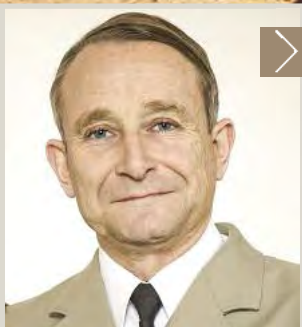




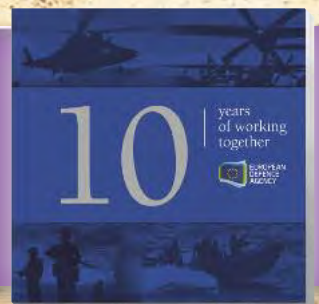
European Defence Matters

Supporting EU operations overseas



➤ Interview:
General de
Villiers, France's
Chief of
Defence Staff

**Celebrating the
first ten years
of the European
Defence Agency**



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Contents

Welcome

- 5** Director Eric Platteau and Editor-In-Chief
Guillaume Steuer introduce this edition of
European Defence Matters

European Defence News

- 6** EU Affairs
Pooled procurement of Carl-Gustaf ammunition
moving forward, EUFOR engineers improve
access to Bangui airport, EDA stages biological
reconnaissance and defence workshop, Law
enforcement and military combine efforts at first
European homemade explosives course,
Federica Mogherini appointed new head of EDA,
Successful completion of second EU personnel
recovery course in Hungary
- 9** Industry News
Land defence systems companies KMW and
Nexter in merger talks, Latvia to commission
surplus UK armoured combat vehicles, Saab
completes acquisition of Thyssen Krupp Marine
Systems, MBDA signs cooperation agreements
with Polish industry, Taranis UCAV demonstrator
flies in stealth configuration, Airbus Group and
Safran to revamp their space launcher business
with dedicated joint-venture

Ten years of EDA

- 12** Ten years of working together
To celebrate the tenth birthday of the European
Defence Agency, a unique book will be published
at the end of 2014.
- 16** Confronting Europe's defence deficit
Anand Menon, Professor of European Politics and
Foreign Affairs, King's College London
- 20** What are the missing instruments to reach
another level of European defence?
Brigadier General (ret'd) Jo Coelmont, Senior
Associate Fellow, Egmont Royal Institute for
International Relations

Operations and projects

- 24** Supporting the fight
Support to European Union (EU) operations and,
more generally, to the Common Security and
Defence Policy has always been one of the core
missions of EDA
- 28** Building trust for multinational operations
A series of multinational exercises has been
organised this year to enhance interoperability
between European aviators
- 32** Raw materials: securing the supply
EDA is working to ensure that Member States will
have a guaranteed supply of the scarce raw
materials that provide essential structures and
components for complex battlefield systems
- 34** Fit for purpose
It has been almost a year since the Agency
adopted a new structure to improve its support
to Member States

Opinion

- 36** "A window on Europe"
Interview with Michal Wierciński, who has been
directly involved in drafting the first 'National
Defence R&T strategy' in Poland
- 38** "Cooperation can be envisaged in almost
every domain"
Interview with General Pierre de Villiers, French
Chief of Defence Staff
- 41** Pooling and sharing, the academic way
Interview with Hans-Bernhard Weisserth, Head
of the European Security and Defence College

Key Quotes

- 42** Key quotes and facts, index to advertisers

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A decade of cooperation

"When the past no longer illuminates the future, the spirit walks in darkness", French political thinker Alexis de Tocqueville famously wrote. In these times of global uncertainty about the defence and security challenges lying ahead for the Western world it is perhaps wiser than ever to look back at our common past in order to find answers to the tough questions we face

The story of defence cooperation in Europe is a long and tortuous one. As we celebrate the European Defence Agency's ten year anniversary this year, we took the opportunity to reflect on this history in an exclusive book to be published at the end of 2014, some extracts of which are reproduced in this issue of *European Defence Matters*.

From the first attempts to create a European Defence Community in the 1950s to the birth of Western European Armaments Group in 1993 or the Independent European Programme Group (IEPG) in 1976, one can only reflect that the issue of European cooperation has always been taken seriously by the defence community. Yet progress has been slowed by shifting or unclear priorities and achievements have been scarce, much to the detriment of Member States who are today lacking some of the critical military capabilities they need to achieve their objectives.

The Agency was set up in 2004 to help us work better together, learning from and building on the efforts of the past. It was with great expectations that Heads of State and Government approved the creation of EDA in July 2004: this high-level political support has made a real

difference and has provided a renewed impetus to improve defence cooperation at a European level.

Over the years, the European Defence Agency has remained true to its core mission: to support its Member States in the development of their defence capabilities, while strengthening the critical European defence industrial and technological base. As we report in this issue, many of our ongoing projects converge towards the same objective: to provide support to EU operations wherever and whenever they need. By providing satellite communication services, contracting assistance, medical support, or any other relevant form of assistance (*page 25*), the Agency keeps doing its best to remain the most reliable partner for Member States to turn to when they feel the need for greater cooperation.

Defence matters today, just as it mattered 10 or 60 years ago. As priorities change and new challenges rise, let us not forget the long road travelled by two generations of supporters of European defence cooperation, who went to great lengths to promote the idea that we are 'stronger together'. For it is in our collective past that we might find answers to the new threats and challenges emerging on the horizon. **K**

Eric Platteau Head of Media and Communication **Guillaume Steuer** Editor-in-Chief

EU Affairs



© Lithuanian MoD

Pooled procurement of Carl-Gustaf ammunition moving forward

The European Defence Agency (EDA) and Saab Dynamics AB have signed a multi-annual framework agreement for the provision of different types of ammunition for the 'Carl-Gustaf' recoilless anti-tank weapon. The framework agreement will last five years and includes a possible renewal of two more years, with an estimated value of up to €50 million. The agreement was finalised on 30 June 2014.

This framework agreement comes under a procurement arrangement between EDA

and Estonia, Latvia, Lithuania, the Czech Republic, and Poland, agreed on 23 April 2013. Under this arrangement EDA acts as the central purchasing body, taking the leading role in the procurement procedure for Carl-Gustaf ammunition in the framework of EDA's Effective Procurement Methods (EPM) initiative.

EDA will also be in charge of managing the framework contract to fully exploit the effects of pooling demand.

This case presents useful opportunities

for pooling of demand due to the communalities of the ammunition. Common procurement was seen as the best option by contributing Member States to benefit from economies of scale, cost reductions, and efficiency in spending. This solution allows contributing Member States to purchase ammunition according to their national needs while coping with different budget cycles. The agreement also allows other EDA Member States to join the initiative at a later stage. ◀

EUFOR engineers improve access to Bangui airport

Italian engineers from EUFOR RCA (Central African Republic) have recently completed improvement works on the access road to M'Poko Airport in Bangui.

A specialist team using heavy vehicles has repaired, in just a week, a part of the

road currently under the control of EUFOR forces.

The improvements will also benefit thousands of internal displaced persons living in the camps nearby M'Poko, assisted by humanitarian organizations. ▶

(Source: EUFOR RCA)



© EEAS

EDA stages biological reconnaissance and defence workshop

A total of 40 participants from ten EU Member States (the Czech Republic, Germany, Spain, France, Hungary, Italy, the Netherlands, Sweden, Poland, Portugal) and Norway participated last summer in a workshop dedicated to biological reconnaissance and defence in Warsaw, Poland.

Biological threats are the most complex area of chemical, biological, radiological and nuclear (CBRN) defence. Addressing the need for effective means of detection, identification and monitoring for this type of threats, the European Defence Agency is conducting a significant number of projects that were discussed during the workshop.

A system approach to the future biological defence capability is under development, integrating individual soldier protection, non-specialist units (tactical area protection), specialist units (operational area protection) and system integration. Also, participating Member



States presented their national biological programmes, on-going projects, developments and future expectations concerning the biological challenge.

It was clear among participants that biological issues are an important concern

among Member States and that the EDA forum is a good place for discussion and to find new opportunities for cooperation. Hungary and Poland provided live demonstrations and allowed participants to visit their second-generation biological laboratories. ❏

Law enforcement and military combine efforts at first European homemade explosives course

Experts from civilian law enforcement and the military have taken part in the first European Homemade Explosives

Training course which took place between 2 and 6 June in the Curragh Camp at the Irish Department of Defence Ordnance School.

The course, run jointly by the European Defence Agency and Europol, brought together 28 experts from 16 different countries.

The participants took part in highly realistic training scenarios involving homemade explosives, in order to improve skills and to share best practices. The training consisted of identifying, processing

and disposing of different types of homemade explosives that can be found in improvised laboratories, such as those of criminals and/or terrorists.

The cooperation between EDA and Europol reflects the need for a combined civil-military approach to the threat not only of homemade explosives but the whole counter improvised electronic device (C-IED) spectrum.

This approach helps to ensure that there are clear lines of communication between the two and the need to share skills and experiences among military and civilian law enforcement agencies.



The course forms part of EDA's comprehensive approach to tackling IEDs. These efforts include areas such as the counter-IED technical exploitation lab Level Two Multinational Technical Exploitation Laboratory (MNTEL) which has been stationed in Afghanistan since 2011, a Manual Neutralisation Techniques Category B programme, for which the first exercise was held in Vienna between 1 and 12 September, the Joint Deployable Exploitation Analysis Laboratory (JDEAL) initiative – which is due to start operations in November 2014 – as well as other ongoing C-IED related activities and projects. ❏

Federica Mogherini appointed new Head of EDA



On 30 August 2014, the European Council officially appointed Federica Mogherini as the new High Representative of the Union for Foreign Affairs and Security Policy and Vice-President of the European Commission, therefore becoming the new Head of the European Defence Agency.

She will succeed Catherine Ashton, who had been appointed High Representative in November 2009. Following the vote of consent of the European Parliament on the new Commission, Federica Mogherini should remain in her new position until 31 October 2019.

In addition to heading the Agency and leading its Steering Board, Federica

Mogherini will lead the European External Action Service (EEAS) and chair meetings of EU foreign ministers.


Federica Mogherini had been appointed in February 2014 as Minister for Foreign Affairs and International Cooperation by Italian Prime Minister Matteo Renzi. A member of the Democratic Party, she was first elected to the Chamber of Deputies in 2008, then re-elected in 2013.

There she was a member and Secretary of Committee 4 – dedicated to defence issues – and also a member of the Italian delegation to the Parliamentary Assembly of the Council of Europe and of Committee 3 on Foreign Affairs.

On 1 August 2013 she was elected

Chair of the Italian Delegation to the Parliamentary Assembly of NATO. She also coordinated the Inter-Parliamentary Group for Development Cooperation.

Federica Mogherini is also a member of the Institute for Foreign Affairs (IAI), the Council for the United States and Italy and a fellow of the German Marshall Fund of the United States.

She is involved with the Council of the European Leadership Network for Multilateral Nuclear Disarmament and Non-Proliferation (ELN) and of the Group of Eminent Persons (GEM) of the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO). 

Successful completion of second EU personnel recovery course in Hungary


A total of 22 participants from ten nations (Belgium, Germany, Hungary, Italy, Netherlands, Slovakia, United Kingdom and Sweden plus Norway and the United States) attended the second Personnel Recovery Controller and Planner Course (PRCPC) over the summer in Veszprém, Hungary.

This intensive two-week course – held for the first time at the Hungarian Air Force Air Command and Control Centre (ACCC) – aims at enabling participants to prepare,

plan and execute personnel recovery operations. Previous course participants and indeed all of the instructors have gained operational personnel recovery experience in various operations such as the International Security Assistance Force (ISAF) in Afghanistan, Operation Unified Protector (OUP) in Libya and Operation Serval in Mali. "This course is indeed very helpful for our operational planning. The instructors are very experienced and motivated", said course participant Captain Gábor Krenács



from the Hungarian Air Force.

The initiative to standardise personnel recovery training emerged from the Project Team Personnel Recovery in EDA at the end of November 2010. Peter Round, Capability, Armament & Technology Director at EDA, stated: "I am most grateful that Hungary agreed to offer this opportunity and hosted it so successfully at its Air Command and Control Centre's facilities. This initiative has made a significant contribution to personnel recovery capabilities in Europe." 

Industry News



Land defence systems companies KMW and Nexter in merger talks

Krauss-Maffei Wegmann (KMW) and Nexter Systems recently announced the signature of an agreement to combine the two groups under the umbrella of a joint holding company, thus creating "a Franco-German defence technology group with a current annual turnover nearing €2 billion, an order book of around €6.5 billion

and more than 6,000 employees", according to an official release.

Pending governmental and legal approvals, the alliance could enter into force early in 2015.

Both companies have described this joint-venture project as a decisive step "for the consolidation of the defence technology

industry in Europe". They stressed that their product portfolios and regional presence on the world market "complement each other". While KMW is famous for building the Leopard 2 main battle tank, Nexter is the manufacturer of the French Leclerc equivalent as well the VBCI (Armoured Vehicle for Infantry Combat). ◀

Latvia to commission surplus UK armoured combat vehicles

The UK Ministry of Defence announced this autumn that it had agreed to sell 123 surplus Combat Vehicle Reconnaissance (Tracked) armoured vehicles, or CVR(T), to the Latvian Army. This sale intends to demonstrate UK support to its Baltic NATO allies while allowing Latvian Armed Forces to increase their military capabilities.

According to an official MoD release, Latvian operators will be able to "better

transport infantry, reconnaissance teams, air defence sections and mortar fire controllers", with the new equipment providing "vital battlefield capabilities including ambulances, armoured command vehicles and armoured recovery vehicles". Worth €49 million, including overhaul and refurbishment, the sale was announced alongside the Wales NATO summit.

These vehicles were previously used by British forces who deployed them in Bosnia

and Herzegovina, Iraq and Afghanistan. They became available to foreign customer following the 2010 Strategic Defence and Security Review (SDSR) in which they were identified as surplus equipment as part of a wider restructuring of the Armed Forces. Three of the vehicles already took part in a parade to celebrate the 24th anniversary of the Declaration of the Renewal of Independence in Valmiera, Latvia, on 4 May 2014. ◀



Saab completes acquisition of Thyssen Krupp Marine Systems



In a move aimed at strengthening its position as a provider of naval systems, Swedish defence company Saab announced that it had completed the acquisition of the Sweden-based Thyssen Krupp Marine Systems AB (TKMS AB, formerly known as Kockums) shipyard. Renamed Saab Kockums, this new activity has been integrated into the company's Security and Defence Solutions area.

Reflecting on the acquisition, Saab president and CEO Håkan Bushke stated that it will make its company "a complete

supplier of naval military systems" and will keep providing a "strong local presence in Sweden concerning submarines and warships".

Detailing the activity of TKMS AB, Saab said that it currently had approximately 850 employees and that it supplied systems and products to the navies of Sweden, Australia and Singapore. During the financial year 2012/2013, the company reported sales of approximately €185 million. According to Saab, the cost of the acquisition amounted to €37 million.

As early as June 2014, Saab and the Swedish Defence Materiel Administration (FMV) had signed a letter of intent regarding the Swedish armed forces' underwater capabilities. The acquisition of TKMS AB ensures Saab will be able to provide its domestic customer with unrestricted access to the knowledge and intellectual properties needed for "continued development, production and maintenance in the underwater sector for both the Swedish and the international markets", an official release published 22 July states. ◀

MBDA signs cooperation agreements with Polish industry

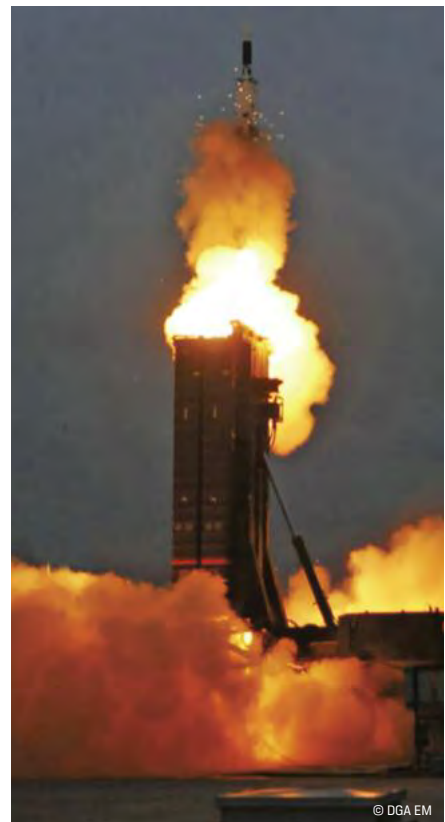
European missile manufacturer MBDA recently signed two letters of intent (LoI) with Polish companies Mesko and Pit-Radwar as part of the future 'Wisła' medium-range air and missile defence programme.

These aim to reinforce MBDA's presence in the country through close technological and industrial partnerships, ahead of a possible purchase of the Aster surface-to-air missile system by the Polish armed forces.

The LoI signed with Mesko offers an extensive cooperation on Aster 30 Block One missile equipment, as well as involvement in the development of the new Aster Block 1 NT (New Technologies) missile.

The scope of this potential cooperation "starts from the production of main equipment for the missiles and continues through to the final assembly line", according to MBDA which announced the signature at the MSPO military exhibition in Kielce, Poland, on 2 September.

"Advanced technologies such as warhead, booster and servo actuators will be transferred to our Polish partners, as well as missile maintenance and training", the manufacturer added. Similarly, the LoI signed with Pit-Radwar aims to transfer technology and know-how in the field of missile uplink receiver equipment on both the Aster 30 and the Aster 30 Block One NT versions of the missile. ◀



Taranis UCAV demonstrator flies in stealth configuration



© BAE Systems

The UK Ministry of Defence (MoD) and BAE Systems announced during the summer that the Taranis Unmanned Combat Air Vehicle (UCAV) demonstrator had successfully completed a second phase of testing in which the aircraft flew in a fully stealthy configuration, making it "virtually invisible to radar", the British company underlined in a release.

This new round of testing followed an initial series of flights during which the basic aerodynamic configuration of the Taranis – considered by BAE Systems as "the most advanced aircraft ever built by British

engineers" was validated. Once this was completed, the team "changed all antennas on the aircraft to signature control variants and the air data boom on the nose of Taranis was removed", BAE Systems explains.

"Following these modifications, Taranis used a specially-designed system which allowed the aircraft to generate a full set of flight data, without the use of an external probe or boom", the aircraft manufacturer adds.

Taranis also used a cutting edge communications system to ensure it was able to stay in touch with its mission

commander without giving away its position to the enemy.

In order to jointly prepare the next generation of combat aircraft, the French and UK defence ministries signed a two-year agreement at the Farnborough airshow on 15 July to conduct a two-year €150 million cooperative study for a Future Combat Air System (FCAS) demonstration.

This will build on the experience gained with the Taranis and the equivalent French-led Neuron demonstrations to establish common requirements for a potential future unmanned combat air system. ◀

Airbus Group and Safran to revamp their space launcher business with dedicated joint-venture

The announcement came as a surprise to many: this summer, Airbus Group and Safran announced their intent to join forces in space launcher activities by creating a 50-50 joint venture dedicated to that business. By strengthening their relationship in this domain, the two companies want to be better armed to "propose a new family of competitive, versatile and efficient space launchers, to serve both commercial and institutional needs", a joint press release stated.

The launch of the future Ariane 5 ME and Ariane 6 launchers is at the core of this new industrial setup, aimed at increasing sector competitiveness and providing customers with more cost-efficient solutions. The two companies will each be

attributed a key role based on their legacy activities in France and Germany, combining expertise in the launcher systems from Airbus Group as well as propulsion systems from Safran.

By signing this memorandum of understanding, the two manufacturers intend to fulfill two major objectives: first, to develop and accelerate entry-into-service of the Ariane 5 ME launcher as a logical evolution of Ariane 5, with an improved upper stage based on the Vinci engine; second, to further develop the future Ariane 6 launcher in a jointly agreed configuration able to fulfill a range of missions as expressed by the European Space Agency, national agencies, Arianespace as well as military and civil satellite operators. ◀



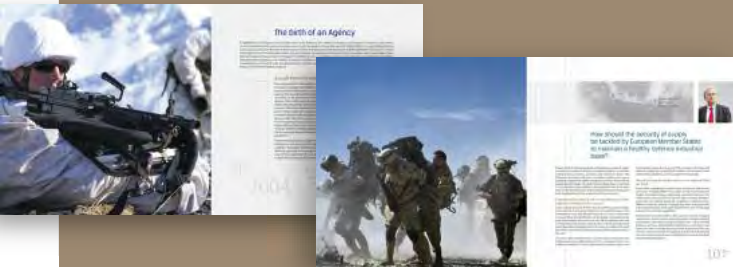
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To celebrate the tenth birthday of the European Defence Agency, a unique book will be published at the end of 2014 and officially unveiled during a special event to be held in Brussels in December. The result of several months of research conducted by the Agency, it will offer an exclusive insight into European defence matters.

Divided in three main sections, the book aims to provide readers with an overview of European defence cooperation history and achievements, seen through the lens of the Agency. In a first chapter, we will review the long and difficult road to European defence cooperation, from the very first attempts of the late 1940s until the birth of the European Defence Agency in 2004. To that end, our editorial team has put a lot of time and effort into retrieving original sources and conducting interviews with some of the key actors behind these early cooperative efforts.

A second movement will be dedicated to showcasing some of the Agency's most successful or promising projects and efforts. Because history is not only a succession of dates and events, the dozen of 'success stories' put forward in the book will shed a different light on a decade of EDA activity. From Counter-IED to remotely air piloted systems, air-to-air refueling or cyber defence, we will go through some of the past achievements and future milestones of the Agency.



In the third section, we have tried to gather a wide selection of independent views from key government, industry and academic experts sharing their analysis, advice and concerns about the way forward in European defence matters. More than 15 Prime Ministers, Ministers of Defence, Chief Executive Officers and leading researchers have agreed to contribute to this first-of-its kind book, excerpts of which are published for the first time in this edition of *European Defence Matters*.



> Ten years

The idea of a collective European defence is as old as the story of European integration itself. From the ashes of the Second World War, it wouldn't take long to see an incredible idea emerge: what if European countries, busy stitching their wounds after half a decade of devastating conflict, could start cooperating on defence issues and promote peace together?

Iconoclastic as it sounded at the time, the idea was nevertheless at the heart of some of the very first post-Second World War treaties that were drafted to banish any possibility of war from the continent. But these first small steps towards European defence cooperation were soon to be overshadowed by a much more ambitious endeavour. In the summer of 1950, Jean Monnet, then General Commissioner of the French National Planning Board, expressed his will to organise European defence on a supranational basis, an initiative inspired by French foreign minister Robert Schuman's plan for establishing the European Coal and Steel Community (ECSC) that would eventually come into effect in 1952. At the same time, the United States



of working together

of America was also asking its European allies to plan for the rearmament of West Germany.

The proposal for what was known as the European Defence Community (EDC) was submitted by French Prime Minister René Plevin to the National Assembly in October 1950. It called for the creation of a European Army to be placed under supranational authority and to be funded by a common budget. A European armament and equipment programme would be drawn up and carried out under the authority of a European Defence Minister, who in turn would operate under a European Defence Council.

The ambitious idea was supported by most Western countries. Although sceptical at first, the United Kingdom also gave its agreement to the initiative. However a devastating blow was dealt to the European Defence Community in August 1954 when the French National Assembly refused to ratify the Treaty, refusing even to discuss the matter. France's position met with considerable

consternation in Western Europe and the United States, not least because this rejection came from the very architects of the EDC plan.

Founded in February 1976 by the European members



René Plevin



First session of the European Convention

of NATO, the Independent European Program Group (IEPG) was envisioned as an international coordinating body whose main mission would be to foster cooperation on armaments procurement.

Using the IEPG as a forum for annual discussions, →

Communication



Developing

Technology



the defence ministers of the 13 member nations (all European members of NATO, Iceland excepted) set out goals and targets in the field of military requirements, system concepts, and collaboration.

Their objectives were three-fold: to strengthen the contribution of European allies to the common defence of the NATO alliance; to improve the European technological base; and to balance US-European defence trade. The IEPG

set out to conduct a number of studies, such as the European Aeronautical Cooperation Study and the European Defence Industry Study.

The declaration agreed by the Western European Union Ministers in Maastricht on 10 December 1991 called for further examination of the possibilities for enhanced cooperation in the field of armaments, with the aim of creating a European Armaments Agency.

At their meeting in Bonn in December 1992, the Defence Ministers of the 13 IEPG countries decided upon the transfer of the functions of the IEPG to the

Western European Union (WEU). [...] At the meeting of the WEU Council of Ministers in Rome in May 1993, participants agreed on a number of organizational aspects of the transfer, which were subsequently adopted formally by the Council at 13.

The Western European Armaments Group (WEAG) was born. Growing to 19 Member States by 2000 (Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Luxembourg, Netherlands,

Norway, Poland, Portugal, Spain, Sweden, Turkey and the United Kingdom), it would live on until 2005.

The birth of an Agency

Established by the European Council in December 2001 following the Laeken Declaration, the European Convention (also known as the Convention on the Future of Europe) was a body intended to include the main EU 'stakeholders' in a major brainstorming exercise about the future direction of the European Union.

Its final purpose was to produce a draft constitution



Agreement of the declaration at Maastricht

for the EU to finalize and adopt. [...] Running parallel to that political roadmap, some major aerospace and defence companies in Europe started lobbying for a strong armaments agency that would be able to overcome the shortfalls of all previous initiatives in that domain. "One of the main eye-openers was the pullout of some partner nations from the A400M programme", Michel Troubetzkoy, then EADS (now Airbus Group) senior-vice president in charge of European affairs for the aerospace and defense group, recalls.

Rapidly joined by French defence electronics company Thales, EADS started its lobbying effort towards EU representatives and especially the nascent Convention to sell the idea of what was then referred to by the industry as a 'European Security and Defence Research Agency'.

This bold move from industry representatives partly contributed to the creation of a dedicated 'Working Group on Defence' within the Convention in September 2002. Chaired by Michel Barnier, then European Commissioner in charge of Institutional Affairs for the European Commission in addition to his Regional Affairs portfolio, its official mandate included investigating "the possibility of setting up an arms agency whose tasks (research, development, acquisitions) and operating methods would have to be studied in detail", while acknowledging that "there [was] in fact currently no cooperation on armaments at Union level".

"The time was right", Christine Roger, former French Ambassador to the Political and Security Committee (PSC) who at the time was heading Michel Barnier's private office in the European Commission and was directly involved in the proceedings of the Convention Working Group on Defence, recalls. "Member States all seemed willing to move forward, the industry wanted it as well – there was a wide range of good reasons to make this new Agency a reality. It was a simple idea and a good one", she sums up. In its final report, the Convention working group laid out some of the foundations of what would become the European Defence Agency we know today – although the final name wasn't there yet. "The setting up on an intergovernmental basis of a European Armaments and Strategic Research Agency was supported by many in the Group", the official document stated.

The European Defence Agency comes online

The Convention officially finished its work in July 2003 with the publication of a Draft Treaty establishing a Constitution for Europe. But running parallel to the Convention effort, Member States representatives were also busy preparing the European Council that would take place in Thessaloniki in June 2003. In its final conclusions published in June 2003, the Thessaloniki Council made it clear that a new European Defence Agency was on the agenda and would soon become a reality. "The European Council [...] tasks the appropriate



Herman Van Rompuy, President of the European Council addresses the annual conference of EDA

bodies of the Council to undertake the necessary actions towards creating, in the course of 2004, an intergovernmental agency in the field of defence capabilities development, research, acquisition and armaments", the final declaration stated.

The next step would be to actually set this new Agency in motion. Nick Witney, who would become the first EDA Chief Executive in 2004, played a central role in that process. The consensus around the Agency was clearly still there, notably between Paris and London. "This may sound surprising now, considering that relations between the two countries really became tense after the strong French opposition to the Iraq campaign in 2003. However, there was a clear agreement between London and Paris that an Agency would be a good thing and that we would make it happen, even if there was no clear understanding at the time of what the exact role of the Agency should be, or its position on the institutional grid", Nick Witney recalls.

A number of draft paragraphs were submitted to Member States and went back to the Agency Establishment Team (AET) between May and June.

By the middle of June the text was sent to the Relex group of the Committee of Permanent Representatives (COREPER), in charge of drafting the Joint Action that would officially create the European Defence Agency. On 12 July 2004, the European Council formally adopted this Joint Action, turning the Thessaloniki and the Convention promises into reality. 📌



"The time was right, Member States all seemed willing to move forward, the industry wanted it as well – there was a wide range of good reasons to make this new Agency a reality. It was a simple idea and a good one"



Opinion:

› Confronting Europe's defence deficit

Anand Menon, Professor of European Politics and Foreign Affairs, King's College London

European states are increasingly incapable of defending their own interests militarily. This is so for multiple reasons, including: the proliferation of potential threats to those interests; the increasing unwillingness of the United States to contribute to addressing them; the rising cost of military equipment and falling defence budgets. Recent interventions in Libya and Mali have underlined all too clearly the shortcomings of European defence capabilities.

Europe is suffering from a 'defence deficit', best defined as the gap between the military capabilities possessed by its states and those required to defend their interests. This deficit stems in no small part from the fragmentation of European defence into 28 separate, national defence policies. The EU's infamous 'democratic deficit' is generally viewed as a result of the transfer of too much power to the Union. In contrast, the defence deficit stems from the reluctance of nation states to do more at the European level. It is a consequence of the absence of effective collaboration within the EU rather than an excess of it.

The Defence Deficit

It is the international environment that generates a need for military capabilities. And in the contemporary international system, Europeans confront, in the words of the EU's own High Representative for Foreign and Security policy, 'increased volatility,

complexity and uncertainty'.

In their near abroad, the optimism provoked by the Arab spring quickly gave way to concerns about emergent regimes and the significant potential for instability to the south. Military intervention in Libya has helped produce an anarchic land governed by warlords, awash with both militias and weapons and increasingly used by affiliates of Al-Qaeda in the Islamic Maghreb as a base of operations. Syria has descended into brutal civil war.

The rapid spread of Islamic State represents a threat both in terms of the stability of the region and the potential for jihadis to cause trouble in the west itself. To the east, meanwhile, Russia annexed by force the territory of a state that, until recently, had genuine aspirations to EU membership. Tensions following the subsequent downing of a Malaysian civilian airliner show few signs of abating, as the EU's eastern members feel increasingly vulnerable and exposed.

Nor are European interests confined to the neighbourhood. Its trade is global, with Asia accounting for 28% of it, as opposed to the 25% constituted by the United States. Continued prosperity thus depends on the maintenance of secure trade routes. Open sea-lanes are a particular priority, as 90% of European trade is transported by sea. Yet, no one can be sure whether the emergence of rising powers will lead to a sustained challenge to the rules and institutions governing the liberal international order.

Equally, it is impossible to predict the degree to

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"Not only have governments failed to collaborate effectively over procurement, but they have generally made decisions over which capabilities to cut without prior coordination with, or indeed notification of, their partners"



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which China's new found assertiveness will lead to greater tensions or even conflict within Asia – by miscalculation or design. What is clear, however, is that shifts in global economic and political power will have profound implications and must be factored into calculations underpinning any European foreign and security policy worthy of the name.

There is no shortage, then, of challenges that might crucially affect, if not European survival, then at least European interests. In the past, the solution was to rely on the US to take the lead in addressing them. According to an analysis by the NATO Secretary General, the share of the NATO defence burden falling on the United States has increased from 63% in 2001 to 72% today. The average defence spending of America's NATO allies was 2.0% in 2000 and had slumped to 1.5% by 2007. In contrast, the United States spends 4.6% of its GDP on defence.

However, the kind of dependence to which Europeans have become accustomed, whilst never equitable, is no longer viable. President Obama has made it clear both that he will not lightly commit American forces to foreign military adventures, and that, as a consequence of his 'rebalancing' to Asia, he

expects Europeans to play a greater role in ensuring the security of their neighbourhood.

Unfortunately, Europeans are currently unable to do this. Their militaries increasingly lack critical capabilities, as spiralling costs put full spectrum militaries beyond their reach. Amongst smaller EU states, this has already led to the appearance of capability gaps. As for Britain and France, their recent deal jointly to build and operate aircraft carriers illustrates that a similar logic is beginning to apply even to them. Few if any European governments are in a position to launch major new programmes alone, as the costs are too high and national markets cannot provide sufficient orders.

The austerity policies introduced as a result of the economic crisis have not helped. Some smaller member states have initiated reductions of over 20% in defence outlays – Lithuania cut its defence budget by 36% in 2010. Medium-sized member states announced cuts of between 10% and 15%, whilst Germany and the UK settled on reductions of around 8% to be implemented over a period of several years.

Beyond the problems caused by falling defence spending, declining military capacity is the consequence of the fragmentation of European →

defence between twenty-eight national defence policies. Each national military is separately trained, equipped and supplied, generating significant inefficiencies. Even when European forces act together – as is the norm when force is deployed – incompatible equipment and doctrinal differences continue to hamper effective collaboration in theatre.



"Europe continues to lack the 'key enablers' – air-to-air refuelling capacity, intelligence surveillance and reconnaissance and satellite communications"



In the armaments sector, fragmentation spawns striking inefficiencies. The majority of national defence budgets is spent on national armed forces equipped with nationally produced weaponry (around 80% of all defence equipment in Europe is bought domestically). Consequently, Europe does not enjoy the economies of

scale from which the US benefits.

Member states in 2009 were undertaking 89 different weapons programmes – in contrast to 27 in the US. The European Commission estimated the cost of barriers between national defence markets as over €3 billion per year.

The problems bedevilling European armed forces have been all too evident during recent interventions. For all the talk of the US 'leading from behind', the Americans provided more than double the personnel made available by the next highest contributor in Libya. Despite fighting a chronically weak military there, Europeans found themselves reliant on US Tomahawk missiles, drones and electronic warfare aircraft, without which the mission may well not have succeeded. Air sorties had to be reduced as states operating F-16s tried and failed to obtain additional munitions – again, the Americans had to plug the gaps.

Little wonder that senior figures have been moved

to comment on the potentially disastrous consequences of Europe's military fallibilities. Former Secretary of Defence Robert Gates warned of Europe facing "collective military irrelevance", while the NATO Secretary General has similarly warned that "if European defence spending cuts continue, Europe's ability to be a stabilizing force even in its neighbourhood will rapidly disappear".

Cooperation and its Limits

Whilst the fragmentation of European defence structures remains an obvious source of inefficiency, member states have failed to take practical steps to aggregate their capabilities effectively at the European level. This is not through lack of rhetorical effort. Since the creation of the EU's Common Security and Defence Policy in 1999, member states have produced a plethora of statements of intent, capability targets, and 'headline goals'.

Yet rhetoric has not resulted in action. Strikingly, Europe continues to lack the 'key enablers' – air-to-air refuelling capacity, intelligence surveillance and reconnaissance and satellite communications – serially identified in numerous EU reports over the years. Whilst some member states have engaged in limited pooling and sharing of military equipment – the Dutch and Belgians have agreed to joint naval training and maintenance – they remain in general stubbornly reluctant to buy military equipment abroad - only nine European procurement programmes valued at over €1 billion are collaborative.

Nor have these same member states provided the EU with real competence to ensure greater liberalisation of the European arms market.

Meanwhile, defence continues to be used by many governments as a means of propping up inefficient yet economically important national champions in a manner that has been largely outlawed in civilian sectors for



The average defence spending of America's NATO allies was 1.5% of GDP in 2007. The United States spends 4.6% of its GDP on defence

some years. Indeed, not only have governments failed to collaborate effectively over procurement, but they have generally made decisions over which capabilities to cut without prior coordination with, or indeed notification of, their partners.

European governments, in short, continue to act as if the defence deficit did not exist. A continued faith in American protection, a belief in the sustainability of Europe's relative security, and a reluctance to engage in strategic thought about potential threats to European interests characterise the political leadership of many member states.

Such complacency partly explains their reticence about seeing the European Union gain any real authority over the defence sector. It also stems, however, from real pressures that militate against collaboration. In the first place, governments are inherently reluctant to share control over their defence policies. Relying on others for security is a risky business, particularly when, as in the European Union, member states have widely different conceptions of the nature of the threats confronting them. In addition, strong political pressures work against the rationalisation of domestic defence structures that effective intra-European collaboration would require. Given a choice between, on the one hand, the short-term sacrifice of economic capacity in the name of long-term solutions to potential security problems or, on the other, small scale, piecemeal cuts that may – gradually but imperceptibly – erode crucial capacities, governments understandably choose the latter.

For all the military problems generated by the existence of numerous small-scale national defence industries, they generate politically valuable jobs and skills.

The Long Road to Strategic Awareness

Europeans are increasingly unable to tackle even local security threats that might affect their interests.

The fragmentation of European defence between 28 national defence policies, each increasingly ill-equipped for the needs of modern expeditionary warfare, has helped foster this 'defence deficit'. Attempts to plug the deficit via enhanced collaboration within the European Union have so far achieved very little. The EU remains something of a spectator when it comes to the important defence decisions made in national capitals.

Given the constraints upon national political leaders, it is relatively easy to understand why, regardless of the significant incentives for greater defence collaboration, this remains elusive. Ultimately, however, Europeans need to address the defence deficit rather than waiting until it becomes apparent via failure in theatre.

As a first step, Europe's most senior political figures must enhance their collective strategic awareness. They must acknowledge the threats they face and the profound limits on their ability individually to address them. To date, most governments have failed systematically to consider their own security interests. Better coordination between them would reveal a broad convergence between them over the challenges they confront.

Similarly, national capitals must together consider the military capabilities at their disposal. At the very least, such a review might help prevent the acquisition of capabilities that Europeans collectively do not need, or the cutting of capacity that is in short supply in Europe as a whole. Greater transparency between member states on issues including potential budget cuts, national defence strategies, national procurement planning and future capabilities plans would be a useful first step.

An explicit acceptance by member states of the inadequacies of the current situation is the irreplaceable first step in any process of addressing the defence deficit. Failing this, it will persist and, ultimately, undermine their ability to defend their own interests. ■



PA2 was a planned aircraft carrier under development by Thales Naval France and DCNS for the French Navy

Opinion:

> What are the missing instruments to reach another level of European defence?

Brigadier General (ret'd) Jo Coelmont, Senior Associate Fellow, Egmont Royal Institute for International Relations



Looking towards the Lisbon Treaty, the short answer is: none. Yet we are, rather urgently, in need of 'another level of European defence' and the European machinery clearly is not living up to the expectations of public opinion as voiced in all of the Member States. 'A lack of political will' is the usual answer given to explain (or justify) this discrepancy. That answer is a bit too easy, and worrying as well, because expressed by practitioners and politicians alike it amounts to fatalism. So, something must be missing.

Political will is about being 'willing' as well as 'able'. Difficult to call for action without means. Difficult to invest in capabilities, vice versa, without the will to use them. At the European Union (EU) level, there is some political will and there are some military capabilities. The real stumbling block is the imbalance between objectives and means. It provokes political hesitation and leads to a degrading of European defence, at the risk of ultimately destroying solidarity.

A lack of pragmatism may well explain all this. Pragmatism was crucial to all of the policies developed so far within the EU, from right after the Second World War up to now, to line up the Member States, to defend their values and interests, and to ensure that Member States remained relevant by, in fact, restoring their sovereignty by pooling it. And this led to solidarity. In the area of

defence as well, pragmatism may well be key to generating more 'political will'.

Being able

At St Malo in 1998, France and the UK jointly concluded that only at the EU level could they regain their sovereignty and set up crisis management operations of the magnitude that was needed for Yugoslavia. At first, the focus was on gathering capabilities and identifying (still persisting) military shortfalls. In 2003, working groups of the Convention focused on the more institutional aspects. With the Lisbon Treaty Member States gave themselves, unprecedentedly, all the institutional building blocks to reach another level of European defence. However, a heap of blocks can only be turned into a robust construction if you have an architect, an entrepreneur and a


"The European Investment Bank (EIB) can provide solutions. To fit national budget requirements the EIB could receive, through EDA, down-payments upfront and develop particular payment schedules"


bank, in particular when you have to accommodate some 27 (or more) different customers (with provisions for more to join over time and for others to opt out and back in).

The architect

When building up capabilities for European defence, the indicated architect, capable of drawing up an overall plan that is affordable, meets the needs of all involved and EDA is best placed subsequently to negotiate with

"With the Lisbon Treaty Member States gave themselves, unprecedentedly, all the institutional building blocks to reach another level of European defence"



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constructors and to ensure follow up (life cycle support) is the European Defence Agency (EDA). The architect coordinates. Those who have to reach consensus and invest are indeed the EU Member States but, after all, they are at the helm of EDA, through the steering board. It is interesting to note that on occasions the EU Commission can be a customer and a financing agent. The architect links everything together.

The entrepreneur

To build the military capabilities needed by Member States and the dual-use assets needed by the Commission, you need an industry, which in turn needs an adequate industrial and economic environment. To forge the latter, all required institutional EU instruments exist. The Commission has a lot of expertise in this field, but is not the only actor. Indeed, this is not exclusively about 'the force of the internal market', but rather about the international market. It is about intercontinental industrial cooperation while at the same time establishing a certain level of European autonomy.

All this goes across and above the traditional intergovernmental – supranational lines. EDA is best placed to bridge some of these aspects, being aware both of the practical outcomes pursued by Member States and the structural approaches pursued by the Commission.

It is difficult to underestimate the challenges ahead. The time has come to develop a kind of European Foreign Military Sales system. This debate ranges beyond the classic issues, such as research and development (R&D) and provisions for government to government contracts. A bank is needed as well.

The bank

Harmonising Members States' demands, often a prerequisite for industry to launch a project, is far from easy. Funding arrangements for R&D and, later on, streamlining payment schedules of participating Member States are important stumbling blocks. The European Investment Bank (EIB) can provide solutions.

To fit national budget requirements the EIB could receive, through EDA, down-payments upfront and develop particular payment schedules that could be stretched even over the entire live cycle of a given item of military equipment. Moreover, it is worthwhile to examine whether Member States' expenses related to such programmes could not be lifted from EU restrictions on national budget deficits. The instruments are there, the policies remain to be developed.

Becoming willing

It is rather difficult to convince Heads of State and Government to invest together with partners in any military project, if the answer to the question "What would we do together?" sounds like "We agreed to disagree on strategy".

A strategy may not be an institutional instrument per se. However, it is in the first place an organising principle, and of utmost importance to security and defence issues. In the North Atlantic Treaty Organisation (NATO) we have a concept, mainly focusing on collective defence. At the EU level, with the 2003 European Security Strategy, the focus is on crisis management, in particular on 'how' to conduct such operations: 'comprehensively'.

However, for Member States, the will to act together in a particular military operation can only stem from →

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Operation Atalanta is the first military operation undertaken by the European Union Naval Force

a common interest, from a consensus not only on the 'how', but also on who is to do what, when, where, with which means and, above all, on a common understanding on the desired political outcome. If such a consensus goes well beyond a single operation, leading to a series of EU operations as recently witnessed, it is signalling that a broader common strategy is in the making.

Moreover, a series of on-going events have forged a more common understanding of the threats, ranging from our Southern to our Eastern borders up to the Arctic. Economic interests are henceforth also commonly considered, as proven by Operation Atalanta.

A European Maritime Strategy has been agreed upon. Most Member States are even profoundly convinced Europe has to gain a level of strategic autonomy, which starts in its neighbourhood, broadly defined (and not limited to it). There is also a growing consensus that, in order to maintain solid relations with our principal partner, the US, a sense of urgency is required.

And finally, there is the common conviction that in our current geopolitical environment, Europeans will in the future be more and more called upon to take the lead in military missions, be it the context of the EU, NATO, or even the United Nations (UN), depending on the crisis at hand. It is fair to say that at present, based upon a broad consensus within the EU and the Member States, we are swiftly turning from 'disagreeing on strategy' to a 'de facto' strategy, while at the same agreeing (for well-known domestic reasons in some Member States) not to discuss this issue too explicitly. The latter may be a justifiable temporary solution in order to keep on board as many Member States as possible. The fact is that all preconditions to become able and willing are now fulfilled within the EU.

Towards a pragmatic, permanent and structured cooperation

The time is ripe to bring European defence

cooperation to another level by making use of existing EU instruments. The key is to address the identified strategic military capability shortfalls and to finance this effort by doing away with redundancies. Such an endeavour requires a kind of permanent and well structured cooperation, centred on harmonising national requirements and taking part in EDA programmes, both on a voluntary basis. It is clear that the criteria of such a Permanent Structured Cooperation in Defence (PESCO) are quite different from the ones identified back in 2003 during the work of the Convention. It is no longer about a select group (a 'directoire') fulfilling some higher quantitative criteria. The main criterion now is about the willingness to act together. Pragmatism and inclusiveness will be key. EDA is to streamline such a cooperation.

Conclusion

Pragmatism is probably the missing catalyst to reach another level of European defence. The time has come to forge a whole new kind of permanent structured cooperation between Member States, mobilising the Council, the Commission, the EIB, and in particular EDA, a key instrument of the Member States and at the same time an agency uniquely well placed within the EU institutions. The long hailed adagio of the 'bottom-up' approach has shown its limitations. It has been proven that overall coherence, efficiency and affordability also require solid 'top down' steering and instruments.

If not all Member States are (yet) ready to join this endeavour, a group, as inclusive as possible, is to be established. A sense of urgency is justified. In security and defence, the main threat to Europe is to lose its Allies and partners, because of its relative weakness, due to fragmentation and a (no longer persistent?) reluctance of Member States to use to the full extend the instruments of cooperation and solidarity they have themselves created at the EU level. ■

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The journal supports the Agency's four main tasks:

- developing defence capabilities;
- promoting defence research and technology (R&T);
- promoting armaments co-operation;
- creating a competitive European defence equipment market and strengthening the European defence, technological and industrial base

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Operation Althea

Launched on 2 December 2004, EUFOR Althea has contributed to the maintenance of a safe and secure environment in Bosnia and Herzegovina. Its main objective is to provide capacity building and training for local armed forces while maintaining a safe and secure environment in the country.

Seventeen EU Member States are contributing to the operation, as well as five partner nations. Under the 'Berlin Plus' arrangements, Althea is carried out by NATO Supreme Allied Commander Europe (SACEUR) as operation commander. The common costs of the operation, which has a mission strength of about 600 personnel, are €10.3 million and paid through contributions by EU Member States to the Athena financial mechanism.



Images © EUFOR Althea

Supporting the fight

Since the creation of the European Defence Agency in 2004, support to European Union (EU) operations and, more generally, to the Common Security and Defence Policy has always been one of the core missions of EDA. With many ongoing missions around the globe, this support matters now more than ever. In this article, we review some recent developments in that domain

They are the eyes and ears of the troops deployed in Bosnia and Herzegovina as part of EUFOR Althea, the European Union operation launched in December 2004 to maintain a safe and secure environment in this region of the world. Flying day and night over the country in a privately-owned surveillance aircraft, a crew composed of a handful of intelligence experts is keeping a watch on the ground below, thanks to an array of airborne sensors able to map the terrain as requested by operation commanders.

Based in Sarajevo International Airport, the aircraft and its crew are critical to the success of Operation Althea, maintaining a constant vigil on any developing situation that might be disruptive to the European peacekeeping effort.

Contracting assistance

This Air-to-Ground Surveillance and Reconnaissance (AGSR) capability has been operational for some time as part of EUFOR Althea. But in order to ensure that this critical service will be maintained for the coming years, the expertise of EDA has been recently called upon by the operational headquarters in order to provide assistance with the contracting of a new phase of AGSR work in Bosnia and Herzegovina. Earlier this year, Claude-France Arnould, EDA Chief Executive, signed a procurement arrangement with General Sir Adrian Bradshaw, Operation Commander of EUFOR Althea. Under this arrangement, the Agency assumes the lead role in administering the

procurement procedure on behalf of the Althea commander.

The event was of significant importance, as this was the first time EDA has ever signed a procurement arrangement directly with an EU mission. Reflecting on the arrangement, Claude-France Arnould stressed that this cooperation would "help highlight the expertise and added value EDA can bring in the field of procurement". General Bradshaw also commented on the event: "The decision to use the expertise from EDA in this procurement for Air to Ground Surveillance services for Operation Althea is, of course, based on EDA's technical knowledge in this field. Another advantage will be to benefit from the lessons learned in conducting such an arrangement between the operation and the EDA directly, in order to establish the necessary procedures which will potentially enable closer cooperation between our organisations in the future".

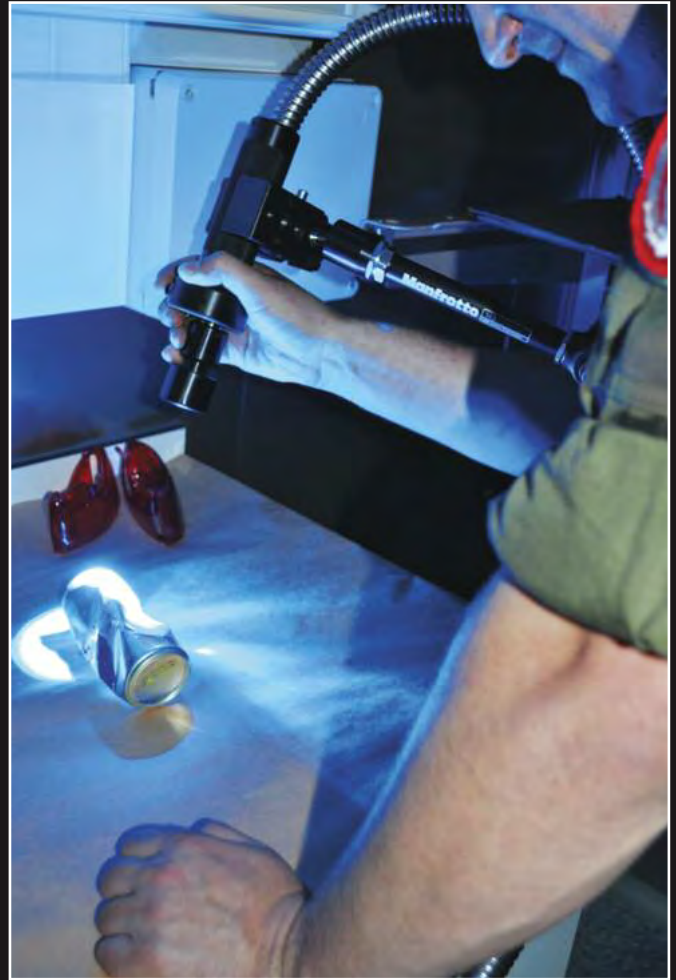
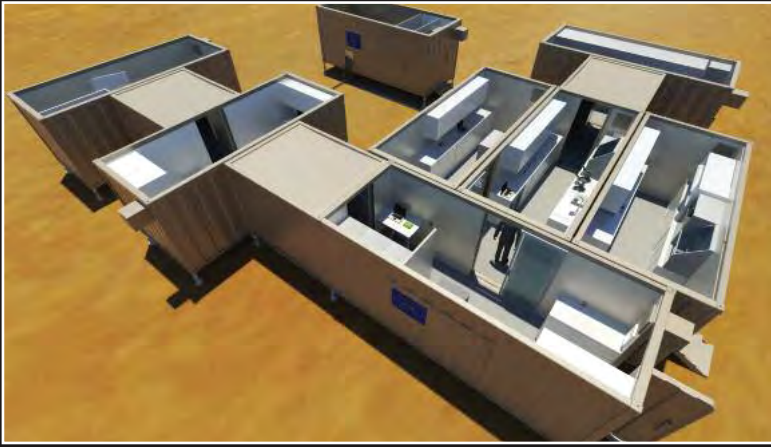
Based on technical specifications provided by EUFOR Althea commanders, experts from EDA have worked out ways to improve the existing contract and provide the end-users with the 'best value for money' AGSR service. The requirements of this 'turnkey' service called for the contractor to provide as many as 500 flight hours per year, as well as taking care of the analysis of the data collected by the sensors of the aircraft. While the tender did not specify a particular platform, it required the aircraft to be able to carry day/night electro-optical sensors with imaging and full-motion video capabilities, as well as the ability to downlink the intelligence gathered in "near real-time" to ground

stations. The actual service is expected to start in January 2015 in Sarajevo.

"As part of the procurement arrangement signed with EUFOR Althea, the European Defence Agency was eventually required to provide a recommendation on the best bidder, with the actual contract award decision remaining in the hands of the operational command", Carmen Parrilla, EDA Project Officer in charge of this initiative, underlines. And this successful first experience with EUFOR Althea could be repeated elsewhere, based on future Member States' needs. "Flexibility is one of our strongest advantages here. We can support Member States when they need it most, for instance in the management of complex procurement procedures or when they are in the deployment phase of a new service during the build-up of a new operation", Carmen Parrilla says.

Counter-IED

The AGSR story is only one of many examples of how EDA can help its Member States face the challenges they encounter on existing and future theatres of operation. Another key milestone was reached earlier in 2014 when the EDA-developed Multi National Theatre Exploitation Laboratory (MNTEL) came back from Afghanistan to the Netherlands after a successful three-year deployment in Kabul. Launched in 2010, this ambitious project aimed to enhance European capabilities in the field of Counter-IED exploitation – the art of analysing Improvised Explosive Devices found in the field in order to better defeat them in the future. →



"The fight against IEDs has long been an overarching issue for EU Armed Forces operating abroad as well as civilian actors involved in security operations, and the MNTel really helped saving lives out there"

Joerg Hillmann, EDA Head of Land & Maritime Domain Unit

The project, led by France and supported by Austria, Italy, Luxembourg, Netherlands, Poland, Romania, Spain, and Sweden, the MNTel project was funded through EDA's operational budget.

Built by Spanish company Indra and delivered to EDA in mid-2010, the deployable laboratory was quickly sent to Afghanistan where it started operations in July 2011 at Camp Warehouse in Kabul, the operations centre for the multinational International Security Assistance Force (ISAF) – which also allowed the MNTel to prove its worth in a NATO environment. It was then redeployed at Kabul International Airport in March 2013, before leaving the country in the first half of 2014. "During its three years of operation in Afghanistan, the MNTel processed more than 6,000 different IEDs that were forensically examined in the lab", Joerg Hillmann, EDA Head of Land & Maritime Domain Unit, explains. "The fight against IEDs has long been an overarching issue for EU Armed Forces operating abroad as well as civilian actors involved in security operations, and the MNTel really helped saving lives out there", he adds.

The Agency's work in the field of Counter-IED might provide further support to EU

operations in the future. In May 2013, while the MNTel was still deployed in Afghanistan, a new programme called the Joint Deployable Exploitation and Analysis Laboratory (JDEAL) was initiated under Dutch leadership. The aim of the project is to establish a permanent IED exploitation training facility in the Netherlands, staffed by a permanent multinational team, but also to build on previous successes by procuring two additional deployable labs that would be made available for use in future contingency or peacekeeping operations. A proliferating threat by nature, IEDs are indeed found in many crisis areas around the world, which indeed calls for the development of a flexible solution that could be rapidly deployed in support of EU missions around the world.

Support from space

While the Agency's efforts in the field of Counter-IED illustrate the need to be present on the battlefield next to the ground troops, support to operations can also come from a much more distant location. With its EU Satcom Market initiative (previously known as EU Satcom Procurement Cell or ESCPC), the European Defence Agency also aims to improve the operational efficiency of its

Member States for EU operations and missions.

Satellite communications have become crucial to the success of modern operations, and their potential uses are plentiful: they allow theater commanders to maintain a link with their headquarters, they provide welfare services to the troops deployed and they also ensure that remotely piloted air systems can be controlled from a ground station installed several thousand kilometers from the battlefield. Some of these services can sometimes be provided by government-owned military satellites, but this resource is so scarce that most of the 'non-strategic' satcom demand is answered by commercial satellites (Comsatcom).

Since the signature of the original project arrangement in 2012, ten countries have joined the EU Satcom Market initiative: Belgium, Finland, France, Germany, Greece, Italy, Luxemburg, Poland, Romania and the United Kingdom. The purpose of the project is simple: it aims to provide wireless connectivity solutions between European units on the ground and their headquarters, as well as other related services. The main advantage for Member States is that by




"The decision to use EDA's expertise is, of course, based on the Agency's technical knowledge in this field. Another advantage will be to benefit from the lessons learned in conducting such training for other EU operations in the future"

*Brigadier General
Christos Drivas, EUFOR RCA
Chief of Staff*

pooling demand through common off-the-shelf procurement, they might find a more flexible way of buying Comsatcom bandwidth that they would have by using a purely national approach.

As of late 2014, almost €2 million worth of orders have been passed through the EU Satcom Market's procurement cell, with several Member States using it in direct support of their operational commitments. In the meantime, additional countries have shown their interest in joining the club. "This shows that contributing Member States can benefit from easier access to ComSatCom capabilities in order to fulfill their national needs or to enhance their contribution to CSDP missions", Jure Bauer, EDA EU Satcom Market officer, stresses.

While the first framework contract was awarded in September 2012 for a period of three years, a new tendering procedure will later be launched in order to award a follow-up contract by September 2015. "The EU Satcom Market could evolve with a wider range of customers in mind: national armed forces of course but also CSDP military operations and civilian missions", Jure Bauer explains. 



Going cyber: support to EUFOR RCA

Even if it is now widely acknowledged that cyberspace has become a domain of warfare of its own, armed forces worldwide are still working hard to build up a proper training syllabus for their personnel to tackle the critical issue of cyber defence.

To address that shortfall, the European Defence Agency has recently organised a series of 'cyber awareness' seminars in support of operation EUFOR RCA (Central African Republic).

Taking place in the operational headquarters facilities of Larissa, in Greece, in the second half of 2014, they were designed to raise situational awareness of each staff member of the operational headquarters in terms of cyber operations, while informing them about the development and establishment of EU capabilities in that domain. It was the first time the European Defence Agency ever provided this type of support to an EU mission.

In total, 150 staff from EUFOR RCA benefitted from the training. "Cyber defence is high on our agenda", Brigadier General Christos Drivas, EUFOR RCA Chief of Staff, commented following the training sessions. "The decision to use EDA's expertise is, of course, based on the Agency's technical knowledge in this field. Another advantage will be to benefit from the lessons learned in conducting such training for other EU operations in the future", he added.

The three seminars, that were conducted with support from the EU Military Staff and the Tallinn Cooperative Cyber Defence Centre of Excellence, also provided the opportunity to exchange views on the next steps to be taken in order to enhance the cyber defence capabilities of operation EUFOR RCA as well as other EU-led military operations.

› Building trust for multinational operations

A series of multinational exercises has been organised this year to enhance interoperability between European aviators. Our reporters travelled to the Netherlands, Bulgaria and Portugal in order to witness progress being made under the auspices of the European Defence Agency



“Train like you fly, fly like you train” has been a long-time motto of military aviators. To keep flying crews at the highest level of operational readiness and avoid potentially deadly

surprises on the battlefield, training has always been treated as a priority by armed forces worldwide. But flying hours don't come cheap, and in times of budgetary pressure most European countries sometimes struggle to provide their crews with the desired amount of training time. Moreover, modern military operations have been mostly conducted by coalition forces in recent years, thus increasing the need for interoperability between European flying units. In 2014 alone, the European Defence Agency has organised three major

training events which all aimed at enhancing European capabilities and interoperability through multinational aircrew training.

Tankers together

Air-to-air refuelling (AAR) aircraft, also known as tankers, have long been a precious asset for battlefield commanders. Indeed, the number of fighter-bomber sorties that a country or a coalition is able to generate on a daily basis is directly linked to the number of AAR refuelling aircraft that will be put in the air to provide the former with the fuel they need to conduct their missions. "Today Europe is able to field around 40 tanker aircraft of 10 different types while the US currently fields 550 tankers of four types, which is a clear indication of the

European shortfall in this field", explains Laurent Donnet, EDA Programme Manager.

To address this shortfall, AAR was endorsed in 2011 by the European Defence Agency Steering Board as one of the initial eleven Pooling & Sharing projects. And during the European Council meeting of December 2013, the work on AAR was recognised as one of the four key capability projects for EDA to increase its effort on.

Taking place from 31 March to 11 April 2014 at Eindhoven airbase, in the Netherlands, the first European Air-to-Air Refueling Training (EART) exercise was developed by the European Defence Agency – in close cooperation with the European Air Transport Command (EATC) and Dutch armed forces – to



© Bulgarian Air Force

optimise the use of existing assets through multinational cooperation. Tankers from Germany, the Netherlands and Italy met on the Dutch airbase for the event which was organised on the back of 'Frisian Flag', a large-scale tactical exercise gathering dozens of combat aircraft every year, which offers a realistic operational environment.

"This provided the tanker crews with a great opportunity to train in realistic AAR combat scenarios", Laurent Donnet stresses. "In the first week alone, 15 sorties were flown and more than 135 tons of fuel offloaded", he adds. "Crews also built up knowledge of the characteristics of aircraft used by other EU countries, while flying sorties in the morning and afternoon allowed them to practice their

quick turnaround procedures". The next edition of EART is expected to take place in Spring 2015 in Eindhoven.

Bulgaria calling

Launched in 2011 and now gathering 19 Member States as well as Norway, the European Air Transport Fleet (EATF) partnership was intended from the outset as a way to enhance cooperation in the field of military air transport through innovative methods and projects, with the overarching objective of increasing European capabilities in that domain.

Enhancing interoperability between European airlift crews and harmonising training procedures are two important elements of →



EATT14 gathered more than 450 participants, 19 crews and 10 transport aircraft coming from five different Member States. More than 100 sorties were flown





Laurent Donnet



Andy Gray



that global effort. From expeditionary missions to crisis management, air transport is an essential enabler that allows European countries to fulfill their responsibilities across the globe.

With an ever increasing number of these operations being carried out jointly, there is a clear need to pool resources and share knowledge as well as best practices between countries. And while the fighter community has had numerous joint training activities for years, from the Tactical Leadership Programme to Flag and NATO exercises in European airspace, the air transport community was still lacking a similar tool in Europe.

This was the rationale behind the creation of the European Air Transport Training (EATT) in 2012. Also organised in close cooperation with the EATC, the third edition of EATT took place in Plovdiv, Bulgaria, from 16-27 June. It gathered more than 450 participants, 19 crews, and 10 transport aircraft of five different types coming from 10 different countries: Belgium, Bulgaria, Czech Republic, France, Germany, Italy, Lithuania, the Netherlands, Spain and Norway.

Fighter aircraft and airborne early warning capabilities were provided by Greece, while observers from Austria, Finland, Hungary, Portugal, Romania, Sweden, UK, and USA also attended the event. General-Major Konstantin Popov, Commander of the Bulgarian Air Force, commented: "This successful exercise required detailed planning, good understanding of our common goals and true interoperability between participating crews".

Tailored to match the training objectives of the participating air forces, EATT14 saw more than 100 sorties flown by participating crews, accounting for a total of 150 flying hours. More than 40 tons of cargo as well as over 100 paratroopers were dropped over the course of the training event, which was the largest to date. Despite a difficult first week due to severe weather conditions, missions were resumed on the second week with increasingly complex scenarios and training objectives including airdrops, low-level flying and night operations.

The way ahead

After the success of EATT14, Portugal and the UK have expressed their intent to join the next event to be held in Portugal in 2015 (EATT 15). But in parallel to the EATT series of exercises, the European Defence Agency has also initiated (in close cooperation with EATC) a European Advanced Airlift Tactics Training Course (EAATTC) to provide crews with a comprehensive training syllabus relying on

European-designed tactics and procedures.

The first EAATTC course took place 21 September – 3 October in Zaragoza, Spain, where a first class of six crews and 29 students successfully graduated. Three similar courses will be organised in 2015 in Bulgaria, France and Spain, and the establishment of a permanent European training centre is currently being discussed. Eventually, EAATTC should become an alternative to the US Advanced Air Transport Training Course (AATTC) initiative, a rendezvous that has been attended for decades by airlift crews from the US and allied nations. However, European Member States are now seeking different ways to provide their crews with this much-needed training. EAATTC is the perfect answer to that rising challenge, with European air forces now able to benefit from a high-level training closer to their home bases, thus saving the cost of a return trip across the Atlantic.

Rotors over Portugal

The largest helicopter exercise organised this year in Europe, Hot Blade 2014 also sought to provide European rotary-wing crews with a common training environment in order to enhance interoperability and to pool resources in order to practice large-scale joint and combined missions that would be hard to organise by a single Member State. This multinational event is a direct output of the Helicopter Exercise Programme (HEP), signed by twelve Member States in November 2012 for a period of ten years.

Twenty-five helicopters coming from six different nations took part in Hot Blade 2014 from 16-30 July. For the third year in a row, the event was hosted by the Portuguese Air Force on Ovar airbase, in the vicinity of Porto. A total of 827 hours were flown during 362 aircraft sorties. "All training aims were met with the assistance of a small team of highly qualified tactics instructors coming from the sister Helicopter Tactics Instructors Course (HTIC) programme", Andy Gray, EDA Helicopters Programme Manager, points out. Large-scale Composite Air Operations (COMAOs) were flown, with each nation taking a turn in leading the mission. The exercise involved light, medium and heavy transport helicopters, but also tactical transport aircraft; Intelligence, Surveillance and Reconnaissance (ISR) assets in the form of a P-3C Orion maritime patrol aircraft; and up to ten F-16 fighter aircraft from the Portuguese Air Force. In total, more than 3,000 military personnel were involved in the exercise.



Enhancing interoperability and joint operations, Hot Blade 2014 also provided some participating countries with an opportunity to fulfil their own national training objectives in an appropriate environment. The Dutch detachment benefitted from the 'hot and high' conditions found in Portugal to prepare for the deployment of their CH-47 Chinook helicopters to Mali. Major Alphons Jacobs, commander of this year's Dutch Hot Blade detachment, explains: "This exercise has allowed us to fulfil several training objectives. First, we're working in a multinational environment, which is always good for our cooperative skills. Secondly, we are able to familiarize our crews with 'hot and dusty' environments. Finally, we prepare for our forthcoming detachment to Mali later this year". To achieve these objectives, the Royal Netherlands Air Force brought three Chinooks to Hot Blade 2014, including a recent CH-47F model.

Ground troops also played an important role: "A particularly pleasing aspect of this year's exercise was the participation of infantry from Netherlands and Germany", Andy Gray explains. "One of the reasons I am so focused on aircrew training is that on operations we place our soldiers in each other's aircraft. We need to make sure that all crews in a coalition, no matter what flag they have on their uniform, are capable of completing the mission safely and competently". The event also attracted interest from non-European countries such as Brazil, which sent a small team of observers to Portugal to attend the exercise.

Positive feedback

The immediate feedback from the exercise

was extremely positive. Senior national representatives confirmed that the experience of working together with other nations and practicing large-scale joint and combined missions just could not have been achieved by working alone. They agreed that these exercises are truly enhancing the helicopter capability within Europe.

"We keep trying to improve interoperability between our Member States' helicopter crews, because there is a very good chance that they will have to work together on the same battlefield in the years

to come – and we truly mean working together, integrating national capabilities into a multinational coalition, not just the deconfliction that has been used in the past", Andy Gray sums up.

Designed to move around Europe in order to experience different operating environments, the Helicopter Exercise Programme will travel to Italy in June 2015 for

The largest helicopter exercise organised this year in Europe, Hot Blade 2014 also sought to provide European rotary-wing crews with a common training environment in order to enhance interoperability

Italian Blade, which will take place on Viterbo airbase, about 80 kilometers north of Rome. Early in 2016, Finland will host exercise Cold Blade, focussing on the challenges of operating in Arctic conditions. Then, in autumn the same year, Belgium and the Netherlands will jointly host Black Blade, dedicated to special operations.

As agreed by participating Member States in 2012, the events organised as part of the Helicopter Exercise Programme are already scheduled until 2022.

Which means that there are still plenty of opportunities to share experiences and develop best practices, building trust today amongst European partners for the battlefields and conflicts of tomorrow. ■

Raw materials: securing the supply

EDA is working to ensure that Member States will have a guaranteed supply of the scarce raw materials that provide essential structures and components for complex battlefield systems

Advanced radars, military jet engines, secured radios... These state-of-the-art capabilities used by European armed forces on the battlefield are essential to the success of modern operations. But even more critical, and often overlooked, are the raw materials necessary to build them, as well as the companies which specialise in turning them into the high-performance metals and alloys needed by the defence industry. And these raw materials may not always be as readily available as one might assume.

Tackling the problem

Early in 2014, the European Defence Agency (EDA) organised two workshops on that topic. "The sustained availability of many raw materials is coming increasingly under pressure," according to Inge Ceuppens, EDA project officer in the

European Synergies and Innovation directorate. "Europe is dependent on foreign supplies and that may raise concerns".

The problem is certainly not new. "During World War Two the lack of tungsten prevented the German Army from fielding enough Tiger battle tanks", Christophe-Alexandre Paillard explains. Deputy Director of the French Délégation aux Affaires Stratégiques, the expert recognises that the two EDA workshops acted as a real eye-opener for some of the countries involved. "It was great to have everyone around the table and to exchange our views on this critical topic at EU level".

Today, only a small number of EU countries have the policy and the know-how to ensure that their supply of raw materials is secured. By getting their act together through an EDA initiative, Member States could benefit from a shared assessment of the potential vulnerabilities of their supply

and of the impact that a shortage of a given material would have on their defence activities. The two workshops mentioned earlier have already shown there was a real interest from the Member States. They also allowed discussion to take place with industry, a very important actor in the field. "Data concerning the use of raw materials is with defence companies", Inge Ceuppens points out.

Specific needs

The defence industry is an important consumer of these raw materials, but it does not match the commercial sector in terms of quantities: defence sector needs are only expected to account for about 5% of the total demand in the coming years. But if supply risk is calculated against economic importance when it comes to civil technologies, this criteria is much less relevant for the defence sector, where the strategic context is a more suitable parameter that needs thorough evaluation.

For some materials, such as rare earth elements (REE), the risk of supply disruption is very real. The production of REE (mining as well as refining and processing) is heavily geographically-concentrated. China is a single-source market and meets more than 90% of the world demand. To a large extent, Europe lacks these resources on a commercially viable basis. Also, the recycling of REE on a commercial scale is not highly developed in Europe: in this context, an industrial group such as Rhodia (the Solvay group) plays a key role in preserving European know-how in transforming and recycling rare-earth elements.

Dramatic effects

Compared to the civil sector, defence applications sometimes demand materials

"Criticality can be defined by five main parameters. The importance in the process of products; the scarcity of a specific material; its geological position; its geological concentration and the cost of extraction and transformation"

*Inge Ceuppens,
Project Officer, European
Synergies and Innovation
directorate, EDA*



that are of higher purity or quality, characteristics that in some cases can only be obtained through a very specific process of transformation mastered by a few strategic companies and small/medium sized enterprises (SMEs) in Europe. And the shortage of a specific component could have dramatic effects on the defence industry's ability to produce the military equipment that end users need in operations.

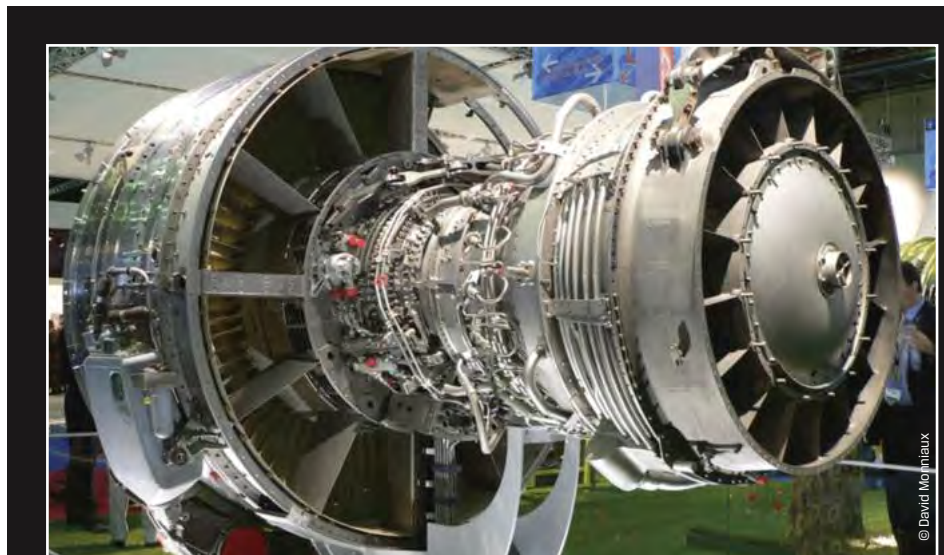
Take combat aircraft, for instance. "The aircraft propulsion industry is a major consumer of rhenium, a material that is largely used for the manufacturing of hot sections on advanced fighter engines", Christophe-Alexandre Paillard points out. Without rhenium, even the most modern stealth aircraft would have a hard time leaving the factory without restructuring the existing procedures.

Need another example? Part of the rare-earth category, neodymium has become the go-to material used to build the powerful magnets needed by modern wind turbines. These do not only serve civil purposes: as the energy demand increases on the battlefield, they are also used to provide troops on the ground with an alternative source of energy when oil becomes difficult to dispatch. "Today, about 97% of the total rhenium production comes from China", the French expert says. "This is the kind of reality that European Union (EU) countries need to take into account when reviewing the status of their defence industry", he stresses.

Defining the criticality

As it has already done with a great number of projects, EDA is now offering to help Member States in identifying and quantifying which raw materials are critical, as well as potential weaknesses in their supply chain. "Criticality can be defined by five main parameters", Inge Ceuppens explains. "The importance in the process of products; the scarcity of a specific material; its geological position; its geological concentration and the cost of extraction and transformation".

In October 2014, the EDA has commissioned a study that will look precisely at these issues. Defence industry data will be collected and analysed in order to make an assessment of the criticality of the materials used for defence technologies and equipment. The assessment of



CFM International CFM56 jet engine still with blades made with 3% rhenium



Eurofighter's new CAPTOR active electronically scanned array radar

criticality will be comprehensive, meaning it will not only look at the source of extraction but covers criticalities in the entire supply chain, with a special focus on the processing industry.

The identification of the raw materials specific to the defence community will be done through a 'bottom-up' approach by starting from the list of materials and then by checking in which technology or applications it is used by the defence industry. Once a comprehensive view has been obtained, it will be possible to compare the results of the Commission's Report on Critical Raw Materials for the EU, of May 2014 that identified a list of 20 materials that are critical for the civil sector.

EDA's intention is to work with the European Commission in order to draw recommendations and plan for actions to secure raw materials for defence. The end-goal is for the EU to be able to mitigate the existing vulnerabilities. Because one thing is for certain: the issue largely spreads beyond

national borders, and the future of European defence might very well depend on a shared understanding of the issues at stake. ◀

Inge Ceuppens is an EDA project officer in the European Synergies and Innovation directorate. Before joining the Agency, she worked at DG Connect in the European Commission, and at the U.S. mission to the EU.

Christophe-Alexandre Paillard is Deputy Director with the French Délégation aux Affaires Stratégiques (DAS) in charge of raw materials, energy technologies, cybersecurity, competitive intelligence, and Latin America within his department. He is also a senior lecturer on international issues and economic warfare and has published books and articles on economics, defence industries, energy, and strategic minerals.



Fit for purpose

It has been almost a year since the Agency adopted a new structure to improve its support to Member States. This new set-up is built around three operational directorates, as we explain in this issue of *European Defence Matters*

Since 1 January 2014, the European Defence Agency has been operating under a new organisational structure, marking a significant change from the set-up that was adopted at the creation of the Agency in July 2004. "Thanks to this new organisation taking into account recent evolutions, we are able to better anticipate and serve the needs and interests of our Member States", stresses Claude-France Arnould, EDA Chief Executive. "Our structure allows us to facilitate the prioritisation of tasks while reacting rapidly to potential new developments and requests", she adds.

Three operational directorates

How exactly is the Agency structured to address the multiple challenges of defence cooperation in Europe? Its operational functions are divided into three directorates (see infographic), which together aim to cover the entire lifecycle of a military requirement from its early identification, research & technology work, development, acquisition, and through-life support.

The Cooperation, Planning & Support (CPS)

directorates address the through-life of capabilities, from priority-setting to in-service support, which constitutes two thirds of the total cost of a capability. A key driver for priority-setting is the Capability Development Plan, on the basis of which Pooling & Sharing projects are identified and managed.

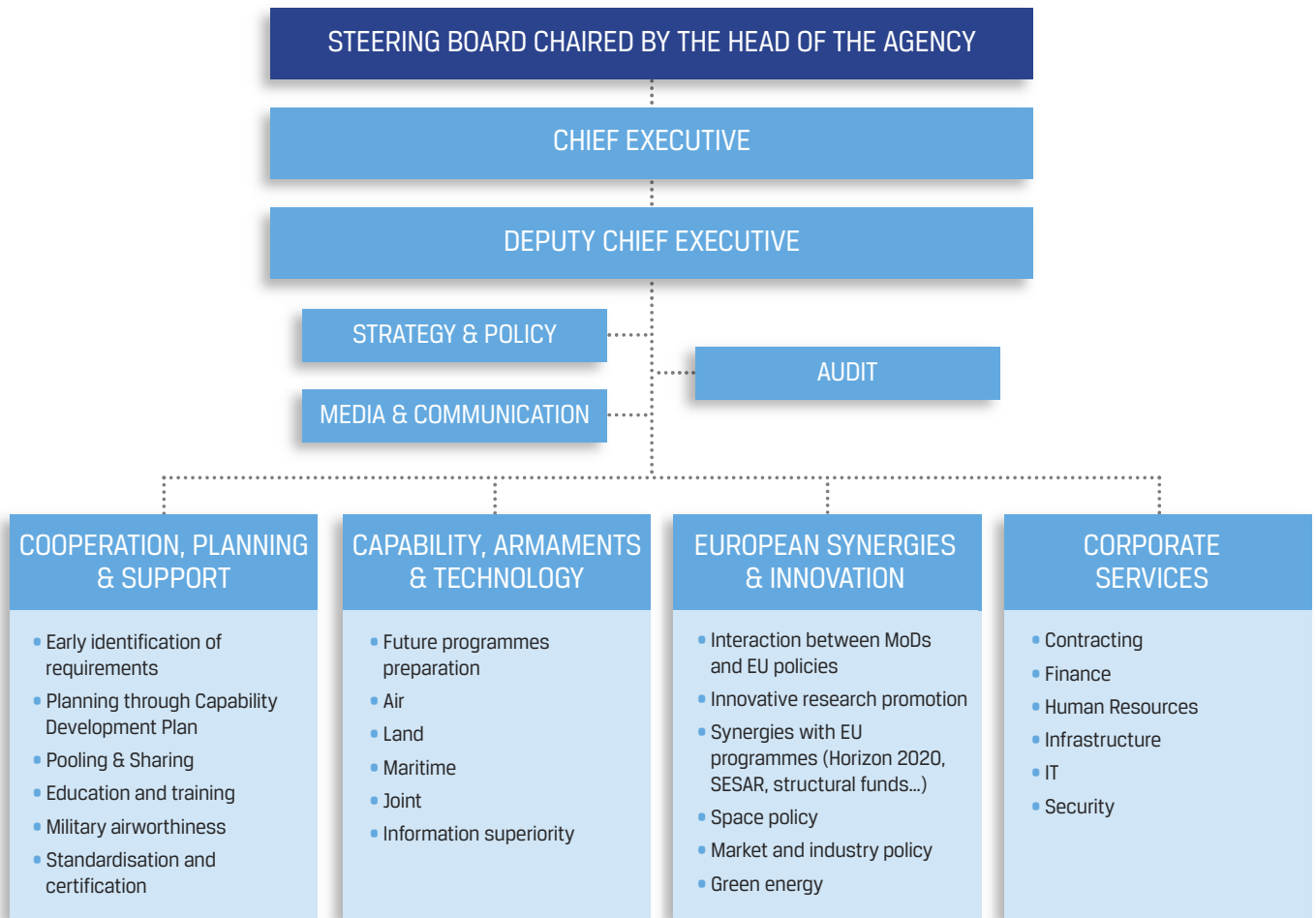
The in-service support phase includes areas that enable interoperability such as military airworthiness, standardisation and certification, as well as education and training. Defence industry analysis and cooperative opportunities, identified by the CPS directorate through its Codaba (Collaborative Database) initiative, reinforce the comprehensive picture required to decide on priorities. The directorate also supports CSDP operations and missions.

The Capability, Armaments and Technology (CAT) directorate prepares the programmes of tomorrow by bringing together the Agency's work, including R&T, in all domains: air (drones, air-to-air refuelling, airlift), land (counter-IED, armoured systems, camp protection), maritime (surveillance, mine counter measures), information technology (cyber defence, communication systems, etc.) as well as the joint domain (mobility, medical,

transport and ammunition). This directorate's mission is to maximise synergies between the capabilities, armaments, and research & technology areas. Top priority is given to the major programmes highlighted by the December 2013 European Council, namely air-to-air refuelling, drones, satellite communications and cyber-security.

A third directorate facilitates interactions between Ministries of Defence and the EU policies that have implications for the defence sector, as well as supporting technology insertion through innovative research. Called European Synergies and Innovation (ESI), it ensures complementarity of defence projects with EU programmes such as SESAR, Horizon 2020, or the European Structural and Investment Funds (ESIF).

Addressing space policy and green energy, the ESI directorate also focuses on market and industry policy efforts where a close relationship with the European Commission is required, such as security of supply and dual use technologies. With the European Commission putting together a range of proposals in the field of defence, there is a growing need for a consistent dialogue



between the European Commission and the Ministries of Defence.

Finally, as part of the re-organization process, the Corporate Services Directorate (CSD) was strengthened and optimised in order to take on new challenges, reinforcing its position as a real business partner of the other three directorates. In close coordination with them, it acts as the Agency's backbone by providing management and control of the available resources in a healthy environment, while developing new approaches towards their development.

Greater engagement

This re-organisation should allow for greater engagement by EDA Member States in the Agency's work and should ensure that, in the medium to long term, full use of EDA's assets is made. A key asset is EDA's flexible approach, with the vast majority of projects being launched by small groups of Member States expressing similar interests and needs.

EDA is also improving transparency and information sharing with Member States. The

different communities (national armament directors, research & technology points of contacts, etc.) continue to receive EDA meeting agendas, steering board updates, supporting documentation and other material based on their areas of interest, regardless of the directorate from which the information emanates. Member States receive on a regular basis the list of EDA experts and their exact portfolio, in order for them to identify the correct point of contact.

Meanwhile, a number of meeting formats allow Member States to engage with each other on a regular basis through EDA, helping to build a comprehensive defence community in Europe. EDA reconciles top-down guidance given by Defence Ministers, who meet in the framework of the Steering Boards at least twice a year to give guidance, supported by NADs, Capability Directors and R&T directors; and bottom-up approach, with different working groups and formats to identify areas of interest, align positions and improve expertise across EU Member States.

In this regard, EDA arranges: points of

contact (PoC) meetings, facilitating interaction between the Agency and Member States' representatives; Integrated Development Teams (IDTs) supporting six main capability domains; Project Teams (PT) bringing together Member States' experts in specific capability areas; Capability technology groups, or CapTechs, working on collaborative research & technology projects (12 in total); Ad Hoc Working Groups are sometimes established to work on specific initiatives and can eventually be turned into a Project Team. Finally, Member States willing to carry out specific activities can also set up a dedicated programme or project group.

In operation for almost a year, this new structure provides the Agency with a comprehensive set of tools to address current and future cooperative activities. However, lessons learned and shared with EDA stakeholders will ensure that the Agency remains flexible and ready evolve in order to achieve its first and foremost objective: supporting Member States in their effort to improve European defence capabilities. 

> "A window on Europe"

Michał Wierciński has been directly involved in drafting the first 'National Defence R&T strategy' in Poland. Here he reflects on his experiences and the main lessons learned from Poland's involvement in the European Defence Agency's (EDA) research and technology (R&T) Cat A programmes



© Polish MoD

Dr Michał Wierciński works in Poland's Ministry of National Defence as a principal advisor to the national R&T director. He is a member of all management committees overseeing Cat A programmes and is the national point of contact for R&T issues



What are the main reasons behind Poland's involvement in EDA projects and initiatives?

There are three main objectives steering Poland's involvement in the Agency's programmes and projects. The technological aspect is the most important one.

Thanks to EDA's R&T initiatives, we can benefit from commonly developed technologies. It is worth emphasising that through EDA programmes we can access better technologies than if we develop them only on a national level.

Secondly, we are fully aware that if we want to increase the level of the EU technological non dependency, the only way to do so is through collaboration.

Today common R&T efforts are not only an opportunity, they are a must. Finally, EDA provides our entities with a lot of networking opportunities, which are then able to strengthen their position on the European Union (EU) market. In that sense, the Agency really acts as an open window to the rest of Europe.

In which programmes were you most involved?

The Cat A programme on Force Protection was an important one for Poland. We were the second largest financial contributor, providing €10 million to the common budget. This

programme was an excellent training ground not only for the Polish Ministry of Defence (MoD) but mainly for our entities that were involved in 14 out of 18 common projects.

Force Protection is a great example of the added value brought by EDA programmes to research entities. Thanks to the projects' selection procedure, they got access to information on more than 900 potential contractors from 20 EDA Member States.

Poland is also quite involved in the Unmanned Maritime Systems (UMS) Cat A programme...

Yes, and we found out that the 'umbrella' approach used for this programme is very beneficial from a national perspective. In UMS it was completely up to us to decide where to invest. Therefore, projects we do participate in are fully in line with our national priorities. Moreover, these projects are complementary to our national research efforts in the maritime mine counter measures domain. This feature is missing in the classical Cat A programmes.

Overall, the flexibility offered by the UMS programme was very convenient for Poland. We therefore welcome the fact that this approach is now being implemented in the Improvised Explosive Device (IED) Detection and Joint Advanced Networking in Urban Scenarios (JANUS).



Project CARDINAL (one of the Force Protection programme projects). Date: October 2012.
Place: 10th Army Tank Brigade, Świętoszów, Poland



So far, what are the main lessons learned from your involvement in EDA initiatives?

We found that Cat A programmes are an excellent tool for low Technology Readiness Level (TRL) technologies, usually up to level 3 or 4. This is a great way for scientists to propose very innovative solutions. However, from our national perspective, we've also learned that the lower the TRL, the higher the risk of disconnect between the project and the end user's needs. Since linking R&T results with end users is one of the three key goals addressed in our National Defence R&T strategy (2011) we consider this feature of classical Cat A programmes as the main weakness.

How would you rate the relations between researchers and soldiers in EDA projects?

End users are usually focused on short-term operational goals and don't have the time or willingness to be involved in research

activities. However, if they are approached in a proper manner, they can provide very valuable and stimulating contribution in various phases of research projects, i.e. user requirements, system design, or testing and evaluation. Moreover, after some demonstration and workshops conducted within Force Protection projects, we found out that it is also very beneficial and informative for them to take part in these types of activities.

What do your research entities think of EDA initiatives?

Those who already participated in at least one common project consider EDA R&T initiatives as an excellent platform for improving their skills and competences. EDA projects opened a window for them to wider European cooperation. Moreover, EDA projects are very good references for potential new research opportunities in both civil and defence sectors. ❏

The Polish defence R&T budget

Poland spends about EUR 83-84 million annually on its defence and security R&T. Of that amount, EUR 75 million is authorized by the National Research and Development Center (NCBiR), whose steering committee is chaired by the National R&T Director. The committee consists of seven people including four nominated by the MoD. The MoD itself spends around EUR 8 to 9 million annually on purely defence R&T initiatives. Half of this amount is spent on EDA R&T projects.



"For each military intervention that takes place in an international framework, interoperability is key. Interoperability is as crucial as the ability of men to work and fight together. This capability must also be prepared in peacetime"

> "Cooperation can be envisaged in almost every domain"

General Pierre de Villiers was appointed French Chief of Defence Staff in February 2014. In this interview with *European Defence Matters* he shares his views on European defence cooperation and reflects on the progress being made by the French armed forces in the introduction of new equipment

Biography

1956: Born in Boulogne, France

1975: Saint-Cyr military academy

1999: Commander of the Mechanised infantry battalion of the Leclerc Brigade in Kosovo (KFOR)

2004: Deputy head of the Prime Minister's military staff

2006-2007: Commander of Regional Command – Capital in Afghanistan (ISAF)

2008: Head of Prime Minister's military staff

2010: Vice Chief of Defence Staff

2014: Chief of Defence Staff

General, do you remember your first contact with the European Defence Agency?

I have been aware of EDA since its creation in the summer of 2004. However my first direct contact occurred when I was Vice Chief of the Defence Staff, an appointment I held for four years from March 2010 to February 2014. My position there carried responsibilities in the capability domain, an area in which EDA is also involved.

In these times of budgetary pressure, it seems harder and harder to maintain the same level of capability for European armed forces. What do you expect from an Agency such as EDA in that context?

Budgets remain under pressure but it is also worth highlighting the current fragility of the international and strategic context. The increasing level of threats very close to Europe's borders challenges our common capacity to

cope with them. In this serious and quite unprecedented context, our first obligation is to fulfill the choices we have made for our defence.

The budgetary difficulties make it necessary to find new solutions in order to fill the gaps in budgetary programming. We have to find pragmatic solutions which enable us to meet operational requirements at the lowest possible cost. With regard to these obligations, I can see three main advantages in conducting programmes in cooperation with partners.

First, share the design, development and industrialisation costs but also possibly share the costs of employment and support. The objective is to obtain together a capability that we could not develop alone and to get it at the lowest possible cost.

Second, strengthen the bonds between partner States. As the field of defence is one of the fundamental prerogatives of the State, cooperation here demonstrates a strong will to get closer to others, and, on a long-term basis, convergence of doctrine, operational know-how, and the structure of defence industries are all part of this.

Third and finally, facilitate operational and logistic interoperability, a subject which could pave the way for future capability pooling or sharing in the field of operations, individual and collective training, as well as support. This aspect of interoperability is of paramount importance for us within the military.

The style of cooperation can therefore vary and EDA can play the role of 'architect'. The European Satellite Communication Procurement Cell (also known as the EU SATCOM Market), in which the EDA is involved, is an example of successful cooperation. I am also thinking of

cooperation on projects linked to in-flight refueling.

In your opinion, which capabilities could benefit most from increased cooperation between European Member States?

I think that the starting point of all efficient cooperation is sharing a common vision and having common interests. Each country's defence is not envisaged in the same way when the risks and threats are assessed differently. From a pragmatic perspective, the funding of common projects must also be in line with the benefits expected by the various parties. Each instance of cooperation must be adapted to meet the specific requirements and operational needs which led to its initial launch. Having said that, cooperation can currently be envisaged in every domain, except some 'niche capabilities' linked to the heart of our operational or technological sovereignty.

For all other capabilities, because of the cost of modern armament programmes and the increasingly multinational nature of defence industries, cooperation has to be seriously considered, especially to fill European capability gaps. It must be systematically sought for all capabilities which are essential but which cannot be obtained at national level, for financial, technological or industrial expertise reasons.

A significant part of our investment, deterrence excluded, is conducted in cooperation with various European partners: for instance, FREMM (the European multi-mission frigate), Tiger and NH 90 helicopters, A400M and the Meteor missile amongst others. Moreover, the component parts of →



these programmes actively encourage cooperation: it's the case for, amongst others, electronic systems, communications and mounted weapons.

Based on the feedback from recent operations, do you feel the need for increased cooperative training? Were you happy with the outputs of EDA-supported exercises that were joined by French forces?

For each military intervention that takes place in an international framework, interoperability is key. Interoperability is as crucial as the ability of men to work and fight together. This capability must also be prepared in peacetime. With this in mind, I also think that there are some opportunities for sharing in the field of individual and collective training. The ability of our various armed forces to react swiftly, as well as their ability to work together, are facilitated by receiving appropriate operational training. The EDA-supported exercises, in liaison with EUMS, are therefore highly relevant, working coherently and in coordination with those conducted by other organisations, in particular NATO Allied Command Transformation. The efforts of EDA must be complementary and converge with the existing initiatives in order to avoid any redundancy. The European Air Transport Training exercises chime with this approach and are particularly useful to our Air Force. Indeed, we participated in the last exercise, organised in Bulgaria in June.

Do you think today's defence industrial base is well-structured to fulfill your operational needs? What should be the role of EDA in this respect?

Preserving the defence industry, at a level

that ensures it can adapt to future challenges, is an important topic. Within the French system this is under the authority of the Director of the Procurement Agency.

I personally deal with the operational aspects: equipment and weapon systems must meet the requirements at the point when they are delivered to our forces. I therefore expect proactivity from the defence industry and an appropriate balance between the price and the performance of equipment.

From a general viewpoint, the search for strategic autonomy in the provision of capability requirements of our armed forces is essential, and it could be argued that it is the price of our freedom. I can nonetheless see that in this domain, European cooperation is not impossible.

Recent years have been marked by the entry into service of a new generation of equipment such as the A400M, the FREMM frigates or the VBCI (Armoured Vehicle for Infantry Combat). Do they perform as expected? Did they bring changes to your military concepts?

You are right; from the infantryman to the submariners, our equipment has been modernized considerably, thanks to a procurement process that works. We are very satisfied with this new generation of equipment.

The VBCI and Rafale are now combat-proven (in Afghanistan, Libya, Mali, and now Central African Republic). Our evaluation process has already emphasized their considerable added value.

Regarding FREMM and A400M, it is maybe too early to draw conclusions as they have not reached Initial Operating Capability (IOC). But current testing is proving that their technical

capabilities (payload capacity and range for the A400M, weaponry systems for the FREMM) will provide significant added value for our forces.

Within the logistics domain, there is another example of which we are extremely satisfied, namely the new Heavy Multi-Purpose Logistic Truck (PPTO – including an armoured version), that was deployed in Mali and considerably improved our force protection.

The recent Loi de Programmation Militaire (LPM, or military budget law) provided a new model for the French armed forces, both in terms of size and of capabilities. What are the new priorities? Do you need to rethink the way you procure defence equipment?

Translating the White Paper into the reality of the LPM requires the clear definition of the budget allocated to the various equipment projects within the armed forces. The major armament programmes which appear in the LPM are those that France needs for its defence, and that provide a comprehensive model for the armed forces. The LPM has been carefully developed, and the planned equipment is complementary with one another. Each element plays an important role within this coherent project. The complete achievement of the LPM within the defined timescales will ensure that defence remains a proactive and versatile tool for use by the state.

In terms of equipment, the main focus of the LPM is on nuclear deterrence, operations using conventional equipment, the operational training of the armed forces, infrastructure and initial studies related to future spending. With this, France has what it needs to meet its ambitions until 2025. ■

› Pooling & Sharing, the academic way

The European Security and Defence College is set out to improve academic training capabilities for the global Common Security and Defence Policy (CSDP) community. Hans-Bernhard Weissert, Head of the ESDC, sits down with *European Defence Matters* to discuss the College's missions and perspectives

The European Security and Defence College was established in 2005. What are its main missions and objectives?

The ESDC is a 'network college', which means that it relies on existing training capabilities provided by a large number of national institutes, colleges, academies and universities – in total, around 70 such entities form part of our network. Our main mission is to build on those training assets to provide Member States and EU institutes with personnel that have the right level of knowledge on CSDP matters in the larger context of CFSP. Through our network institutes but also by using our own EU premises and staff in Brussels, we deliver training to a wide audience of diplomats, police and military personnel as well as civilians involved in European defence and security affairs. Just like the European Defence Agency, our job is clearly about Pooling & Sharing existing capabilities!

What type of courses do you deliver?

We are trying to cover the whole spectrum of CSDP activities, which means we offer various levels of training to the students. Some courses are meant to provide a general overview on CSDP matters and issues to an inexperienced audience, but we also deliver specialised training in support of future EU leadership, specialised staff (military and civilian planners, crisis managers...) or personnel involved in various policy fields (space, cyber, armaments cooperation, etc.).

A few years ago you set up a new project called 'Military Erasmus'. What is the scope of this initiative?

It started as in 2008 under the French presidency of the EU. The idea was to provide cadet officers with an opportunity to be immersed in a cooperative environment early in their careers. A first common module took place in Portugal in 2009. We are now about to set up a 'European month' during which a number of Member States could send their cadets in



“Just like the European Defence Agency, our job is clearly about Pooling & Sharing existing capabilities!”

another country's officer school in order to receive training on subjects of common interest. I personally recognised that the new generation of officers joining the armed forces today are growing up with a European mindset. We will further promote this for the development of a common European defence.

What is the way ahead for the ESDC?

We are currently intensifying our support to crisis management operations by providing training to the civilians who have to deploy to a EU mission and to improve our capacities in this field. Meanwhile, we will also provide national academies with an IT platform that will increase their exchanges with other Member States' institutes. Our job is and will remain about providing EU personnel with the best academic training available on European security and defence matters. At the same time, we want to help them realise that the

crises of today and tomorrow will not be solved purely through military means, but following a real and effective comprehensive approach and using the complete toolbox available to the European Union. ◀

Key figures

- Since 2005, about 7,000 people have benefitted from training provided by the ESDC
- A total of 70 institutes form part of the ESDC network
- Around 40 different training activities are organised every year
- The ESDC has the capacity to provide training to 1,500 people every year



Images © ESDC

Key Quotes

Page 15

"The time was right... Member States all seemed willing to move forward, the industry wanted it as well – there was a wide range of good reasons to make this new Agency a reality. It was a simple idea and a good one"



Christine Roger, former French Ambassador to the Political and Security Committee (PSC)

Page 22

"The time is ripe to bring European defence cooperation to another level by making use of existing EU instruments. The key is to address the identified strategic military capability shortfalls and to finance this effort by doing away with redundancies"

Brigadier General (ret'd) Jo Coelmont, Senior Associate Fellow, Egmont Royal Institute for International Relations



Page 25

"Flexibility is one of our strongest advantages here. We can support Member States when they need it most, for instance in the management of complex procurement procedures or when they are in the deployment phase of a new service during the build-up of a new operation"

Carmen Parrilla, EDA Project Officer

Page 28



"Today Europe is able to field around 40 tanker aircraft of 10 different types while the US currently fields 550 tankers of four types"

Laurent Donnet, EDA Programme Manager

Page 36



"Thanks to EDA's R&T initiatives, we can benefit from commonly developed technologies. It is worth emphasising that through EDA programmes we can access better technologies than if we develop them only on a national level"

Dr Michal Wierciński, principal advisor to the National R&T Director, Ministry of National Defence of Poland

Page 18

Europe does not enjoy the economies of scale from which the US benefits. Member states in 2009 were undertaking 89 different weapons programmes – in contrast to 27 in the US. The European Commission estimated the cost of barriers between national defence markets as over €3 billion per year.

Anand Menon, Professor of European Politics and Foreign Affairs, King's College London

Page 31

Twenty-five helicopters coming from six different nations took part in Hot Blade 2014. A total of 827 hours were flown during 362 aircraft sorties



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Eurosam	4
Nexter	Inside front cover
PMI Media	23



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