warheads, allowing to extend weapons range and deliver more precise and scalable effects.

## Cross-cutting technologies for defence

In 2020, EDA started to prepare a comprehensive action plan on transversal areas such as autonomous systems, energy and space. They will allow over time to develop cross-cutting technologies in a more integrated perspective. EDA also conducted two technology foresight workshops in 2020 - one on autonomous systems and another on hypervelocity systems - to assess the potential impact of emerging and disruptive technologies on future defence capabilities as well as the subsequent research needs. The outcome of those events, still in the process of being analysed, could pave the way for new research activities.

"Artificial Intelligence is key for the transition to an 'intelligent force'. The incorporation of AI in autonomous systems and the evolution of robotics will vastly improve the performance of existing and future defence platforms."

**Panagiotis Kikiras,**
Head of Unit Innovative Research



WINNER
2020
EDA Defence Innovation Prize

EUROPEAN DEFENCE AGENCY

### Artificial Intelligence (AI)

At the end of 2020, EDA finalised its 'Artificial Intelligence in Defence Action Plan' identifying ways and means for Member States to collaborate on the development of AI for their militaries. The action plan will be complemented by a Strategic Research Agenda (SRA) on AI for defence which is meant to serve as a basis for future AI based ad hoc projects and technology building block roadmaps to further stimulate the application of AI in future defence activities.

A number of AI-related projects have been launched in 2020, including on Communications and Radar systems hardened with

Artificial Intelligence in a contested electronic warfare environment (CRAI), AUtonomous DROne Services (AUDROS) and Artificial intelligence for TErrain-relative NAvigation in unknown environments (ATENA). The last two projects are conducted in cooperation with the European Space Agency (ESA).

EDA also participated in a working group on AI and cybersecurity set up by the European Union Agency for Cybersecurity (ENISA) where it shared the findings of its 'Artificial Intelligence Threat Landscape Report' (published in December 2020) as well as its experience in developing an AI taxonomy for defence.

EDA contributed to the first 'Fly AI' report, developed by the European Aviation High Level Group on AI, which provides an overview of the many ways that AI is already applied in the aviation industry and assesses its potential to transform the aviation/air traffic management sector.

### EDA Defence Innovation Prize

The 2020 edition of the 'EDA Defence Innovation Prize' contest - which since 2018 rewards companies and research entities who come up with innovative and ground-breaking technologies, products, processes or services applicable in the defence domain - was devoted to innovative solutions and technologies for the countering of swarms of Unmanned Aerial Vehicles (UAVs). Due to the excellent quality of the proposals, two winning projects were announced in November. The first is called SWADAR (SWarm ADvanced Detection And TRacking) and was proposed by the Centro Italiano Ricerche Aerospaziali (CIRA) based in Capua, Italy. The second winning

project is called 'Full-Duplex Radio Technology for Enhanced Defence Capabilities Against Drone Swarms' and was presented by Rantelon, an Estonian small and medium-sized company, in cooperation with Tampere University, Finland.

# COOPERATION ENABLERS & INCENTIVES

"Having worked for more than two decades in field missions, I know that the provision of in theatre medevacs in logistically very challenging environments is of utmost importance, not just in COVID times. The AIRMEDEVAC framework contracts are a fantastic tool to support our Member States."

**Anja Schneider,**
Project Officer Ideation and Transition in EDA's Training & Exercise Unit

## Support to CSDP missions and operations

In 2020, EDA activated several framework contracts concluded with international aeromedical providers in order to provide Member States with an efficient and cost-effective option to order commercially available fixed and rotary wing in-theatre aeromedical evacuation services (AIRMEDEVAC) in Africa and Europe. The AIRMEDEVAC project offers them a primary life support capability to evacuate patients, available 24/7 throughout the designated operational theatre, from the point of injury to an initial medical treatment facility and transfer between in-theatre medical treatment facilities. The option also provides services for COVID-19 transports. EDA saw its first deployment of civilian, fixed-wing AIRMEDEVAC services to support Belgian Armed Forces operations in Niger in Africa. In addition, Germany has taken advantage of both rotary and fixed wing services for operations in Africa. EDA's AIRMEDEVAC contracts will run until January 2023.

The Agency's EU SatCom Market project, which pools demand for satellite communications and communication & information (CIS) services and provides Member States and CSDP operations/ missions with commercially available capabilities to meet the demand, also made headway in 2020 when EDA awarded the third framework contract. By the end of the year, over 90 SatCom orders had already been processed on the basis of the new framework, clearly demonstrating the value of this longstanding EDA project.

## Military Mobility

EDA's ad hoc programme on customs achieved tangible results in 2020 by delivering a new customs form (EU form 302). A new Programme Arrangement to be signed in early 2021 will focus on the digitalisation of customs-related activities. EDA's existing programme on Cross Border Movement Permission (CBMP) aims at facilitating the smooth movement of EU military personnel and equipment through EU countries by harmonising processes and procedures. Within this programme, two technical arrangements were developed in 2020, the air and surface domains.

## Standardisation

In 2020, EDA set up the European Defence Standardisation Committee (EDSC) which will oversee the implementation of the European Defence Standardisation Strategy and provide a common understanding regarding the management of defence standardisation among EU stakeholders and interested third parties, including NATO and industry. A first comprehensive Test & Evaluation (T&E) gap analysis study was conducted aimed at identifying missing test capabilities in the existing centres in Europe. The identified gaps, particularly in the area of autonomous systems, are regarded as the most important areas for future T&E cooperation.

In the air domain, the Agency made several updates to the European Military Airworthiness Requirements (EMARs), and the harmonisation of national aviation safety approaches was extended to all military aviation domains with the approval of two pilot cases in February 2020. A dedicated project team on the harmonisation of aviation safety requirements for military air transport operations was also set up.

**In 2020,**
first deployment of civilian, fixed-wing AIRMEDEVAC services

> "The new helicopter training centre in Sintra will become an European centre of excellence for the delivery of advanced rotary wing tactics training. It will also facilitate the transition of EDA's current helicopter programmes to the future Multinational Helicopter Training Centre"
>
> **Pablo Romera,**
> Project Officer Rotary Wing

## €139 million

Total value of collaborative EDA projects benefitting from VAT Exemption

## Training & Exercises

- **Rotary-Wing.** Following the closure of the Royal Air Force Base at Linton-on-Ouse (UK), where EDA used to hold its practical helicopter trainings, the Agency proceeded in 2020 with the relocation of its helicopter training centre to Sintra Air Base in Portugal where it will operate until mid-2023. By that date, Sintra Air Base will have become the permanent host of the new Multinational Helicopter Training Centre (MHTC) which will take over EDA's three helicopter programmes: the Helicopter Exercise Programme (HEP), the Helicopter Tactics Course (HTC) and the Helicopter Tactics Instructors Course (HTIC). The Agency's new training centre, now established in Sintra, includes a classroom/office building and a new and advanced helicopter mission simulator to provide a realistic training tool to replicate the physical and tactical environments of the current operational scenarios. It started its activities in October 2020 with an electronic warfare course.

- **Fixed-Wing.** Throughout 2020, EDA supported participating Member States in the development of a European air combat training capability with a view to optimising the use of operational fighter aircraft flight time in hostile air combat situations. The setting-up of a European professional training unit is also being investigated. Under its European Air Transport Fleet Programme (EATF), the Agency also launched in 2020 the European Undergraduate Military Transport Pilot Training program (EUMTPT) to train European military transport pilots. It also developed the operational requirements for the air platform, the aircraft simulator, and the logistic support necessary to execute such trainings.

## Cooperative Financial Mechanism (CFM)

The programme arrangement setting up a Cooperative Financial Mechanism (CFM), aimed at incentivising and facilitating the launch of collaborative defence capability and research programmes through mutual inter-state help or alternatively with outside support from the European Investment Bank (EIB), was signed by six participating Member States (Cyprus, Greece, Hungary, Lithuania, Portugal, Romania) and the EIB. Bulgaria declared its readiness to sign the programme arrangement as well. At the end of 2020, several other countries were finalising the national procedures to reach the signature stage (Belgium, France, Germany, Italy, Netherlands and Spain). It is expected that the programme will enter into force at the date of the last signature by participating Member States. The main added value of the CFM will be the possibility to overcome temporary budgetary shortfalls, via state-to-state or EIB support.

## Access to EU funding

In 2020, EDA concluded its multiannual programme providing assistance to participating Member States to access European Structural and Investment Funds (ESIF) for selected pilot defence R&T projects. Over the years, the programme managed to secure ESIF support worth €31million for 12 projects put forward by eight Member States: Italy, Greece, France, Portugal, Romania, Poland, Croatia and Estonia.

## VAT exemption

Several new projects and programmes incorporating the provisions relating to VAT exemption were concluded in 2020, bringing the total value of collaborative EDA projects benefitting from this incentive to over €139 million. At the end of 2020, the total financial benefit generated by this VAT exemption for EDA Member States had reached €27,8 million (based on the signed contract values).

# INTERFACE
# FOR WIDER
# EU POLICIES

Consultation Forum for Sustainable
Energy in the Defence and Security
Sector (CF SEDSS III)

EU Climate Change and Defence
Roadmap

Incubation Forum on Circular Economu
in European Defence (IF CEED)

EDA REACH

## Energy, Environment

EDA and the European Commission
continued the implementation of the
third phase of the Consultation Forum
for Sustainable Energy in the Defence
and Security Sector (CF SEDSS
III), providing a European platform
for MoDs to share knowledge and
promote collaborative defence
research and innovation on
sustainable energy.

In June, the Council of the European
Union invited EDA to contribute to
the preparation of a set of concrete
short- medium- and long-term
actions addressing the links between
defence and climate change as part
of the wider climate-security nexus.
Following this invitation, the Agency
engaged in a cooperation with the
EEAS and the Commission on an
'EU Climate Change and Defence
Roadmap'.

In January 2020, the Agency was
tasked by its Steering Board to create
an Incubation Forum on Circular
Economy in European Defence (IF
CEED) co-funded by the Commission
with a view to allowing the defence
sector to further contribute to the
European Green Deal initiative.

Based on an initial EDA proposal, the
European Commission has identified
the Agency as beneficiary of a
budgetary grant from the EU LIFE
Programme to launch the Incubation
Forum in 2021. In order to sign the
final grant agreement and start the
implementation of the IF CEED, EDA
will submit a detailed project to the
Commission in early 2021.

Throughout 2020, EDA has
also further progressed in the
implementation of activities related
to the REACH European Regulation
on Chemicals, supporting Member
States and defence industry in
effectively mitigating the related
impact on defence. The majority of
the related EDA activities under the
EDA REACH Roadmap 2018-2020
were completed while others are
in the finalisation stage. An overall
status report, including proposals
for EDA REACH activities in the years
2021-2023, will be presented to the
EDA Steering Board in early 2021.

## Military Mobility

The Agency continued its work to
support the implementation of the
EU dedicated Action Plan, notably
to foster the harmonisation of
national procedures to facilitate
the movement of land, air and
maritime forces across the EU's
internal borders (including customs
procedures), in close coordination
with the EEAS, including the EUMS,
and the European Commission. Under
the framework of the EU-NATO Joint
Declaration, coordination continued
to take place with relevant NATO
entities, including in the framework of
the staff-level structured dialogue.

"Efforts to address energy-related
and climate change issues and their
impact on defence are gaining strong
momentum with EDA input. Europe's
Green Deal policy will further enhance
this trend."

**Constantinos Hadjisavvas**
Project Officer Energy, and

**Ioannis Chatzialexandris,**
Project Officer Energy and
Environment Systems

> "To help Member States safeguard military requirements in the Single European Sky (SES), engage in collaborative projects and facilitate the SES-integration of military unmanned aircraft systems are key tasks of EDA. In 2020, we made progress in all of them"
>
> **Christophe Vivier,**
> Head of SES/SESAR Unit

EDA evaluation:

Period 2020-2050

# €11 billion

for the required technological adaptations to the

## Single European Sky

## Air Traffic Integration

EDA's groundwork helping Member States to integrate military MALE-type RPAS in civil air traffic received a boost in May 2020 when a live MALE RPAS flight test carried out by the French Air Force contributed to paving the way for the validation of the risk analysis previously undertaken through EDA. Until then, the conclusions of EDA's study on the 'Accommodation of MALE-type RPAS: scenarios and safety case', delivered in February 2019, had only been tested through simulations but never under real flight conditions. In 2020, the Agency also initiated a study to assess the impact the evolving 'U-Space' will have on the military. The term 'U-Space' refers to the low-level airspace and covers the ecosystem of services and specific procedures necessary for reliable and safe drone operations.

The Agency also pursued its work in the EDA Single European Sky Military Aviation Board (ESMAB) preparing the common military views in order to safeguard and promote the interests of military aviation in the debate on the European Commission's new legislative proposals. Moreover, for the first time, EDA evaluated the military costs related to the required technological adaptations to the Single European Sky. The cost has been evaluated at €11 billion over the period 2020-2050, of which around €9 billion will be invested by 2035.

## EU Maritime Security Strategy

The Agency continued its support to the implementation of the EU Maritime Security Strategy Action Plan, in complementarity with the EEAS and the Commission and in cooperation with the relevant EU agencies: the European Maritime Safety Agency, the European Fisheries Control Agency and the European Border and Coast Guard Agency (Frontex). Together with Frontex, EDA organised a joint training of law enforcement and naval personnel, hosted by the Portuguese Navy. EDA also continued to support the development of the EU's Common Information Sharing Environment (CISE) initiative which aims to make Member States' surveillance systems interoperable to give all relevant authorities access to the classified and unclassified information they need to conduct missions at sea.

## Cyber

In 2020, EDA pursued the implementation of the quadrilateral cooperation established with the EU agencies working in the cyber domain - the European Union Agency for Cybersecurity (ENISA), the European Union Agency for Law Enforcement Cooperation (Europol) and the Computer Emergency Response Team for the EU Institutions, Bodies and Agencies (CERT-EU) - through regular exchanges and meetings. The Agency also continued close its cooperation with the Commission's Radio Spectrum Policy Group (RSPG) and presented the EU Defence views on the ongoing work towards an EU Radio Spectrum Policy Programme (RSPP).

## Engagement with industry

EDA pursued its efforts to improve the information sharing with industry, encourage the creation of cross-border partnerships, and support the defence industry in benefiting from available EU funding tools. A concrete example is the launch of a new 'B2B Platform', an online tool which aims to facilitate cross-border partnerships between European defence industry stakeholders by allowing them to quickly and easily search for potential partners for defence-related projects and programmes. Another online tool, the 'IdentiFunding' platform which allows stakeholders of multinational defence projects to identify available EU funding opportunities, continued its services in 2020.

*EUTM Somalia trainers*

# WORKING WITH PARTNERS



## Administrative Arrangement countries

In 2020, EDA further developed its relations with most of the four countries having concluded an Administrative Arrangement (AA) with EDA.

**Norway** continued to be one of the most actively engaged countries with the Agency's projects and activities, ensuring mutual benefits especially in the area of research and technology where Norway remains active in all relevant R&T related fora.

**Switzerland** formally joined several EDA CapTechs and the Multinational Helicopter Training Centre (MHTC), thereby taking important steps towards engaging with the Agency's portfolio more broadly.

**Ukraine** maintained and even increased its involvement in EDA activities in 2020, becoming a regular member of the "open session" of the European Defence Standardisation Committee, as well as a member of the Agency's Project Team Logistic Support.

**Serbia** which had maintained limited participation in identified EDA activities decided in September 2020 to suspend its participation to EDA activities, as part of a wider freeze of international cooperation activities. In December 2020, it signalled its readiness to re-engage in EDA activities.

Even though **Denmark** is neither a member nor linked to the Agency through an Administrative Agreement, it was in 2020 associated to discussions within EDA directly related to wider EU policies and regulations, and activities for which funding from the EU budget is envisaged (PADR, EDIDP/EDF, SES, Military Mobility, Energy Consultation Forum, REACH).

The **United Kingdom** ceased to be a participating Member State of EDA as of Brexit date on 31 January 2020. As regards the future, the Political Declaration setting out the framework for the future relationship between the European Union and the UK refers to the possibility of a future Administrative Arrangement to be concluded between the Agency and the UK.

## European Space Agency

Cooperation with the European Space Agency (ESA), on the basis of the existing Administrative Arrangement, was focused in 2020 on the implementation of four ongoing implementing arrangements on GOVSATCOM, cyber defence for Space, earth observation, and unmanned maritime systems. Two new joint projects have been launched on Chemical, Biological, Radiological, Nuclear, and Explosives materials (CBRNe) and in the field of guidance, navigation and control. Other options for enhanced cooperation are being explored.

## NATO

In 2020, the focus of the Agency's cooperation with NATO remained on the implementation of the 30 out of the 74 common proposals retained in the framework of the Joint declaration on EU-NATO cooperation, ensuring coherence of output and timelines between relevant EU and NATO defence planning processes, and other areas such as military mobility, cyber, hybrid threats, air-to-air refuelling, military aviation and standardisation. The Agency also pursued its task to support Member States in ensuring that there is no unnecessary duplication between PESCO projects and activities undertaken in other frameworks. EDA also maintained informal contacts on selected topics of mutual interest with the United States (military mobility, REACH, airworthiness) and with Canada (military mobility).

EDA has furthermore continued to take part, together with the EU Military Staff, in some activities of the Multinational Capability Development Campaign (MCDC), a multinational framework supported by NATO, and focused on different projects such as multinational integrated cyber fusion, countering hybrid warfare, joint personal recovery, medical modular approaches employment, military use of artificial intelligence, automation and robotics.

## OCCAR

Bilateral cooperation with OCCAR continued in 2020 in the framework of the existing Administrative Arrangement with the delivery of the MRTT aircraft to the MMF's main operating base in Eindhoven being one of the main outcomes. The cooperation in other areas, such as the European MALE RPAS programme, European Secure Software Defined Radio (ESSOR), standardisation, REACH and military airworthiness, also continued apace.

## Other Third Parties

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



### COVID-19 pandemic

In the wake of the COVID-19 outbreak early 2020, EDA further enhanced the setup of its digital working environment which allowed the Agency management and staff to ensure business continuity with full involvement of Member States while respecting all consultation and validation procedures. The digitally accessible platforms such as EDA's Collaboration Platform (ECP) or its Programme and Project Management (PPM) system as well as the prioritisation platform were, and still are, actively used by Member States, EU institutions and industry.

> "Since EDA's digital transformation had already started in 2019, we were well prepared to cope with the new teleworking requirements imposed by COVID-19 as of spring 2020. As a result, staff seamlessly transitioned to working from home while the Agency's stakeholders continued to have full and secured access to EDA's IT systems and all services they rely on."
>
> **Rosaria Giovannelli**
> Head of IT Unit

### EU Classified Information (EUCI)

In order to address the need for exchanging classified information with Member States in support of EU defence initiatives, such as PESCO and CARD, the Agency started building up its ability to handle classified information through two separate networks, one accredited up to EU SECRET and the other up to EU RESTRICTED. The EU-Secret Interim Operational Capability will be reached within the first half of 2021 and the EU-Restricted will enter operational status by end 2021, both to reach full operational capacity by the first half of 2022.

### Annual Conference

'Sustaining European Defence' was the topic of EDA's 2020 Annual Conference which took place, in virtual format (due to the ongoing COVID-19 pandemic) on 3/4 December in Brussels and gathered online some 600 attendees and participants from national governments, armed forces, European and euro-atlantic institutions, industry, academia and media.

Among the speakers were the Head of the Agency, High Representative Josep Borrell, Greek Defence Minister Nikólaos Panayotópoulos, NATO Deputy Secretary General Mircea Geoană, the European Commissioner Thierry Breton, German Defence State Secretary Benedikt Zimmer and the Chairman of the EU Military Committee (EUMC), General Claudio Graziano.

### Access to documents

In 2020, the Agency further consolidated its policy on the handling of requests for public access to documents after EDA revised its policy on access to documents on 7 June 2019 in line with European Ombudsman recommendations. Throughout the year, EDA received 21 access to documents requests under the Regulation for public access to documents – Regulation 1049/2001, which represents a stabilisation compared to the same number of requests received in 2019. Three of the requests were fully granted. EDA refused access to eleven requests while four requests were devoid of purpose as EDA was not in possession of the documents requested. EDA granted partial access in three of the submitted requests. The exception(s) used by the Agency in the cases of refusal or 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, Article 4(1)(b) – privacy and integrity of the individuals in accordance with the Union legislation regarding the protection of personal, Article 4(2) first indent – protection of commercial interests, including intellectual property rights and Article 4(3) – disclosure would seriously undermine EDA's decision making process. All access to documents requests submitted to EDA were received electronically. EDA received five confirmatory applications in 2020. In all these cases, the initial decision was upheld. A European Ombudsman complaint received in 2019, relating to an access to documents request, was fully implemented in 2020.

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 for them 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

### Data protection

Regulation (EU) No 2018/1725 of the European Parliament and of the Council sets forth the rules applicable to the processing of personal data by European Union institutions, bodies, offices and agencies. It entered into force on 11 December 2018 and is closely aligned with the General Data Protection Regulation (GDPR). EDA, its controllers, the Data Protection Officer (DPO) and the European Data Protection Supervisor (EDPS) all contribute to the application of Regulation 2018/1725 at the European Defence Agency.

2020 was marked by the outbreak of the COVID-19 pandemic, which in addition to be an unprecedented sanitary crisis, has also tested fundamental rights to data protection and privacy. This has caused a significant shift in 2020 priorities for EDA in its implementation of Regulation 2018/1725 as the work of EDA and its DPO this year has focused on addressing the challenges brought on by COVID-19 in light of EU Data Protection requirements.

One request for access to personal data was received from a data subject in 2020 and the EDA Data Protection Office successfully assisted its stakeholders in a large number of requests relating to data protection.

# EDA PORTFOLIO

**Number of projects, programmes and activities which were in progress at year-end 2020**
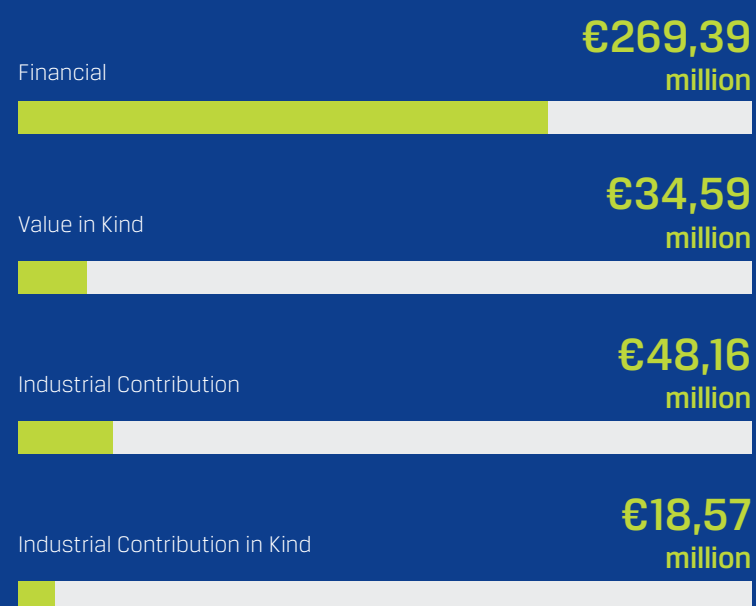
EDA Operational Budget
**194**

Ad hoc Capability and R&T
**123**

Generic & Supporting Activities
**48**

Support to PESCO projects
**5**
*(at request of Member States)*

**Member States' contribution to ongoing ad hoc Capability and R&T programmes and projects**
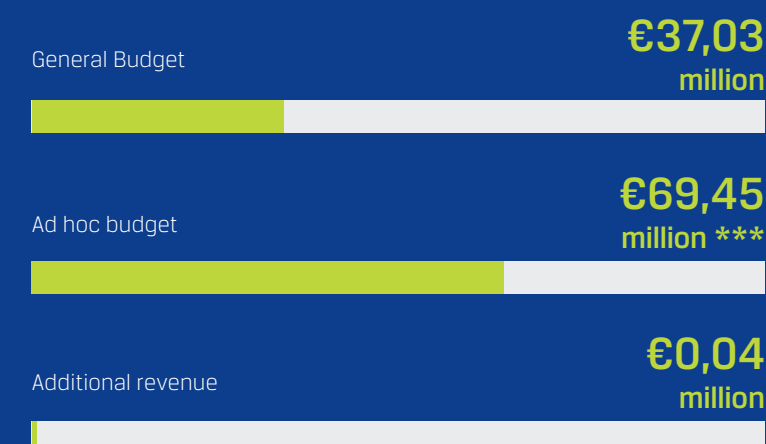
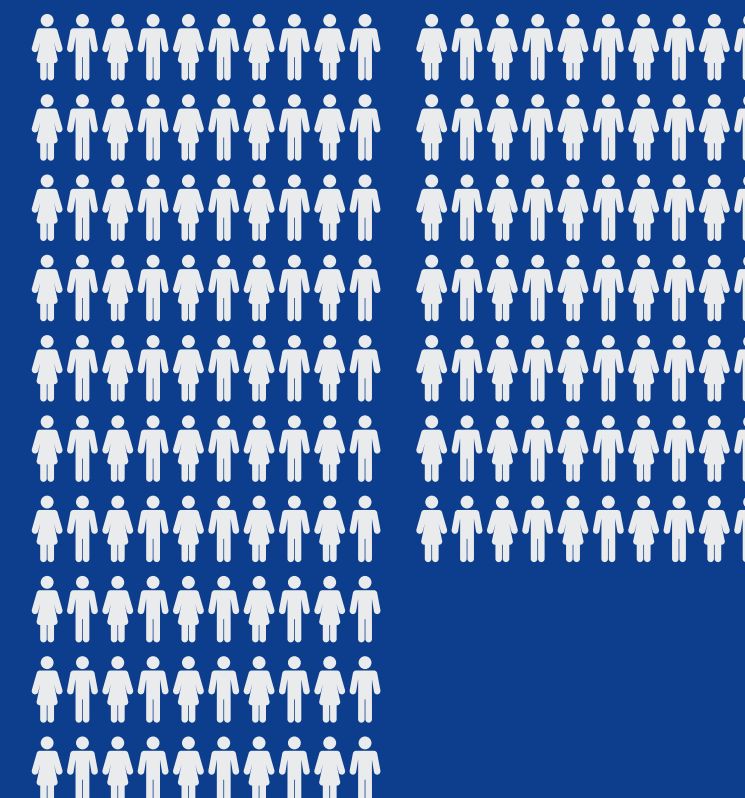(with effect end – 2020, in million €)*

Total:
**€370,71**
million

Financial
**€269,39 million**

Value in Kind
**€34,59 million**

Industrial Contribution
**€48,16 million**

Industrial Contribution in Kind
**€18,57 million**

## EDA Budget 2020

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

**€106,52**
million **

General Budget
**€37,03 million**

Ad hoc budget
**€69,45 million ***

Additional revenue
**€0,04 million**

## EDA Staff

**170**
(on 31/12/2019)

* where formal agreements have been concluded
** 2020 figures are provisional
*** Ad hoc budget figures include only financial contributions directly managed by EDA (60 projects in total)

# YOUR EDA AS OF MAY 2020

## EDA MANAGEMENT

**Jiří ŠEDIVY**
Chief Executive

**Olli RUUTU**
Deputy Chief Executive

**Emilio FAJARDO**
ISE Director

**Martin KONERTZ**
CAP Director

**Jean-François RIPOCHE**
RTI Director

**Luigi SANDRIN**
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