EDA Bulletin

Bridging efforts

2010
BRIDGING EFFORTS

Connecting Civilian Security and Military Capability Development

Keynote Speakers:

Ms. Catherine Ashton,
Head of the European Defence Agency
High Representative of the Union for
Foreign Affairs and Security Policy and
Vice President of the Commission

General Håkan Syrén,
Chairman of the
European Union Military Committee

Mr. Pier Francesco Guarguaglini,
President and Chairman of the Council of
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Bridging Efforts

On 17 November 2009 the Council underlined the importance of the EU's comprehensive approach to crisis management and the need to identify possible synergies between civilian and military capability development. The Council acknowledged the possible economic benefits of finding civil-military synergies in capability development, and the added value of dual use capabilities.

Against this background EDA's 2010 Annual Conference focused on 'Bridging Efforts: Connecting Civilian Security and Military Capability Development'.

The objectives of the Conference were:

- to take stock of lessons learned and experiences with overlapping capability needs in civilian and military missions and operations;

- to investigate opportunities for the effective coordination of capability requirements definition processes for civilian and military operational scenarios;

- to identify related dual-use capabilities and explore their development, including through research and technology joint efforts and coordinated investments.

The Conference enriched the debate on civil-military synergies at European level and contributed to exploring possible 'ways ahead' for EDA to act as a facilitator and to maximise complementarity and synergy between relevant actors, for

- the coordination of civil-military capabilities requirements definition processes; and

- the coordination of complementary investment to deliver those capabilities.

The Conference gathered relevant stakeholders, ranging from Member States' representatives in the security and defence sector to European institutional actors and industry.

Based on the key-note speeches, introducing higher-level policies and concepts, lessons identified and future scope for maximising civil-military synergies, more focussed discussions took place in two dedicated panels.

Opening addresses

Alexander Weis, EDA Chief Executive

It is my pleasure to welcome all of you today to EDA's Annual Conference 2010 entitled "Bridging efforts – Connecting Civilian Security and Military Capability Development". I have to start with an announcement: unfortunately, the High Representative and Vice-President of the European Commission but also new Head of the Agency, Mrs Ashton, cannot be with us today.

She has to be in Strasbourg where the European Parliament is going to vote today on the new College of Commissioners. I spoke with her on Thursday last week and she asked me to deliver her keynote speech on her behalf. She apologises for not being able to be with us today but I think we all can understand.

I would like to express my gratitude to the two other keynote speakers, General Håkan Syrén, Chairman of the EU Military Committee and Pier Francesco Guarguaglini, President of the AeroSpace and Defence Industries Association of Europe. My thanks also go to all Panellists and Panel chairs for joining us today.

This is already the fifth EDA Annual Conference. Many of you witnessed at our conference last year on helicopters - for the first time ever - an active participation of a US Pentagon official. Last year's conference has – amongst others – laid the cornerstone for the meanwhile agreed annual EDA-US dialogue. It also initiated a new EDA work strand on Pooling and Sharing of Helicopters and has promoted the establishment of the Helicopter Training Programme.

Two years ago we discussed the potential of Third Party Logistic Support (TPLS) for crisis management operations. A striking and concrete result of this conference was the establishment of EDA's Third Party Logistics Support Platform.

Our first experience has proven that the TPLS platform is not only a key instrument for saving Member States' money by facilitating best value contracts. But it also showed to be of use for civilian crisis management, be it in the case of the EULEX mission in Kosovo or most recently in the case of the Haiti disaster.

The topic of this year's conference could not be more timely and relevant. When the Lisbon Treaty entered into force on 1 December last year, the former pillar structure disappeared. Catherine Ashton is now the High Representative responsible for foreign affairs and defence and holds the Vice-Presidency of the Commission at the same time. This new legal and political setting provides us with a huge opportunity for discussing how to coordinate better the civilian and military dimension of the European Union.

Therefore, this year's Annual Conference is a specific event where EDA invites all Member States to think out of the box by seeking synergies between civil and military efforts and to support EDA's work in this regard.

It is also the event where EDA reaches out its hand to our Commission colleagues, colleagues of the European Space Agency and other civilian security actors to move from case-by-case coordination efforts to a more systematic approach. But it is also an event where we should focus on pragmatic approaches and output instead of procedures.

I do not want to pre-empt the lively debate which is going to take place today. But what are the areas we want to look at?

First, we need to coordinate the demand side, certainly regarding the operational user requirements from both the civilian and military operators. Here we might focus on the following capability areas: protection, mobility, communications, information and logistics.

Secondly, we have to seek synergies in the area of Research and Development where very often the involved technologies can be of dual-use. Ministers of Defence have spotted the potential behind such an approach, mandating EDA in November to further develop a "European Framework Cooperation" for synergies regarding civilian security, space and defence research. It is our duty to respond to this mandate by identifying suitable demonstration projects, closely linked to already identified capability needs. We have started to address the areas of CBRN and UAS related technologies, but we will also look into NEC, Intelligence, Surveillance and Information Management. Everyone who limits the scope of investigation limits the scope of savings.

Thirdly, we have to look at how to improve our capabilities in the sense of information-sharing between civilian and military communities. Maritime Surveillance is one of the topics to be addressed. But why not also address the area of Counter-IED?

It is true: we do not start from scratch. Under the guidance of our Member States, EDA has already fostered on an ad hoc basis the coordination with civilian stakeholders on concrete projects with a strong civil-military dimension. One of the examples is the

area of Unmanned Aerial Systems: later today two contracts, which have been fully coordinated between EDA and ESA, will be signed with industry in the area of UAS Air Traffic Insertion and the support space services can provide in this context. I would like to thank, again, ESA colleagues for the outstanding spirit of cooperation.

Ladies and Gentlemen, "Bridging efforts" does not mean merging the two sides or blurring the lines of responsibilities. The different actors will have each a dedicated role to play, although they need to make sure that they are complementary and mutually reinforcing. Money and competencies will stay within the institutional borders.

However, it is good that we are having an increased dialogue among the two sides of the river but we need to do more. A bridge allows for better communication rather than just by talking over the water; a bridge allows for going over and meeting the other side and understanding to what extent each other's capability needs and proposed solutions are of relevance.

But let's start now with the main speakers, and get into the heart of the debate.

I believe there are sufficient issues to be tackled for more than one day. I am therefore also grateful that discussion will be continued tomorrow during the Seminar organised by the Spanish Presidency with whom we closely coordinated.

Three keynote speakers

Panel 1

Brice Lautard and Bartolomé Bauza, EU NAUFOR - ATLANTA

Yves de Kermabon EULEX KOSOVO

Yves de Kermabon and the keynote speakers

Panel 1

Keynote Speeches

Ms. Catherine Ashton, High Representative for Foreign Affairs and Security Policy, Vice-President of the Commission and Head of the European Defence Agency

Ladies and gentlemen,

It is a great pleasure to address the audience of this year's EDA Annual Conference as a keynote speaker and as the newly appointed Head of the Agency - a task which I am honoured to take on in addition to my responsibilities as High Representative.

Unfortunately I cannot be with you personally due to other important commitments, but I would like to address you in order to provide you with some of my thoughts on the topic of civil-military capability development.

Allow me to start with a reference to the EU Security Strategy. The Strategy acknowledges the need for a wide approach to security, calling upon an EU that is more capable, more coherent and more active. And to reach these aims the Strategy demands better coordination, transparency and flexibility across different agencies, at national and European level.

In crisis management, the EU's strength lies with its ability to combine military and civilian means in support of our missions. This important capability needs to be turned into a more effective EU comprehensive approach.

To date, the EU has conducted twenty-one CSDP missions; six of them military operations, fifteen others are considered civilian missions. Currently, we are running ten civilian missions with more than 2600 women and men deployed and in parallel two military operations, altogether deploying more than 3200 military, from the fight against piracy to Afghanistan, Balkans, and Africa. In Bosnia, our military forces are operating side by side with our civilian personnel. And in Afghanistan and Kosovo our missions operate in the same area as a NATO force.

This shows a trend. More and more, our military and civilian personnel will be operating side by side. Our civilians are equally exposed to road-side bombs and other threats. They also need transport helicopters in countries where road transport is too difficult or too dangerous.

Civilian operators need efficient logistics support and capacities for medical evacuation. They have to communicate, both with their civilian mission structures but also with other actors, including the military. They are dependent for part of their work on timely and reliable information and intelligence.

There are solutions to all of these challenges. Many of these solutions are technological, but often they are also cultural, requiring a new way of approaching our common challenges. By combining our forces in the most effective way we can reach a new level of synergy between civilian and military capability development.

I would like to refer in particular to the five overlapping areas of capability: protection, mobility, communications, information and logistics. In all these capability areas, we must go beyond case-by-case solutions.

Another important argument for seeking civil-military synergies in capability development is the dual-use character of technologies involved.

The Commission is investing € 200 million per year in research and technological development for 'security' – under the European Security Research Programme – and the same amount for 'space'. In addition, the European Space Agency (ESA) allocates up to € 300 million per year to space-related technology research within an overall budget of € 3bn yearly.

The EDA participating Member States invest a total amount of approximately € 120 million per year in collaborative defence related research.

These investments have one thing in common: this money is European taxpayers' money. And the European taxpayer expects that we make best use of it and avoid duplication of efforts or double spending.

Solutions for more effective capabilities are within reach. For example, Unmanned Aerial Vehicles can monitor movement on the ground in deployed military operations or civilian missions abroad. The same UAVs, equipped with the same sensors, can be used to spot illegal immigrants at Europe's external borders.

Maritime safety and security is another very promising area. Civil maritime authorities need reconnaissance, monitoring and detection capabilities comparable to those in the military inventories. But shore-based assets are limited in their coverage and the further away from coastal waters we go, the more crucial military assets are in order to provide maritime surveillance coverage. Therefore, civil and military capabilities will have to be linked to establish an overall effective maritime surveillance network. EDA activities related to Maritime Surveillance for CSDP need to be linked with the Commission's activities on Maritime Safety and Security. The EDA "Wise Pens" team, which is producing a "think-piece" on Maritime Surveillance, will provide a strong basis document for the Agency's input into this coordinated effort. I am very much looking forward to concrete proposals submitted by these institutions to combine and join the respective efforts in order to initiate the creation of a network allowing the sharing of available information on the Recognised Maritime Picture amongst civil and military maritime authorities.

There are already some early success stories from the past where coordination and synchronisation took place. But we need more of this and we have to look at the whole range of dual use technologies. The first areas will be technologies for Unmanned Aerial Vehicles and for protection against chemical, biological, radiological and nuclear threats. But also the areas of Information Management, Intelligence, Surveillance and Reconnaissance will be further investigated.

The Lisbon Treaty has created my new double-hatted function and I will work on bridging the efforts between the Commission and the Council. And as the Head of the European Defence Agency I will ensure that the EDA, a key facilitator and coordinator of efforts in the area of defence capability development, will continue to play a key role in strengthening our capabilities.

Of course we will have to establish the proper processes in order to make the comprehensive approach not only fully effective but also a systematic and natural element of the EU's external action. Some of the procedures and tools already exist, like the Crisis Management and Planning Directorate, which now combines the strategic planning of civil missions and military operations. Other tools still need to be established.

But let me emphasise that we cannot wait until all these processes and tools have been fully established. We have to start in a very pragmatic way to coordinate our day-to-day activities at EU-level. We need to be driven by a strong commitment to provide effective solutions. The Lisbon Treaty provides us with a sound legal and political basis to do so. I consider it as a part of my mandate to deliver a new and improved capability for EU's coherent external action.

I firmly believe that we need to focus on concrete topics and aim for concrete results from the outset. This conference is a good opportunity to identify some topics to start with a better coordinated work in order to achieve tangible results. And I appreciate the very pragmatic way in which EDA is addressing this important subject.

Visit of Catherine Asthon to EUFOR ALTHEA, February 2010

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Allow me to summarise with the following three key messages:

First, we are at a crossroads.

- With the Lisbon Treaty we have a sound legal and political basis. It allows a more efficient and effective action at EU-level and we have to consider it as a mandate given to the EU institutions but also to the EU Member States with the clear objective to improve their interaction and action.

- Over the last 10 years we have gained experience from 21 civil missions and military operations. We know what capabilities are needed for both the civilian and the military operators in the field. Here the European Defence Agency is to continue to play a pivotal role.

- We have a certain number of civil military capability development tools in place, including tools for the planning and the conduct of operations and missions. I would specifically refer to the newly created Crisis Management and Planning Directorate. It will play a key role in the future needed as far as the capabilities are concerned, but also as far as the planning and coordination is concerned.

- We are operating in difficult economic circumstances. The economic crisis and shrinking budgets – not only defence budgets - represent another challenge to Member States and the EU as such.

Secondly, we have no other choice than to cooperate.

- We have to increase the visibility of incentives for cooperation amongst EU Member States for the whole range of civil and military capability development in order to make European cooperation more attractive.

- We have to make real bridging efforts in particular at the EU level but also at national level, fully exploring the potential in research for dual-use technologies, because security is indivisible.

- We have to think and to behave differently from the past, we need to be innovative and think as one entity as the institutional pillars are now gone.

Thirdly, let's focus us on results and not on procedures.

- With the Lisbon Treaty and a number of Council Conclusions and agreements emphasising the need for combined civil and military efforts, we can now leave the theoretical debate behind us. We need to deliver results and we need to deliver them as soon as possible.

I have the ambition to make the EU's external action more efficient in crisis management by fostering the synergies between civil and military capability development. I believe that this task is of utmost importance, in particular because it can directly contribute to safer conditions and better, more interoperable equipment for our personnel in CSDP operations.

Keynote Speeches

General Håkan Syrén, Chairman of the European Union Military Committee

Ladies and Gentlemen,

It is an honour and a great pleasure for me to contribute to the yearly EDA Conference.

The topic for today's conference is timely and indeed fits well into the current discussion on how to further develop and implement a comprehensive approach within the framework of the Common Security and Defence Policy of the European Union.

We need this discussion because the challenges that we are facing - as part of the global community - demand comprehensive response. Security measures, military as well as civilian, are inextricably linked to strengthening governance structures and economic development.

We need it also as a way of economising with scarce resources. The economic crisis has served to further enhance this dimension. Within the EU we have to develop a much closer cooperation among the Member States. It applies equally to the military and the civilian dimensions and it also applies to our common efforts.

We simply have to look at efficiency and apply an effect based approach.

My starting point today will be the military capability development process as it has evolved as a part of ESDP.

It is a comprehensive and iterative process to which all parties have to contribute their essential parts. We have to work together, we have to keep a clear sight of the common goal: successful operations, supported by cost effective capabilities that can support the tasks to which the European Union is committing itself.

Our problem is not an abundance of expertise and resources but the absolute opposite. The EU Military Staff, the European Defence Agency, the EU Military Committee and particularly the Member States and industries all have important roles and responsibilities.

How successful have we been?

I think that we have been fairly successful in identifying the requirements, needs and shortfalls. We have established robust methods, which provide credible conclusions. Of course many conclusions were already well recognised.

The fact that almost all the Member States are deeply involved in similar processes in NATO from the start has been an important aspect when developing the EU Capability Process. Naturally more can be done to improve the overall efficiency. The EU-NATO Capability Group, for example, has a great potential that has not yet been fully used.

The real test of the efficiency of the EU process of course is not the quantity and the quality of the documents produced, but the resulting net capability enhancement. Results have to be assessed both in terms of immediate and long term effects.

Obviously we are working towards both goals.

In the short term we have some clear results. We have the Helicopter Availability Initiative that was well covered during this conference last year. We have different actions taken to increase the European Air Transport Capabilities. We can also see that different national plans and priorities have been influenced by the priorities and assessments in the Capability Development Plan (CDP).

However, I would also like to underline that we should not limit our assessment only to the CDP. The EU Battle Groups fall outside of the CDP and has evolved from theory to practice in a remarkably short time. I know from my own experience as Swedish Chief of Defence, that the Battle Group Concept has played an essential role as catalyst for transformation of the armed forces in several Member States.

What are the problems and the difficulties?

Capability development almost by definition is a long term process. Capabilities are built step by step over long periods and are planned to be used during decades. The process from the conception to the fielding of new advanced systems often spans decade-long periods.

Most important, the decisions in the end are almost entirely national. It is the sum of the political will of the Member States, which is reflected in the capability development!! And it is also the political will of the Member States that in the end is reflected in the actual force generation.

However, that said, the inertia of the process is still much too great and the established structures are still too much reflecting yesterday's requirements. Today we are all engaged in challenging operations, where new capability requirements and needs are immediate and urgent. The time it takes to change course remains too long. We have to be responsive to the critical needs of our operational commanders.

The CDP has responded to some of these new requirements. For example one of the 12 action areas as I already mentioned is directed to countering Improvised Explosive Devices (IEDs), which is today one of the most pressing capability needs in our international operations. Another example is Third Party Logistic Support Actions which facilitate for all the Member States to gain better cost-efficiency in the logistic support to the operations and missions.

So we are improving, but more is needed. We have to simplify procedures. We have to develop "fast tracks" for rapidly integrating lessons identified in the field into our capability development processes. The lessons learned should be "the oxygen" in our capability development!

We have accumulated a lot of common experience and insights during the last years. All in all we have a methodology that works. Now we must focus on the problems that we are ready to try to solve and we must avoid process and trivia.

Funding and resources

The most important factor influencing real capability development in the next years is the economic realities and constraints facing us. The present deep economic crisis is severely constraining public spending and defence budgets in most European States. I do not expect any substantial changes in this trend. Average defence expenditure among the EU Member States is now about 1,6 percent of GDP and the percentage is decreasing. We are facing a very different situation.

Equipment that we earlier expected to last for decades in storage today are intensely used in demanding operations. As a result the operational life time is sharply reduced.

The budgetary pressure is hard felt already today and budgets are generally not allowing for long-term renewal programs that match perceived future needs. Low levels of R&D and low renewal rates implies that we are mortgaging the future in ways that raise fundamental questions of leadership responsibilities.

The implications are great and demanding. We have to be smarter both in our national and in our common efforts and instead convert this adverse pressure into a positive opportunity. We cannot complain all the time!

Pooling of resources, national specialisation and harmonisation of capabilities to achieve affordable economies of scale will be important elements. A lot of this of course are hot political issues involving perspectives on national sovereignty as well as on how to establish closer connections between the use of military and civilian capabilities. It unavoidably involves balancing different contradictory national priorities.

EU can be a catalyst for change by formulating common guidelines and help formulating viable alternatives to a continuing marginalisation of the capabilities of individual MS.

Which are the new challenges?

Of course we have to adapt to a changing environment and to changing requirements. There are a number of new urgent tasks that have emerged since the European Security Strategy

(ESS) was originally formulated in 2003 and thus since we formulated the current Headline Goal 2010. Most were introduced by the report on the implementation of the ESS in 2008.

- We have the expanding dimensions of terrorism, which raise new security concerns on a global scale. Combined with the risks of proliferation of Weapons of Mass Destruction, international terrorism is emerging as the most serious security threat to Europe as well as to large parts of the world.

- We have the rapidly growing cyber threats, which today impacts on everyday-security in all societies.

- We have the emerging international piracy threats, a new form of transnational crime, that threatens the trade flows on which the global economy is dependant.

- We have the rising concerns linked to energy security with asymmetric dependencies and vulnerabilities.

- We have growing security concerns related to global climate change. They are immediate as well as long term.

We are talking about these emerging threats, but I can not yet find them in our organised CDP process. Are we dealing with the real contemporary threats?

The international community also has a growing bank of experience from recent complex multifunctional peace-building operations in Afghanistan, Iraq and in various parts of Africa. Our lessons learned now are carrying a unified message: peace, security and development can only be achieved by a comprehensive approach building on a concerted use of military and civilian capabilities and tools.

All those new factors are reflected in the general political guidance by the European Council but they have not yet been transformed into concrete capability requirements.

A common denominator of all the examples I have just given, is that the new security threats have to be met by comprehensive efforts by the whole of our societies, efforts that to some extent will have to build on civilian capabilities and activities. This is bridging efforts!

We also have fresh memories of a number of large scale disasters in different parts of the world, the tsunami in South East Asia, the flood in New Orleans, the earthquake in Pakistan and in the recent weeks the devastating earthquake that hit Haiti. They have all contributed to a new awareness of inherent vulnerabilities and of a growing need for rapid response capabilities.

They have also brought the attention to an inherent difference between civilian and military resources. While civilian security resources are constantly in use, military resources to a large extent are still primarily designed to be held in preparedness rather than to be permanently used in their ultimate tasks. They are trained and equipped to be able to act swiftly and to be able to deploy in new environments.

The Haiti situation is an extreme case. The destruction has hit also the core of national capabilities that would normally coordi-

nate the disaster relief efforts. The immediate needs were only to a small extent military, but only military resources had the inherent capabilities needed to respond with short notice to the tremendous challenges raised in Haiti. Unless we develop new ways of organising civilian rapid response capabilities, the conflict with everyday use and cost efficiency will remain a serious constraint.

Conclusions

Our further capability work has to be based on realistic assumptions. There is no room for wishful thinking. The budget constraints are and will be extremely tight. I repeat myself: we have to translate pressure into opportunity!

We have to prioritise and we have to find smarter, more cost efficient ways, of developing and sustaining capabilities. At the same time we must not loose sight of the long term responsibilities.

We have to cooperate closely. This has long been an established truth on the industrial level, but the same perspective should be applied on our armed forces.

Individual armed forces find it increasingly impossible to maintain the full range of capabilities. We have to do more together. By pooling we can get a broader base and we can share scarce capabilities. This is a model that is now being developed among the Nordic countries and that I think could be more generally applied. We have a successful example in SAC, the Strategic Airlift Cooperation, where twelve nations are currently sharing a pool of three C-17 aircraft. And the EDA European Air Transport Fleet initiative is providing an even wider set of pooling and sharing opportunities.

National specialisation is another approach. Although a lot can be achieved without undermining the sovereignty of the individual states, it is equally clear that the long term development points towards closer multinational integration and greater mutual dependencies.

This broad background about the challenges facing military capability development provides a relevant starting point for discussing connections between civilian security and military capability development. This is bridging efforts!

Let me conclude with a few observations

- **First:** There is now a general agreement that we need a comprehensive civilian-military approach to meet most of the security threats that we see today and tomorrow. It is evident that this provides a strong incentive to look for synergies in the development of capabilities. The Lisbon Treaty has offered us new opportunities, which we now have to use.

  - We have to ensure that we have the equipment, methods and training that facilitate efficient coordination and cooperation in operations and missions. Interoperability has been a key priority in the development of military capabilities for multinational operations in the last decades.

  - We should now expand the concept of interoperability to include also efficient civilian - military and inter civil-

ian cooperation. Building on our military experience there should be a broad scope for connecting civilian and military capability development.

- Some of the areas where it is natural to search for common approaches have already been mentioned. The list could be made long: maritime surveillance, intelligence, situation awareness, communications and information systems, cyber-security, maintenance, education and training & exercise, just to mention some of the most important..

- **Second:** Many of the systems that have been designed for the armed forces are equally useful in civilian missions. There are also a number of areas where we could draw on the same resources. That is where resources could be pooled. Where appropriate, we should enhance cost efficiency through closer civil and military cooperation. Medical facilities, logistic support including air transport capabilities and communications networks are all areas where only marginal adjustments would be necessary. Good examples were provided a few weeks ago when military airlift capabilities where used for bringing rapid disaster relief to Haiti.

- **Third:** Cooperation is a two-way street. Just as we search for synergies by adapting military capabilities to civilian requirements, we should of course constantly look at the opportunities to use civilian resources and capabilities for military tasks. That is something we have always done, but nevertheless I am convinced that the need to search for cost efficiency by building on civilian capabilities has never been greater.

So the question is: should we then aim at a comprehensive civil-military Capability Development Process built on common Headline Goals and common illustrative scenarios?

My answer is that we should strive for careful pragmatism. I think it is important to keep our processes as simple as possible. We must be realistic. It is easy to dream of new wide-ranging capability goals to meet all sorts of broad common tasks, but in the end the tight budgetary constraints will have to be met.

We have to coordinate civilian and military efforts wherever we see clear opportunities.

Transparency and openness to new ways of cooperation is key, fundamental to success. Together we have to learn the lessons from ongoing operations and missions. It is the common results that count.

Finally: this is not a conference on leadership, but I know from quite a long experience about the culture gaps and hidden barriers to efficient military-civilian cooperation. A change of mindset in those deep trenches is imperative as we go forward with the comprehensive approach. It is one of the most demanding challenges for leadership on all levels.

It starts here!

Keynote Speeches

Mr. Pier Francesco Guarguaglini, President and Chairman, AeroSpace and Defence Industries Association of Europe (ASD)

Lady Ashton, General Syrén, Dear Mr. Weis, Excellencies, Ladies & Gentlemen

I, and with me the whole ASD community, feel very honoured to have received the invitation for a keynote speech at today's event.

As the President of the Aerospace & Defence Industries Association of Europe, I represent a vital part of Europe's high technology industry, with more than six hundred thousand employees, thousands of companies, many of them Small and Medium sized and a global turnover of roughly one hundred thirty five billion euro.

You have chosen a very challenging subject for today's conference, a subject that first and foremost is of concern to politicians and our military and civilian units, as they implement the European Security and Defence Policy.

Industry's mission will be to provide the best tools so that everybody is able to work hand-in-hand in the most effective fashion with minimal risk for all involved.

Looking back over the many years of practical experience in EU missions under the Common Foreign & Security Policy and the now Common Security & Defence Policy, we observe a constant improvement in the way these missions are built, fielded and executed. This is true in the soft as well as in the hard elements of the "soft power projection", that is at the core of the European Foreign Policy.

The Lisbon Treaty does represent a major step forward for Europe to become more effective as one of the key players on the international scene.

In particular, the Treaty provides the European Union with a more adequate legal framework and new instruments enabling it to act as a "soft power".

Industry and investments

This is a unique opportunity for the EU and Member States and also for European industry to discuss and plan together on how to design and manage the appropriate tools in order to attain this strategic target.

Our industry is ready to cooperate with EDA and EU institutions, aiming at finding the right technological solutions on security and defence, with a special focus on the emerging trend of civil-military synergies and dual-use applications.

In this broad perspective, industry intends to drive the attention of EU institutions and policy makers on specific topics of common interest, and wishes to encourage a flexible and pragmatic dialogue that takes into account both customer requirements and industry needs and peculiarities.

It is worth remembering that investment in technology in the areas of security and defence is driven by public requirements and hence public procurement for the public good.

Investment therefore serves the double purpose of both stimulating a knowledge-based and competitive industry and acquiring the means to address Europe's political security objectives with indigenous technology.

The broad security dimension

Security has broad strategic implications, encompassing several fields:

- defence (security of supply, maritime surveillance and border control)

- energy (supplies, control of production, infrastructure and distribution)

- transport (maritime transport, port and airport security)

- civil protection (space earth monitoring, situational awareness, crisis management)

A more effective response to European security needs in these areas implies that more investment should be allocated by the EU.

A peculiar feature of the evolving security dimension is the increasingly blurred distinction between homeland and international security, as well as between civil and military applications.

Let me underline that, for what concerns homeland security, a particular emphasis has to be put on the very concept of "homeland", which in the future shall refer more and more to Europe rather than to the single Member States.

Concerning the progressively shady distinction between civil and military, it has to be considered that hi-tech products and services have almost always dual applications with spin-offs in other sectors.

The opportunities for R&T investment and procurement synergies between EDA, ESA, the Commission and NATO will also have to be better understood and optimised.

For all these reasons, and in the light of the Lisbon Treaty provisions, ASD would welcome a determined focus on:

- coherence in responsibility and governance inside the European Commission, between the European Commission and the Council, between the EU and the Member States;

- the importance of entering a new investment cycle with the establishment of large scale technology demonstrator programmes involving at the same time security, defence and space: only a systemic approach can in fact provide the conditions for enhancing Europe's competitiveness and deliver a system-based response to public security needs;

- optimisation of the use of space systems as strategic assets, in view of facilitating the development of an autonomous European decision-making process and contributing to the efficiency of ESDP operations;

- coordination of the EU, EDA & ESA research areas and exploration of synergies between civil & military and dual-use R&T, with the growing identification of Common Security and Defence Policy operations with security leading to new joint activities between security and defence, related to a new perspective for the EU external dimension.

European Defence Agency

Now let me come briefly to EDA.

In my view, EDA shall provide an added value for both European military and industrial capabilities.

To reach this goal, it is necessary to overcome the impasse between capabilities and research activities.

From one side, the steps made towards an effective Capability Development Plan are in fact interesting but do remain up to now of minor impact.

On the other hand, recent EDA activities to support research and development are appreciated by industry, but are still not adequate to really sustain industry due to the lack of funding by Member States.

Nevertheless they are more coherent with the operational needs and are part of a shared process, as shown by some of the major programs:

- Unmanned Aerial Vehicles: MIDCAS
- Integrated Training Systems (AEJPT)
- Communications (Software Defined Radio)
- Space Surveillance (MUSIS)
- Force Protection
- Avionic Systems (SIMCLAIRS)

A continuous improvement on both capabilities and research is mandatory for a complete fulfilment of the EDA mission.

Let me make a specific example, the one of "situational awareness", which is a key ingredient of sound decision-making and it has to rely on timely and high-quality data capture and delivery.

The basic tools exist, but they should be updated throughout the civil & military continuum.

Key supporting technologies reside in unmanned air, space and radar systems and of course key software components.

Preparing the future for Unmanned Air Systems has been a key effort of EDA and the EU Commission now for more than two years, with the support of ASD.

A prime example is the European effort to open non-segregated airspace to UAS operations: a timely success will not only enhance situational awareness, but also allow the European Union to set de facto standards globally, which in turn reinforces our industry's position on the global scene.

One still missing point in the UAS context is an EU-level demonstrator programme of a scale capable of federating numerous individual efforts undertaken by Member States with significant industrial financial support.

The second area of focus in the context of situational awareness is space.

Europe already has a strong basis in the key areas of secure telecommunications and earth observation from space, but the existing national capacities need to be sustained, networked and improved to fully match the operational requirements and evolve into a global awareness system for security and defence.

Radar-based applications are also a great benefactor to situational awareness.

Europe possesses leading edge capabilities in all radar domains: their utilization and continuous evolution must be another essential ingredient in capability development.

Final remarks

In conclusion, I think that a synergy amongst all the actors – the EU institutions, the Member states and industry – is the real key to exploit at best a new framework which could help all of us overcome this difficult moment.

A coherent political vision of the EU in 2020 is a pre-condition for Europe's continued and global success.

The unique opportunity brought about by the new Treaty and by the new Commission and European Parliament should be seized to achieve a consensus on the way ahead:

- reinforcing the major employment pools such as the aerospace and defence supply chain;

- building a robust European defence and security technological industrial base;

- providing the necessary framework conditions and new incentives for the competitiveness of SMEs, operating either in civil or defence areas;

- strengthening the legal framework for IPRs, which constitute an indispensable condition for the European technological industrial base;

- adopting and enforcing common European industry standards.

The big issue here is coordination and coherence throughout the "subsidiary chain".

The themes of "common" or "pooled" resources come to mind: to achieve this goal some adequate form of architectural framework, in which industry is ready to play its required part, must be implemented.

Only managing all these elements within the frame of a common strategic vision we will be able to give Europe a real chance to lead again the world towards a true renaissance, more stability and stronger security.

> *"The EU gives all the possibilities because EU is about comprehensive approach. So we need to make use of all assets that EU provides us with – and it includes long term commitments."*
>
> *Q&A session*

> *"The situation of civ-mil cooperation has improved tremendously in the past year. But, of course, there is still a lot to do, mainly in this phase of planning and anticipation, in order to have a good conjunction of civilian and military action".*
>
> *Q&A session*

PANEL 1 – FOOD FOR THOUGHT

- Need for full contingency management cycle across the whole threat and risk spectrum for flexible and functional response

- Increased demand for joint situational understanding

- Exploring integrated concepts of operations and rules of engagement

- Towards open and shared standards between civil and military

- Performing an inventory of available capabilities and look into complementary planning between civilian and military dimension

- Avoid duplicating expensive systems and explore the dual use of existing assets and systems

- Increase common training between civilians and the military

- Investigate to what extent the civil security side can benefit from the experience and processes established on the defence side (e.g. scenario development and associated capability requirements)

- Lessons learned from current operations
  – and the role of the European External Action Service

Panel 1: Setting the Scene
Operational needs, current situation, lessons learned

- *Chairperson:* **Lieutenant General (Rtd) Andrew Figgures**

- *Sharing, Pooling, Coordinating – Taking Stock of Civil-Military Cooperation*
  Lieutenant General (Rtd) Yves de Kermabon, Head of EULEX Kosovo

- *Operation Atalanta as a Model of Civil-Military Cooperation in Maritime Security*
  Rear Admiral Bartolomé Bauzá, Deputy Operation Commander EUNAVFOR – ATALANTA

- *Planning Capabilities for European Border Security – Towards a Structured Approach*
  Mr. Rustamas Liubajevas, Head of Joint Operations Unit, Frontex

- *Responding to Civilian and Military Needs – Developing Products for Governmental Customers*
  Mr. Tomaž Lovrenčič, Director, European Union Satellite Centre (EUSC)

- *Being Prepared for Complex Emergencies - A National Perspective*
  Ms. Helena Lindberg, Director General, Swedish Civil Contingencies Agency (MSB)

Key-points of the debate

Referring to the repeated call by key-note speakers to reinforce civil-military synergies, Panel Chair Lieutenant General (Rtd) Andrew Figgures invited the Panellists to contribute with their personal experience to set the scene and sketch out the current state of affairs. "The Comprehensive Approach is a very popular concept", he underlined, "but what does it mean on the ground?"

Regarding the spectrum of crisis management operations, Lt. Gen. Figgures recalled notably the "Headline Goals 2010", saying that Member States have decided to commit themselves to be able to respond with rapid and decisive action, applying a fully coherent approach to the whole spectrum of crisis management operations covered by the Treaty. This includes humanitarian and rescue tasks, peacekeeping tasks and deployment and employment of combat forces in crisis management, and peacemaking. As indicated in the European Security Strategy, it might also include disarmament operations, support to third countries in combating terrorism and security sector reform. Within this context five illustrative scenarios have been developed, each of which provides valuable indications on the required European capabilities.

The European Union (EU) has adopted the following illustrative scenarios which form the basis for force planning to meet the EU Helsinki Headline Goal 2010:

- Stabilisation, reconstruction and military advice to third countries

- Conflict Prevention

- Evacuation Operation in a non-permissive environment

- Separation of Parties by Force

- Assistance to Humanitarian Operations

The Panel addressed the 'real-life' experience of the operational community, in order to base the development of future capabilities on "realistic assumptions" as previously outlined by General Håkan Syrén. Particular emphasis was given to the aspects of sharing, pooling and coordination between civil and military actors, covering the domains of CSDP operations - including the provision of imagery intelligence - border security, and national emergency response in the light of the Swedish experience. Major aspects covered during interventions of Panellists and during the Q&A sessions, providing further food for thought.

Taking up some of the ideas expressed during the debate, the Chairman highlighted in particular the following critical issues:

- Conceptual work to be performed with regard to future operations and missions and associated needs in terms of civil-military cooperation: criticality of the Crisis Management and Planning Directorate in this respect and importance of taking stock of the work done on lessons identified in the past.

- Better exploit already existing "capabilities" and institutions such as the European Union Satellite Center (EUSC) and Frontex for a holistic approach to security (civil and military).

- Increase actions towards common training and "awareness building" among civilian and military actors and close 'cultural gaps' through common training (e.g. European Security and Defence College).

- Explore the further potential for a dual use approach in particular in the area of information collection, management, dissemination and analysis in support of "shared situational understanding".

Sharing, Pooling, Coordinating – Taking Stock of Civil-Military Cooperation

Lieutenant General (Rtd) Yves de Kermabon, Head of EULEX Kosovo

What makes EULEX a particular mission?

- Size – roughly 2000 internationals and 1000 vehicles

- Executive mandate – EULEX is the first CSDP mission with an executive mandate (Joint Action adopted by the Council in 2008). The mission is mandated by UN Council Resolution 1244 and the Kosovo authorities have invited EULEX.

- Integrated nature of 3 components: justice, police and customs. This means EULEX covers the full spectrum from crime to prison.

- Philosophy of local ownership and accountability – Kosovo authorities are in the driving seat and EULEX intervenes only when needed.

General Yves de Kermabon highlighted the characteristics of the EULEX Kosovo mission, stressing that it had to cooperate with a multitude of organisations operating in the field, including the EU Special Representative, the UN Interim Administration Mission in Kosovo, the International Civilian Office, the Council of Europe, the European Commission Liaison Office and the NATO Kosovo Force (KFOR).

While both EULEX and KFOR had interfaces through sharing information, the objectives of these two missions were very complementary: while KFOR is responsible for the overall safe and secure environment, EULEX is focussing on the rule of law aspects. General Kermabon said that soldiers and police officers have very different profiles, backgrounds and training – "fighting organised crime is not a military job", he explained. Police officers were trained to fight organised crime and to collect criminal evidence while intelligence collected by military forces was most difficult to be used in court.

Notwithstanding those differences, the security situation in Kosovo would have benefited from the complementary role played by military and police forces. Not only could the military dimension secure the outer perimeter of police operations but the good cooperation among all security actors would allow to tailor the response to posed security risks according to the intensity of conflict and type of threats involved.

Examples of civil-military cooperation in Kosovo

- BLUE BOX / GREEN BOX – a police operation (a "blue box") can be supported by a military operation in an outer perimeter (a "green box")

- 1ST, 2ND AND 3RD RESPONDER – in order to ensure a gradual and proportional approach, the Kosovo police is the first to react to incidents – while EULEX is monitoring, mentoring and advising. If needed, EULEX can deploy as a second and KFOR as a 3rd responder.

"EULEX is closely working with the Kosovo Police and KFOR to achieve progress in the normalisation of the overall security situation inKosovo. EULEX is working hard in order to make sure that the Kosovo police can take over in the spirit of local ownership and accountability",

Lieutenant General (Rtd) Yves de Kermabon

EULEX - KFOR joint exercise © EULEX

Operation Atalanta as a Model of Civil-Military Cooperation in Maritime Security

Rear Admiral Bartolomé Bauzá, Deputy Operation Commander EUNAVFOR – ATALANTA

"ATALANTA would like to be seen as more than ships and aircrafts. It is part of a wider effort of the EU towards a Comprehensive Approach. The problem of piracy cannot be solved exclusively by military means or through naval operations. ",

Rear Admiral Bartolomé Bauzá, Deputy Operation Commander EUNAVFOR – ATALANTA

Admiral Bauzá drew attention to the fact that ATALANTA's customers were to a large extent merchant shipping companies – and that the product ATALANTA would deliver was "reassurance". This would entail the building of strong mutual support, trust and a common understanding between the public force and private sector interests.

The Maritime Security Centre (Horn of Africa), run by the EU Naval Force (EU NAVFOR) is a Coordination Centre tasked to safeguard merchant shipping companies operating in the region by preventing and deterring acts of piracy in the Gulf of Aden, off the Horn of Africa and in the Somali Basin. Prior to transit, all ships should register with the EU ATALANTA Task Force http://www.mschoa.eu/ and view the group transit plan http://www.mschoa.eu/

Since the creation of ATALANTA, the mission command and the merchant shipping companies had to develop a common leadership to shape policies and practices. Shipping companies' experts had regularly exchanged views and information with the Operational Headquarters from the outset. Such regular exchange with identified shipping companies had even contributed to ensure continuity of expertise after rotation of military personnel.

While ATALANTA had not been in need of new technology developments -"Technologies, so far, have not been a concern in ATALANTA" -, the operation had been running innovative solutions like the Maritime Security Centre (Horn of Africa). This web portal serves for receiving and releasing information, guidance, advice and warnings to the maritime and fishing communities. Customers can report their movements and route intentions so that ATALANTA can arrange safe shipping. Along with a dedicated webpage, the «Mercury» IT chat system resulted into a secure means of communication in real time. Admiral Bauzá made a special reference to the NATO Combined Maritime Force with which ATALANTA had been working very closely and in a successful way.

He highlighted that ATALANTA had developed several mechanisms involving civilian and military actors:

- Establishment of the International Recommended Transit Corridor (IRTC) in the Gulf of Aden, which allows to make up better and efficient use of scarce naval and air assets.

- Shared Awareness and Deconfliction Meeting (SHADE), established in December 2008 as a means of sharing 'best practice', conduct informal discussions and deconflict the activities of those nations and organisations involved in military counter-piracy operations in the region. SHADE, he said, is not only a military coordination forum. It is open to civilian authorities.

Initially, SHADE participation involved the Combined Maritime Forces based in Bahrain, the European Naval Force EU NAVFOR and NATO but it grew quickly to include many regional nations and other navies operating under independent mandates, such as China, India, Japan and Russia. SHADE is a voluntary international group that meets on a monthly basis in Bahrain. In all, 26 nations were present, along with 3 coalitions and representatives from industry. Ukraine is the newest participant.

- Suez Canal Initiative where southbound ships in Suez are being provided regular briefings on the security situations.

Admiral Bauzá stressed further the link established to police authorities, notably regarding Interpol and Europol for collecting biometric evidence and information.

While currently ATALANTA had no mandate for supporting capacity building in coastal regions with local authorities, Admiral Bauzá saw opportunities to engage ATALANTA into the wider capacity building process by reinforcing current initiatives:

> *"We try to engage as many partners as possible to give them a sense of ownership of the operation"*, he explained.
>
> *Rear Admiral Bartolomé Bauzá, Deputy Operation Commander EUNAVFOR – ATALANTA*

- One example is the Djibouti Code of Conduct (DCC) concerning the Repression of Piracy and Armed Robbery against Ships in the Western Indian Ocean and the Gulf of Aden - launched in 2009 under the leadership of the International Maritime Organisation. The DCC previews "sharing and reporting relevant information through a system of national focal points and information centres" in key regional countries (Regional Maritime Rescue Coordination Centre, Mombasa/ Kenya; Sub-regional Coordination Centre, Dar es Salaam/ Tanzania; and Regional Maritime information Centre, Sana'a/ Yemen). This means ATALANTA would have the opportunity to exchange information and to support these countries in building up this capacity.

- Another example might be EU's involvement in the UN Contact Group on Piracy off the Coast of Somalia (CGPCS), created as a consequence of UN Security Council Resolution 1851, in January 2009, to facilitate discussion and coordination of actions among states and organisations to suppress piracy off the coast of Somalia. Its Working Group 1 deals with Military and Operational Coordination, Information Sharing, and Capacity Building. Bauzá also highlighted the New York Declaration (2009), a commitment to best management practices to avoid, deter or delay acts of piracy.

EUNAVFOR ATLANTA prevents hijacking March 2009 © DE Navy

Force protection onboard © EUNAVFOR

Planning Capabilities for European Border Security – Towards a Structured Approach
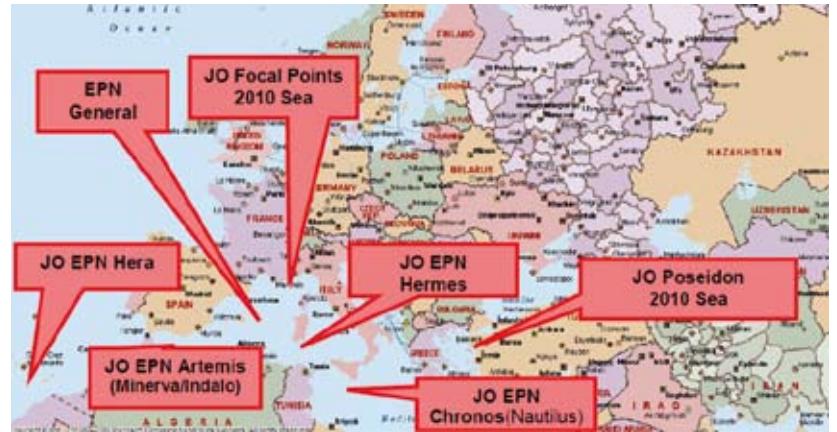
Mr. Rustamas Liubajevas, Head of Joint Operations Unit, Frontex

Pointing at FRONTEX's core tasks to enhance border security by ensuring the coordination of Member States' operational cooperation, Mr. Rustamas Liubajevas highlighted the concept of Integrated Border Management, which encompasses several complementary tiers of activities. The first tier is related to exchange of information and cooperation between Member States, immigration and repatriation. The second tier is represented by border and customs control including surveillance, border checks and risk analysis. The third tier is linked to cooperation with border guards, customs and police authorities in neighbouring countries. The forth tier is related to cooperation with third countries including common activities.

FRONTEX liaises closely with other EU partners involved in the development of the security of the external borders, such as EUROPOL, CEPOL, the customs cooperation and the cooperation on phytosanitary and veterinary controls, in order to promote overall coherency.

Focusing on some operational aspects, Mr. Liubajevas underlined that FRONTEX carries out a number of joint operations activities covering land borders, airports of the EU as well as maritime borders. The Regulation (EC) No 863/2007 of the European Parliament and of the Council of 11 July 2007, establishing a mechanism for the creation of Rapid Border Intervention Teams is seen by FRONTEX as a powerful tool to increase capacities and capabilities of Member States to respond to crisis situations at external borders. Such operations would need to be supported by adequate technical equipment.

A Centralised Record on Available Technical Equipment is the next practical tool in the development of required capabilities. The Agency has a large number of border control equipment, including radar units, vehicles, thermal and infrared cameras, available for its activities. There is still some room for improvement – notably with regard to interoperability issues for instance regarding equipment that is provided so far by Member States on a voluntary basis.

A recent joint operation to coordinate sea border activities in the Eastern Mediterranean area, named Poseidon Sea 2010, using a multitude of technical equipment provided by the Member States, was presented as a very first example where military authorities had been involved in the planning and deployment of assets.

Two major challenges to be tackled in the short term would be

- Interoperability – coordination of border security activities and standardisation of related technical equipment (e.g. Unmanned Aerial Systems)

- Sharing of information & communications means

Responding to Civilian and Military Needs – Developing Products for Governmental Customers

Mr. Tomaž Lovrenčič, Director, European Union Satellite Centre (EUSC)

Mr. Tomaž Lovrenčič underlined the role of the EUSC as "an operational agency, providing the EU with a unique tool in such sensitive area as space and imagery intelligence". He highlighted that the EUSC was not a substitute, but a complement to national efforts, requiring a good spirit of cooperation among Member States which remain in direct control of the Centre.

> *"We see civil-mil synergies as a normal framework for our daily work. The EUSC is preparing to extend its service on this basis with the goal of focusing on the EU´s rapidly developing external agenda",*
>
> *Mr. Tomaž Lovrenčič, Director, European Union Satellite Centre (EUSC)*

Mr. Lovrenčič presented the EUSC as a promising model in the field of civil-military cooperation, since the Centre was serving both Member States and the EU Council. The EUSC already supports a large number of missions and operations, including the OHQ of Operation ATALANTA. Here, the EUSC delivers satellite imagery products in the areas of maritime surveillance and land based activities (e.g. piracy home bases). The work of the EUSC is moving away from pure strategic intelligence collection to providing more and closer operational support. The amount of data generated and to be fed into the political and planning process is steadily increasing. The Centre works for civilian and military operations alike. Its experts have both civilian and military backgrounds, while constantly developing their own experience and knowledge in line with the analytical work required.
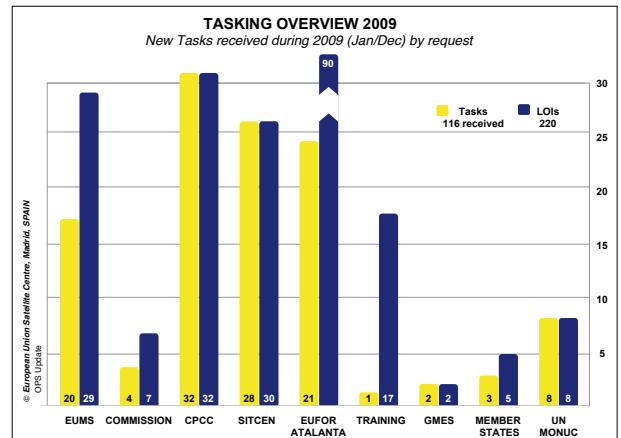
The EUSC is promoting an internal debate to prepare itself to satisfy the growing user demands determined by the expanding EU´s Foreign and Security Policy agenda. In this context, the Centre is ready to support the following developments:

- Optimising EU intelligence cycle and data fusion capabilities, especially related to the European External Action Service (EEAS);

- Assessing and updating EUSC governance model to intensify interaction with Political and Security Committee as well as Member States;

- Simplifying tasking process to improve responsiveness to operational needs as well as high-level political decision making;

- Assessing EUSC's role within security dimension of Global Monitoring for Environment and Security programme (GMES).

> *"It is very important to see the new opportunities of the Lisbon Treaty. This is especially valid with the building of the European External Action Service and with special regard to providing direct support to EU operations and missions. There is a growing demand for a high level of precision and rapid reaction, which we have not seen up to now",*
>
> *Mr. Tomaž Lovrenčič, Director, European Union Satellite Centre (EUSC)*

Mr. Lovrenčič expressed his confidence that the European External Action Service would open new opportunities for the EUSC to support both civilian and military needs by improving direct interaction with Member States as well as EU missions and operations, since many of the key EUSC customers might become part of or will be closely related to this new service (e.g. EUMS, SITCEN, CPCC, as well as OHQs).

TASKING OVERVIEW 2009
New Tasks received during 2009 (Jan/Dec) by request

	Tasks 116 received	LOIs 220
EUMS	20	29
COMMISSION	4	7
CPCC	32	32
SITCEN	28	30
EUFOR ATALANTA	21	90
TRAINING	1	17
GMES	2	2
MEMBER STATES	3	5
UN MONUC	8	8

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Source : EUSC

Being Prepared for Complex Emergencies
A National Perspective

Ms. Helena Lindberg, Director General, Swedish Civil Contingencies Agency (MSB)

Ms. Helena Lindberg from the recently created Swedish Civil Contingencies Agency (MSB), a one year old only Agency with a very comprehensive mandate for societal security, provided insight into MSB's work across the whole cycle of contingency management - before, during and after crisis – and covering both the national and international remit.

She focused her presentation on two fundamental questions:

- Why is civil-military coordination becoming an increasingly urgent issue?

- In what way does this affect national preparedness and capability development?

Addressing the first question, Ms. Lindberg said there was a range of threats that are in fact very difficult to categorize. Complex contingencies of a new kind, mega-disasters such as in Haiti, large-scale cyber-attacks or radiological attacks, severe pandemics and piracy were threats without clear assignment of responsibility and ownership. They would encompass health issues, police issues, civil protection issues, military issues at the same time.

> *"If we want to provide an efficient response we need to have a broad operative and strategic overview. We want to know what different actors are doing, how the situation is developing, and which capacities are available nationally and internationally. This calls for strong "brokers" of information, coordination hubs at different levels in the system".*
>
> Ms. Helena Lindberg
> Director General, Swedish Civil
> Contingencies Agency (MSB)
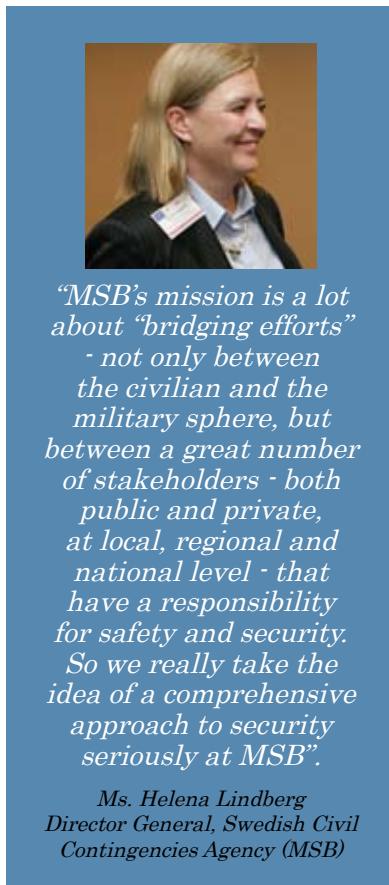
> *"MSB's mission is a lot about "bridging efforts" - not only between the civilian and the military sphere, but between a great number of stakeholders - both public and private, at local, regional and national level - that have a responsibility for safety and security. So we really take the idea of a comprehensive approach to security seriously at MSB".*
>
> Ms. Helena Lindberg
> Director General, Swedish Civil
> Contingencies Agency (MSB)

Managing those complex contingencies would require the mobilisation of all available means to generate quick response in a flexible and functional manner.

Another driver was costs. With such a wide spectrum of threats, affecting entire societies, countries can no longer afford locking-in capacities within different sectors. "Today, citizens and tax-payers expect us to exploit every single possibility for dual-use, or even multiple-use, of existing capabilities."

On the second question, *in what way are these drivers affecting the measures for preparedness and the capabilities we develop,* Ms. Lindberg referred to the increasing demand for *joint situation awareness and information coordination.* "The demand for situation awareness in the field is very strong", she added.

Ms. Lindberg explained *MSB's strategy for civil-military coordination,* which includes a long list of initiatives aiming at creating a better inventory of available capacities, increasing joint training and education and including methods for developing integrated concepts of operation.

Aiming at implementing a Networked Enabled Capabilities (NEC) approach, the MSB had taken part in the Quick-Wins project. The results have so far been successfully used in a number of ways, including in a new system for sea surveillance in the Baltic Sea (SUCCBAS), launched during the Swedish presidency.

> *"A Europe that is prepared for complex emergencies is a more coherent and coordinated Europe. Since December last year we have a new Treaty to implement. We have a Union that is no longer divided into pillars. We also have a new European leadership. And… we have Article 222, a Solidarity Clause, to live up to. I think this provides great opportunities for institutional bridge-building and whole-of-society capability development in 2010".*
>
> Ms. Helena Lindberg
> Director General, Swedish Civil
> Contingencies Agency (MSB)

Admiral Bauza and Yves de Kermabon

Lt. General Figgures and Rustamas Liubajevas

Alexander Weis, EDA Chief Executive, and Magali Vaissiere, ESA Director of Telecommunications and Integrated applications

SIGNATURE OF FIRST COORDINATED EDA / ESA STUDIES ON "SATELLITE SERVICES FOR UAS MISSIONS"

At the venue of EDA's Annual Conference 2010 on "Bridging Efforts – Connecting Civilian Security and Military Capability Development", the European Defence Agency (EDA) and the European Space Agency (ESA) signed contracts with two consortia regarding feasibility studies on "Satellite Services for the integration of Unmanned Aircraft Systems (UAS) into European Airspace". EDA's Chief Executive, Mr. Alexander Weis, signed one contract with EADS Astrium Services / EADS Defence & Security - Military Air Systems (France) and in parallel ESA's Director of Telecommunications and Integrated Applications, Ms. Magali Vaissiere, signed a second contract with INDRA Espacio (Spain).

The two studies, worth € 400 k each, will explore the feasibility of a demonstration mission in the timeframe 2010/2011. Close coordination between the two Agencies ensures that both European civilian and defence actors will benefit from the use of multiple integrated space systems as enablers for cost-effective, sustainable and competitive UAS services in the future.

EDA Chief Executive Mr. Alexander Weis highlighted "the cooperative spirit between the two organisations, bringing about benefits for both civilian and defence stakeholders to get best value for money".

PANEL 2 – FOOD FOR THOUGHT

- Need for a common vision on operational needs and coordinated requirements for fundamental enabling capabilities - logistics, communication, medical support, information and intelligence

- Need for setting-up an efficient methodology to support the further development and implementation of a comprehensive approach between civilians and militaries

- Need for responsiveness in crisis management for civil and military actors: information sharing and communication as bottlenecks

- Artificial lines of fraction between civil and military to be abolished so as to be solution-focussed: e.g. pragmatic approach regarding "Single European Sky" for flexible use of airspace (Member States represented at civil and military level)

- Reflect on updating the work on illustrative scenarios taking into account concurrent civil/military missions, the related capability basket and "lessons learnt"

- Consider the 'comprehensive approach' within the Permanent Structured Cooperation (EDA role in evaluating Member States' contributions)

- Synchronise research programmes (e.g. building on the European Framework Cooperation initiative) for a fully integrated technology base and programme implementation

- Consider inserting a 'Defence research' line into the next Framework Programme and consider a Defence Preparatory Action as test case

Panel 2: Futures avenues of cooperation

- Chairperson: **Rear Admiral Enrique Perez Ramirez, Deputy National Capability Director, MoD Spain**

- *Turning Operational Needs into Capabilities – Key Aspects of Effective Requirements Definition*
  Major General Paolo Magro, National Policy and Capability Director, MoD Italy

- *Possible Ways to Develop a More Structured Approach towards Security and Defence Capability Development From Definition of Requirements to Investment*
  Ms. Alda Silveira Reis, Head of Unit Partnerships & Military Capabilities, European Council, Crisis Management and Planning Directorate (CMPD)

- *The Commission's Essential Role in Building Civil/Military Capabilities*
  Mr. Lars-Gunnar Wigemark, Head of Security Policy Unit, DG External Relations, European Commission

- *Serving Civilian and Military Actors*
  Mr. Daniel Calleja Crespo, Director Air Transport , DG TREN, European Commission

- *Increasing Responsiveness for Civil and Security Actors – The Space Dimension in Support of Crisis Management*
  Mr. Giuseppe Morsillo, Head of Director General's Policy Office, European Space Agency (ESA)

- *Research and Technology in Support of Operational Needs – Towards an Integrated Approach in Defence Security and Safety* **Mr. Victor Elsendoorn, Managing Director, TNO Defence, Security and Safety**

Key-points of the debate

Panel Chair Rear Admiral Enrique Perez Ramirez welcomed the productive discussions of the morning sessions, during which concrete experience had been provided by different panellists with regard to the EUFOR Atalanta or the Kosovo EULEX mission with a clearly identified civil-military dimension. Building on such 'lessons identified' allowed Panel 2 to look into future avenues of cooperation between civilian and military stakeholders. The Panel chair stressed that throughout the vast spectrum of operations, from crisis management to humanitarian relief intervention or routine operations such as border security, there was one overall key success factor against which the actors would be measured: the disposal of required capabilities whenever and wherever needed.

While acknowledging that the capability planning process on the military and civilian side differed, the Panel Chair stressed the need for more coherence and coordination among the two sides, both regarding the planning and development of new capabilities. The Panel tackled the issues from different angles featuring national, EU Council and European Commission views while acknowledging further contributions from the European Space Agency and private-sector related actors such as Dutch TNO.

• *The issue of capability planning*

Rear Admiral Ramirez stressed the importance of a coherent capability planning process, making sure that this complex and time-consuming process would need to be organised to allow for best coordination between the civilian and military side. He welcomed the upcoming opportunity provided by the new double-hatted function of High Representative/Vice President of the Commission and of the Crisis Management and Planning Directorate which could provide new impetus to this process. He equally stressed the already positive example of the European Union Satellite Centre whose products are being disseminated to both civilian and military customers.

• *The issue of coordinated R&T, procurement and actual delivery of dual-use capabilities and technology*

The Panel Chair stressed the need to develop a coordinated approach between R&T and procurement undertaken on the military and civil security side. A whole range of technologies and assets would be of dual-use nature and should see strong coordination among the institutional stakeholders. In this context Europe would have to take advantage of initiatives such as 'European Framework Cooperation' for which the EDA had been mandated in November 2009, specifically aiming at coordinating efforts across civil security, space and defence related research.

The interventions of panellists and the subsequent debate triggered by questions from the audience touched on some recurrent issues which provided some substantial food for thought.

Based on those discussions, the Panel Chairman concluded in the following terms:

- *"We are not starting from scratch":* the Comprehensive Approach is certainly to be further developed in detail and improved in the future but it already is reality to some extent, be it regarding civil-military interfaces in planning and implementing operations and missions or the cooperation in the R&D domain.

- *"We need to fully exploit new opportunities on the institutional side":* the Lisbon Treaty provides an opportunity to further increase civil-military cooperation. We need to reap the benefits of new entities such as the CMPD and fully tie in existing actors such the Commission, EDA and ESA into the 'comprehensive approach'.

- *"We have new tools at our disposal":* fully exploit newly available tools such as the Permanent Structured Cooperation while taking advantage of similarities of needs between civil and military for specific capability areas. Make sure that the Permanent Structured Cooperation takes full advantage of the comprehensive approach.

- *"Regulation is a matter on which civil-military coordination is needed":* the Single European Sky (SES) initiative demonstrates the importance of a coherent approach towards regulations which may have a strong impact on the military players.

- *"Concrete areas of cooperation need to be further deepened":* several already established areas for cooperation have been highlighted during the debate ranging from the area of chemical, biological, radiological, and nuclear hazards (CBRN) to Unmanned Aerial Systems (UAS), space-related issues and Maritime Surveillance. It is thereby key to follow an integrated approach across different technology areas, taking the needs of civil and military actors into account from an early stage. Further avenues of cooperation need to be explored, notably in the domain of information sharing and management.

- *"We have to take into account the expertise available on the industry side":* the importance of the private sector in developing innovative solutions and showing the way regarding cross-fertilisation between technology and application domains is widely acknowledged.

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EUFOR Tchad RCA ES CASA October 2008

Turning Operational Needs into Capabilities – Key Aspects of Effective Requirements Definition,

Major General Paolo Magro, National Policy and Capability Director, MoD Italy

Major General Magro provided a national perspective on how to turn operational needs into required capabilities. He started by pointing out the evolution which had taken place with regard to capability planning since the end of the Cold War. While previously the military planning process was tailored towards the Cold War scenario of a symmetric opposition of forces and based on a predictable evolution of threats, the new risks and threats would be hardly predictable and asymmetric. Since then the need for multinational cooperation among military forces and between civil and military actors had increased, so as to cover a broader spectrum of objectives, including humanitarian disaster relief, peacekeeping and peace enforcement:

Against this background, he further underlined the importance of a "comprehensive approach" from the planning of capabilities to the conduct of action. He went on to stress that the evolution from a mission-oriented towards a capability-

driven methodology in planning - both at strategic and operational level - still was in progress and not completed yet. A capability-driven approach would allow to rapidly adapt to evolving scenarios while taking into account specific threats and available resources.

A comprehensive approach between civil and military was seen as prerequisite for effective action in the framework of CSDP and would also allow to better exploit the limited budgets available. Major General Magro stressed the importance of creating a common perception and understanding between civilian and militaries of the global challenges ahead and ways on how to cope with them. It is the existence of such a common vision which would further determine the level of European ambitions. With regard to operations outside European borders, notably future combined operations, the coordination of civil and military requirements will strongly depend on how much civil and military planners are prepared to share the same concepts and vision.

As a starting point, Europe would have to concentrate on some fundamental enabling capabilities with a clear dual-use dimension, notably in areas such as logistics, communications and medical support. Further areas of common interest to military and civilian stakeholders would need to be investigated and further improved such as information and intelligence as well as education and training.

How to push this process and make it more effective and efficient? Major General Magro pointed out that current European initiatives regarding the development of civil-military cooperation still remain in their infancy, even if slowly taking off. The key factor to success would be the political will across the different stakeholders. He added that the setting-up of an efficient methodology is necessary to support the further development and implementation of a comprehensive approach between civilians and militaries.

> *"Today with EDA we are able to define those areas where it is possible to develop a coordinated capability development process with the civilian side."*
>
> *Major General Paolo Magro*
> *National Policy and Capability*
> *Director, MoD Italy*

A comprehensive vision between civilian and military would facilitate

- scale benefits
- exchange of best practices
- common perception of security challenges
- standardisation and interoperability
- competition on output realisation/ competition of ideas

> *"Today we are facing new threats posed by players able to adapt quickly to new situations and being able to oppose effectively and in a challenging manner conventional forces. In the light of a new security environment and evolving risks, defence and civilian actors must be capable of responding with a flexible and holistic approach."*
>
> *Major General Paolo Magro*
> *National Policy and Capability*
> *Director, MoD Italy*

To conclude, Major General Magro expressed his confidence in the willingness of all actors to develop such a common vision. Bringing about capabilities of use to military and civilian actors would ultimately be derived from an analysis of common operational needs, implying a strong convergence and commitment from all Member States in the framework of the Common Security and Defence Policy.

EDA can play an particular role in developing effective coordination among Member States with regard to

- the development of a shared understanding of common capability needs

- the setting-up of dynamic and transparent methodologies and processes

- the generation of best value for money

Building a Comprehensive Vision on Capability Development is:

DESIRABLE   NECESSARY

| WORLD'S TRENDS | COMMON OPERATIONAL ENVIRONMENT | BUDGET CONSTRAINTS |

The Lisbon Treaty provides new opportunities with regard to:

- the new function of the High Representative and Vice-President of the European Commission, which will give EU foreign action greater strength, coherence and visibility

- the Permanent Structured Cooperation will help reinforcing cooperation among smaller groups of Member States, thereby facilitating the emergence of new initiatives

- the creation of the Crisis Management and Planning Directorate (CMPD) which could become the leading element in coordinating the planning process

EUPOL COPPS introduce the Laser Instrument System for the Palestinian Traffic Police January 2010 © EUPOL COPPS

Possible Ways to Develop a More Structured Approach towards Security and Defence Capability Development – From Definition of Requirements to Investment

Ms. Alda Silveira Reis, Head of Unit Partnerships & Military Capabilities, European Council Crisis Management and Planning Directorate (CMPD)

Starting by a review of key milestones achieved in past years, Ms. Silveira Reis underlined that from the outset the aim of the European Security and Defence Policy, today Common Security and Defence Policy, had been to develop both the civilian and military dimensions in a comprehensive approach. It was therefore difficult, if not impossible, to talk about a civilian or military CSDP as separate entities.

Both the military and civilian Headline Goals had proved invaluable towards establishing a structured capability development processes. On the military side, the Helsinki Headline Goal process led to the development of illustrative scenarios from which requirements and a catalogue of shortfalls could be derived, while the Headline Goal 2010 exercise put its focus on the qualitative definition of requirements. At that time, however, it became evident that 'lessons learnt' from real operations were missing.

"What matters is the product, what matters is the security we deliver."

Ms. Alda Silveira Reis, Head of Unit Partnerships & Military Capabilities, European Council Crisis Management and Planning Directorate (CMPD)

The 'Capability Development Plan' had addressed this problem based on work performed by the European Union Military Committee and the European Defence Agency - fully taking into account 'lessons learnt' as the 'reality check' against which to judge the needs in terms of capability development. Ms. Silveira Reis highlighted in particular the 'lessons learnt' exercise conducted by the European Union Military Staff on different operations such as EUFOR RD Congo or EUFOR Tchad/RCA, EDA performing a similar work on Afghanistan through an outsourced study.

Already today, a range of instruments to support rapid deployment is available such as

- the Civilian Crisis Response Teams (CRTs)

- the pool of European security sector reform experts

- the deployable augmentee cadre the core of which is provided by the Crisis Management and Planning Directorate

Ms. Silveira Reis clearly pointed out that on the civilian side a systematic process of 'lessons learnt' was in place only since 2009. The Civilian Headline Goal process had represented a novelty in the civilian domain, even if the underlying rationale was bearing some strong similarities with the military side when it came to the logic of capability requirements, contributions and shortfalls. The Civilian Headline Goals had nevertheless managed to progressively address requirements in terms of personnel, equipment and concepts (including deployment). The real-life experience had an important role to play in bringing forward the capability development process: while the European Union Police Mission in Bosnia had led to the development of integrated police units ready to serve under both civil and military command, missions such as EUPOL Proxima in the former Yugoslav Republic of Macedonia and EUJUST Themis in Georgia led to the establishment of a detailed list of capability requirements for police and rule of law officials.

Initial difficulties in further developing civilian capabilities for crisis management were linked rather to internal Member States regulations, an area where appropriate actions had been identified to support Member States in orienting their national decision-making and budgetary choices towards identified requirements.

"We cannot afford duplication. We have to give the right tools to Member States to help them decide on their investments and national efforts from a civil-military joint perspective."

Ms. Alda Silveira Reis, Head of Unit Partnerships & Military Capabilities, European Council Crisis Management and Planning Directorate (CMPD)

Regarding the question of developing new scenarios to further stimulate the capability development processes, Ms. Silveira Reis emphasised that there was no easy answer. For constabulary forces for example it would be more useful and time-saving to work on operational characteristics of their equipment than on revising existing scenarios. However, elaborating new scenarios taking into account concurrent missions and operations not envisaged before could prove useful in support of the Council Declaration on Strengthening Capabilities adopted under French Presidency.

She concluded that under the Lisbon Treaty synergies and coordination among the civilian and military dimension was no longer an option but a must.

The Crisis Management and Planning Directorate is currently working on a work plan on how to take this work forward in a number of issues. When promoting syn-

Specificities related to civilian capability development:

- the number of stakeholders seconding personnel to missions and operations is much higher on the civilian side

- civilian personnel is serving on a voluntary basis

- civilian missions are not financed by Member States but are based on contributions from the Union budget

ergies in general, it is key to start from the early definition of requirements to coordinated Research and Development activities.

With regard to the latter, current efforts between the EDA, the European Commission and the European Space Agency to better coordinate their respective activities were very welcome and look promising.

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The Commission's Essential Role in Building Civil/Military Capabilities

Mr. Lars-Gunnar Wigemark, Head of Security Policy Unit, DG External Relations, European Commission

Mr. Wigemark addressed the issue of civil and military capabilities by starting from the European Security Strategy, adopted in 2003 and having been reviewed recently under French Presidency in the second half of 2008. He highlighted the unique vision of the European Union by applying the 'comprehensive approach' throughout its missions and operations. Within this approach the European Commission would quite naturally focus on the civilian dimension within crisis management missions and operations. Contrary to what one would often hear, important progress had already been achieved and good examples of a cooperative civil-military approach would exist.

From an operational point of view he provided two concrete examples: the EUFOR Tchad/RCA operation and EUNAVFOR Atalanta.

With regard to the EUFOR Tchad/RCA operation, the European Commission had been very active through its delegation in Chad, supporting notably the UN in financing the training of Chadian police forces in order to provide security inside refugee camps. Complementary to that work, EUFOR troops had provided for a secure environment at large. The efficient security umbrella established by them had notably allowed for the delivery of humanitarian assistance to Eastern Chad along the border with Darfur.

As regards EUNAVFOR Atalanta, the first naval operation of the EU, active cooperation between civilian and military was taking place. The civilian side would notably focus on the development of 'capacity-building programmes' in states around the Horn of Africa, allowing them to provide for their own security in the long term. A training centre established in Djibouti in cooperation with the International Maritime Organisation (IMO) was currently supporting the training of coast guards in this respect.

For what regards the area of dual-use technologies and equipment, Mr. Wigemark went on to highlight the excellent ties developed between the European Commission and the European Defence Agency. Notwithstanding certain legal constraints in terms of funding (excluding co-funded activities for example), he stressed the importance of 'synchronising' research programmes across the different players and welcomed the launch of the 'European Framework Cooperation' for maximising complementarity and synergies across civil security, space and defence-related research. The European Commission had currently €200m of annual investment for Security Research under its Framework Programme. He pointed at certain specific areas of cooperation already identified, namely in the area of CBRN and Unmanned Aerial Systems. Another domain of cooperation would be space, with synergies to be explored in the area of earth observation, notably for what concerns the security dimension of the Global Monitoring for Environment and Security (GMES) Programme in support to Border Security and Maritime Surveillance.

> *"Maritime Surveillance is the example of civil-military cooperation par excellence. The area of Maritime Surveillance allows to see where difficulties and opportunities lie in developing a full-fledged civil-military approach."*
>
> Mr. Lars-Gunnar Wigemark
> Head of Security Policy Unit,
> DG External Relations,
> European Commission

While the European Commission had issued two Communications in October 2009 on Maritime Surveillance and on an Integrated Maritime Policy (IMP) (including issues such as port and coastal security),

he clearly acknowledged the CSDP angle to the topic. He welcomed the mandate given by the EDA to a group of five "Wise Pens" to produce a think piece on the way ahead. Already their intermediate report had been a very valuable contribution to the debate. The different European Commission services ranging from DG RELEX to DG MARE had worked well with the Wise Pens and were looking forward to the final report expected shortly. The Commission itself had been tasked by the Council in November 2008 to develop a roadmap on Maritime Surveillance by the end of 2011.

EUFOR TCHAD/RCA

- Launched on 28 January 2008, acting in accordance with the mandate set out in United Nations Security Council Resolution 1778, the operation EUFOR Tchad/RCA in Eastern Chad and the North-East of the Central African Republic came to an end. The UN mission in the Central African Republic and Chad (MINURCAT) has taken over the authority of the operation.

- The operation had the following objectives:

- to contribute to protecting civilians in danger, particularly refugees and displaced persons

- to facilitate the delivery of humanitarian aid and the free movement of humanitarian personnel by helping to improve security in the area of operations

- to contribute to protecting UN personnel, facilities installations and equipment and to ensuring the security and freedom of movement of its own staff, UN staff and associated personnel

Medical Command. © EUFOR Tchad - RCA

Serving Civilian and Military Actors

Mr. Daniel Calleja Crespo, Director, Air Transport, DG TREN, European Commission

Highlighting the opportunities provided by the Lisbon Treaty in terms of building bridges and connecting policies to ensure effective interaction between civil and military aspects, Mr. Calleja Crespo provided dedicated insight into the Air Transport Sector and the civil-military dimension involved.

He stressed that the aviation sector being a strategic sector for European growth, job creation and economic development, air transport makes a key contribution to the European economy, 130 scheduled airlines, 450 airports, and 60 air navigation service providers. Europe must also take into account the defence dimension,

> "We have to make sure that the definition of equipment and standards will be fully supportive of interoperability and compatibility between civilian and military."
>
> *Mr. Daniel Calleja Crespo Director, Air Transport, DG TREN, European Commission*

military operations being conducted from over 150 main military airfields across Europe. According to Eurocontrol estimates, the European State aircraft fleet would encompass 1100 large aircraft, 3300 combat aircraft and 2300 light aircraft. The overall aviation sector in Europe would account for over three million people employed and €120 bn of contribution to European GDP.

Providing military with a permanent access to the airspace without discrimination and sufficient airspace for adequate education and training is essential. The establishment at national level of a direct and efficient dialogue between civilian and military airspace users is essential, but the highest level of civil-military cooperation must also be search at European level. Close and permanent coordination

between transport and defence authorities would be all the more necessary as the European 'airspace' represents a scarce resource, which needs to be managed with flexibility, balancing commercial needs with defence requirements. 32% of the upper airspace is shared by civil and military actors with civilian air traffic accounting for 75% and civil-military operations for 25% in terms of time-sharing.

While the EU had achieved a Common Transport Policy and a Single Market (including in the aviation sector), Europe had not yet achieved a Single European Sky which is to be effectively put in place by the end of 2012.

Mr. Calleja Crespo stressed that tackling those issues without the military would be impossible. Military authorities would participate throughout the European process, be it in the Single European Sky Committee (one vote for each Member State but two seats to represent civil and defence interests), the Management Board of SESAR, in the Industry Consultative Body and within the Eurocontrol Organisation.

Throughout the implementation phase, civil and military actors would need to closely work together on a pragmatic basis and without establishing formal and complicated inter-institutional arrangements.

Further initiatives need to be taken on board such as the integration of UAS into non-segregated airspace. Also in this area, civil-military cooperation being crucial, Mr. Calleja Crespo welcomed the already established ad-hoc cooperation between the European Commission and the EDA which would be further developed.

State of the art and way ahead on the Single European Sky:

- Regulatory domain: a second legislative package was adopted in 2009 to consolidate the implementation of the Single European Sky, introducing new concepts as performance targets for capacity, cost-efficiency, safety and environmental footprint, the management of the network at European level, the introduction of the environment dimension, the introduction of the airport dimension and the extension of competence of EASA.

- Functional Airspace Blocks (FAB): An important target of the Single European Sky policy is the defragmentation of the organisation and service provision in the European airspace resulted in the development of FABs to be operational in 2012. FABs aim to manage flows based on operational requirements rather than existing national borders.

- Technology domain: the SES Air Traffic Management Research (SESAR) programme foresees a total of € 2.1bn for the development phase in view of delivering additional capacity, additional safety and additional performance. The European Commission contributes with € 700m, with Eurocontrol and industry providing each another € 700m.

- Interoperability: the EU launched in December 2009 formalegotiations for a Memorandum of Cooperation between EC and FAA and on interoperability between SESAR and NextGen, its US counterpart.

Increasing Responsiveness for Civil and Security Actors – The Space Dimension in Support of Crisis Management

Mr. Giuseppe Morsillo, Head of the Director-General's Policy Office, European Space Agency (ESA)

> *"We need a holistic approach - which implies not only making best use of existing civilian systems for crisis management actors at large but conceiving capabilities and the related space contribution in a comprehensive civil-military approach."*
>
> *Mr. Giuseppe Morsillo, Head of the Director-General's Policy Office, European Space Agency (ESA)*

Mr. Giuseppe Morsillo detailed the progressive development of a European Space Policy, building notably on close relations established between the European Space Agency and the European Commission since the adoption of a Framework Agreement in 2003. Within the European Space Policy of 2007, 29 EU and ESA Member States agreed on common strategic objectives, including 'Meeting European Security and Defence Needs'.

Already today the major stakeholders regarding the civil and defence dimension of space-related programmes, would regularly meet in the framework of the 'Structured Dialogue on Space and Security', involving the European Commission, the EU Council, ESA and EDA. Further opportunities of cooperation would exist with regard to the 'European Framework Cooperation' on which EDA had been mandated.

Several programmatic activities had been developed since, among them Galileo (satellite navigation) and GMES (Global Monitoring for Environment and Security) as "civilian systems under civilian control which may have military users". Another activity in the area of Data Relay shall enable the delivery of more real-time information, thereby avoiding that telecommunication means become the 'bottleneck' for collecting, processing and disseminating the information where and whenever needed. A European Data Relay System would thereby not only link with satellites but would need to take account of aircraft and UAS. Integrating UAS into the airspace would mean having the necessary communication infrastructure available at European level.

Mr. Morsillo highlighted further the contribution space can make to today's crisis management operations and missions, referring to the International Charter for Space and Major Disaster. The Charter had led to several space agencies putting in place a pragmatic system of space data acquisition and delivery at the disposal of various stakeholders in the event of a crisis, most recently in support of the 2010 Haiti earthquake.

Major topics of cooperation between the civil and security/defence side regarding space to date:

- Critical Space Technologies for European non-dependence
- Civil-Military synergies regarding Earth Observation
- Space Situational Awareness
- Space services for UAS
- Maritime Surveillance

Looking ahead, Mr. Morsillo pointed at the further potential of space applications to be fully exploited: so far, space programmes had been developed focusing on specific thematic domains such as Earth Observation, Navigation or Telecommunication. Synergies among the different areas had to be fostered in order to respond to user needs in terms of enhanced 'responsiveness' and timeliness of information acquisition and distribution - an aspect highlighted by both civil and military users in crisis management operations and explicitly targeted in the European Commission's ESRIF report. This would involve reflecting on Systems of Systems and architectural concepts, taking into account 'interoperability' aspects with defence actors and the need to integrate the space dimension with other technologies.

Beyond the issues of 'responsiveness', Europe would also need to reflect on its dependency on non-European sources, given that a variety of space-based security services are available to European security actors but the majority are not under European control.

The current Spanish Presidency, the upcoming Belgian Presidency as well as the next financial perspectives would represent opportunities for the EU Council, the European Commission, ESA an EDA to reflect on conceiving European infrastructures and services so that they fully respond to the large core of similar needs of civil and military actors in crisis management.

> *"Space delivers but we have large margins for improvement within the space community and in integrating space technologies and applications into wider Systems of Systems."*
>
> *Mr. Giuseppe Morsillo, Head of the Director-General's Policy Office, European Space Agency (ESA)*

Research and Technology in Support of Operational Needs – Towards an Integrated Approach in Defence, Security and Safety

Mr. Victor Elsendoorn, Managing Director, TNO Defence, Security and Safety

Mr. Elsendoorn started presenting the process applied in TNO as to safety, security and defence related research and development, highlighting the multi-disciplinary approach. Activities were grouped around five domains, each representing a specific know-how or knowledge base, which are used throughout the company, thereby ensuring cross-fertilisation of ideas and technologies. This approach had led in particular to important synergies between the civil and military domain and was building on a strong partnership with universities, other R&D actors and most importantly industry.

Mr. Elsendoorn addressed further the capability development processes underpinning the generation of such synergies. For what regards the defence side, he underlined the close contacts established with the Dutch Ministry of Defence, arguing that the whole capability definition process was clearly structured and well developed. The closed loop system between possible inputs from an integrated technology base and clear expression of capability requirements was crucial.

On the civilian side the capability development process would be much less defined and not as systematically organised. It remained very often driven by a problem-solving perspective and was not conceived in terms of generation of capabilities. The civilian side would still need to further develop such an approach and could learn from the experience gained in the defence sector.

Mr. Elsendoorn went on to say that this would not mean merging the processes on the civilian and military side. While the technology base itself needed to be fully integrated, the political demand side and associated capability development process would remain distinct, though working closely together throughout the process.

In view of increasing the synergies on the R&T side, he concluded by reflecting on the possibility to include Defence Research in the next Framework Programme for research, technological development and demonstration activities in the next financial perspectives. Being aware that associated processes would need to be explored beforehand as regards governance and IPR for example, a Defence Preparatory Action could help addressing this issue in the short term.

Examples of civilian experience benefiting military areas of interest exist:

- know-how on bio-mechanics, modelling and simulation from the automotive industry was used to develop absorption plates for armoured vehicles

- sensors originally developed for civilian satellites are now being integrated in military UAS

- knowledge on fireworks characteristics provided guidance on how to improve the safe storage of ammunition

Examples of fertilisation from initial defence-related technology to the civilian world:

- work undertaken for the Ariane rocket launcher led to spin-offs for propulsion technology in general

- work performed to enhance the effectiveness of soldiers benefited civil protection (CBRN), fire fighters and police forces

- elements developed in support of so called 'Combat Centers', combining aspects of technology and human interfaces, are now being used in the control room of the Dutch national railway system

- the trainer developed for Stinger rocket launchers has been useful in training operators of highway tunnel sections

Conference assessment and way ahead
A word from the Chief Executive

The Agency's fifth Annual Conference, having gathered over 300 participants, has delivered a wealth of information. No doubt, the Conference was deemed most timely and the outstanding commitment of the speakers and the audience alike showed the sharp interest in "Bridging efforts – Connecting Civilian Security and Military Capability Development".

The Lisbon Treaty is underlying our debate, providing a solid political basis and mandate to work closer together between the civil and military dimension. While the detailed implementation of the Treaty, the development of required concepts and the consolidation of respective roles and responsibilities will take some time, there are some "low hanging fruits" which we can develop further on a pragmatic basis. With Ms. Ashton being High Representative, Vice-President of the Commission and Head of the Agency and with the new Crisis Management and Planning Directorate in place, EDA is ready to provide the best possible support to civil-military cooperation in the interest of its participating Member States.

The Conference has enabled us to address 'civil-military cooperation' as a transversal topic, touching upon issues from 'lessons identified' in operations to the coordination of capability planning processes and possible cooperation on R&T issues. While Conference participants were able to pinpoint some key aspects and outline possible future developments, the real work for all of us – Member States, industry and European institutional stakeholders – will start now. We will have to identify the right answers to some very concrete questions.

What capability domain may be tackled as a priority as being particularly promising in terms of civil-military synergies?

What R&T cooperation projects to be set up in a complementary approach?

What armaments activities to be taken forward as a result of this conference?

How to make sure that the European industry remains closely associated to those efforts?

Based on the food for thought provided, I would like to highlight some of them, where I see EDA playing a role in the future. The good news is that we are not starting from scratch and that we are able to build on projects and initiatives that have already looked at civil-military interfaces in a number of areas.

Firstly, certain thematic areas have clearly been emphasised, in most cases taking up priorities that are included in the Capability Development Plan and have been highlighted by the Council in November 2009 as areas for strengthened synergies.

- *Communication and Information Systems (CIS) and sharing of information and intelligence:* the issue of timely information collection, sharing and dissemination to both civil and military crisis management actors has been highlighted. Information Management is a key area and EDA will further investigate this particular issue.

- *Medical Support* is an area of direct relevance to civil and military stakeholders and further synergies shall be explored.

- *Logistics:* EDA's third Annual Conference dealt with the particular issue of logistics and since then EDA has been at the forefront in developing a Third Party Logistics Support (TPLS) Platform. Experience has proven that TPLS has been used extensively by civilian actors to increase the visibility of business opportunities and identify commercial service provision in support of civilian crisis management or disaster relief operations.

- *Maritime Surveillance:* this area cuts across the capabilities and R&T domains and needs a common vision to bring about the necessary synergies between civil and military. The Report of EDA's Wise Pen Team, consisting of former Admirals from five different Member States, argues for a comprehensive vision on Maritime Surveillance. EDA's technical work on MARSUR will continue, focusing on 'networking' as well as on Future Unmanned Aerial Systems.

- *Space:* we need to look into the matter of what space can contribute to the overall capability development process, building on current programmes and initiatives taken on the civilian side and systematically exploring synergies with EU institutions and the European Space Agency in areas such as Earth Observation, Communication means, Data Relay and beyond.

- *Unmanned Aerial Systems:* the area of UAS air traffic insertion is a strategic one. We need to further coordinate with the European Commission a strategic roadmap and with ESA on specific demonstration aspects (UAS Command and Control). The technology roadmap developed by an EDA mandated industrial consortium (Air4All) needs to be further implemented and build on existing activities such as the EDA project on a Mid-Air Collision Avoidance System (MIDCAS).

- *Air Traffic:* EDA could commit to further raise awareness among our participating Member States on what is at stake for the military community with regard to the Single European Sky Initiative and provide support in further consolidating a defence position across Member States, including on standardisation issues and regulations.

Let me highlight, that a lot of those thematic areas - ranging from ISR and CIS, building on space assets and on UAS to areas such as Maritime Surveillance - are part of one requirement which is best described as 'Situation Awareness' or 'Situational Understanding' for actors in the field.

Secondly, across the thematic areas, we need to address some recurrent transversal issues:

- *Standardisation and interoperability:* continue to promote standardisation efforts between civil and military actors.

- *Education and training:* favour the exchange of best practices, common perception of threats and development of common visions through existing and potential future training courses (e.g. intelligence domain).

- *Support to illustrative scenario and lessons identified:* provide support to assessing the suitability of work on scenarios and further lessons learnt across the civilian and military domain.

- *Coordination of civil and military requirements:* systematically search for synergies between EDA's work regarding the definition of military capability needs with similar processes led on the civilian security side, leading to the aggregation of complementary requirements and build-up of complementary capabilities.

- *Regulatory Framework:* continue to monitor the evolution of the regulatory framework in areas such as Air transport , UAS Air Traffic Insertion, radio frequencies issues with a potential impact on the defence side.

- *Support to a strong European Defence Technological and Industrial base (EDTIB):* foster the competiveness of the EDTIB, addressing in particular dependencies on non-European sources of supply for critical technology domains.

- *Pooling and sharing:* EDA will start to identify, evaluate and select opportunities for pooling and sharing across all capability areas and develop dedicated capability roadmaps supported by strong business cases to provide pMS with recommendations to successfully apply Pooling and Sharing techniques to the selected capabilities. While initially focusing on military capabilities, the lessons learned from this process will undoubtedly be applicable to civilian capabilities.

Thirdly, we have to make full use of the tools we have at hand to fulfil our ambitions:

- *European Framework Cooperation (EFC):* the EFC as an umbrella initiative will start addressing aspects such as CBRN and UAS as clearly identified dual-use topics. The related issue of 'Situation Awareness' will be further investigated together with the European Commission and the European Space Agency, notably regarding issues from data collection to data sharing and dissemination, including aspects related to sensors, cyber security and information management.

- *Wise Pen exercises:* the work of the Wise Pen on Maritime Surveillance has been highly appreciated by Member States and institutions involved. This model might be applied more frequently for further transversal topics where the authority and reputation of the Wise Pen has helped going beyond institutional boundaries.

- *Future links with the European Commission's Framework Programme:* EDA will closely follow developments with regard to the European Commission's Framework Programme as regards security-related aspects and explore new ways of cooperation where feasible.

On all these issues EDA stands ready to take the topics forward with its shareholders – the participating Member States - and cooperate even more closely with colleagues across the civilian and defence domain. More detailed proposals will be made within the coming months. The overall objective of our Agency will thereby remain unchanged: deliver best value for money for its Member States and in support of the Common Security and Defence Policy.