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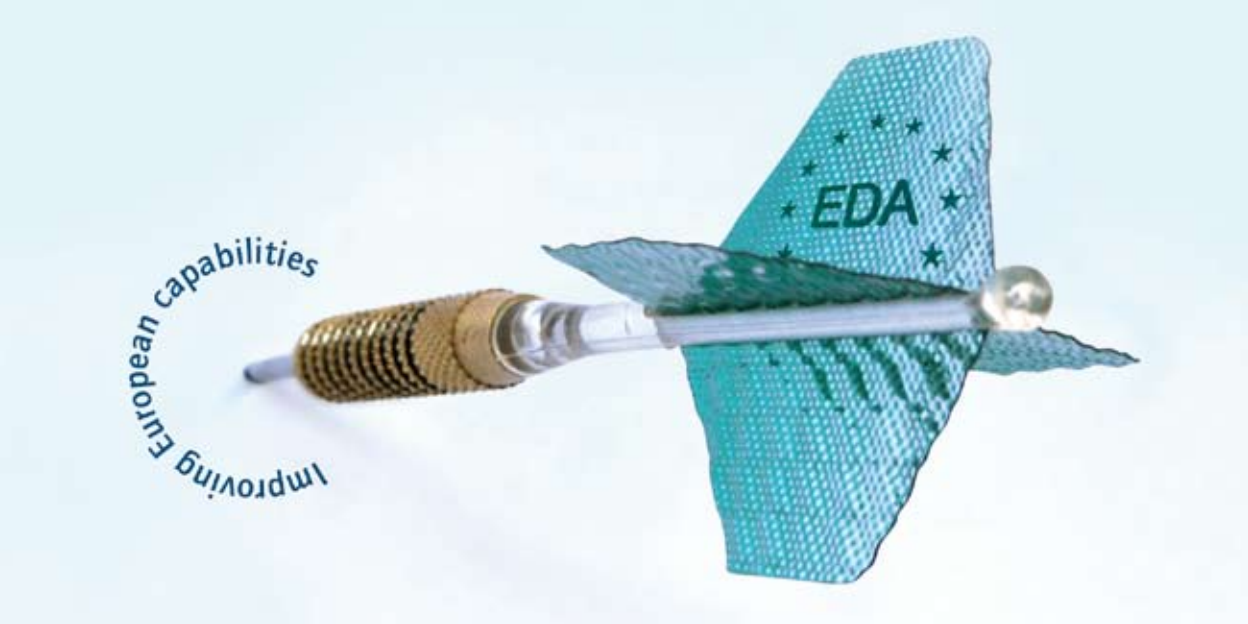

Projects, Projects, Projects

By Alexander Weis, Chief Executive

When asked what the European Security and Defence Policy should bring about, a former British Secretary of State for Defence once remarked "capabilities, capabilities, capabilities". The European Defence Agency was established to support its participating Member States in realising this aim. After an initial phase of building up the Agency and developing the strategies, needed to guide capability development for ESDP, the emphasis of EDA's activities is now increasingly shifting to concrete work. Certainly, the implementation of strategies and policies will continue to require attention, but more and more the Agency's agendas can be described by three words: projects, projects, projects.

Strategies to guide...

However, without strategies, the Agency would be like a ship without a compass, adrift on the ocean and unable to charter a course. This is fortunately not the case, and the Agency has a well-researched strategic framework in place both to set its destination and to navigate to it. Four strategies have been endorsed by the EDA Steering Board:

- *the Capability Development Plan (CDP)*, defining the future capability needs from the short (2010) to the longer term (post 2020). EDA is a capability-driven Agency and the CDP is its "overall strategic tool", the 'driver' for R&T investment, for armaments cooperation and for the defence industries;
- *the European Defence Research & Technology (EDRT) Strategy,* defining in which technologies to invest and how to do this more together and more efficiently – aimed at output relevant for capability improvement;

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- *the European Armaments Co-operation (EAC) Strategy,* spelling out the process how to get from harmonised military requirements to timely and cost-effective armaments cooperative programmes – learning from mistakes made in the past, speeding up the process and doing it more cost-effectively; and
- *the European Defence Technological and Industrial Base (EDTIB) Strategy,* describing the future European defence industrial landscape, based on three Cs – capability-driven, competent and competitive.

These four strategies, with the CDP 'in the lead', are defining the destination (which capabilities, technologies, armaments cooperation, industries are needed) and setting the course by defining priorities, proper methodologies and new processes. They are living documents. In some cases, such as the CDP, further refinement and updating will be required. For example, new prioritised actions might be derived from the CDP beyond the current list. For other strategies the emphasis is on implementation. The EDTIB strategy comes to mind, with the current focus on Future Air Systems as the first area to assess the impact of the theory on practice.

One should also not forget that EDA has a number of 'policies' which require continuous implementation efforts. The Code of Conduct Regime on Defence Procurement is the most obvious example. Its latest off-shoot is the new Code of Conduct on Offsets, which is explained in further detail in this Bulletin.

... concrete projects

But strategies and policies themselves do not produce capabilities. These can only result from concrete projects. Guided by the CDP twelve initial priorities have been selected for improving European military capabilities. They range from increasing the availability of helicopters, counter-improvised explosive devices, network enabled capability and logistics to counter-man portable air defence systems and mine countermeasures in littoral waters. Some of these projects were already underway; others have been activated more recently – in particular by the Ministerial Steering Board on 10 November 2008.

Not all projects or programmes are related to equipment. The Agency's work on helicopter training is an excellent example of how capabilities can also be improved by other means and in a relatively short timeframe. In the next few years helicopter crews will be trained at a European level through the Helicopter Tactics Programme to be prepared to fly in more challenging operational environments, such as mountainous terrain or deserts. A dedicated article in this Bulletin describes these efforts more specifically.

Another possibility is to pool assets. On 10 November last year the Defence Ministers of Belgium, the Czech Republic, France, Germany, Greece, Italy, Luxembourg, the Netherlands, Portugal, Romania, Slovakia and Spain signed a Declaration of Intent to launch EDA work on establishing a European Air Transport Fleet (EATF). The EATF aims at reducing European air transport shortfalls by pooling aircraft such as the A400M and C130. Different forms of pooling will be considered: additional procurement; making existing or ordered aircraft available; using flight hours; training, logistics and maintenance. Signature of a Letter of Intent is planned for mid-2009 and EATF operational status is foreseen for the timeframe 2014-2017.

These are just a few among many projects under the EDA roof. In addition the Agency continues to invest in the longer term through its Research & Technology agendas. Two Defence R&T Joint Investment Programmes are up and running: *the JIP on Force Protection (JIP-FP) and the JIP on Innovative Concepts and Emerging Technologies (JIP-ICET).* Two contributions elsewhere in this edition provide further information. In the meantime, the Agency and its participating Member States have started to look at subjects for future JIPs, preferably as the outcome of connecting CDP priorities with key technologies.

EDA's activities are now increasingly shifting to concrete work.

2009 – new projects

Two important new projects will come to the Agency in the months to come. One is the *Multinational Space-based Imaging System (MUSIS)* project, for which five Member States (Belgium, France, Germany, Greece and Spain) signed a Letter of Intent on 10 November 2008. MUSIS is focusing on the next-generation (beyond 2015) military earth observation satellite capacity, which is indispensable for information-gathering. Another project is the *Future Transport Helicopter*, a bilateral French-German initiative for the 2020+ timeframe. Once brought to EDA the project will be open to other interested Member States.

Clearly, the list of projects, programmes and initiatives will further evolve as the Agency carries on its work in the future. It will ensure that these activities are capability-driven and fit in the wider EDA strategic framework.

2009: bringing new initiatives

"This is the concrete follow-up to the discussions which took place at the Informal EU Defence Ministers meeting in Deauville early October. We are seeing today that the Agency can very quickly translate political intentions into concrete proposals. These programmes will create tangible European capabilities and improve the capacity for crisis management operations", said Javier Solana, Head of the Agency, last November, when European Defence Ministers launched concrete initiatives and projects for improving European military capabilities.

Following Defence Minister´s commitment, EDA is moving forward and developing new initiatives. The following pages are dedicated to three new projects, which are currently at the top of EDA´s agenda: European Air Transport Fleet, Maritime Mine Counter-Measures and Future Unmanned Aerial System.

Airbus Military

The European Air Transport Fleet gets off to flying start

By Dimitrios Moutsiakis, EDA Project Officer Deploy

The prohibitively high cost of strategic transport requires innovative solutions that are not focused on traditional classical acquisition programmes. The Agency's work on filling this capability gap over the last two years has yielded a number of promising solutions. The creation of a European Air Transport Fleet is certainly the most innovative one.

The establishment of a European Air Transport Fleet Project Team (PT) was endorsed at the Capabilities Steering Board in 2008. It was mandated to study business and operational models, implementation, development of a Common Staff Target and to seek enhanced Member States participation.

The aim of the EDA´s European Air Transport Fleet (EATF) project is to develop concrete solutions to better use existing and future military airlift assets usable to meet operational requirements for crisis management operations and to improve the airlift provision within the European Union.

> *"The EATF Declaration is most welcome, as pooling European aircraft and services will improve the lift capabilities and alleviate a significant European shortfall",*
>
> *Alexander Weis, EDA's Chief Executive.*

This EATF project will also allow the acquisition of additional assets.

Pooling of airlift assets would enhance their availability and generate economies of scale (on personnel, infrastructure and material), increased military efficiency and a more effective use of the limited capabilities in the airlift area.

EATF offers - especially in smaller MoDs' budgets context - means to meet their military strategic airlift requirements, which could otherwise, most likely, not be met with traditional acquisition methods.

Last November, Defence Ministers of twelve EDA participating Member States (Belgium, Czech Republic, France, Germany, Greece, Italy, Luxembourg, Netherlands, Portugal, Romania, Slovakia and Spain) signed an EATF Declaration of Intent (DoI) to demonstrate their determination and commitment to address critical European airlift shortfalls and their intention to develop concrete solutions to better use existing and future military airlift assets usable for meeting their requirements.

In addition, on the same day, Belgium, Germany, France and Luxembourg signed a supplementary DoI with the intention to establish a future A400M multinational unit. This unit will be part of the EATF project and those countries declared being ready to welcome, in the future, any contribution to this multinational unit from other Member States.

EATF provides an innovative framework for European cooperation through mutualisation of services and aircraft - such as A400M or C130. This initiative is open to any interested EU Member State. It will be developed in coherence with existing or future European and national airlift structures, such as the European Air Transport Command in the Command & Control area.

As stated in the EATF DoI, EU Member States' participation could take several forms: to make available military transport aircraft; to purchase flying hours; to provide or exchange flying hours; to provide and benefit from shared and/or pooled support functions.

Furthermore, the EATF project will take into account any future contribution of A400M Member States for basing, maintenance and training to partners who do not wish to equip themselves with such a structure, or who have an interest to join the multinational A400M unit or who have a potential intention to acquire new A400M.

Currently the corresponding EDA Project Team is working on the definition of the participating Member States requirements and on the finalisation of the EATF Operational Model, which will be presented on 6 of March the Steering Board in Capabilities Directors formation. In addition, a study has been launched to address practical, management, financial and legal aspects to be reflected in the EATF Business Model. Inputs from the operational and business models will be also used for drafting the Letter of Intent (LoI), which is scheduled to be signed by the participating to the project Member States in the course of 2009.

Who: Belgium, Czech Republic, France, Germany, Greece, Italy, Luxembourg, Netherlands, Portugal, Romania, Slovakia and Spain.

What: EATF aims at reducing European air transport shortfalls by pooling aircraft such as the A400M and C130.

How: Participation can take different forms as making aircraft available; purchasing, providing or exchanging flying hours; or to provide and benefit from shared and/or pooled support functions (training or maintenance, for example).

When: Milestones have been set with the aim of reaching EATF initial operational capability by the next decade.

Airbus Military

Improving coastal operations through Future Maritime Mine Counter Measures

Ongoing and future military operations depend and will continue to depend on unrestricted access to and movement through littoral sea areas. This is true for the deployment and redeployment of major quantities of military equipment to and from a theatre of operations, the provision of bulk logistics for operations and in some cases general maritime support.

Littoral sea areas, however, are not only important as a transit area for support. They are also important in the context of amphibious operations and they can become an area of armed fighting. Sea platforms can also provide a base for logistic support, fire support to ground operations and air support to operations.

Access to and movement through littoral sea areas can be impeded or denied by several means. The use of mines or Improvised Explosive Devices (IEDs) is a cheap and easy solution for adversaries to restrict or deny European military forces the freedom of movement in littoral sea areas.

Mine Countermeasures are, therefore, the key to success in any littoral operations. Without an ability to conduct mine surveillance and clearing at the time and place of our choosing, ESDP operations may be in jeopardy.

In order to tackle successfully all relevant aspects related to Maritime Mine Counter Measures (MMCM), it is not sufficient to look just at technological solutions. Information and intelligence sharing within the military community and cooperation with the civilian maritime and security community, at least, are major aspects which have to be addressed accordingly.

European military forces are looking forward to renew, complete or replace their respective MMCM assets around 2020 timeframe. First considerations in that regard, already started in the context of LOI / HMR[1] some years ago.

A so called Common Staff Target (CST) VII has been produced by the member nations and subsequently has been handed-over to EDA. Based on that CST, the EDA MMCM initiative has been launched as a Category B Project by the EDA Steering Board

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in Defence Ministers formation on 10 November 08. The aim of this initiative is to produce a Common Staff Requirement and to propose an initial set of possible solutions by the end of 2010. Ten EDA participating Member States plus Norway have already signed up to participate in this initiative.

Who: Belgium, Estonia, Finland, France, Germany, Netherlands, Poland, Portugal, Romania and Sweden, plus Norway

What: EDA project for the future replacement of their maritime mine counter-measures capabilities

Why: Mine counter-measures in littoral sea areas has been identified as one of the initial 12 prioritised actions in the context of the Capability Development Plan (CDP).

How: activities will start with an assessment phase, leading to recommendations for the selection of systems solutions and addressing all relevant aspects.

[1] In 1998, the Defence Ministers of France, Germany, Italy, Spain, Sweden and the United Kingdom have signed a Letter of Intent on Measures to facilitate the Restructuring of the European Defence Industry. Harmonization of Military Requirements is an initiative within the work of the LOI nations.

Improving ISTAR capabilities: Future Unmanned Aerial Systems

A characteristic of current, but also of future military operations is their growing dependence on accurate, reliable, and near real time information for different purposes and diverse levels of command.

Intelligence, Surveillance, Target Acquisition and Reconnaissance provide this type of crucial information. ISTAR is the related military acronym. Generated by a variety of different sensors, ISTAR depends also on a multitude of platforms for all these sensors. These carrier systems are designed to be employed in different environments, encompassing in particular High-Altitude Long-Endurance Unmanned Aerial Vehicles (HALE UAV) or Medium-Altitude Long-Endurance Unmanned Aerial Vehicles (MALE UAV). These systems, however, are primarily designed to be launched from land and also to be recovered on land.

Maritime operations depend as all other operations also on ISTAR results. Therefore, an initiative was started in 2006 within the framework of EDA's Maritime Surveillance Project Team to analyse existing and future needs for Unmanned Aerial Systems (UAS) as platforms for ISTAR sensors in support of maritime operations. These UAS should be capable of being launched from a ship and be recovered by a ship. A vertical take-off and landing capability, therefore, has been one major desired design characteristic of the system. Also, it was envisaged that the ISTAR results of this sensor platform should suffice the information needs of the tactical level. The initiative was named accordingly Maritime Tactical Unmanned Aerial System (MTUAS).

EADS

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During the ongoing work on this initiative, the participating Member States reached consensus that the envisaged system should not only be used in support of maritime operations but also in support of all other services. This new joint approach to the initiative and also the Member States desire to look beyond already existing technologies which might be used for the technical solution of this problem has been reflected in renaming the initiative during the process of launching a Category B Project within EDA. Future Unmanned Aerial Systems (FUAS) stands now for an aspiration to improve the ISTAR capabilities of European military forces significantly in the future.

Seven Member States are currently participating in this Category B Project. The aim of this project is to conduct the Programme Preparation Phase taking into account joint requirements, and to recommend follow-up activities.

Who: Finland, France, Germany, Poland, Portugal, Spain and Sweden

What: Preparations for the development of an unmanned aerial system, which will be able to take off and land on a ship's deck.

Why: This future system will increase the capability for wide area surveillance in support of ESDP operations, a need which has been identified in the Capability Development Plan.

A Role To Play

Vlasta Parkanová,
the Minister of Defence
of the Czech Republic

When we, the Member States of the European Union , made our ground-breaking decision to create a European Defence Agency (EDA) more than four years ago, we did so regardless of the potential difficulties which we knew lay ahead. We were in a hurry to create an institution with the capacity to strengthen the EU's security and defence framework to enable it to deliver on the global agenda. By including a defence dimension to the process of Europe's unification, to accompany the EU's well-developed economic integration, we realized that our efforts might, one day, make the EU a key military as well as political and economic player on the world stage. It is my belief that the EDA has an indispensable role to play in helping Europe to build the defence capabilities necessary to make the EU more independent, more vigilant and better able to address not only "soft" but also "hard" security threats to European interests.

However, the overall shape of the majority of our armed forces does not seem to allow for a smooth conversion to flexible, interoperable, deployable and sustainable force packages, as envisaged for the whole spectrum of crisis management operations under the ESDP umbrella. The EU defence resources as a whole remain heterogeneous and capability, armaments, R&T/D and subsequent procurement processes, along with defence industrial policy, are still predominantly confined to national borders. Each Member State of the EU has its own doctrine of force deployment, its own threat assessment, its own military tradition and history, its own budget procedures, its own political decision-making process, and its own ambitions, all of which make the improvement of European defence capabilities a demanding, yet unavoidable, endeavour.

By streamlining the EU military capability development process through the harmonization of military requirements and addressing key capability shortfalls within the Capability Development Plan, the coordination of R&T resources along the lines of recently adopted European Defence Research and Technology (EDRT) Strategy, the push for common European armaments programs centred around the methodology provided in the European Armaments Cooperation Strategy, and the steps taken to increase competition in the European Defence Equipment Market (EDEM) and to preserve key European industrial capabilities through the further implementation of the European Defence Technological and Industrial Base (EDTIB) Strategy, the EDA has the power to encourage removing national barriers and to increase indigenous European defence capacities. In doing so, the EDA can help induce structural change in the way our armed forces function, are trained, maintained and equipped.

The Czech Republic would like to contribute to these efforts during its Presidency of the Council of the EU by playing an active role in the area of transport helicopters, a key capability shortfall in the ESDP operations. It may be expected that our voice will be heard more in the areas of both helicopter training and upgrade, carrying on with the initiatives announced during the Slovenian and French Presidencies. We would also like to address the question of strategic airlift, another key capability shortfall, and to pave the way for the signature of the Letter of Intent for the establishment of European Air Transport Fleet (EATF) on the basis of the Declaration of Intent adopted during the French Presidency.

In addition, the Czech Republic would like to elaborate on two supplementary subjects: the centres of excellence and the education in armaments. With regard to the first one, we would like to contribute to the implementation of the EDTIB Strategy by opening the discussion on the overall concept of the industrial centres of excellence - their focus, expertise and partnership - and the role the industrial centres of excellence can play in creating a competitive EDEM and a strong EDTIB. A special attention will be devoted to the relationship between the industrial centres of excellence and SMEs, including security of supply issues, thereby advancing the SMEs related agenda pursued by the German, Slovenian and French Presidencies.

The second subject we will focus on is education in armaments and how to establish a European educational and training platform for both the tactical and strategic level of stakeholders. More specifically, we would like to streamline the discussion on the overall concept of education in armaments, structural and institutional questions and on fundamental elements of the potential courses in order to find common ground for the establishment of a European armaments educational and training platform.

While the above mentioned topics are the main priorities the Czech Republic would like to pursue in the first semester 2009, there are other issues and events that coincide with the Presidency of the Czech Republic of which it must not lose sight, including the preparation of the Agency's three-year Financial Framework - to be adopted by the EU Council next autumn, and the 60th anniversary of NATO.

With the approval of the EDRT Strategy, the last of the four overarching strategic documents in the four EDA functions, the participating Member States have finalized the overall framework within which the EDA will implement relevant strategies in the years to come. Now, the time has come to start working on the preparation of the EDA three-year Financial Framework (including a three-year Work Plan), which will provide the EDA with the resources necessary to implement these strategies and to focus on the development of key capability-related areas and projects. In this respect, the Czech Republic would like to engage participating Member States in helping EDA to establish a sound three-year Work Plan, to serve as a basis for the three-year Financial Framework.

As NATO celebrates sixty years of existence, it is, in my opinion, a special occasion to reflect on its role in securing European peace. The Czech Republic would like to find ways for the Agency to benefit, where applicable and appropriate, from NATO's experience and lessons learned. Indeed, we believe it is important to pursue, and intensify when necessary, efforts to ensure full transparency and coherent work between EDA and NATO (incl. seeking complementarities and avoiding unnecessary duplications). We would like to encourage such endeavour, in particular through the NATO-EU Capability Group, and, where appropriate, through the invitation of senior NATO officials to EDA Steering Board meetings.

To conclude, the Czech Republic has its own goals and ideas for the Presidency of the EU Council. Some of them may appear too ambitious for a small country, experiencing its first Presidency of the EU, but the Czech Republic is determined to play its part. And, I can assure you that it is not going to be the role of a "double agent" but that of an "honest broker," which always tries to engage all parties involved and seeks only mutually acceptable solutions.

Investing together in Innovative Concepts and Emerging Technologies

By Christian Bréant, R&T Director

The mission of the EDA includes the goal of increasing the effectiveness of European Defence Research and Technology (R&T). Accordingly, EDA was tasked by Member States to develop better ways to identify R&T goals through key defence technologies related to capability needs and to propose or improve means to invest in them. This is fully described in the European Defence R&T strategy, approved by the Ministers of Defence on 10 November 2008.

One of the instruments currently used by the EDA for R&T investment is the Joint Investment Programme (JIP), two examples of which are currently underway: 'Force Protection (FP)' and 'Innovative Concepts and Emerging Technologies (ICET)'. In this type of programme, Contributing Members set up a common fund to develop a particular research topic identified as being of general importance for ESDP. The Programme's budget is invested, over a period of 2 to 3 years, to fund individual projects addressing specific areas within the chosen topic that are selected following a transparent and competitive process.

The first JIP, investigating topics related to 'Force Protection', which started in 2006, has now launched 12 individual projects within three calls for proposals. A fourth and final call for proposals is scheduled to be launched before the end of 2008. The second JIP named 'ICET', looking at "Innovative Concepts and Emerging Technologies", was approved in May 2008, and the Programme Arrangement signed by the Ministers on 10 November 2008. The first call for proposals was launched a week later, addressing the broad topic of 'Monitoring and Control'. ICET looks into more basic research with the potential to generate new or to improve existing capacities. The agreed purpose is to detect and evaluate advances in these areas while, at the same time, strengthening European networking of Academia, Small and Medium Enterprises, and Industrial Research Laboratories addressing Defence issues.

The First Call of ICET addresses the following topics:

- *Non linear Control Design* looks into the use of increasing computing power in the real-time solution of airframe control problems. This should allow for more freedom and flexibility in the design of future airframes.
- *Integrated Navigation Architecture* tries to capture ideas designing navigation systems which are reliable, resilient and cheaper than current systems. In particular, we are interested in navigation in GPS denial conditions.
- *Nanotechnologies for soldier protection and sustain* looks into soldier protection and sustain which is likely to profit by the application of nanotechnologies, in areas like health monitoring, environment protection, CBRN protection, armour, etc.
- *Structural health monitoring* deals with the capture and analysis of structural stress data using embedded sensors, which should enable us to monitor, control and improve not only the availability but also the safety of airframes.

There are more than 260 Potential Contractors registered for the First Call of ICET distributed as shown in the figure (right). ICET has mainly attracted the interest of Academia, Research Laboratories and Small & Medium Enterprises (SME) as originally intended.

Lessons learned in the preparation and execution of the JIP on "Force Protection" were incorporated into the setting up of the ICET programme, in particular in the areas of the Programme Arrangement and Call Preparation. This has had the clear effect of accelerating the set up of the programme and reducing the effort required to a small fraction of the original effort made to set up Force Protection. These two first programs are also showing that JIP can address either capability driven research (Force protection) or more long term technology push activities (ICET).

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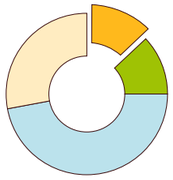


EDA looks forward to continue to improve the JIP tool to make it an even more effective way of managing research projects. Topics relevant for further JIP work are now being investigated to maintain the collaboration momentum and to profit from the learning process in the setting up of previous JIP activities. We believe in the added value of this innovative process which brings together a wide range of European Defence Research entities in a process that includes competition and that is closely controlled by the participating Member States.

Evaluating JIP proposals

an interview with Wim Pelt

Wim Pelt graduated from Leiden University in 1979 in Metal Physics. He worked in exterior ballistics during his national service and worked four years in industry. He joined the Netherlands Ministry of Defence in 1986 where, since 1989, he is R&D coordinator within different scopes - now in Foresight Branch, with emphasis on general technology. He was member-at-large of the Systems Concepts and Integration Panel at the NATO Research and Technology Organisation (NATO RTO SCI), and represented the Netherlands in several groups at the Western European Union (WEU). Currently, he is heavily involved in EDA, representing his country as Assistant R&T Point of Contact and as Captech National Coordinator (CNC) for IAP1, IAP4 and GEM4. He also leads the Autonomous Remote Monitoring System (ARMS) Task Group and has taken part in the development of the Joint Investment Programme on Innovative Concepts and Emerging Technologies. The interview is focussed on Wim Pelt's experience as an evaluator with the (first) Defence R&T Joint Investment Programme on Force Protection (JIP-FP).

How do you assess the relevance of the JIP-FP for improving European military capabilities?

You will forgive a Dutchman to point to the 'Vredeling Report' from 1986: *Towards a stronger Europe*. It stated that Europe has the potential to be military independent, but only when barriers between national Defence establishments are broken down and military R&D plugs more fully into the civilian European R&D base, which is already competitive worldwide. In my view, this classic analysis still stands. The Vredeling Report contributed to the re-awakening of the Western European Union and later to the establishment of the Western European Armaments Group (WEAG) and its research cell, the Western European Armaments Organisation (WEAO).

The WEAG/WEAO was successful in building bridges between different European military industrial research entities, but did less well in outreach to the civilian sector. We have seen interesting civil-military cross-fertilisation in several Member States at the national level. With the JIP-Force Protection, I see this outreach taking shape on a European scale, although I regret to see large differences between Member States in this respect. I have to reserve my final judgment on the impact of the JIP-FP until the products, resulting from projects now contracted, will become operational. In the Netherlands, we evaluate what we call the impact of a research project 5 and 10 years after the conclusion of the project. The reason is that in a shorter timeframe, all you can assess is potential impact. But it is clear already now that the most exciting proposals in the JIP-FP are stemming from other sources than the usual suspects for Defence research.

A Management Committee is steering the JIP-FP. What are your views on its role and practices?

In the first place, the Management Committee (MC) defines the content of the Calls and the Programme at large, together with the EDA. Naturally, the Agency cannot manage a Programme of this size on its own, as it does not have the machinery and the manpower the European Commission has. Moreover, the members of the MC represent the Member States. They take the formal decisions on the way ahead.

The existence of the MC enabled us, evaluators, to act as individual experts and to concentrate fully on the technical aspects of the proposals. We are aware of national and political considerations, both from nations present and absent at our table, but since we know they will be addressed later they do not interfere in our assessment. Note that this is different from the way the CapTechs work. There, we combine technical and cooperation aspects and try to keep the interests of the absent Member States at the back of our mind.

You are an expert in the field of multisensor data-fusion and you were nominated by the Dutch Ministry of Defence as an evaluator of the second and third round of proposals for the JIP-FP. In this context, which were your main tasks?

Together with my colleagues from France, Germany, Greece, Italy, Poland and Sweden my task was to judge a set of eight proposals received for the third Call. We had to judge these eight proposals on the aspects of military benefit, technological excellence, management issues, value-for-money and cooperation benefits. We evaluated the proposals on a five point scale. EDA had nominated me as *rapporteur*. Together with the EDA moderator I made sure all relevant arguments were taken into account in the evaluation. The Agency had provided a set of questions we could use to structure our assessment on each aspect.

For each proposal, we first spent a couple of hours reading and considering the proposal individually. After that, we posted our marks on the wall and discussed those, especially regarding points where we had made different judgements. As we met as experts and in a personal capacity, these discussions resulted nearly always in consensus. The remarks were then sent to the Management Committee (MC). They will be sent later as a feedback to the proposers.

What is your impression on the quality of the proposals? And on their technical excellence level?

Two proposals did not really answer the Call. The remaining six were of high quality. In fact, I could have proposed five of them for funding under the JIP! We were also unanimous in what we considered the two best proposals, and we shared the view that they would open up very interesting perspectives.

The level of the analysis by the applicants was good to very good for these six proposals. I was also pleased to see the technical solutions that were proposed. They were good compromises between theoretical and feasible ideas. But in most cases we would have liked to read more details about how they intended to conduct the research over the project period. It is probably no coincidence that the proposal that came out on top painted the clearest picture not only of what the consortium intended to do, but also of how they proposed to do it.

How do you see the future of the "Joint Investment Programmes" (JIP) approach? Is it a better way to invest together in R&T and will it deliver more value for money?

As the Netherlands will evaluate the JIP-FP next year, let me start with a strong disclaimer: the following are my own preliminary thoughts only. It may or may not reflect my final position on this matter, and may or may not be close to the position of the Netherlands Ministry of Defence.

To start with your point whether it is a better way to invest, I believe that only for simple things one best way forward can be determined. R&T management is certainly not simple, so tailoring instruments will be more appropriate than going for a ready-made one-size-fits-all solution. For some classes of projects or programmes, the JIP opt-out approach will be more suitable, while for others the collective EDA-funded or the Category B opt-in will be more appropriate. By the way, we also experiment with coordinated Cat. B projects.

Military research is broadly conducted for two reasons, either for use in the Ministries of Defence (to conduct threat analysis, define staff requirements or work on standardisation) or to provide the groundwork for products to be used by the military. The first aim applies to all Member States, but product development gives additional benefits to the Member States where the production will take place. JIP rules could prove to be more attuned to the first aim than to the second. Participation in a JIP dedicated to product development seems to make sense only for those contributing Member States hosting an entity that will be involved in production.

Burden-sharing according to the present rules in both collectively funded and opt-out projects seems to me fair when all participants share the same needs and no direct benefits accrue to a much larger extent to one or a few Member States than to the other contributors. When this is true - again these are only preliminary thoughts - the JIP-ICET could prove to be more a typical Joint Investment Programme than the JIP-Force Protection.

Nevertheless, the JIP-FP has resulted in pretty heterogeneous projects. With hindsight, possibly some could have been EDA-funded or Cat. B type. To illustrate that we still try to find the best way to use this new JIP instrument, it is enough to point out that the two current JIPs have a very different character.

Network Enabled Capabilities: contract for the Implementation Study signed

By Marcel Staicu, EDA Project Officer NEC

Last December, the European Defence Agency (EDA) signed the contract for the Network Enabled Capabilities Implementation Study (NEC IS) that has been awarded to the EURONEC consortium.

In an increasingly complex and challenging security environment, the European Union (EU) seeks a comprehensive approach in response to any crisis by exploiting the full range of civil and military instruments. Recognising ongoing efforts in the EU, in the Member States, and in industry, Network Enabled Capabilities (NEC) could facilitate this comprehensive approach through informed and timely decision-making and coherent execution, based on the seamless and efficient sharing and exploitation of information by competent personnel, properly tailored processes, and developed networks.

Moreover, NEC is one of the 12 actions emerging from the Capability Development Plan as critical priorities for the European Union, as agreed in 2008 by the EDA participating Member States.

The study started in January 2009, with a very successful meeting, gathering 80 experts from the participating Member States, EU institutions and industry, and will last 18 months. It will deliver a description of what future NEC will have to achieve in terms of users, information and technology ("NEC Vision") with the overall aim of enabling a unified effort of civilian and military actors in ESDP crisis management operations.

The value of the study is € 750.000. It will also propose a "NEC Roadmap" with clear actions and milestones (2012, 2018 and beyond 2025) for an effective implementation of NEC.

The EURONEC consortium consists of 6 European companies, all of which have already been successfully involved in past and present NEC related initiatives in Europe:

- BAE Systems IST ltd (UK)
- EADS Deutschland GmbH (Germany)
- Indra Sistemas S.A. (Spain)
- SAAB AB (Sweden), administrative leader of the project
- SELEX Sistemi Integrati SPA (Italy)
- THALES Communications SA (France)

Radio Spectrum for Future UAS

By Marcel Staicu, EDA Project Officer NEC

In December 2008, EDA signed a contract for a Study on "Military Frequency Spectrum Allocations Required for the Insertion into the General Air Traffic of the Unmanned Aircraft Systems" (the SIGAT study), with the "Air4All Frequency Group" industrial consortium.

As an important element for future ESDP operations, UAS can contribute significantly in meeting the EU's security mission objectives and the SIGAT study is a significant step on the way to have them routinely flying into non-segregated airspace.

The study started in January 2009 and will last 12 months. Its objectives consist in the identification of an appropriate radio spectrum for their integration in the general air traffic, as well as defining and promoting European interests, so to have them best reflected in the decisions of the future World Radio Conferences (WRC).

This strand of work is but one of the many initiatives identified in an ongoing EDA effort to develop a roadmap for the insertion of UAS into the non-segregated airspace, started in 2008, together with the "Air4All" industrial consortium.

Although special attention will be given to the input on the Command and Control link, required to prepare the next WRC to be held in 2011, the SIGAT Study will address the spectrum with a comprehensive approach, to include also the UAS payload link, an essential feature for the ESDP operations.

The value of the study (€ 1.560.000, from EDA's 2008 Earmarked Revenue Budget) shows that our Member States value this effort as a very important one. The results will allow them to address the spectrum for UAS in a holistic manner, reflecting the European specifics, wherever appropriate.

Nonetheless, success will only be achieved through determination and effort; this implies appropriately involving all the other main stakeholders: participating Member States, European Commission, Eurocontrol, European Aviation Safety Agency, European Space Agency and Eurocae WG73. Many existing and planned initiatives will have to be taken into account by the SIGAT Study, be them military or civilian by nature.

EDA is pleased that the "Air4All Frequency Group" consortium consists of 16 major companies plus seven subcontractors, coming from nine nations: France, Germany, Italy, Poland, Portugal, Spain, Sweden, Netherlands and United Kingdom. This outstanding range of expertise, which goes beyond the initial Air4All configuration, is an indication of a very strong voice coming from the European industry side as well.

The SIGAT prime contractors are:

- BAE Systems
- Dassault Aviation
- Diehl-BGT Defence
- EADS Defence & Security
- EADS Deutschland
- EADS CASA
- IABG
- Rheinmetall Defence Electronics
- Sagem Defence & Security
- Selex Communications
- Selex Sistemi Integrati
- SkySoft
- Thales Aerospace (leader of the consortium)
- Thales Alenia Space
- Thales Communications
- TNO

Increasing availability of helicopters

By Jon Mullin, Capability Director

At their bilateral Summit in March 2008 British Prime Minister Gordon Brown and French President Sarkozy underlined the need to improve the availability of helicopters for crisis management operations. The Summit Declaration has been an important impetus to speed up work on helicopters availability at the European Defence Agency.

Council of the European Union

It hardly needs explanation why this issue got the attention of the highest political levels in both France and the United Kingdom as well as in other European countries. In crisis management operations in the Middle East, Africa and elsewhere there has been a continued shortage of helicopters, limiting mobility in theatre in general and restricting options for operational deployments.

Military doctrine underlines the need for freedom of movement. Losing it offers the initiative to the opponent. As a consequence, it becomes harder to implement a campaign plan, reversals are more likely and the desired end state becomes more difficult to achieve. Challenging physical environments, with poor infrastructure, can further inhibit freedom of movement at the tactical level. Roads, if they exist, can be washed away by seasonal rains and snow can block mountain passes. Railways need investment and maintenance and are unlikely to cover all of the area of an operation. This all constrains the supply and patrol routes, and limits speed volume of traffic.

Additionally, adversaries add the risk of casualties on these routes, especially if they have access to Improvised Explosive Devices (IED). Mines and roadside bombs are an efficient and demoralising weapon in asymmetric warfare. They cause significant casualties and are unseen. The threat is unsettling for the deployed service personnel and can also have a campaign level effect. As casualties mount, options for manoeuvre may well be limited and this might ultimately impinge on campaign success. Therefore, there is a clear need to maintain freedom of manoeuvre no matter the prevailing environmental or threat conditions. Currently, the best method of ensuring that freedom of movement is by exploitation of the third dimension – the air. In most inventories, this translates to helicopter support. As stated before, recent operational lessons identify that there is a significant shortage of such support.

What can be done to improve helicopter availability? To answer the question, it is important to define what creates helicopter capability. This comes from a synergistic mix of two factors: the skill of the crew and the technology of the platform. As the operational threats change, so does the balance of technology over training. However, neither can be completely superseded by the other and, therefore, both must be maintained and developed to ensure that European Armed Forces retain the operational edge over any adversary. In some Member States helicopters and personnel are not sufficiently equipped or prepared for the task of flying in challenging operational environments. Consequently, although both helicopters and crews appear in sufficient quantities in inventories, they are not available for deployment.

EDA is helping to address this problem through its helicopter initiatives. In the short term there are several programmes running, but the overall aim is to improve helicopter capability through training of the crews, facilitating the sharing of training facilities and best practice between Member States, and, where neces-

sary, developing new training capability. This has been kick-started by establishing a website where Member States can request assistance in meeting their training requirements, or offer courses or facilities to help others achieve their goals.

Furthermore, the Agency has launched two studies. One study is focussed on preparing the Czech military for deployment. Its aim is to design a tactics course for the Mi-helicopter community that would enhance their capabilities before deployment. This is a short-term activity helping to address an urgent operational requirement. The training will be provided to Czech crews before they deploy in 2009.

In the medium term, EDA will take the information and lessons learned from the two studies and live exercises to develop a Helicopter Tactics Programme (HTP) that should prepare crews for the operational challenges of the future, thus increasing the number of crews ready to deploy. One possible development of this programme might be to create cooperative programmes between participating Member States who operate the same helicopters. This could also be widened outside the training sphere to include creating upgrade and/or support programmes to enhance deployability, looking at the pooling of in-theatre supply of spares and investigating the possibility of outsourcing helicopter support for deployment or training.

Finally, there is a long-term work strand in the Agency. This will revolve around new programmes and technologies with the development of the Future Transport Helicopter, for which France and Germany have taken the initiative. Bringing this bilateral project to EDA will provide an ideal opportunity to open up the project to wider participation, helping to increase standardisation and interoperability.

Helicopters will remain key to success in deployed operations. The Agency is fully committed to support the Member States in ensuring that their aircraft, systems, crews and logistic support remain relevant, capable and sustainable into the future.

The aim of the Helicopter Tactics Programme (HTP) is to satisfy pre-deployment training requirements by capturing lessons identified from ongoing operations and incorporating these into a holistic, EU-wide environmental and tactics training process thereby raising the overall level of competence of pMS helicopter crews and boosting the capability of the EU helicopter fleet to support crisis management operations.

NEW EDA Publications

European Military Airworthiness Forum endorsed by Defence Ministers

Jan Plevka, Armaments Directorate

Modern aircraft have evolved to one of the safest and most reliable means of transportation. This high level of safety has been reached through various means, which basically are regulated by very detailed Airworthiness Certification rules, processes and procedures. To maintain the high level of safety is crucial for aviation in Europe and elsewhere.


EADS

Military aircraft, including the Unmanned Aerial Systems (UAS), are widely used in a variety of contexts and surroundings all over the world. However, due to national sovereignty and the sensitivity of defence issues, the Airworthiness for military or state owned aircrafts has over the years not been part of the international harmonisation procedures but been kept a national concern. In Europe this is about to change.

Ensuring operation without significant hazards in a global context

The aviation authorities have to ensure that aircraft or other systems operate without significant hazards to air and ground crews, passengers (where relevant) or to the general public. For that purpose the aviation authorities issue relevant airworthiness certificates by which preconditions for flight safety are assured. It is illegal in most countries to fly an aircraft without first obtaining an airworthiness certificate from the responsible governmental authority.

As aviation operates globally, airworthiness regulations must be harmonised internationally. Since its establishment, the International Civil Aviation Organisation (ICAO) is putting a lot of effort to improve airworthiness, safety and transparency of civil aviation. Being a civilian organisation, military regulations are not included in its work.

The European Parliament, having recognised the need for common European rules on safety for civil aviation, has established with its regulation (EC) No 216/2008 (consolidated version) a European Aviation Safety Agency (EASA). Again, this Regulation shall not apply to military, customs, police, or similar services. EU Member States, however, shall ensure that such services have due regard to the objectives of the regulation, as far as practicable.

A cost- and time saving incentive

With more and more emerging common European aviation projects, i.e. the military transport aircraft A400M, the Helicopter NH90 and UAS, EDA and its participating Member States (pMS) have recognised that common airworthiness rules could significantly decrease the disproportionally high costs and foreseen delays of these projects.

Consequently, the Steering Board in National Armaments Directors formation has tasked EDA to identify and define harmonisation possibilities of military airworthiness requirements, processes and procedures across Europe. A proposal has been prepared by the Agency together with representatives from the pMS to establish a formal Military Airworthiness Authorities (MAWA) Forum, to primarily work on harmonising the national military airworthiness rules. The proposal was endorsed by the Defence Ministers at their last Steering Board meeting in 2008. Defence Ministers approved the creation of a formal European MAWA Forum as well as the proposed Airworthiness Roadmap for implementation.

Working closely with pMS, EDA will prepare a detailed coordinated work plan for MAWA while continuing to develop and strengthen the relationships with third party stakeholders such as non-governmental organisations and defence industry.

Strong support indicated from EU presidency

Important support has been indicated from the Czech EU Presidency. A workshop has been proposed to be organised in June 2009, with the purpose of defining priorities in military airworthiness.

EDA convinced that MAWA will deliver

The EDA strongly believes that MAWA will fulfil the expectations by making an effort to establish a coherent way of working and by prioritising activities as well as outlining the significant hazards, all of which will be beneficial for European aviation.

EDA is focusing on addressing the challenges to achieve UAV traffic insertion, encouraging more and intensified cooperation between industries and governments to create a viable aeronautical industrial base and also encouraging military aviation organisations to harmonize views and approaches.

Code of Conduct on Offsets into force in 2009

By Anna Maria Barcikowska, Industry and Market Directorate

What was thought impossible just some years ago recently turned into reality when EDA's pMS decided to adopt a Code of Conduct on Offsets. This landmark decision clearly reflects the collective wish of the EDA and the participating Member States (pMS) to inject new thinking in the way offsets are used in defence acquisition.

Offsets can deflect the focus of defence budgets by channelling ever more scarce money away from the increasing needs of the Armed Forces. Defence budgets as we all know are being squeezed more and more between rising operational costs and growing equipment costs. Moreover, offsets distort competition and therefore might not be conducive for the development of a truly European Defence Technological and Industrial Base (EDTIB). They are often inefficient, unnecessarily duplicative and in defence budget terms rarely deliver best value for money.

However, we have to recognize that offsets are a global phenomenon in the defence market that is far from being perfect and remains strongly influenced by broader political considerations. In addition, there are other factors that can distort the market which the Agency is addressing through its work strands. EDA´s approach is therefore a pragmatic one as it establishes a framework to evolve towards a more transparent use of offsets that help shape the EDTIB, whilst reducing reliance on them.

The Code of Conduct on Offsets was approved by the Agency´s Steering Board on 24 October 2008. It will take effect from 1 July 2009, applying to all compensation practices required as a condition of purchase or resulting from a purchase of defence goods or defence services. It is an integral part of the Regime on Defence Procurement, in which 26 European countries participate - all of EDA's participating Member States with exception of Romania. Norway joined the Regime in October 2008.

It is worth noting that the principles and guidelines of the Code on Offsets will apply equally to all bidders from subscribing Member States (sMS) and non-sMS including third countries – they will all be judged on the same criteria including the 100% ceiling.

First of all the Code will introduce much needed transparency on use of offsets, which up until now has often been lacking. From 1 July 2009 the sMS will inform each other of their national offset practices and policies.

Secondly, the Code will allow for using offsets to develop industrial capabilities consistent with the objectives of the EDTIB Strategy, namely an industrial base that is capability-driven, competent and competitive.

Last but not least, the Code seeks to ensure that offsets strike the right balance between developing the aspired EDTIB and the need to achieve the level playing field in the European Defence Equipment Market. Consequently, the sMS will neither request nor accept offsets exceeding the value of the procurement contract; this is a crucial enabler in the process to reduce reliance on offsets. Similarly the Code's provision for mutual abatements will help reduce reciprocal offset commitments/obligations.

Although application of the Code is voluntary, the commitment by the Member States to change the way in which business is managed is not diminished. Indeed, the decision to adopt the Code is a clear indication of Member States' preparedness to address the practice of offsets, something which till now has been taboo.

The Code of Conduct on Offsets not only paves the way for addressing this challenging subject but also heralds another fundamental change in how we manage the "business of defence" achieved by EDA, namely the introduction in 2006 of competition in the area of Article 296 procurement.

Furthermore, it reaffirms through concrete action the political determination to mitigate the adverse impact of offsets whilst working towards the creation of the market conditions and developing the European DTIB in which offsets will no longer be needed.

Looking forward over the coming years, it should not be unreasonable to think of a time when the global phenomenon of offsets is a thing of a past, providing that other market distorting practices can be dealt with successfully.

Key facts on the Code of Conduct on Offsets

- Applies to all compensation practices required as a condition of purchase or resulting from a purchase of defence goods or defence services including Government-to-Government sales
- Applies equally to all bidders from sMS and non-sMS as well as third countries.
- An integral part of the Regime on Defence Procurement
- Establishes a framework for more transparent use of offsets that help shape the EDTIB, whilst reducing reliance on them
- Offsets, both required and accepted, will not exceed the value of the procurement contract – "100% limit"
- Voluntary abatements

New EDA Industry and Market Director

Arturo Alfonso-Meiriño is the new EDA Industry and Market (I&M) Director, succeeding Ulf Hammarström, the Agency's first I&M Director. Having built up a career in very significant international defence cooperation programmes, Arturo was previously Assistant Director of the Industry and Market Directorate, since the very beginning of the Agency, in 2005.

Looking back

Ulf Hammarström, the Agency's first I&M Director, looking back these past years.

Your first big achievement was the Code of Conduct on Defence Procurement, approved in November 2005 by the Ministerial Steering Board. Three years later can you say it is working? What has changed since then?

UH: The Regime is working effectively; we are changing Europe outside of the Agency walls. The Regime has brought some 11 Bn Euros worth of defence contracting into the daylight which would traditionally have been procured "in the dark". Transparency and competition are increasing, fair competition seems to happen and the contract values under the Regime continue to increase from 2007 to 2008. But everything is obviously not perfect in the defence procurement area. We may for instance have overstated how much the article 296-exemption is actually used. A bigger share not being competed across Europe of the some 35 Bn Euros worth of procurements are probably not under traditional invocation of article 296, but by using the exceptions in the Public Procurement Directive, procuring through international organisations and so on.

But what we aimed to address - the area covered by the invocation of article 296 which is still substantial - there we are for sure having effect.

What are your ideas on further steps for opening up the European Defence Equipment Market?

UH: The next steps for the development of the European Defence Equipment Market lie in qualifying the competition, meaning that even if we have the same competition rules, not all companies come to the competition on equal grounds, there is not a "level playing field". Some "athletes are doped" and we will need to agree what is acceptable or not – to make progress on public aids and ownership issues in short. Secondly, in opening up supply chains we have not come far enough, neither in integrating and making use in particular of competent and competitive suppliers which exist in the so called EU12 (those 12 countries which joined the EU since 2004).

The European Defence Technological and Industrial Base strategy of May 2007 is very ambitious. How can it be realised and in what timeframe?

UH: A Strategy is rarely finalised. The world continuously changes and this will have an impact on the Strategy to remain relevant. We have gotten the basic parameters right explaining what Governments need to do for a sustainable and globally competitive industry. Governments need to be clear on what the future capability needs are, and which the key technological and industrial capabilities they wish to sustain or develop, so that industry can direct efforts in the right direction. But to take one of the parameters - to identify which are the key industrial capabilities - this is not done once and for ever. These will of course evolve over time with changes in the military capability requirements, with advances in technology, etc. In the end, when acquiring new capabilities from industry, European Governments should cooperate and compete (indeed also globally while ensuring key European capabilities), cooperate to make best use of money when developing new capabilities and compete when right to keep industry in good shape and avoid monopolies where we can.

EDA's big contribution therefore is on the industrial policy level which doesn't grow out of each individual project, but is an input to them. EDA has shown it can do a lot together with the participating Member States and on this level there is no-one else who can or will do it.

What is your most positive experience in the last four years of EDA and what is the most disappointing one?

UH: The most positive experience was being part of developing the team which forms EDA. In the I&M Directorate alone we come from 13 different nations, but we together form a coherent, strong, output-related team nonetheless. We work still in an open and supportive spirit. To quote one of my favourites, Tina Turner; "You're simply the best!". The most disappointing experience? Can't remember – best forgotten.

What is your advice for your successor as EDA's Director Industry & Market?

UH: He doesn't need any advice from me. He was the second recruitment after me to the Directorate and he's been a great colleague, being part of everything we've done and achieved every day for the past four years. But if you would force me to say something I would just recall another quote, the President Obama's sentence which we paraphrase and use in the Directorate as a kind of motto: "And where we are met with cynicism and doubt and fear and those who tell us that we can't, we will respond with that timeless creed that sums up the spirit (...) in three simple words – yes we can!"

EDA's 2009 Conference: Helicopters- Key to Mobility

helicopters '09
key to mobility

Every year the European Defence Agency organises a Conference, which focuses on an important theme for the EDA's activities in that year. The 2009 EDA Conference will be held on 10 March, in Brussels, and will be dedicated to "Helicopters – Key to Mobility".

Increasing the availability of helicopters has been identified as one of the priority actions for the European Defence Agency. The 2009 Annual Conference is organised to enhance the support for EDA's work on helicopters, to generate new and concrete activities and indicate possible solutions.

The Conference will highlight key contextual issues surrounding the need for helicopters and outline the challenges that need to be collectively overcome, in the short, medium and longer-term. Potential solutions, including collaborative opportunities to enhance helicopter availability, will be proposed and industrial contributions to meet the challenges will be presented.

The Conference will be opened by three keynote speakers, followed by two panels. The first panel, "Setting the scene", will focus on describing reality and lessons learned from recent military as well as civilian crisis management and disaster relief operations. The second panel, "Potential Solutions", will provide Industry the opportunity to offer their view on providing potential solutions which can be used in EDA's ongoing work on helicopters in the short, medium and longer-term.

Keynote speakers:

Javier Solana

High Representative for the Common Foreign and Security Policy, Secretary-General of the Council of the European Union and Head of the EDA

General Henri Bentégeat

Chairman of the EU Military Committee

Allan Cook

President of the AeroSpace & Defence Industries Association of Europe (ASD)

EDA Defence Data: reaching maturity

Dick Zandee and Paul Horrocks,
Planning and Policy Unit

Since 2006 EDA is collecting data on European defence expenditure. Annually, the participating Member States provide the data on the basis of agreed definitions. The Agency assembles all the facts and analyses how defence budgets are spent across Europe. This activity is carried out in support of EDA's different work strands, in particular on capability development, Research & Technology and armaments co-operation.

In the early days some of the delivered data were considered to be less reliable. This applied in particular to new categories, for which pMS had never before collected data such as R&T (rather for the wider Research & Development category). But by now the exercise has reached maturity and the defence data for the two most recent years are considered to be firm and accurate.

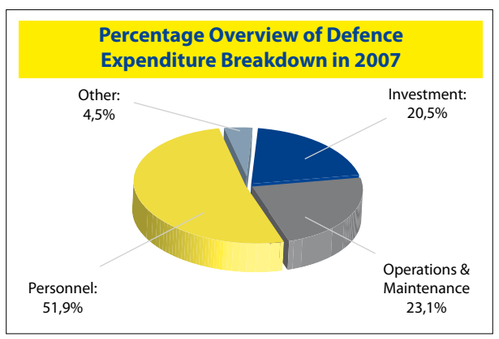
Every year in November the Agency reports the results to the Ministerial Steering Board, drawing attention to the changes in the major categories: personnel, equipment procurement + R&D/R&T and operations & maintenance. Data comparison 2007-2006 shows a decrease of the high European personnel costs, while investment has increased (see pie chart). However, one should be careful to draw far-reaching conclusions. More firm trend analysis will only be possible after several years of data-gatherings.

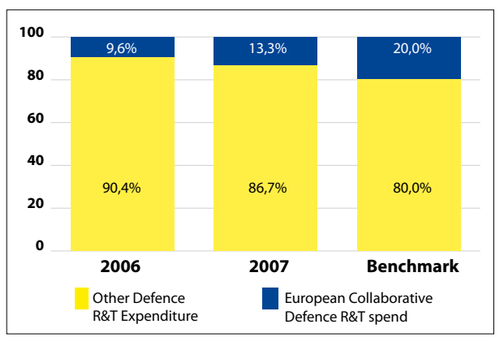
In November 2008 EDA, for the first time, could measure performance of the collective benchmarks for R&T and equipment procurement, agreed by the Ministers the year before. The results show a mixed bag of progress: for example collaborative spending on Defence R&T has increased considerably in one year from 9.6% to 13.6% (benchmark: 20%, see graph below), while the overall amount of money spent on R&T declined slightly. Again, multi-annual comparisons will reveal more solid trends.

The Agency aims at maximum transparency on the data. The EDA website contains several sets of data: European collective figures, national breakdowns and a comparison Europe-US. Recently a new IT-tool has been installed for the national data, showing these now both in a list and in graphics.

In the coming years the defence data exercise will be repeated annually. Over time its value will increase by helping to measure if the European Defence Ministers' intent to spend better and spending more together for the capabilities needed for ESDP is to come to fruition.

EDA has produced a new application which provides increased transparency on defence spending in its participating Member States, highlighting in particular defence expenditure trends. The new application can be accessed through EDA's website: **http://www.eda.europa.eu/defencefacts.**





EDA CBRN Exercise "Firm foundation 2008"

Improvised Explosive Devices (IED) that contain Chemical, Biological, Radiological or Nuclear (CBRN) agents are a growing threat to Europe's armies and to European Security and Defence Policy missions.

National CBRN experts and those dealing with Explosive Ordnance Disposal (EOD) recently participated in "Firm Foundation 2008," a three-day table top exercise led by the European Defence Agency to identify common operational guidelines for confronting these deadly weapons.

The 11-13 November event assembled 80 military and civilian CBRN/EOD experts from 20 nations at the Belgian Army's CBRN joint training centre in Jambes, Belgium and was the result of two years of planning by the Agency and its project team of national EOD/CBRN leaders.

"Firm Foundation" entailed a trio of increasingly complex IED scenarios in a fictional failed State. It split participants into three teams who had to develop for each scenario a coherent set of CBRN/EOD procedures to guide a joint operational centre and its incident command who would have to deal with the threat.

Dealing with CBRN/EOD threats requires a wide range of enablers: detection, identification, monitoring and reporting capabilities; individual and collective protective gear; decontamination, disposal, remediation and forensic procedures, and medical countermeasures to treat and evacuate casualties. Together, these demand the right kind of Command, Control and Communications (C3) structure.

"We need to put incident command on a multi-nation basis by getting the Member States' different CBRN and EOD communities talking to each other," Frank Kaemper, EDA Capabilities Project Officer - Protect, told the experts in Jambes. "This would enable them to quickly form a multi-nation joint operational centre for dealing with these threats."

That is easier said than done, however. Not all EU Member States have the full range of these capabilities, while some national armies split their EOD and CBRN tasks between separate teams of specialists who do not always closely coordinate with each other.

Indeed, as the first day of exercise demonstrated, the teams struggled to separate tactical from operational analysis, identify C3 priorities and other tasks. As a result there was divergence between their Concepts of Operations (ConOps).

"If we can identify any common theme, it's the requirement to have a very clear C3 structure. The overall idea should be to establish centralised planning and cooperation that allows decentralised execution and control, so that the local commander can use what he has at his disposal," said Jim Blackburn, EDA Assistant Capabilities Manager. "If the Member States can incorporate these into their national doctrines, then it should lead to interoperability of approach between them."

Fortunately by the end of the exercise, however, a shared operational vision emerged among the teams, which suggests that a common ConOps for a multi-nation joint operational centre is achievable. This provides the basis for the Agency to carry forward its work.

One follow-up action planned by the EDA, for example, is to propose internet-based CBRN/EOD training courses to national armies. The Agency will create a web portal where its 26 participating Member States can exchange information on multinational training opportunities and send their personnel for training. A prototype version has been completed, with the first one-day user training session scheduled for 26 February 2009.

"We've done this exercise at an unclassified level, but we all realise what the implications are if we get it wrong in the long run," "This has strategic effects and we can't afford to make mistakes."

Jon Mullin, EDA's Capabilities Director

Workshop on Critical Space Technologies for European Strategic Non-dependence

A workshop on Critical Space Technologies took place in Brussels on 9 September 2008 bringing together more than 100 stakeholders, representing the European Commission (EC), the European Space Agency (ESA), and the European Defence Agency (EDA), their respective Member States, national agencies and European space industry.

While Europe wants to continue her cooperation with other important space actors in the world, the development of space technologies is of strategic importance for Europe and for her role as a major space power and credible international partner.

Therefore concrete steps towards European non-dependence will be taken by the 3 organisations, together with Member States and European industry raising awareness, initiating work toward a common methodology and implementing concrete actions. As a follow-up to the Workshop, a EC-ESA-EDA task force has been formed, involving European industry and R&T actors. It will develop a list of critical space technologies for a coherent Europe-wide approach.

It will do so based on an agreed methodology, building on existing and recognised processes and leading to clear instruments for implementation, to ensure the availability of critical space technologies and products for European space programmes.

The fact that EDA is part of such a joint effort will avoid duplication and create synergies between efforts to develop civil and defence-related space technologies.

Moreover, the joint effort will foster the competitiveness of the European space industry on the world market.

Additional information from the workshop: www.eda.europa.eu

R&T Projects in Space

- Milsatcom EDA funded
- Emerging Satellite Technologies System Trend and Space Utilisation Type B project
- Other projects: 4 more ongoing and 6 planned

EDA's interest in Space

- MUSIS
- Milsatcom
- Space Situational Awareness
- Data Relay System

"EDA's intentions are clear: we will seek to work closely with the civilian-users driven side and with industry to end fragmentation, to ensure best value for the scarce money available and to contribute to civil-military interoperability."

Dick Zandee,
Head of Planning
and Policy Unit, EDA

ESA Director-General J.J. Dordain, EDA R&T Director C. Bréant, European Commission DG-ENTR Director Aerospace, GMES, Security and Defence P. Weissenberg and Eurospace President Mr E. Dudok.

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