Together for a stronger Europe
Together for a stronger Europe
EU-27 Defence Sector: Key Facts 2012

Number of Military Personnel
1 453 028

Direct Employment in Aerospace and Defence Industries
752 500

Defence Expenditure
190 B€

Defence Investment
38,97 B€

1 Denmark does not participate in CSDP
2 Defence equipment procurement expenditure and Defence R&D (including R&T) expenditure.

Sources: EDA Defence Data 2012; ASD Key Facts and Figures 2012

CONTENT

1 | EDA: A POWERFUL CATALYST AT THE SERVICE OF MEMBER STATES ............... 06
   » A revamped structure ..................................................................................... 06
   » EDA’s tasks ..................................................................................................... 07
   » A performing team .......................................................................................... 08
   » Key benefits for stakeholders ...................................................................... 09

2 | EDA: A PROACTIVE HUB FOR THE EUROPEAN DEFENCE COMMUNITY ........ 10
   » Close cooperation with other EU structures .............................................. 11
   » Close cooperation with non-EU actors and third parties ......................... 11

3 | EUROPEAN DEFENCE COOPERATION ......................................................... 12
   » Pooling & Sharing ......................................................................................... 12

4 | HIGHLIGHTS ................................................................................................. 13
   » Programmes ................................................................................................... 13
   » Support to operations ................................................................................... 16
   » Enabling cooperation .................................................................................... 19
   » Cross-cutting activities: leveraging civil-military synergies ....................... 21
EDA: A POWERFUL CATALYST AT THE SERVICE OF MEMBER STATES

A REVAMPED STRUCTURE

The European Defence Agency was established under a Joint Action of the Council of Ministers of 12 July, 2004, “to support the Member States and the Council in their effort to improve European defence capabilities in the field of crisis management and to sustain the European Security and Defence Policy – now Common Security and Defence Policy – as it stands now and develops in the future”. To implement the provisions of the Lisbon Treaty, this Joint Action was replaced by a Council Decision on 12 July 2011.

An Agency of the European Council, EDA is the only EU Agency whose Steering Board meets at ministerial level. The Head of Agency, who is the High Representative of the Union for Foreign Affairs and Security Policy, is also Vice-President of the European Commission. The EDA Chief Executive is appointed by decision of the Steering Board. In addition to ministerial meetings at least twice a year, the Steering Board also meets at the level of national armaments directors, R&T directors and capabilities directors.

EDA’s staff is composed of experts in capability development, research and technology, armament cooperation as well as industrial matters from all EDA Member States. They work in an integrated way to ensure that capabilities are planned and delivered coherently, respecting the operational requirements and based on technological development and industrial offer. This joint functional approach is combined with a bottom-up expert level initiative (EDA connects around 4 000 national based-experts) and top-down political direction.

Since 1 January 2014, the Agency has a new organisational structure in place to better support Member States in a rapidly evolving environment. The Agency is now organised in three operational directorates: Cooperation Planning & Support; Capability, Armaments & Technology; and European Synergies & Innovation. This will facilitate prioritisation of tasks and improve operational output, in particular on key activities such as Air-to-Air Refuelling, Remotely Piloted Aircraft Systems, Satellite Communications, Airworthiness, Certification, SESAR, and Energy & Environment.
EDA’S TASKS

As described in the Treaty of the European Union (article 42) and in the Council Decision of 12 July 2011, EDA is tasked to:

› contribute to identifying the Member States’ military capability objectives and evaluating observance of the capability commitments given by the Member States;

› promote the harmonisation of operational needs and the adoption of effective, compatible procurement methods;

› propose multilateral projects to fulfil the objectives in terms of military capabilities, ensure coordination of the programmes implemented by the Member States and management of specific cooperation programmes;

› support defence technology research, and coordinate and plan joint research activities and the study of technical solutions meeting future operational needs;

› contribute to identifying and, if necessary, implementing any useful measure for strengthening the industrial and technological base of the defence sector and for improving the effectiveness of military expenditure.
1. EDA: A POWERFUL CATALYST AT THE SERVICE OF MEMBER STATES
KEY BENEFITS FOR STAKEHOLDERS

› Flexibility
EDA works "à la carte", from a minimum of two to all Member States (Denmark has an opt-out) plus Norway, Serbia and Switzerland: depending on their strategic priorities, their operational requirements, or their interest in a specific project, Member States decide on the extent to which they participate in the Agency's projects.

› Cost-efficiency
EDA functions with a limited budget of some 30 million euros. But it includes seed money and expertise enabling it to act as a powerful lever: projects and programmes launched and managed by the Agency generate anything between 100 and 250 million euros in ad-hoc budgets within EDA and several of them are conducted by OCCAR.

EDA is a key facilitator in developing the military capabilities which can be used for Common Security and Defence Policy operations of the Union, NATO and other multinational or national engagements. More largely, it is the place where Member States willing to develop capabilities in cooperation do so.

› Synergies with EU instruments
EDA acts as a facilitator between the Member States and the wider EU policies. EDA can champion the military views and interests in EU policies and it offers a platform for the Commission to dialogue with the Ministries of Defence. It can also facilitate the access of Ministries of Defence and defence industry, notably SMEs, to EU instruments.

EDA is small in size (fewer than 130 staff), but focused on expertise matching cooperation priorities. Agency staff works in an integrated way and has close links to expert counter-parts in Member States as well as other EU and multinational structures.
Coopération en matière d’Armement (OCCAR). The Agency continues to strengthen its working relationship with NATO, ensuring complementary and mutually reinforcing capability development. EDA is also engaged in developing its relation with other non-EU organisations, such as Eurocontrol.

Concerning defence industries and market, close dialogue and transparency with the private sector are key, thus the Agency and the AeroSpace and Defence Industries Association of Europe (ASD) are natural partners. This dialogue is also open to all other defence industry representatives.

The role of the European Defence Agency has been emphasised by the European Council in December entrusting EDA with important new taskings related to capability development, to strengthening the European Defence Industrial and Technological Base and to further advancing defence cooperation in Europe.

As Agency of the Council of the European Union, EDA is an intergovernmental structure at the service of Ministries of Defence.

Its expertise supports Member States regarding the defence implications of a range of broader EU policies and initiatives, such as Research and Technology, Single European Sky, energy, space, radio spectrum, dual capabilities related to cyber defence, Remotely Piloted Aircraft Systems and maritime surveillance. The Agency is the place where Defence Ministries can identify and articulate their interests vis-à-vis these policies. To achieve this, EDA has established strong relationships with other EU actors such as the European Commission, the European External Action Service, the bodies of the Council, the SESAR Joint Undertaking and the European Aviation Safety Agency, to name but a few. The European Parliament as well as many national parliaments have expressed their support for EDA’s activities on several occasions. Based on mutual confidence, these relationships allow to maximise civil-military synergies.

EDA is also working with third parties. It already has Administrative Arrangements with Norway, Switzerland, Serbia, with the European Space Agency and with the Organisation Conjointe de
Close cooperation with other EU structures
- The Council
- The European Commission
- The European External Action Service
- The European Aviation Safety Agency
- SESAR Joint Undertaking
- The European Union Satellite Centre
- The European Agency for the Management of Operational Cooperation at the External Borders (FRONTEX)
- etc.

Close cooperation with non-EU actors and third parties
- Administrative Arrangements with the European Space Agency and with OCCAR
- Administrative Arrangements with Norway, Serbia and Switzerland
- Working relationship with NATO: pragmatism and complementarity
- Industry
- Dialogue and cooperation with a number of other third States such as the US, Georgia, Ukraine and Russia
- etc.
European defence matters. For the European Union to be a credible security provider and to protect its interests, it requires the full suite of tools: diplomatic, economic, development, and of course military.

Recent operations have demonstrated critical gaps in European military capabilities as well as the importance of interoperability and cooperation. But while defence budgets are under pressure, costs of major defence systems are rising. For European Member States cooperation in defence is the solution to acquire and maintain critical capabilities.

Among other things, Heads of State and Government supported during the European Council of December 2013 a more systematic and long-term approach to cooperation through increased transparency, information-sharing in defence planning and incentives. Additionally, Heads of State and Government asked for a policy framework to foster more systematic and long term cooperation by the end of 2014.

**POOLING & SHARING**

Based on a German-Swedish food for thought paper on intensifying European military cooperation in 2010 (the "Ghent Initiative"), EDA together with its Member States developed the Pooling & Sharing initiative. The concept refers to initiatives and projects to pool and share more military capabilities among EU Member States. In November 2011 EDA proposed and Defence Ministers adopted an initial list of eleven Pooling & Sharing priorities. Among these projects are Air-to-Air Refuelling, the Helicopter Training Programme, maritime surveillance, or Satellite Communications.

In its efforts to promote a systematic approach towards cooperation, EDA’s Steering Board adopted on 19 November 2012 the "Code of Conduct on Pooling & Sharing". The Code comprises a series of actions to support cooperative efforts of EU Member States to develop defence capabilities throughout the life-cycle of a capability. The actions herein are aimed at mainstreaming cooperation in Member States’ planning and decision-making processes. They are to be implemented on a national and voluntary basis, in line with defence policies of Member States.

In December 2013 the European Council made a clear case for increased defence cooperation and welcomed the progress achieved by the Agency’s Code of Conduct on Pooling & Sharing.
Air-to-Air Refuelling (AAR) is a critical enabler for air power projection and it is required to enable sustained air combat operations. As a unique force multiplier, it is a fundamental technical characteristic embedded in modern aircraft design; not just in combat aircraft, but across the full spectrum of air platforms – including in the near future Remotely Piloted Aircraft Systems. In the past, European armed forces have relied extensively on American assets. This was clearly demonstrated in the Kosovo campaign in 1999 and confirmed during the operations over Libya in 2011. Today Europe is able to field 42 tanker aircraft of 10 different types, which when compared with the US resources of over 550 tankers of four types is a clear indication of the European challenges in this field.

In the March 2012 political declaration on AAR, Defence Ministers stated that further AAR capabilities should be developed in Europe as a matter of priority. In this regard, EDA is supporting the establishment of a multinational fleet of Multi-Role Tanker Transport to be operational from 2020. This workstrand builds on a letter of intent signed by nine Member States in 2012 and is led by the Netherlands, with the support of OCCAR.

In order to optimise existing assets, EDA supports Air-to-Air Refuelling clearance trials, under the lead of Italy. This will support the process for collective AAR clearances on future platforms and generate economies and efficiencies.

**AIM:** To facilitate and harmonise the acquisition of additional European AAR capability. To create all possible synergies in the logistics, training and operational functions. To increase the number of contributing Member States by pooling and/or sharing AAR assets or services.

**BENEFITS:** To increase European Member States’ operational autonomy by alleviating the existing European AAR shortfall. To increase interoperability and to reduce the overall AAR capability costs. To make the acquisition/operation of an AAR capability more affordable for Member States.
4. HIGHLIGHTS

REOTELY PILOTED AIRCRAFT SYSTEMS

Remotely Piloted Aircraft Systems (RPAS) have proven their value in the military sphere in recent operations demonstrating their operational capacities, particularly for surveillance and information gathering. However RPAS also include civil applications such as infrastructure surveillance, fire fighting, disaster or environmental monitoring, as well as border control and management.

The European Defence Agency proposed to Defence Ministers in November 2013 and to Heads of State and Government in December 2013 a comprehensive roadmap in the field of RPAS. EDA is supporting the next generation of MALE RPAS in Europe (2020-2025 timeframe). Further to the harmonisation of military requirements, the Agency will facilitate the preparation of a European programme for MALE RPAS.

EDA supports a European community for the use of existing assets in Europe. Seven Member States signed a letter of intend to share lessons learned and best practices on training and education, maintenance of similar assets, doctrine and concept. This will contribute to preparing the ground for the next generation of MALE RPAS.

EDA coordinates closely with the European Commission as regards certification and technologies related to air traffic insertion of MALE RPAS, critical enablers for the use of RPAS.

Synergies are expected especially in the field of technologies, where Ministries of Defence in the framework of EDA and the European Commission will invest money.

AIM: A comprehensive approach towards RPAS including technical, regulatory and operational aspects to prepare the next generation of MALE RPAS and their safe inclusion in European airspace.

BENEFITS: RPAS offer a wide range of civil and military applications. Investment in RPAS helps to sustain European technological know-how and non-dependence with operational and economic impact.
Cyberspace is often described as the fifth domain of warfare equally critical to military operations as land, sea, air, and space. Success of military operations in the physical domains is increasingly dependent on the availability of, and access to, cyberspace. The armed forces are reliant on cyberspace both as a user and as a domain to achieve defence and security missions.

Cyber defence is one of the ten priorities in the EDA capability development plan. Given that threats are multifaceted, a comprehensive approach is taken, seeking to enhance synergies between the civilian and military domains in protecting critical cyber assets. At the EU Summit of December 2013, Heads of State and Government endorsed the Agency’s cyber defence roadmap for strengthening - in close coordination with Member States, EEAS and the European Commission – European cyber defence capabilities. Its main elements are training, improving cyber situational awareness, improving civil/military cooperation, the protection of EU assets during missions and operations and technological aspects.

**AIM:** To assist Member States in developing appropriate cyber defence capabilities and to encourage cooperation in selected areas such as training and exercises.

**BENEFITS:** To contribute to European cyber defence capabilities along common standards.

GOVERNMENTAL SATELLITE COMMUNICATIONS (GOVSATCOM)

Satellite communications have become critical elements for defence, security, humanitarian, emergency response or diplomatic communications. They are a key enabler for civil and military missions/operations in particular in remote and austere environments with little or no infrastructure. Additionally, there is strong potential for a dual-use cooperative approach.

The objective of EDA’s GOVSATCOM programme is to prepare the next generation in the 2025 timeframe. In close cooperation with Member States, the European Commission and the European Space Agency, the programme includes (i) identifying and producing Common Staff Targets for future mission requirements; (ii) on this basis, undertake a gap analysis and an updated Strategic Research Agenda; (iii) co-
4. HIGHLIGHTS

ordinating civil and military requirements; and (iv) preparing a Category B project for Member States interested in due course.

EDA will pursue coordination with the European Commission, which will identify civilian requirements as of 2014. Commonalities may be identified on the basis of the military and civilian requirements.

AIM: The development of future satellite communications capability in a modular and scalable manner, able to match a wide range of civil and defence applications and missions.

BENEFIT: Introduce an innovative and sustainable cooperation model in the area of GOVSATCOM including a wide range of institutional and industry partners.

SUPPORT TO OPERATIONS

HELICOPTER TRAINING PROGRAMME

The Helicopter Training Programme (HTP) was launched in 2009 to increase in the short-term the availability of helicopters for crisis management operations. The HTP is the cover term for three concrete Category B projects that deal with developing and sharing best practices to meet the challenges of flying helicopters in the modern operational environment:

• Helicopter Exercise Programme (HEP) – at the Steering Board of November 2012 thirteen Member States signed the HEP Programme Arrangement. The thirteen nations committed their crews and helicopters to a ten-year programme, a concrete indication that training together is an integral part of enhancing European capability and interoperability. Six helicopter exercises in France, Italy, Portugal, Spain and Belgium have been delivered so far. 149 helicopters, 279 crews and over 8850 personnel participated already – the majority of the crews have subsequently been deployed to Afghanistan.
• **Helicopter Tactics Instructor Course (HTIC)** focuses on the "train the trainer" method. The course provides aircrew from participating Member States with the skills and knowledge to then deliver tactics training within their own organisations as well as HEP exercises. Successful graduates from the course are awarded a tactics instructor qualification recognised by participating countries.

• **Helicopter Tactics Course (HTC)** delivers helicopter tactics training for Member States with upcoming deployments, but who do not yet have sufficient operational experience to deliver this training organically. Twenty courses (four crews in each course) have been delivered so far. There has been continuous interest in the HTC programme resulting in the signing of a project arrangement by seven Member States, extending the programme until the end of 2016.

• Work has also started to harmonise helicopter flying training across participating Member States; trial courses have been delivered in Operational English Language learning.

**RESULTS:** Between 2009 and 2013: 149 helicopters, 279 crews and over 8,850 personnel participated in the Helicopter Exercise Programme.

**COUNTER-IMPROVISED EXPLOSIVE DEVICES THEATRE EXPLOITATION LABORATORY**

Countering Improvised Explosive Devices (IEDs) has become a key capability to ensure the safety and security of military and civil
personnel as well as the local population. Both in peacetime and operations, IED’s continue to represent one of the most hazardous threats.

EDA in close cooperation with participating Member States and France as lead nation initiated the Theatre Exploitation Laboratory (Demonstrator) project, which was deployed to Afghanistan in 2011. The Demonstrator has analysed thousands of diverse IED events, by processing samples, obtaining valuable information and becoming a key enabler for theater intelligence, which is necessary to support and focus operations against threat networks on the tactical and operational level.

Experience gained from the laboratory’s operational life will be of great value for the establishment of the Joint Exploitation Deployable Analysis Laboratory (JDEAL), led by the Netherlands.

**RESULTS:** Within the shortest period of time, EDA’s Theatre Exploitation Laboratory has been procured, built and deployed to Afghanistan where it has been in operation between autumn 2011 and end of 2013. Lessons learned will be fed into other deployable C-IED laboratories.

**MARITIME SECURITY**

Member States have strategic maritime interests and need to be able to safeguard adequately and efficiently these interests including by strengthening their capabilities and enhancing cooperation. An EU Maritime Security Strategy, to be adopted by the Council in June 2014, will propose a cross sector approach to maritime security.

EDA is closely associated to this strategy, acting as the defence layer and focussing on concrete projects and tailored solutions. It builds
on the development of the following defence capabilities: Maritime Mine Hunting, future hospital and crisis management ships, connecting national maritime surveillance systems to improve information sharing, common training sessions. These activities have a strong civilian military dimension because of the nature of the technologies involved or because of the application itself (maritime surveillance is not exclusively for military purpose).

**AIM:** EDA participates in the development of concrete projects in support of the EU Maritime Security Strategy. It will focus on the development of future hospitals and crisis management ships, which may be used both for military and civilian purposes.

### ENABLING COOPERATION

### MILITARY AIRWORTHINESS CERTIFICATION

European Member States currently have national military aviation safety systems in place. These systems are independent from each other, as each Member State is responsible for the regulation of its military and state aircraft. Harmonised certification procedures could save time and costs and would contribute to greater interoperability in joint operations.

In 2008, the Military Airworthiness Authorities (MAWA) Forum was established under EDA Chairmanship to work towards the harmonisation of European military airworthiness regulations. So far, the MAWA Forum has already developed and published European Military Airworthiness Requirements (EMARs) for type certification, maintenance and training as well as other supporting documents.

EDA cooperates closely with the European Aviation Safety Agency on the harmonisation of military aviation safety requirements.
4. HIGHLIGHTS

In November 2013, Defence Ministers signed a political declaration on certification and military airworthiness, endorsing a more harmonised approach towards military airworthiness and other domains.

**RESULTS:** Several Member States agreed to use EMARs for the ‘in-service’ phase of the A400M and thus harmonising their maintenance procedures.

**AMMUNITION QUALIFICATION**

Since current ammunition qualification procedures vary between Member States, the Pooling & Sharing of ammunition during multinational operations is not possible. The harmonisation of safety standards would enable mutual recognition of certificates in procuring, stockpiling, exchanging or transporting of ammunition between Member States with significant gains in terms of interoperability, procurement costs and testing procedures.

**RESULTS:** Since the beginning of 2013, EDA works on the implementation of an action plan to improve harmonisation of ammunition qualification.

**EFFECTIVE PROCUREMENT METHODS**

The joint procurement of assets not only decreases costs for participating Member States, it also increases interoperability and harmonisation of operational needs. The EDA’s Effective Procurement work strand supports Nations by identifying opportunities to pool and consolidate demand. Member States and CSDP operations benefit as this leads to more cost-effective procurement, whereas industry supports the aspect of greater efficiency. Heads of State and Government invited the Agency during their Summit in December 2013 "to examine ways in which Member States can cooperate more effectively and efficiently in pooled procurement projects".

So far, the Agency has carried out several pilot projects, among which the joint procurement of Basic Logistic Services for the 2012 EU Battle Group composed of Austria, the Czech Republic,
lic and Germany with a total value of €228 million; and of Carl Gustav ammunition by the Baltic States, the Czech Republic and Poland with an estimated value of up to €50 million.

The Agency put in place the Contractor Support to Operations web portal as an enhancement of the previous Third Party Logistics Support (TPLS) Platform for Crisis Management Operations. The web portal serves as a forum for interaction between national authorities and potential or actual contractors to identify possible commercial solutions for operational needs.

**RESULTS:** By pooling demand, the Agency supports Member States regarding cost-efficient procurement and increased interoperability.

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**CROSS-CUTTING ACTIVITIES: LEVERAGING CIVIL-MILITARY SYNERGIES**

**SUPPORT TO SMES – STRUCTURAL FUNDS**

In the context of promoting greater innovation across defence industry in Europe, with special focus on SMEs, and stimulating dual-use research, EDA is facilitating the access to European Structural Funds (ESF) to ensure that key technology and industrial priorities – as identified by Member States in the framework of EDA – are maintained or developed in Europe.

ESF has the potential to become an additional source of funding research and innovation dual-use projects in the field of security and defence.

In 2013, EDA supported seven projects in their application process to access ESF. Two applications have been successfully submitted during the 2007-2013 programming period to the national managing authorities for co-funding; both were found eligible, with one already attracting 60% co-funding. The rest will be submitted during the new financial framework 2014-2020. EDA will promote a more systematic approach in support of Member States.

**RESULTS:** Seven dual-use research and technology pilot projects were supported so far to access ESF. EDA mobilised key stakeholders at national and regional level promoting access of defence SMEs to ESF. A methodology to increase project’s eligibility is available to the Member States.
4. HIGHLIGHTS

SINGLE EUROPEAN SKY ATM RESEARCH (SESAR)

The aim of the European Commission’s Single European Sky (SES) initiative is to optimise today’s airspace organisation and management through a combination of technological, economic and regulatory efforts. Technical aspects of the legislation are coordinated and run by the Single European Sky ATM Research (SESAR) programme.

Considering the need to coordinate the various activities already conducted by the military in SESAR, and in order to facilitate the establishment of a coordinated position of the Defence community in Europe, EDA supports and facilitates the SES/SESAR Military Implementation Forum, a venue where issues of mutual interest are debated between relevant stakeholders.

EDA has been playing an increasing role in SESAR. It supports the Member States in identifying operational and financial consequences as well as opportunities that SESAR may bring to European Air Forces. EDA provides support to the European Commission and activities of the SESAR Joint Undertaking in this context. In addition, EDA facilitates the interaction between NATO and the SESAR Joint Undertaking to ensure mutual reinforcement at technical level.

With the adoption of the EU Implementing Regulation on Common Projects for the deployment of SESAR, the defence community will need to be involved on a more systematic basis. At the April 2013 Steering Board Defence Ministers approved the launch of a SESAR Category A programme to support the Agency’s work on SESAR. The SESAR Cell, which supports Member States in SESAR deployment and fosters coordination among Ministries of Defence, was established in March 2014.

RESULTS: EDA facilitates the coordination of military views from and in support of the Member States and the relevant international military organisations into the SESAR programme ensuring continuous coordination with NATO, Eurocontrol and the SESAR Joint Undertaking.
SPACE

Space-based assets, whether military or civilian, are an essential component for information superiority and operational autonomy to achieve tactical, operational and strategic objectives. Those assets contribute to command and control of operations and situation awareness.

The Agency’s space-related activities range from harmonising military requirements, identifying and initiating new opportunities for Pooling & Sharing and conducting preparatory studies in areas such as Satellite Communications, Earth Observation, RPAS Command and Control, the protection of critical space and ground infrastructures as well as in the field of critical space technologies. In doing so, and to guarantee effective dual-use coordination and the most efficient capability development for national defence forces and CSDP, substantive dialogues are in place with all key players, within the EU, industry or partners such as the European Space Agency.

EDA is working on Pooling & Sharing opportunities for its participating Member States in areas such as Governmental Satellite Communications. The Agency also signed an Administrative Arrangement with the European Space Agency in June 2011. In 2012, the Agency launched the European Satellite Communication Procurement Cell (SATCOM), to offer a one-stop shop for commercial satellite communication procurement. In 2013, a joint demonstration was realised in the area of Remotely Piloted Aircraft Systems (RPAS) Command and Control over Satellite (DeSIRE project). A second phase is engaged for 2014 (DeSIRE II project).

RESULTS: EDA’s initiatives cover the large majority of the space spectrum, from satellite communications, earth observation, protection of space infrastructures (space situational awareness, cyber defence in space) and critical space technologies for European non-dependence.