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EU's Strategic Compass Follow the ambition

> COVER STORY

Head of EDA, HR/VP
Josep Borrell, on the
Strategic Compass

> VIEWS OF EU PRESIDENCY

France's Chief of
Defence on EU
cooperation

> IN THE FIELD

EDA's Sharing
of Spare Parts
project

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Paradigm shift

Putin's war against Ukraine is now already in its 5th month with, sadly to say, no end in sight. Nobody can predict for how long this unprovoked and unjustifiable aggression will drag on, and how it will end. What's for sure, however, is that it has fundamentally changed Europe's security and defence landscape overnight, probably for decades to come.

When circumstances change, action plans must be adapted too. Faced with the most serious military threat since WWII, Europe's immediate reaction was one of unity and determination – be it in the swift adoption of sanctions against Russia, the handling of refugee flows, or the delivery of defence weapons to Ukraine. Beyond that, the war has further galvanised Member States' readiness to foster defence cooperation and spend more (and better) on defence.

Fortunately, the "EU's Strategic Compass for a stronger EU security and defence in the next decade", meant to be the strategic roadmap towards a stronger and more integrated Europe of Defence, had already been in the making for some time (since mid-2020) when crisis struck. Its final approval by Member States on 21 March 2022, after important adaptations made necessary by the outbreak of the war, could not have been timelier. More important now than ever before, this Compass must – and certainly will – successfully guide the next European integration steps on security and defence.

Reason enough for *European Defence Matters* to dive deep into the Strategic Compass and analyse its ambitions and proposals. In particular, we give the floor to its author, HR/VP/Head of EDA Josep Borrell, and hear from the new Chairman of the EU Military Committee, General Robert Brieger, about the Compass' potential operational impact. This edition also includes exclusive interviews with the French Chief of Defence, General Thierry Burkhard, OCCAR Director Matteo Bisceglia, and the CEO of Finnish defence producer Patria, Esa Rautalinko. Furthermore, readers will learn more about different EDA capability projects designed to strengthen Member States' Armed Forces in these critical times.

As always, we hope you will enjoy your read. Should you have comments or recommendations, please get in touch: info@eda.europa.eu

Elisabeth Schoeffmann
EDA Head of Media & Communication

Helmut Brüls
Chief Editor

More than just another policy paper

When, on 17 June 2020, EU Defence Ministers invited the High Representative of the Union for Foreign Affairs and Security Policy (HR/VP) and Head of the European Defence Agency (EDA) to prepare, in close cooperation with Member States, "a comprehensive 360 degrees analysis of the full range of threats and challenges, which will provide the background for the Member States to develop a Strategic Compass document to be adopted by the Council in 2022", nobody imagined that the final approval of the Compass, in March 2022, would coincide with the return of war on European soil. Rewritten between 24 February and 21 March to reflect

Russia's war of aggression against Ukraine, the Strategic Compass for Security and Defence has become the EU's new security and defence instruction manual – both for responding instantly to a war situation in the middle of Europe, and for advancing on the path of European defence cooperation and integration in the longer term.

In the following pages, we dive into the Compass and hear from key decision-makers what makes this document, to which EDA also contributed, a uniquely ambitious and operational guide for strengthening European defence.



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"Aim must be to jointly procure and develop military capabilities"

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A guide for action

In the following exclusive article for *European Defence Matters*, the Head of the European Defence Agency (EDA), High Representative/Commission Vice-President **Josep Borrell**, lays out why the new Strategic Compass is essential for the EU's security and defence ambitions, particularly in times of instability and war, and how its implementation could boost defence cooperation and strengthen Europe's military clout, in complementarity with NATO.

Even before Russian President Putin launched his unprovoked war against Ukraine, Europe had been facing an increasingly competitive and assertive geostrategic environment. The Russian war in Ukraine has brought closer to our homes the bleak reality as it is, namely that Europe is in danger. The threats are rising, multiple and hybrid: military, economic and political. In the face of that, we cannot sit idle. Because the cost of inaction would be huge.

That is why, already in 2020, EU leaders tasked me with preparing a Strategic Compass for the European Union with the purpose to assess the threats and challenges the Union is confronted with and propose operational guidelines to enable the EU to become a security provider for its citizens, capable of protecting its values and interests. The Strategic Compass for Security and Defence, adopted by Member States and endorsed by EU leaders at the European Council in March 2022, matches this ambition. At the May 2022 European Council, EU leaders pledged to "resolutely" implement the Strategic Compass, enhance the Union's resilience, and increase its security and defence capacity through more and better investments, focusing on the defence shortfalls identified in the analysis of defence investment gaps I presented

together with the European Commission, in close coordination with the European Defence Agency.

While many Member States have recently announced increases in defence spending, there is much to do to compensate the under-spending and under-investment accumulated over the years between 2009 and 2018. In addition to long-standing capability gaps, the war in Ukraine and the new security context have exposed additional shortfalls and urgent needs. Addressing these gaps requires not just more defence spending but better defence spending. This means we must invest more together. In 2020, only 11% of defence equipment was procured in a collaborative manner – far below the EDA agreed benchmark of 35%. This inevitably brings fragmentation and inefficiencies.

This is why one of the taskings given by the Heads of State and Government is that of examining measures to coordinate short-term defence procurement needs to support joint procurement to replenish stocks (notably in the light of the support provided to Ukraine) as well as a tool to reinforce EU defence industrial capabilities through voluntary joint procurement. Work is already underway and, with its expertise, the EDA is playing a crucial role.



Head of EDA, HR/VP Josep Borrell, speaking at the first European

While working to address urgent needs in the short-term, we should also not lose sight of the capabilities required to ensure our armed forces are prepared for the battlefield of the future. According to EDA figures, in 2021 EU Member States spent €3.3 billion on Research & Technology – 1.5% of the total defence expenditure. While this is an improvement compared to 1.2% in 2020, it still remains below the agreed EDA benchmark and PESCO commitment of 2%. More importantly, collaborative investment in Research & Technology remains too low,

EUROPEAN DEFENCE INNOVATION DAY

BRUSSELS
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Defence Innovation Day organised by EDA (31 May 2022)

with the lowest point of 6% of total R&T expenditure reached in 2020. To retain an edge over competitors and potential adversaries, we must make full use of emerging and disruptive technologies to develop capabilities across the full spectrum. In other words, we need to invest more in defence innovation and do so together.

The EDA certainly has a key role to play in this field as well. It has been dealing with innovation since its creation in 2004.

And it has already delivered. Successful examples include projects on drone swarms, technologies for electromagnetic railguns, or new clean energy technologies to lower the carbon footprint and decrease energy dependencies in the defence sector. These are all initiatives developed in the EDA framework. The EDA Hub for European Defence Innovation launched in May 2022 will be instrumental to further promote cooperation at European level in this field and is one of the first deliverables of the Strategic Compass.

Guide for action

As the name rightly suggests, the Compass is a guide for action. It sets out an ambitious way forward for our security and defence policy for the next decade. It will help us face our security responsibilities, in front of our citizens and the rest of the world. If not now, then when? Passivity would expose Europe to the risk of strategic shrinkage or, worse, irrelevance. Therefore, the Compass not only sets a shared ambition, but also presents concrete means and timelines to make this ambition a reality. →



At their informal meeting in Versailles (10-11 March 2022), EU leaders invited the Commission, in coordination with EDA, to put forward an analysis of the defence investment gaps

The Compass fits into a wider effort of Member States and EU institutions to boost defence cooperation and strengthen Europe's collective military clout, in complementarity with NATO. To be successful, we must connect and integrate the defence efforts of Member States, avoid duplications and gaps in our critical capabilities, and become more efficient and interoperable in joint EU missions and operations abroad, which are crucial because our security starts away from our borders. Therefore, Europe needs to be able to project its economic, political and military clout in the world, promoting security in our neighbourhood and with our partners.

Also, we need to develop a common strategic culture. Because of history and geography, we Europeans do not always see the world in the same way, and a necessary first step was to come up with a shared threat assessment, which we did in November 2020.

A new world of threats

The starting point was to recognise that Europe faces new threats. Threats that are

not just military or territorial. We are seeing the return of power politics and zero-sum conflicts with competition between states intensifying. Interdependence is becoming increasingly conflictual and soft power is weaponised. The world is full of hybrid situations where we face intermediate dynamics of competition, intimidation and coercion. The tools of power are not only soldiers, tanks and planes, but also disinformation, cyber-attacks, the instrumentalisation of migrants, the privatisation of armies and the political control of sensitive technologies or rare earths. The defence of Europe will require a new, comprehensive concept of security, with emerging technologies having a profound impact on future warfare and European defence.

The geopolitical stage is also becoming more complex. More and more states are behaving as partners on certain issues and competitors or rivals on others. International relations are increasingly organised on a transactional basis. This goes combined with dynamics such as the

collapse of states, the retreat of democratic freedoms, violations of international and humanitarian law, plus the attacks on the 'global commons' – cyber space, the high seas and outer space.

Learning the language of power

Europe will always continue to favour dialogue over confrontation, diplomacy over force, and multilateralism over unilateralism. But if you want dialogue, diplomacy and multilateralism to succeed, you need to put power behind it. You need to 'learn the language of power'. Equally, we should be result-oriented and avoid going for conceptual or institutional discussions, thus side-stepping the harder task of enhancing our capacity to act. It is often easier to talk – and disagree – in abstract terms, than it is to act and agree on how to do things in concrete terms. To prevent the risk of 'strategic shrinking', the Strategic Compass proposes ways and means for the EU to handle the challenges it faces. This will require political will, without which nothing is possible and operational efficiency, without which



"The proof of Europe's geostrategic clout will be in its practical and operational ability to act, also militarily"

everything is weak. Taken together, these two ingredients will enhance our credibility and capacity to fulfil our aims.

Capabilities to be able to act

At the end of the day, the proof of Europe's geostrategic clout will be in its practical and operational ability to act, also militarily. The EU needs to be able to conduct operations in all circumstances, including those involving the use of force, as foreseen by the Treaties. To secure European interests, we need to do this in a coherent, pragmatic and flexible way. In recent years, the EU has equipped itself with a number of instruments to do this and to strengthen our operational capacity. In 2017, we launched for instance the Coordinated Annual Review on Defence (CARD) to rationalise military spending across the EU and Permanent Structured Cooperation (PESCO) to increase the capabilities and interoperability of European armed forces. Building on earlier efforts, we established the European Defence Fund (EDF) in January 2021, to promote defence industrial collaboration. The EU currently has 18 civilian and military missions and operations deployed around the world. With the Civilian CSDP Compact agreed in 2018, we committed to strengthen our civilian missions – and we are well on our way.

The Strategic Compass builds on this wider process. It is neither a crystal ball for predicting the future, nor a 'silver bullet' that will magically enable Europe to develop a true common defence policy overnight. It is, however, a guide for preparation, decision and action. Based on the guidance of EU leaders, the Strategic Compass is proposing concrete ideas in four work strands so that we: **act** more quickly and decisively when facing crises; **secure** our citizens against fast-changing threats; **invest** in the capabilities and technologies we need; and **partner** with others to achieve common goals.

Urgency

This is, of course, not the first time that the EU describes its strategic environment and how it intends to respond. Indeed, the history of European integration is full of plans and initiatives to strengthen our security and defence and the ability to act together. And while we have made progress in recent years, not all our stated intentions have been realised. The difference this time lies in the speed at which the geopolitical context is changing. The Ukraine war is a dramatic and painful confirmation of that. The case for action is more urgent than ever and compelling. The threats we face are intensifying and the capacity of individual

Member States to cope is insufficient and declining. We Europeans must invest in our capacity to think, decide and act in strategic terms – together with our partners whenever possible and on our own when needed. The Strategic Compass sketches out a path to specify the why, the what and the how, offering a range of proposals, small and large, covering the full spectrum.

Towards a common defence

As ever, results depend not on strategy papers but on actions. These belong to the Member States: they hold the competences, the prerogatives and the assets. EU institutions can put forward proposals, facilitate discussions and support implementation, but eventually Member States are those taking decisions and these decisions will determine whether the geopolitical shifts of recent months and the renewed debate on European defence are yet another wake-up call that goes unheeded, or whether the Strategic Compass is a steppingstone towards a stronger and more integrated European defence. I am convinced that we cannot afford to treat our security and defence as business as usual. The moment for decisive steps is now and we need to develop the means to protect ourselves in a dangerous world. 

Playbook for a capable European defence

Making Europe an international security provider able to protect its citizens, interests and values requires vision and action. The EU's Strategic Compass, approved by Member States in March, offers both: a strong, common vision and ambition based on a shared threat assessment, backed by clear commitments to act and achieve concrete results by 2030. A central component of the Compass is its 'Invest' chapter to which the European Defence Agency (EDA) contributed significantly. Overview and analysis.

With war having returned to European soil, there couldn't be a more timely and appropriate moment for EU Member States to agree on a Strategic Compass for Security and Defence than now. Prepared by the European External Action Service (EEAS) over the past two years, and adopted by Member States on 21 March, it sets out a plan to strengthen the EU's security and defence policy by 2030 aiming to become a "more assertive and decisive security provider". The Compass will guide the EU's security and defence policy for years to come, based on a common assessment of the global geostrategic threats and challenges, a common vision of where to go, as well as objectives and proposed actions in order to achieve this goal, in cooperation with partners (especially NATO).

This comprehensive, action-oriented approach is probably what makes the Strategic Compass so unique and, by far, the most ambitious and credible EU security & defence policy document to date: it not only provides a shared assessment of Europe's

strategic environment and its current and future threats in the 5-10 years to come ("We are confronted with a dangerous mix of armed aggression, illegal annexation, fragile states, revisionist powers and authoritarian regimes"), but also sets out new immediate ways and means for the EU and its Member States to jointly improve their collective ability to promote peace and guarantee the security of its citizens and territory, with concrete proposals and action points, target dates and milestones to measure progress.

The whole approach is based on the recognition that "European security is indivisible" and any challenge to the European security order affects the security of the EU and all its Member States. Importantly, it also sets in place a follow-up process with regular reviews at Council and European Council (Heads of State and Government) level. The first progress report is scheduled for 2023.

Quantum leap

The longed-for quantum leap requires that "the EU and its Member States must invest

more in their security and defence to be a stronger political and security actor". Despite the progress made since the publication of the 2016 EU Security Strategy and the subsequent creation of EU defence cooperation tools such as the Coordinated Annual Review on Defence (CARD), the Permanent Structured Cooperation (PESCO) and the European Defence Fund (EDF), "there is a major risk of being outpaced by our competitors". Therefore, "a lot remains to be done for the EU to raise its geopolitical posture. This is why we need a quantum leap forward to develop a stronger and more capable European Union that acts as a security provider (...). The Strategic Compass is to enhance and guide the implementation of the EU's Level of Ambition agreed in 2016" which, as a reminder, also included the need to develop an appropriate level of strategic autonomy in order to be able to guarantee the security of the Union and its citizens.

In concrete terms, EU institutions and Member States "commit" in the Compass to the following concrete priority actions in four work strands:





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ACT

The Compass puts the focus on the need for Europe to be able to "act rapidly and robustly whenever a crisis erupts, with partners if possible and alone when necessary". To that end, a series of measures are foreseen such as:

- to reinforce the EU's civilian and military CSDP missions and operations "by providing them with more robust and flexible mandates, promoting rapid and more flexible decision-making processes and ensuring greater financial solidarity, while also promoting close cooperation with European-led ad hoc missions and operations";
- to develop an EU Rapid Deployment Capacity that can swiftly deploy up to 5,000 troops into non-permissive environments for different types of crises;
- to strengthen the EU's command and control structures, in particular the Military Planning and Conduct Capability, and increase Europe's readiness and cooperation through enhancing military mobility and regular

live exercises, in particular for the Rapid Deployment Capacity.

SECURE

Under this chapter, the Compass stresses Europe's need to "enhance its ability to anticipate threats, guarantee secure access to strategic domains and protect its citizens". For that purpose, Member States and EU institutions agree and commit to:

- boost the joint intelligence capacities, such as the EU Single Intelligence and Analysis Capacity (SIAC) framework, to enhance situational awareness and strategic foresight;
- create an EU Hybrid Toolbox that will bring together different instruments to detect and respond to a broad range of hybrid threats. In particular, it is agreed to develop a dedicated toolbox to address foreign information manipulation and interference;
- further develop the EU Cyber Defence Policy to be better prepared for and respond to cyberattacks;
- strengthen the maritime, air and space

domains, notably by expanding the EU's Coordinated Maritime Presences to other areas, starting with the IndoPacific, and by developing an EU Space Strategy for security and defence.

PARTNER

The Compass also pleads for a strengthening of the EU's cooperation with partners in order for it to be better prepared to address common threats and challenges. Among the required measures, already endorsed by Member States, are:

- a reinforcement of the strategic partnerships with NATO and the UN "through more structured political dialogues as well as operational and thematic cooperation". In addition, it is agreed to increase the EU's cooperation with regional partners, including the Organization for Security and Co-operation in Europe (OSCE), the African Union (AU) and the Association of Southeast Asian Nations (ASEAN);
- an enhanced cooperation with bilateral partners that share the same values →



and interests such as United States, Norway, Canada, UK and Japan. "Tailored partnerships" should also be developed in the Western Balkans, the EU's eastern and southern neighbourhood, Africa, Asia and Latin America;

- the development of an "EU Security and Defence Partnership Forum" to work more closely and effectively with partners to address common challenges.

INVEST

This is probably the most important part of the Compass, and its message is clear: "We must resolutely invest more and better in defence capabilities and innovative technologies, both at the EU and national levels", and we must make sure that we spend not only more, but also more wisely, and foster a much stronger military cooperation in Europe. Increased investment will enable individual Member States (and Europe as a whole) to fill critical capability gaps, overcome fragmentation, achieve full interoperability of their forces and develop a resilient, competitive and innovative European Defence Technological and Industrial Base throughout the Union.

Therefore, by approving the Strategic Compass, Member States took significant commitments which, if respected and implemented, will not only lead to higher defence spending, but also more

collaborative European projects along the CARD recommendations. "We will therefore substantially increase our defence expenditures, with a significant share for investment, focusing on identified strategic shortfalls. We will ensure a coordinated and collaborative European approach for such enhanced expenditures at Member States' and at EU level, to maximise output, increase interoperability and make full use of economies of scale. To this end, we will define strategic orientations on the resources that are necessary to match our security needs and the full use of EU tools to incentivise collaborative defence investments", is stated in the Compass.

Better capabilities

The money invested must serve to fill existing capability gaps – primarily those identified in the Capability Development Plan (CDP) and the first CARD report that provide a clear and coherent "direction of travel" and help Member States to invest in innovative and interoperable high-end capabilities, and enabling the use of these capabilities in the full range of missions and operations, including for high-intensity operations, and respond to any future crisis and threat. Here, Member States also agree and commit "to take forward the recommendations of the first-ever Coordinated Annual Review on Defence Report published in 2020, including the agreed six capability 'focus areas' that

would benefit from enhanced defence cooperation", namely the Main Battle Tank, Soldier Systems, the European Patrol Class surface ship, Anti Access Area Denial capacities and Countering Unmanned Aerial Systems, Defence in Space and Enhanced Military Mobility.

"To act rapidly and protect our citizens, we will work together to overcome critical gaps. We will make full use of Permanent Structured Cooperation and the European Defence Fund to develop interoperable high-end systems and advanced technologies", one reads in the Compass. More precisely, the EU-27 commit to developing the following capabilities through collaboration:

- **Land** – upgrade, modernisation and progressive replacement of current major platforms and related logistic systems. "The focus areas Soldier Systems and Main Battle Tank will be important contributions to these efforts";
- **Maritime** – ensure a more assertive EU presence at sea as well as the ability to project and use powerful high-end naval platforms, including unmanned platforms for surface and underwater control. "The focus area European Patrol Class Surface Ship will be an important step in this direction";
- **Air** – develop next generation and fully interoperable capabilities, notably future combat systems as well as air defence



systems. "We will progressively integrate the foreseen future combat systems, including Remotely Piloted Air Systems, into existing fleets of combat air systems in an interoperable manner. Efforts on key enablers also need to be pursued, notably the Strategic Airlift capability. The focus area Anti Access Area Denial capacities and Countering Unmanned Aerial Systems contributes to the air defence dimension of these efforts";

- **Space** – develop new cutting-edge technology sensors and platforms allowing the EU and its Member States to improve its access to space and protect its space-based assets. "This entails notably the development of Space Based Earth Observation, as well as technologies for Space Situational Awareness and space-based communication and navigation services";
- **Cyber** – European forces need to operate in a coordinated, informed and efficient manner. "We will therefore develop and make intensive use of new technologies, notably quantum computing, Artificial Intelligence and Big Data, to achieve comparative advantages, also in cyber responsive operations and information superiority. Cyber defence is paramount in ensuring that the focus area Enhanced Military Mobility unfolds its full potential as essential enabler".

Part of the joint capability projects will be developed through PESCO where cooperation must be intensified. "Concretely, this means that by 2025 Member States participating in Permanent Structured Cooperation must fulfil all more binding commitments that they have undertaken. In 2025, one third of 60 ongoing Permanent Structured Cooperation projects will deliver the expected capability and meet their objectives. Beyond these concrete results, our goal is to go further by implementing the agreed capability priorities and developing new ambitious projects. We will closely review the fulfilment of these commitments in order to be able to agree on new commitments in 2025 to further deepen defence cooperation", is stated in the Compass.

Better planning

Member States are also willing to adapt the EU's defence capability planning and development, notably by revising the capability planning scenarios of the Headline Goal process, to better reflect operational realities, strategic foresight and bring military capability development closer to operational needs, which provides an essential contribution to the Capability Development Plan. Such scenarios include military rapid deployment in a non-permissive environment, as well as responding to hybrid threats, securing

access to strategic domains such as high seas, air, cyber and space, and providing military assistance to civilian authorities.

Importantly, national Ministries of Defence also want to ensure that all EU defence initiatives (CARD, PESCO, EDF) and capability planning and development tools (CDP, OSRA) are better embedded in national defence planning. "We will continue to ensure that the results of these processes remain coherent with those of the respective NATO processes. This will enhance the readiness, robustness and interoperability of our single set of forces", is stated in the Compass. Member States also commit to "maximise coherence between the EU defence related initiatives" (CARD, PESCO, EDF).

A Defence Innovation Hub within EDA

Emerging and disruptive technologies – such as Artificial Intelligence, quantum computing, advanced propulsion, bio- and nanotechnology and new materials and industrial capacities – are shaping military affairs and defence markets and, therefore, must be at the heart of Europe's collective defence investments. Even though a lot has already been done in recent years to boost innovation, more needs to be done "both at the national level and through a more ambitious use of EU instruments to be better prepared for the future battlefield and the next generation technology".

Among the concrete commitments made by Member States is the establishment of a Defence Innovation Hub within EDA: "In 2022, we will establish a Defence Innovation Hub within the European Defence Agency, working in partnership with the Commission to exploit synergies with its related work-strands, including the EU Defence Innovation Scheme. The parameters of this Hub will be defined within the framework of the European Defence Agency". On 17 May 2022, EDA Defence Ministers already responded to this tasking when, meeting at the Agency's ministerial Steering Board, they approved the establishment of HEDI, the Hub for EU Defence Innovation (*see related article on pages 20-21*). [K](#)

EDA's input to the Strategic Compass

Jiří Šedivý, EDA Chief Executive



"New high-end capabilities, not new processes"

EDA has been associated to the Strategic Compass' preparatory work since its beginning in June 2020 and has notably contributed to the 'Invest' chapter. Here, the Agency's input proved crucial for ensuring the appropriate references to the CARD findings, in particular the six recommended 'focus areas' for future cooperation and the innovation/technology aspects of collaborative capability development.

"Throughout the consultation phase and the drafting of the Strategic Compass, the Agency has always underlined that substance and concrete guidance for achieving our common ambitions had to be at the core of the document. We also continuously insisted that the end result of this Compass must be the development of full spectrum, high-end capabilities for our Member States' Armed Forces, and not the creation of new processes or priorities", explains EDA Chief Executive Jiří Šedivý.

"That's why it was important for us to make sure the Compass builds on the existing EU defence initiatives (CARD, PESCO, EDF) and well-established prioritisation tools (Capability Development Plan – CDP, Overarching Strategic Research Agenda – OSRA and the Key Strategic Activities – KSA) and that we do not start from scratch. Another priority for the Agency was to ensure that the Invest chapter of the Compass addresses the entire European defence landscape and that it aims for continued coherence of output with NATO.

In doing so, I believe that EDA has significantly contributed to making the Strategic Compass forward looking, strategic, but at the same time concrete as to its objectives and timelines. Given the extraordinary times we are now living in, we must rapidly deliver on what we have agreed on. Member States will be in the lead when it comes to implementing the commitments and the actions that they have agreed to in the Strategic Compass, but the EEAS, in close coordination with the Commission, EDA and the Presidency of the Council, will oversee implementation. A number of actions need to be implemented already this year. I am proud that with the official launch of the Hub for Defence Innovation in EDA in May, we already delivered on the Compass, in support of Member States and European defence", he says.

EDA is also analysing first 'lessons identified' of the on-going war in Ukraine and will use them to update and refine the CDP, taking fully into account the requirements of high-intensity warfare in full complementarity with NATO.



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"We need to enhance cooperation, at all levels"

Less than two months into his new position as Chairman of the EU Military Committee, **General Robert Brieger** looks at recent security and defence developments, including the EU's Strategic Compass, all of which, he says, are shaping a future European Defence Union expected to deliver and protect in times of unprecedented challenges.

There could have hardly been a more interesting time to take over the role of Chairman of the EU Military Committee (EUMC) than now. A central part of the EU Strategic Compass preparations, the EUMC had just delivered its key contribution: the military expertise, the so-called 'end-user perspective', to set the political guidelines for an historical shift of gear towards a credible European defence. A true success story for the European Union in terms of demonstrating, with an actionable document, the required shared

responsibility for ensuring the security and defence of EU interests.

However, just when Member States were about to co-sign the Strategic Compass, the unjustified and unprovoked Russian invasion of Ukraine brought war back to European soil, brutally.

Considered a wake-up call or even a tectonic shift, this crisis has come as the latest in a long series of events affecting – more or less directly – the security of our

territory and citizens. The Caucasus, the Western Balkans, Afghanistan and the Indo-Pacific region, Syria, the Mediterranean Sea and Libya as the bottleneck of all crises stemming from the Sahel: these are all troubled or potentially distressed regions where the EU is already active, with the objective of projecting security.

Strong, unprecedented EU reaction

Yet, the magnitude of the EU's overall reaction in support of Kyiv is unparalleled, →



with powerful and unprecedented political and economic sanctions now in place against Moscow. Breaking long-standing taboos, the EU also unleashed the full power of its European Peace Facility mechanism, financially backing the delivery of lethal weapons to Ukraine for the defence of its territory. Not to forget the significant change of mind on security and defence witnessed in countries such as Sweden, Finland, Germany and Denmark.

In my opinion, this is the very first lesson we can draw from the recent crisis: when the going gets tough, the EU and its Member States can flex their muscles. In this respect, the Russian aggression against Ukraine has proven to be a real game changer, far from dividing EU Members States.

On the other hand, we know that we need to exercise those muscles, now.

Even though the EU is not directly engaged militarily in this conflict, there are already a number of lessons identified that will be key in supporting the implementation of

the Strategic Compass, and developing a credible and more autonomous EU defence.

Operational lessons identified

Remaining below the nuclear threshold, this conventional conflict has in fact shown that the quantity of available boots on the ground, armaments, technology, imagery, communications, as well as the industrial support, continue to be decisive for projecting power on the battlefield. In addition to that, this war is also showing the importance of having adequate weaponry stockpiles, once the conflict turns into a war of attrition.

Logistics, often considered secondary compared to operational aspects, have once more demonstrated their crucial impact on warfare: footage of tanks out of fuel, kilometres-long convoys stalled on the street sides and soldiers hunting for food will fill history books with powerful images, and not just for military planners...

Linked to this, the surgical use of strategic communications has also been instrumental

in building narratives to motivate soldiers, population, create partnerships, achieve support, and eventually gain an advantage on the battlefield.

Last but not least, in an enlarged battlespace jammed with sophisticated Unmanned Aerial Vehicles (UAVs) and satellite reconnaissance, but also made of shoulder-rockets and tanks, this conflict has demonstrated how cyberwarfare can often disrupt, but seldom disable operations.

Against this backdrop, one question arises: in such a scenario, would the EU be capable – as a whole – to defend itself against immediate threats and challenges? The answer is not so simple.

The evolving global scenario, marked by continuously shifting interests after the end of the Cold War, has led the EU to acknowledge that relying solely on other organisations for its own security is anachronistic and unreasonable. Hence its ambition to seize the moment and move towards more autonomy.

While collective defence is and will remain within NATO's remit, the EU recognises that its muscles are strong, yes, but probably not strong enough to support its current ambitions. In fact, there are still critical capabilities and capacities we lack in order to be credible when we cooperate with partners (our preferred way), or when we have to act autonomously (should the situation require it).

On top of Europe's list of capability gaps feature Command and Control structures, suitable Communication capacities, logistic, airlift, medical support, military mobility, intelligence and reconnaissance instruments, all of which are enablers necessary to project security abroad. Such capabilities are indispensable even for crisis management in non-permissive environments, and the activation of the newly agreed spearhead of EU defence, the Rapid Deployment Capacity.

If you want peace, prepare for war

All these topics have been addressed, in principle, by the Strategic Compass, which must be now implemented with a new, truly converging attitude by all Member States. This is something we must still achieve.

The fragmentation of the defence landscape and the uncoordinated way we continue to spend our national defence budgets are leading examples of this lack of cooperation: we don't do enough joint research & innovation and joint procurement, while we maintain old national arsenals and invest too much into competing systems. From a purely military perspective, all this is hardly understandable in terms of interoperability and logistics, and unacceptable if we want to protect ourselves against direct and long-term threats for Europe's security.

Therefore, the way ahead should be based on a simple concept: if we want peace and stability, we should also prepare for war. An old, yet still valid concept. Security does not come easy, nor for free.

More cooperation needed

In practical terms, using the current momentum without aiming to duplicate

or compete with NATO, we should rapidly achieve our own, autonomous capacity to manage operations and missions, dispose of strategic foresight, and do our defence planning, for prevention and deterrence, in a more integrated, collaborative way.

We should give up some national sovereignty in developing key capabilities. In a way, we should take a step back as single stakeholders, only to better advance together afterwards, in a rugby-like strategy. We should refill our stocks, in some cases consistently depleted by considerable transfers of military equipment and ammunition to Ukraine, by buying together, and better.

Time on our hands is very limited. Decisions cannot be procrastinated any further, especially considering the long timespan required to prioritise defence spending, procure key systems and have them operationally available.

We will then need to exercise those capabilities and capacities, robustly, and to find ways to finance and enhance those exercises. Together as EU Member States, and with partners.

At the same time, for the sake of credibility, we should not diminish our current efforts on the ground but, on the contrary, invest more in mitigating existing and potential future crises, wherever the EU's interests are at stake, also considering their economic, energy-related and humanitarian effects, to name only a few of them.

Because if the Russian aggression has attracted all the spotlight, several other crises continue to raise concerns, often right at our borders.

In conclusion, if I had to highlight three topics on which I intend to focus my EUMC Chairmanship in the next three years, I would mention: cooperation, implementation of the Strategic Compass and support to CSDP activities.

First, the need to enhance cooperation, at all levels. Cooperation among ourselves,

as military leaders, among Member States, with NATO, the UN, the African Union and all other stakeholders involved.

This cooperation will be even more instrumental if we can benefit from the existing and new collaborative opportunities, and if we deliver on the Strategic Compass in a timely fashion, knowing that 60% of the agreed actions in the Compass are to be implemented before the end of this year.

Finally, we should continue to build on the results and lessons learned from our ongoing missions and operations, and make their mandates more robust and effective. Eventually, this will make them more attractive for contributing Member States and partners and deliver a message of trust to host nations and the wider international community.

To sum up, I believe that more than ever before, the EU is now regarded as a first-line security stakeholder, which plays a leading role in the A-league of global security providers. The Russian aggression against Ukraine has pulled Member States together, offering an opportunity we cannot miss. The situation calls for it, our partners demand it, and European citizens expect it. 



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General Robert Brieger (Austria) was selected in May 2021 by the Chiefs of Defence of the 27 EU Member States as new Chairman of the EU Military Committee and appointed to the post by the Council. He assumed his position on 16 May 2022, taking over from General Claudio Graziano.



"Aim must be to jointly procure and develop military capabilities"

In the following Opinion Editorial, **Dr. Jana Puglierin**, Head of Office and Senior Policy Fellow at the European Council on Foreign Relations (ECFR), shares her analysis about what impact the Strategic Compass and the current developments around the war in Ukraine might have on European security and defence cooperation in the future.

For years, the EU's security environment has continued to deteriorate. To Europe's South, European efforts to project stability in Mali and the wider Sahel region have not met with the hoped-for successes. The crises in Syria and Libya have gone into their second decade, but Europeans have barely been relevant actors in the efforts to settle them. The Afghanistan mission has failed, and the chaotic withdrawal has painfully illustrated Europe's total military dependence on the United States.

Simultaneously, great power competition between the US and China has emerged as the dominant factor of international politics. Faced with all these developments, the gap between the EU's global ambitions and its actual influence has grown. It has long been clear that the EU and its Member States need to adapt their security and defence policy to new realities to shape international developments rather than being shaped by them.

Right time

Putin's war has now put an end to all effort to integrate Russia into the European security order. For the foreseeable future Europe's task will be to deter Moscow's aggression and to manage a long-term confrontational relationship with the Kremlin in close alliance with the United States. In response to Putin's war, many states across Europe have decided to turn their security and defence policies upside down. Many will significantly increase their defence spending. Denmark just held a successful referendum on ending the CSDP opt-out, Sweden and Finland want to join NATO.

To react to these developments, the EU's Strategic Compass comes at just the right time. Although it cannot provide a full answer to the war in Ukraine, which it was never intended to do, it offers a concrete roadmap for developing the tools that the EU needs to finally become a more forceful

actor in European defence and security. With its deliverables, it sets the direction that European Member States must now take.

No alternative to NATO

The biggest obstacle on the way to a stronger EU has always been that there is little consensus on what the overall ambition of the EU should be – especially in relation to NATO. Member States differ in their judgement of which organisation should form the central framework for European sovereignty. This became particularly evident during the Trump years when Europeans engaged in a divisive debate about the need for more "strategic autonomy". Luckily, the Strategic Compass is in no way trying to position the EU as an alternative to NATO. On the contrary, the emphasis on the need for constructive cooperation between the two organisations is a recurring theme throughout the document.

"The more Europeans invest in their own defence capabilities, the more attractive they will become as partners for the US"

Two aspects are particularly important. First, the division of labour between the EU and NATO and both organisations' own aspirations have become more distinct. The Compass takes a clear position and attributes the role of Europe's collective defence clearly to NATO while the EU's focus is on crisis management. At the same time, however, the Compass also states that the EU can and should play a role as crucial enabler of a stronger European defence.

Invest more and better

The biggest contribution to this is the commitment by EU Member States to invest more and better in defence capabilities and innovative technologies. In view of the large sums that the individual Member States will invest in defence in the coming years, the incentives which the Compass suggests (Commission / EDA report on collective investment gaps, VAT waiver, more money for the European Defence Fund...) to spend the money better and in a more coordinated manner are urgently needed. Given that European citizens are already very burdened by inflation and increased energy and food prices, Member States will have to work even harder to achieve more efficiency at less cost if they want to ensure that societies sustain high defence spending in the long run.

The main aim must be to jointly procure and develop military capabilities in the EU framework that can also bolster NATO's deterrence and defence capacity. Increased efforts in the field of military mobility will also benefit European defence, just like the planned measures to increase European resilience.

Uncertain relationship with the US

As good as the transatlantic relationship is at the moment, Europeans should not be under any illusion that Washington's shifting priorities and calls for Europeans

to take a greater share of the burden will diminish. The truth is that without the strong leadership of the United States, Europeans would have been less united and forceful when Russia started the war on Ukraine. However, it would be wrong to take the American commitment and engagement for granted. The more Europeans invest in their own defence capabilities in the coming years, the more attractive they will become as partners for the US. This will not happen without friction, especially when it comes to industrial policy issues and the question of whether the many additional billions for defence should be spent on European or American products. In the process, the Europeans must repeatedly signal to Washington that a more capable Europe in security and defence must include a strong, innovative and competitive defence industry whose expertise in strategic future technologies is on a par with that of other major powers.

Precisely because the US will focus its security engagement more narrowly in the future, Europeans must have more responsibility when it comes to providing security in their own periphery. After the experiences of Afghanistan and Mali, intervention fatigue has set in. The war in Ukraine is now drawing additional attention away from crisis management. Europeans must not lose sight of this task, especially in view of the massive impact of the war on regions such as Africa or the Middle East due to the looming threat of famine triggered by food shortages and rising prices.


High crisis management expectations

Expectations towards meaningful European contributions to crisis prevention, stabilisation and peacebuilding are very likely going to increase. This might also lead to a new demand for European-led missions and operations. This was a big problem in the past. While operational structures

and capabilities have been strengthened on paper, Member States have made little use of them. When EU Member States have voted in favour of an EU mission or operation in the Council, they have afterwards shown little willingness to also provide the forces required for it. Given the consensus-based – and therefore often cumbersome – decision-making process within the EU framework, those Member States that saw an urgent need for action are increasingly moved outside the formal CSDP structures.

The Strategic Compass now seeks to make European crisis management more flexible, faster and more effective. The Strategic Compass envisages some concrete ideas: The implementation of Article 44 might speed up decision-making. While it certainly is no silver bullet, it could still make it more attractive for Member States to contribute forces and capabilities to operations. The Compass also suggests that the EU could make a financial contribution to support Member States' collective actions through the newly established European Peace Facility – which has already been very successfully used to support Member States' assistance to Ukraine.

Ultimately, however, whether the means and tools suggested in the Strategic Compass will be used depends on the will of the Member States. This also applies to the newly established EU Rapid Deployment Capacity, whose usefulness has yet to be proven. Why should an intervention force of 5,000 be any more credible than its predecessors of 60,000, and of 1,500?

So much has been described as a "final wake-up call" for the EU. Yet Europeans have continued to press the snooze button and muddle through. Faced with the return of full-blown conventional war in Europe with massive spill over potential, they simply cannot afford to do this any longer. 

Hub for European Defence Innovation Hotbed for tomorrow's capabilities

Who said that European cooperation can only move at a snail's pace? Two years after EU Foreign Minister asked the Head of the European Defence Agency (EDA), HR/VP Josep Borrell, to look into options for strengthening the Agency's role in defence innovation, Defence Minister already delivered with the establishment of a Hub for European Defence Innovation (HEDI) within EDA. The decision was taken at the Agency's ministerial Steering Board on 17 May 2022, less than two months after the EU's Strategic Compass had called for its creation.

HEDI will strengthen the Agency's existing innovation activities but also initiate new ones, in close cooperation with Member States and EU stakeholders. It acts as a platform to stimulate, facilitate and support cooperation on defence innovation among Member States while ensuring synergies with related European Commission activities, notably the EU defence innovation scheme, and coherence of output with NATO innovation initiatives such as the Defence Innovation Accelerator for the North Atlantic (DIANA).

"Working closely with the Commission, the Hub will help our Armed Forces to step up their innovation efforts to be better prepared for the future battlefield and the next generation technologies", said Mr Borrell. For EDA Chief Executive, Jiří Šedivý, "the establishment of HEDI is a clear signal that our Ministries of Defence take innovation seriously and that they want to invest more in it, and act together. HEDI will help develop the synergies needed to

connect existing innovation efforts and stimulate the launch of new ones, for the benefit of European defence".

The Hub operates at the intersection of EDA's currently existing innovation activities, serving as a catalyst and amplifier. The existing Innovation Framework in EDA contains the necessary tools to support collaborative defence innovation and is based on three pillars: – identification of innovative ideas and innovators; – implementation of these ideas; – outreach to increase the awareness of the solutions produced and their application to the defence domain. HEDI's activities will be focused on the agreed EU priorities for capability development (Capability Development Plan), defence research (Overarching Strategic Research Agenda) as well as industrial capabilities (Key Strategic Activities).

Three steps approach

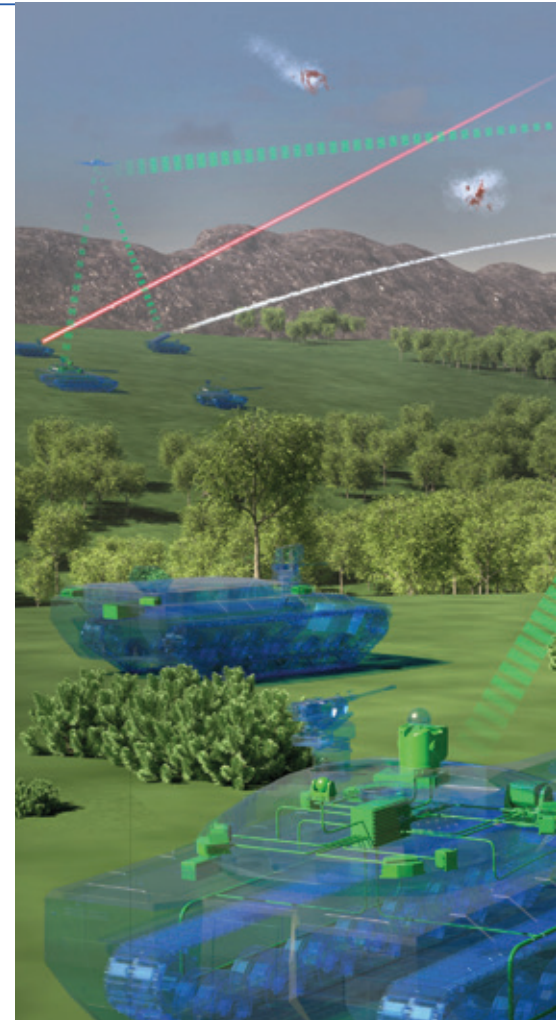
Three steps have been defined for the Hub to grow to fulfil its role and potential as catalyst

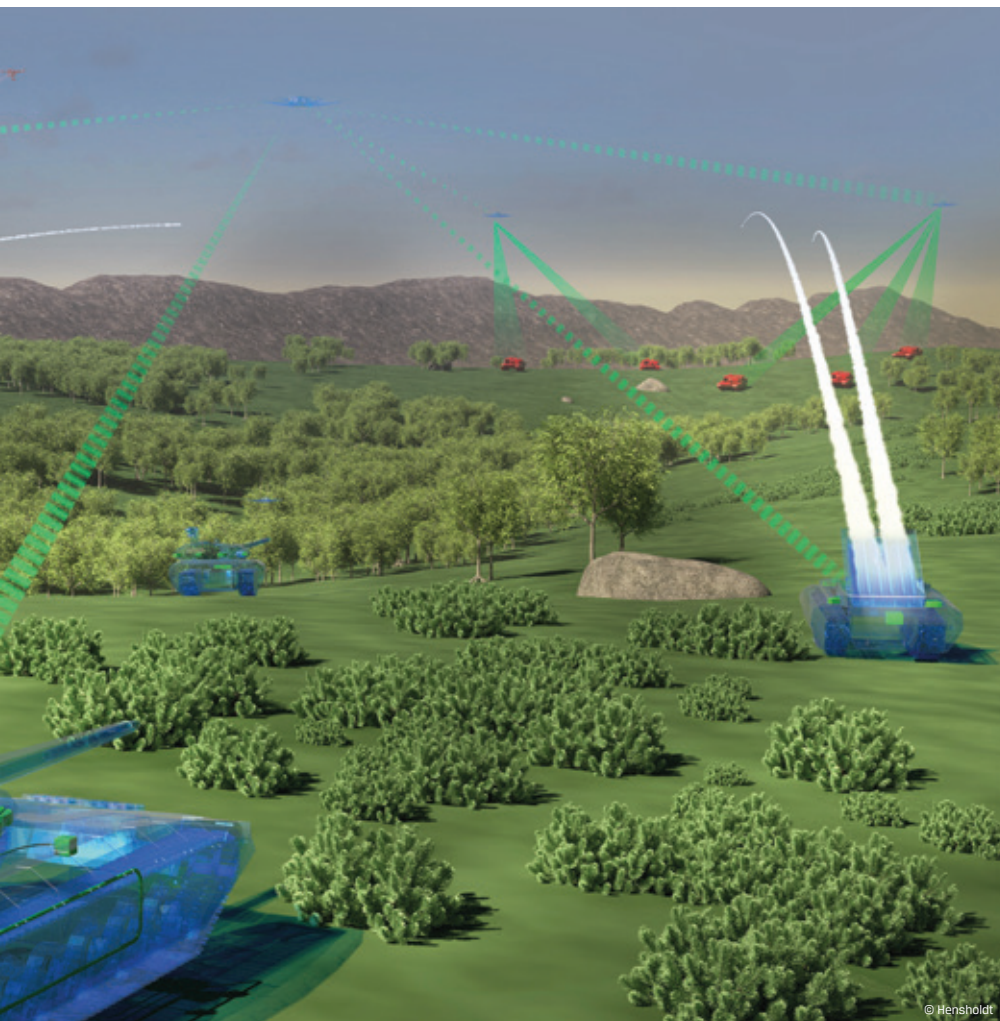
and amplifier of defence innovation at EU level:

- The first step will inspire and promote innovation at the European level: the Hub will focus on networking and situational awareness activities. It should be considered as a ramp-up phase, making the most of existing EDA resources.
- The second step will allow the Hub to be operational across all activities and services identified in the initial portfolio. This will set the Hub at the heart of facilitating defence innovation across Member States and EU institutions.
- The third step, HEDI 2.0, is proposed as a way to reach the full potential of the Hub as an EU-wide platform for cooperative design and experimentation embedded in the EU capability development process and has to be further defined and decided at a later stage.

Activities and services

The initial portfolio of the Hub has been organised in six clusters of activities:





"HEDI is embedded within the existing EDA framework."

projects and programmes), the Hub will advance the development of technologies that have the biggest potential in terms of performance and uptake by potential users.


5. European Defence Innovation Shows.

An important task will be to raise awareness about the European defence innovation ecosystem, disseminate project results and connect stakeholders. The Hub will organise a series of annual shows combining exhibitions and projects outcomes, conferences, panel discussions and prize awards. Exhibitions will help showcase the outcomes of cooperative and national defence innovation projects.

6. Uptake of innovation.

To ensure a coordinated and harmonised uptake of innovations into capabilities, the Hub will explore the potential to organise multinational Concept, Development, Experimentation and Concurrent Design Campaigns based on participating Member States' priorities.

Embedded in EDA

HEDI is embedded within the existing EDA framework and staffed by EDA personnel. It will function under EDA's 3-Year Planning Framework with a yearly reporting and evaluation in the starting phase. EDA shall regularly report to the Steering Board on the progress and way ahead, specifically on the impact, lessons learned, and possible updates of the stepped implementation plan. 

1. Common Picture. The Hub will contribute to creating a common picture on defence innovation including – but not limited to – best practices, methodologies, experiences, lessons identified and learned, specific projects, initiatives, and status of play on emerging and disruptive technologies. For this purpose, the Hub will involve defence innovation experts from Member States and manage networks of defence innovation organisations and researchers who will exchange views on these topics once or twice a year. The activities within this cluster will be organised in cooperation with the European Commission.

2. EDA Innovation Prizes. Innovation prizes are a way to collect a pool of innovative ideas and solutions to fill identified gaps and needs. Although the innovation prize is an already established modus operandi at EDA, the establishment of the Hub will reinforce this activity not only by increasing the number of prizes awarded

and the number of domains covered, but also by accelerating the uptake of innovation into capabilities.

3. Innovation challenges. Challenges and hackathons are a specific R&T methodology targeting short cycles of development from proof-of-principle to minimum viable product. These methodologies have proved effective in attracting non-traditional defence players due to their short and focused nature and their lower initial threshold of access. The Hub will select innovations suitable for this approach based on the outcome of other activities or specific capability gaps identified by Member States. The Hub will be able to design, oversee, and manage in-the-field experimentation of solutions and ideas.

4. Proof-of-concept/demonstrators. Making use of EDA's flexible contractual framework and selecting the most suitable funding stream (Operational Budget, EDA ad-hoc

"Ukraine war confirms need to define a long-term strategy to ensure the defence of Europe"

In the following exclusive interview with *European Defence Matters*, the French Chief of Defence (Chef d'État-Major des Armées), **General Thierry Burkhard***, shares his views and analysis about how the war in Ukraine might affect European defence in the future, and what Europe's short-, medium- and long-term action should be to boost defence investment and cooperation. He also stresses that collaborative capability development is a "necessity" for France and that his country is keen to shoulder its "right share" of the collective effort to put in place an efficient and credible European military toolbox.

The French EU Presidency defence priorities were initially focused on the adoption of the EU's Strategic Compass. Instead, it's the Russian invasion of Ukraine that has dominated everything. How big a game changer do you expect this war to be for EU defence cooperation?

The adoption of the Strategic Compass on 24 March 2022 by the European Council is a major milestone in the development of a collective European military action capability. This unprecedented event stems from a thorough and shared analysis of the nature of our strategic environment. Competition between powers, in all environments including the exo-atmospheric and cyber ones as well as in the information domain, possibly even reaching the confrontation stage, is indeed considered in this paper.

The Strategic Compass thus integrated the possible occurrence of such a military action on the European continent. I think,

by the way, that the EU's rapid reaction is rooted in this reflection initiated as early as 2020. If the Member States have understood the urgency of the situation, it is because they share a common set of references.

Indeed, the Russian behaviour has triggered an increased awareness regarding European security and defence. The most innovative decision has been to decide, within a few days only, to pay hundreds of millions of euros for lethal equipment to a third country and to ensure the coordination of the deliveries. Furthermore, for the first time, the EU has blamed a cyberattack on someone. This Russian attack targeted the KA-SAT satellite network, one hour before the invasion. We must capitalise on this dynamic and anticipate possible military contributions to face the excesses of war.

Whereas many see the Ukraine war as a confirmation of the need for a more integrated European defence, others take

it as the ultimate proof that only NATO can protect Europeans. What's your assessment?

Opposing NATO and the EU is unproductive. The cornerstone of our collective defence capability is NATO. The stronger European military capabilities are within NATO, the more efficient collective defence is, and the better Europe is protected.

NATO provides a very suitable framework for military action, especially owing to the standardisation of procedures. This is an indispensable common ground for interoperability. The European Common Security and Defence Policy (CSDP), for its part, allows us to enforce a comprehensive approach more easily. Indeed, the EU also has tools complementing mere military capabilities, such as economic sanctions or cooperation and development policies. This possibility is a genuine asset, as the European reaction to the war in Ukraine proved.



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In my opinion, beyond the alleged EU/NATO opposition, the war in Ukraine confirms the need for the Europeans to define a long-term strategy to ensure the defence of Europe. I am convinced that now is the time to agree on common goals, to reinforce our strategic solidarity and consequently, to reorganise. The complementarity between the EU and NATO is obvious, including vis-à-vis our American ally who could be forced to privilege his posture in the Pacific.

The war has made everyone in Europe realise that there is an urgent need for increasing investments in defence, and more funding is already being made available. Is this not the moment for a quantum leap in joint European development and procurement of defence assets?

The French Presidency of the Council of the EU wanted to integrate this question to the agenda, and the war has certainly helped to focus Member States' attention and interest.

Clear signs show that the Europeans are increasingly aware of the need to start, right now, increasing investments in defence.

It is of paramount importance to talk about common procurement processes and to propose an inciting framework in the spirit of the Versailles EU Summit. In the very short term, this could enable Member States to regenerate their ammunition stockpiles and to replace the equipment divested to Ukraine.

In the medium term, beyond the consequences of the war in Ukraine on the cost of raw materials and energy, I also see here a solution to the rise of the costs of equipment which increasingly entails efficient but expensive technologies.

In the longer term, we need to invest in the EU's strategic autonomy, focusing our efforts on high-end capabilities to develop the area of competence of the EU's Defence Technological and Industrial

Base (EDTIB) and collectively try to reduce our dependencies.

In any case, militarily speaking and in view of developing a collective capability in Europe, armed forces using common items of equipment will undoubtedly be far more interoperable. Gains are therefore not only financial.

At the same time, there is a risk that all the short and medium-term defence spending will serve to buy off-the-shelf equipment, mainly from non-European suppliers. Is that a realistic scenario, and what can be done to avoid it?

It seems to me that we need to have a balanced approach and not to desperately cling to positions in principle. Off-the-shelf procurement can sometimes be a very relevant solution for a dilemma between the immediate military need and budget constraints, especially when dealing with strategic stakes. →

THE FLOOR IS YOURS: FRANCE'S CHIEF OF DEFENCE



"Opposing NATO and the EU is unproductive"

(EPC) project is a good example of the coherence achieved owing to these tools.

Much remains to be done, since these are new processes which need some warm-up time. We will have to capitalise on the successes, as well as on the failures to perpetuate these dynamics.

Regarding the EPC project, the modular approach based on an open plug-and-play architecture enables us to better meet the requests of the countries. It seems to me that this is an interesting approach since it simplifies the statement of requirements. Depending on operational demands, each partner can thus adapt more easily, and it reduces tensions.

Finally, I think that we need to remain sober regarding technological innovation. Indeed, when it is idealised, it is often a source of over-expenditures and delays before fielding. The effects are especially damaging for an armament programme led in the framework of a cooperation.

How will France contribute to bringing collaborative capability development in Europe forward?

Collaborative capability development is a necessity for France. We are resolutely committed in that direction. The French contribution to European collaborative programmes has increased by 36% in the 2019-2025 Military Programming Act, compared with the previous period. This commitment is based on the fact that acting in partnership enables us to create the lever effects indispensable to solve at least part of the quality/cost equation.

Besides, from a military perspective, collaborative development promotes the emergence of a common operational culture. This is the advantage expected from the CaMo programme (standing for: motorised

Whenever possible, we must choose the EU. When equipment exists, but the problem lies in its price or in its manufacturing capabilities, it might be wise to group the purchases. It will then enable European defence companies to face the industrial constraints thanks to economies of scale. The incentive measures taken by the European Commission also encourage to buy in Europe .

It is however also important for the EDTIB to get ready to propose satisfactory and sustainable technical and financial solutions, matching the pace in which the nature of conflicts is evolving. This sometimes also requires the willingness to take risks.

In the end, we should focus on long-term stakes in order to avoid finding ourselves in

a situation in which the EDTIB would have no solution to propose to the expressed military needs. The idea is to set up a virtuous system, driven by common interests, and not by idealism.

From your military end-user perspective: why is it still so difficult to develop and acquire capabilities together, in a more coordinated way, despite the benefits?

If we put this question in perspective, one should admit that EU Member States have made progress in that domain since 2017. The Permanent Structured Cooperation (PESCO), the Coordinated Annual Review on Defence (CARD), the Capability Development Plan (CDP) and the European Defence Fund (EDF) are tools which brought major enhancements in little time. The European Patrol Corvette



© Etat-major des armées / France

capabilities) focused on ground combat vehicles developed in a partnership between France and Belgium. I also forecast this in the Future Medium-size Transport Cargo (FMTC) that will create a European tactical air transport solution. We must underline here that these European capabilities represent also an added-value for NATO.

I often ask myself "with whom?" and I encourage the headquarters to do the same. Beyond the operational engagement topic, it is always interesting to turn to others to optimise financial contributions or to utilise skills in common. In some high-end capabilities, this approach is absolutely essential since it offers the ability to manage technical complexity. It is in that spirit that France coordinates the Defence of Space Assets (DOSA) project in the framework of PESCO.

Europe lacks major, strategic cooperative defence projects. Now, even the Future Combat Air System (FCAS) programme is arduous because of partners' diverging industrial perspectives. How worrying is that and what can be done to improve the implementation and efficiency of such big European projects in the future?

Developing a system in common is a strong political choice, in line with the objectives of the Strategic Compass. This is a coherent set, a brick for the construction of a European strategic autonomy. Compromising and

looking for efficiency are ways to serve this ambition.

Generally speaking, I think that the operational end state of armament programmes must not be forgotten. The purpose of developed equipment is to be used and then to help provide credibility to a country.

We should therefore wonder about the proper technological level to be integrated into military equipment. Besides, we sometimes tend to hush up the question of costs or sustainability, as if the only purpose was to present artefacts in an armament exhibition. Research guidelines and technological development should not be separated from the needs of the Armed Forces, since we are looking for operational efficiency and not for the ultimate weapon.

The EU's Strategic Compass foresees the establishment of a strong EU Rapid Deployment Capacity of up to 5,000 troops for different types of crises. How does France intend to contribute to it?

This rapid deployment capability will be a key component of the European military toolbox. It is a concrete military incarnation of the Strategic Compass. France is determined to take its right share of this collective burden.

Beyond the symbolic figure of 5,000 personnel, we have to look at the critical capabilities: logistic or medical enablers,

ISR, C2, etc. Indeed, we see in the Ukrainian conflict that they are the tools of operational success.

As of next year, we will identify ground (combined arms battlegroup), air (jet fighters, refuelling tanker and transport aircraft) and maritime (frigate and maritime surveillance aircraft) capabilities which can be projected more than 3,000 km away from France. We will also man the EU alert battlegroup during the entire first half of 2024.

In the short term, I think we need to be pragmatic in the design, implementation and structure of command. We must use NATO standards to reach an operational employment more rapidly, since we need concrete actions to clearly show the European determination. Waiting for the decision for them to join NATO, a deployment to Sweden or Finland in the framework of reassurance could be a good example of that.

Given the unpredictable geopolitical context we are confronted with and the wide range of missions which will have to be carried out, including in non-permissive environments, a single model would not be advisable. We have to remain agile while not trying to duplicate capabilities already provided by NATO. [K](#)

* General Thierry Burkhard was appointed as French Chief of Defence with effect from 22 July 2021.

A man in a tan military uniform and a light blue face mask is crouching on a tarmac, looking up at the underside of a large aircraft. The aircraft's landing gear and fuselage are visible. The background shows a clear sky and some trees.

IN THE FIELD

Simple & efficient: EDA's Sharing of Spare Parts project

Spare the cost, share the parts

One of the thorniest logistics problems for militaries, especially during operations or distant exercises, is managing spare parts for equipment and weapons systems. Often this is a costly, time-consuming, and labour-intensive activity that must be formally coordinated with specialists back home, either within the military or with external private defence contractors, in order to get parts shipped out. But the European Defence Agency (EDA) and its Member States have long found a neat solution to simplify and speed up things with their 'Sharing of Spare Parts' (SoSP) project.



"The SoSP project sees up to 200 spare parts exchanged bilaterally each year"

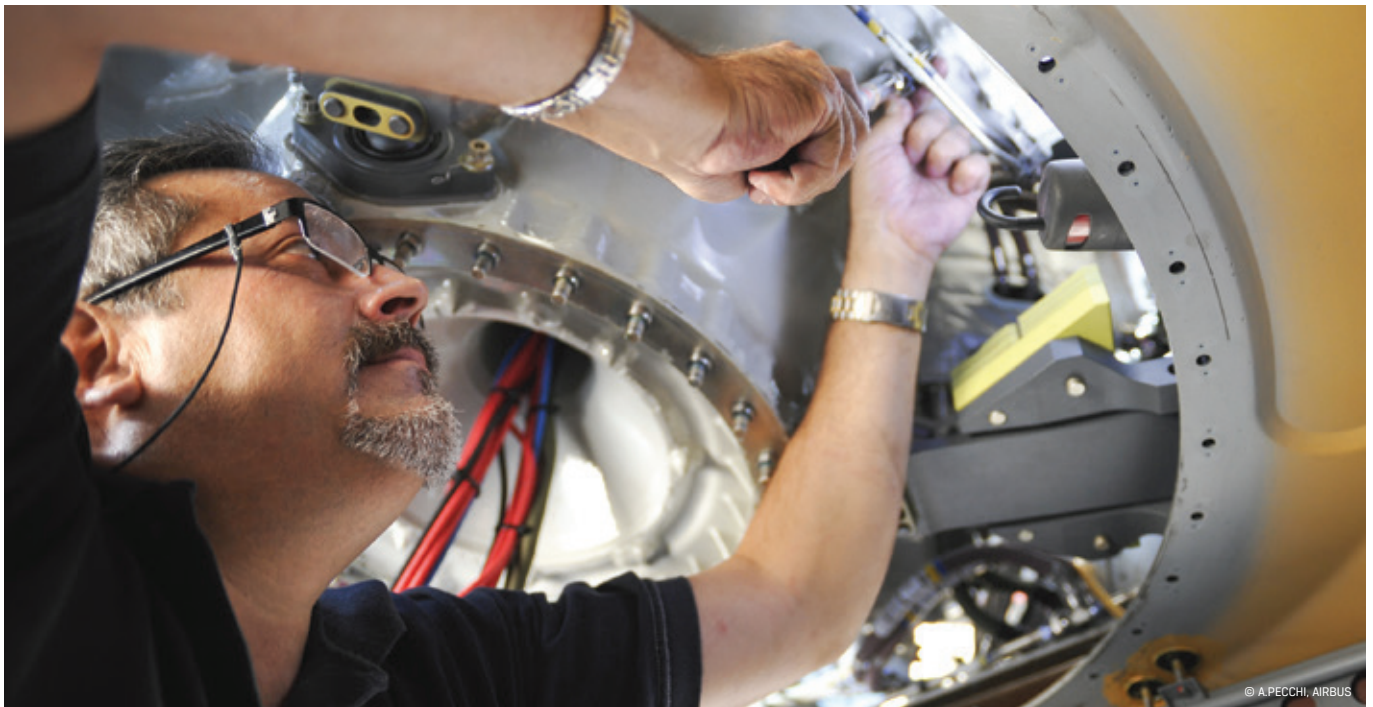
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Signed in 2015 by 11 EDA countries (Belgium, Cyprus, Finland, France, Greece, Netherlands, Portugal, Romania, Slovenia, Spain, and Sweden) as well as Norway (which has signed an Administrative Arrangement with the Agency), the SoSP project's aim is straightforward: to quickly exchange parts among nations whose inventories are in short supply, or which can't be immediately

purchased from industry. The whole set-up is voluntary among the 12, based on bilateral agreements and a system of service-or-equivalent-value exchange – meaning without financial transactions between participating Member States.

"Actually, we ought to re-name this project because its current title, Sharing of Spare

Parts, doesn't fully reflect all the benefits it is providing," said Martin Huber, half-jokingly. Huber is EDA's Project Officer for Logistics. "SoSP is not just about spare parts but functions as a simplified logistics system that gets around a lot of the delays and paperwork linked to traditional spare parts management. And we're aiming to expand it beyond our members' Air Forces to →



other services as well, which would be a significant evolution."

SoSP's core idea rests on its system of bartering, which offers five forms of compensation for the lending nation. These entail the following options:

- receive back exactly the same part, in ready-to-use condition;
- receive a similar part: a green vehicle goes out, a blue one comes back;
- agree a 'balancing' arrangement where both parties place the lent part's value on a running list of items whose total assigned value is cleared by year-end – or carried forward to the next year if the two nations tend to exchange parts regularly;
- reimburse, where one national body simply pays for the part within 60 days;
- postpone the decision until end-of-year when both parties have to agree on one of the above four methods of compensation.

SoSP's set of barter choices offer its nations maximum flexibility. Belgium and the Netherlands exchange a lot of parts, so they tend to use the balancing option, either clearing their accounts at year-end or carrying it forward into the new year. Other nations opt for the 'postponed' method, which is mission-oriented and thus makes

it faster and simpler for bilateral in-theatre exchanges between the nations.

SoSP's barter system also lends itself to the various weapon system communities spread across Europe such as those militaries with aging F-16 fighters in their inventory: the nations use it to exchange parts that are not available on the market.

Critically, SoSP also covers services. "This is quite important," Huber added. "For example, if an aircraft breaks down somewhere, normally the nation that owns it would have to directly recover it. But under SoSP, it can engage a project partner military to do it instead."

The SoSP project sees around 100-200 spare parts exchanged bilaterally each year. While that may not sound like a lot, the parts that tend to be exchanged are expensive or critical to system performance such as landing gear or aircraft brake parts.

"We are getting more attention from other EDA Member States regarding these bartering methods because of the financial planning implications. Traditionally, under the usual rules a military's ultimate purchasing authority goes back to that country's Ministry of Finance, which can often mean

that your Defence Ministry has to request the financial budget for spare parts for the following year. SoSP might help to skirt around the delay."

Simplicity rules

One of the SoSP project's core strengths is its simplicity, particularly for operational environments since "during missions you often don't have the technical logisticians you need on site," observed Huber.

SoSP offers a standard and simple template that pilots or crew can fill out on the spot, leaving the more official and detailed forms to be filled out later back home. It was developed specifically for military use as opposed to formal procurement procedures with contractors, precisely to move around them and their longer timelines, and the expense of shipping out parts from a contractor's warehouse, which may be thousands of miles away.

Indeed, the whole SoSP process has just six steps, from request to final compensation.

"We excluded all the things we don't need such as multiple managerial levels and decision points. The beating heart of the process – our 'customer support manual' – is nothing more than a list of contacts. So, I can

contact Thomas in Norway for an F-16 widget or Carl in Germany for an A400 part. That's it."

The only obligation of the SoSP member nations is to keep their contact list updated and to decide the level of entry regarding their contacts – either at Ministry of Defence level, or allowing the caller to go directly to the parts expert within their Logistics Command. Revealingly, "all 12 of our SoSP members go for the lower-level access to the exact point-of-contact," noted Huber.

Looking ahead

So, what next? SoSP's project lifespan is 10 years – until 2025 – and the group is mulling how to take it forward. EDA, which manages the project, has recently started a dialogue with the SoSP nations on how to prolong and expand its functionality.

One idea is to promote SoSP as a tool to help Europe's militaries reduce their carbon footprint as part of the EU's green policy. "There is good potential here for the military to do that. When you need a spare part in the field, traditionally the request has to be filled back home and then the part is flown out to the requesting military unit, wherever it is across the world. Exchanging parts in the field via SoSP would obviously avoid all the related carbon emissions caused by the part's long-haul transport."

Another idea is to expand SoSP's barter options to include one of the virtual service-as-currency units used by other multi-nation groupings in Europe for example SEOS ('Surface Exchange Of Service') where a unit equals €300.

Currently, for historical reasons, SoSP is mostly used by its members' Air Forces. "Getting the maritime folks on board is not so feasible because navies have strong spare part contracts with private contractors, which have agents in each port. But it's a different story for land services," said Huber.

"We have developed a process handbook – an aide memoire – that describes perfectly the process and the different responsibilities. It was completed in 2019 and tested in an army live exercise environment. And that is our target market for the future," he said. 

Four questions to...

Peter Haest

Non-commissioned Officer in charge of SoSP at the Belgian Ministry of Defence



In March 2021, the spare part unit of the Dutch Ministry of Defence reached out to their Belgian colleagues through the SoSP system with an urgent request for a particular part needed to repair a grounded Dutch fighter aircraft. Peter Haest's team was able to respond positively which allowed the Dutch aircraft to become operational again very quickly.

What exactly did you have to do to respond favourably to the Dutch request?

When our SoSP office received the request, we first checked our logistics register, called ILIAS, to see if we have the requested item available in our inventory. As this was the case, we still had to get our management's approval. You must know that in the Belgian defence material management system, all items, be they large or small, have a dedicated material manager, easily identifiable through ILIAS. I contacted the person in question and received the approval to support this request. We then asked our Dutch colleagues to provide us with the required practical information (delivery address, etc.) before we could prepare the item and its accompanying documents for shipping. Usually, urgent SoSP items are shipped by private parcel services.

How long did it take to deliver the parts to your Dutch colleagues?

In this case, it took us three days. In general, it is feasible to manage the entire process – from request to delivery – in approximately five working days. The internal and external procedures are very lean to allow for a rapid response. The physical shipment of a part remains the most time-consuming part of the process. We always try to find the best possible shipment mode, depending on the urgency.

Would it have been possible to deal with the request in the same way and timeframe without the help of SoSP?

No. Resupply of spare parts is a complex process and delivery times are usually rather long. You can try and push for accelerated delivery times, but this is often not possible because aircraft items, which are usually expensive, are not always in stock. In Belgium, one of the options is then to contact the SoSP office. In approximately half of the cases, we can find a solution. Since the legal and financial frameworks are already established, the SoSP channel is very often the fastest way to find an urgent item, compared to other processes.

What would you say is the SoSP's main advantage?

The main benefit of the SoSP project is that participating members, who lack a particular spare part, always have an extra chance to find a solution to their problem. In addition to that, you don't need to foresee an extra budget to pay for the part you will receive, thanks to the barter system in place. SoSP is not the only solution we have, but it is the most efficient one because the legal and financial frameworks are already established. It sometimes happens that defence producers have suspended the supply of a particular part, temporarily or definitively. In this case, we can borrow or receive the part from our allies through the SoSP project. This is European cooperation at mechanics' level!

"Ignoring cooperation leads to spending more for less"

OCCAR, the Organisation for Joint Armament Co-operation, is an international organisation whose core-business is the through life management of cooperative defence equipment programmes. With five of the six OCCAR countries (Belgium, France, Germany, Italy, Spain, UK) also being European Defence Agency (EDA) Member States, both organisations are close partners in defence capability development and delivery – a relationship framed by the Administrative Arrangement signed in July 2012. In the following interview, OCCAR Director **Matteo Bisceglia**, speaks about today's challenges of collaborative armament programmes, the cooperation with EDA and ongoing capability programmes.

As the Director of an organisation set up to manage collaborative armament programmes, what is your reaction when you see that, over the last couple of years, EU countries spend less and less of their national defence budgets on joint, cooperative projects?

I believe that the challenging geopolitical environment we are currently living in, characterised by new emerging security threats, requires the development of strategic capabilities and key technologies in critical areas to ensure technological leadership. To this end, a competitive high-tech European defence industrial base is paramount. Adequate investment from EU Member States is the appropriate way to achieve that objective.

Unfortunately, over the last decade, EU Member States have not provided sufficient investment for the development and procurement of future capabilities. This is weakening the European defence industrial base and, consequently, Member States are becoming less able to fill new capability gaps on their own. A strategy of cooperation at all levels is the only way to help maximise the output and quality of Member States' investments in defence. Cooperation is the only solution to make new technologies affordable again for any single nation.

However, cooperation amongst nations is not enough. Political will is also required to enhance cooperation between industrial partners and international organisations. Currently, the low level of cooperation has led to duplication and fragmentation, to a lack of interoperability and standardisation, and to additional costs. Ignoring cooperation leads to spending more for less. The current crisis on our Eastern borders has boosted defence investment, but with the high risk that nations will give priority to their domestic market for the development and procurement of additional capabilities. Now is the moment to make sure we get the most value out of cooperation on defence programmes avoiding useless competition which will lead us nowhere.

Where do you see the main problem? Why do you think European countries still too often refrain from developing or procuring their defence capabilities together?

I believe protectionism is the key word here. When addressing the issue of common European defence, I always like to advertise the need to develop "European" weapon systems. Only by focussing on interoperability can we reach a level of integration that allows operations to be managed regardless of nationality. However, this objective cannot be separated from a

substantial rationalisation of the common defence industry in Europe.

It is easy to predict that it will still take years to set this up. Unfortunately, today we still manufacture most systems on a national basis. The big Member States with big prime industries build their own frigates, own tanks and own military aircraft. This generates useless duplication, fragmentation, ineffectiveness of spending and consequently weakening of the national industrial structure due to reduced investments in research and development.

I am convinced that in Europe there are industrial realities that would allow for cross-border cooperation. Unfortunately, the existing cooperative programmes are too few if we want to aim for a really integrated European defence. OCCAR promotes the cooperative approach leveraging on one of its founding principles, the Global Balance, which aims at a multi-year/multi-programme cost versus work share calculation. It is a strong principle that could represent a turning point in the definition of common European defence; however, strong political appetite is needed to achieve that goal.

The joint development of capabilities in a multinational setting is not always



Matteo Bisceglia has been OCCAR Director since September 2019

considered by everyone as cost and time efficient. What is your assessment and what would you say to those who have such efficiency doubts?

Probably the first and most important lesson learned from any complex cooperative programme is to acknowledge that the early stages come full of uncertainties that cannot be identified and planned to the detail from the very beginning. Whether that is in a national setting or international environment makes no difference. However, difficulties will gradually be overcome as the programmes mature. Solving the issues as they arise has more chance of success in a cooperation environment where all stakeholders are used for their strengths.

Despite all possible concerns at the early stages, daring to launch a programme with a clear vision of the desired outcome and committed stakeholders is key to success. The role of a strong nation initiating the effort is also paramount. The best example I can share with nations to prove that cooperation leads to success is the Multinational Multi-Role Tanker Transport Fleet (MMF).

The excellent cooperation between the NATO Support and Procurement Agency (NSPA), the European Defence Agency (EDA) and OCCAR have led to a capability that

was delivered on time, within budget and providing full satisfaction on performance to all customers.

CARD, PESCO and the EDF are starting to boost collaborative defence development, at least at EU level. To what extent does OCCAR – which counts only six Member States, among which the UK – also benefit from these new tools?

According to the CARD methodology, formally approved by EDA's participating Member States, CARD dialogues are bilateral between each Member State, and EDA plus the EU Military Staff. There is no possibility to deviate from this agreed methodology, so OCCAR is not involved in CARD.

As you know, PESCO was approved by an EU Council Joint Decision and subscribed by 25 Member States. Among its more binding commitments, nations have stated they will consider OCCAR as the preferred management organisation.

The EDF provides new opportunities for a strengthened European armament cooperation that can be substantially supported by OCCAR as a management organisation for complex cooperative armament programmes. The EDF constitutes an opportunity for OCCAR to

offer to an enlarged number of nations its unique capabilities, especially in the long term.

Currently, OCCAR is managing two PESCO programmes, which are co-funded by the European Union through the European Defence Industrial Development Programme (EDIDP). These programmes are the European Secure Software defined Radio (ESSOR) and the Eurodrone or Medium Altitude Long Endurance Remotely Piloted Aircraft System (MALE RPAS). OCCAR is working with the European Commission through DG DEFIS to pave the road for smooth cooperation on EDF projects. The first EDF project being managed by OCCAR should appear on the horizon shortly, namely Hydix, the new interceptor, which will allow nations to protect themselves against high velocity aerial threats.

EDA and OCCAR see each other as complementary partners for collaborative defence capability development in Europe. How would you describe the cooperation between OCCAR and EDA?

For many years, OCCAR and EDA have had a legal framework in force to cooperate. The executive level of both organisations meets on a yearly basis to discuss mutual interests and ongoing programmes. →



The Multinational Multi-Role Tanker Transport Fleet (MMF) is one of the successful cooperation programmes involving OCCAR

OCCAR is closely working with EDA, which plays an important role in the development of future European defence capabilities, including the promotion of cooperative armament programmes amongst its participating Member States. EDA and OCCAR may interact at different stages of a capability programme's life. EDA is positioned 'upstream' to initiate and prepare cooperative armament programmes in the Preparation phase while OCCAR comes in 'downstream' to implement and manage these programmes in the follow-on phases (e.g. definition, development, production, in-Service and disposal). MMF, MALE RPAS and ESSOR are examples of a requirement identified by EDA and managed by OCCAR 'downstream'.

Currently, EDA provides support in Air Traffic Insertion, European Aviation Safety Agency (EASA) working groups and other relevant meetings in the Eurodrone programme. Furthermore, in the ESSOR programme, OCCAR and EDA signed in December 2018 an Implementing Arrangement under which EDA will promote the ESSOR products, in particular the waveform and architecture to create a Europe-wide user community. The MMF programme, which I already alluded to earlier, has evolved from an EDA initiative on Air-to-Air Refuelling.

What can be further improved, in your view?

Most important to me is that international organisations do not consider each other as competitors, but as possible complementing partners. In an ideal world, EDA together with

nations should develop and harmonise requirements. In the early stages of the preparation of such requirements, OCCAR should get involved in order to be ready as early as possible to tackle the definition, development and production phases of a programme, while NSPA can then take the lead in the In-Service Support phase and possibly take ownership of the assets.

The scenario I am describing here is exactly what happened for the MMF and I cannot emphasise enough how successful this programme has been, not only for OCCAR, but for all stakeholders involved, be it nations, industry or international organisations. A similar opportunity to repeat the success of the MMF may be on the horizon, namely the Next Generation Rotorcraft Capability.

If in the future, such cooperation could be encouraged even more by co-funding activities through the EDF, then the ideal cooperation world within the European technological and industrial defence scene has been created.

All necessary elements (i.e. legal frameworks) are in place to make successful cooperation work between NATO, EU agencies, nations and OCCAR. As always, however, it is up to the nations to decide whether or not they want to use the opportunities at hand.

One of the projects ongoing at OCCAR in which EDA was or is still involved is the MMF. What is its current state of play?

In 2022, the sixth and seventh Multi Role Tanker Transport (MRTT) aircraft will be


delivered after which the management will be transferred to NSPA. Allow me to quickly highlight the important lessons learned which could serve as an example for future programmes.

When I addressed the doubts of some nations to jointly develop capabilities in a multinational setting, I stated that there is a need to acknowledge uncertainties and that therefore a strong nation is needed to launch the initiative. That lesson comes from the MMF.

What also comes from the MMF is the need to develop fair and transparent cost share arrangements and legal constructs allowing participation across institutional limits.

Finally, the participating nations should choose the right management system, the best industrial partner and stick to a common configuration.

I repeated it multiple times, the MMF programme stands out as a unique example of successful cooperation among NATO, the EU Agencies and nations in a pooling & sharing arrangement. This cooperative approach should become the norm rather than the exception in the immediate future, if nations aim for the best value for money.

Therefore, industrial partners, nations and international organisations should be encouraged to not reinvent the wheel and make the most out of the lessons learned by the MMF. 



Two become one

On 30 May 2022, the European Medical Command, a Germany-led project launched under the Permanent Structured Cooperation (PESCO) in March 2018, reached Full Operational Capability (FOC). Supported by 18 countries, it will benefit the EU and NATO with an enduring medical capability to increase medical operational readiness and interoperability for future joint and combined operations.

Since one of the project's key ambitions was to promote closer EU-NATO medical cooperation, the 18 participating countries agreed to merge the European Medical Command (EMC) with NATO Framework Nations Concept's Multinational Medical Coordination Centre (MMCC) to build up a model for effective use of resources through national efforts and multinational cooperation in one entity.

The common structure created from these two initial projects – for both of which Germany is the 'framework nation' – is now called Multinational Medical Coordination Centre/European Medical Command, or MMCC/EMC, operating under one single administrative and infrastructural framework.

From now on, the MMCC/EMC is available for its members, the EU and NATO acting as a medical support coordination and linking body for Baseline Activities and Current Operations (BACO) and Common Security and Defence Policy (CSDP) operations and missions. As an innovative and project-driven interface, the medical projects implemented by the MMCC/EMC will focus on producing direct benefits for its participating nations, NATO and the EU. One of the main goals is to strengthen NATO's and the EU's medical services by increasing interoperability of medical material and standards.

The two-rooted entity is tasked by its participating nations, the EU or NATO and has a bridging function between NATO, EU and international medical stakeholders by acting as a network facilitator and

connector. In the event of a crisis, the MMCC/EMC's Situation Centre can also be activated. MMCC/EMC's activities focus on three domains: – preparation of operational engagements (medical intelligence, situational awareness, medical stockpiling definition and procurement, etc.); – ensuring the operational readiness of medical C3 and organisations; – providing support to operational engagements of the participating nations, for instance through transnational medical evacuations.

Currently, the MMCC/EMC is acting as a link between civilian and military services of the EU and NATO in supporting the evacuation of wounded and sick people from Ukraine. This lighthouse project is intended to improve cooperation between NATO and EU medical capabilities and services. [K](#)

Joint Personnel Recovery training by simulation

Escape Room to share

Ensuring swift and safe recovery of military personnel having been isolated from their unit in a hostile environment is an integral part of any military deployment, including EU Common Security and Defence Policy (CSDP) missions and operations. The European Defence Agency (EDA) helps its Member States enhance their Personnel Recovery (PR) capabilities, including training. A new training simulator developed by the Agency is set to bring joint PR tactical training to a new level.

Over recent years, the operational environment of military operations and civilian missions has become ever more complex and volatile. Moreover, fast changing operational situations carry the risk of own deployed troops and civilian staff being trapped, isolated, captured and even maltreated by enemy forces. This can not only jeopardise the security of an operation, but also affect soldier morale and public support for the respective operation or mission. It is therefore imperative to ensure quick recovery and reintegration of own isolated personnel. Hence the importance of having well-equipped and trained PR forces.

Since CSDP operations and other multinational deployments involve actors from different countries, interoperability is key for successful joint PR missions. To ensure this interoperability at tactical level, PR forces (rotary & fixed wings aircrews, land extraction forces and PR planners) must know, prior to deployment, how to jointly execute such tasks in a coordinated and synchronised manner. In this regard, joint training is vital. In reality, however, individual Member States tend to struggle to provide

their forces with realistic live PR training, even more so in cooperation with other countries, especially due to the high costs related to the participation of specific capabilities (mostly fixed & rotary air, but also land platforms). Hence the need for a less costly PR training solution which would allow Member States' military forces to conduct joint PR training at an affordable cost.

Tactical Personnel Recovery Mission Simulator

Since 2016, EDA's Personnel Recovery Project Team has assessed various options for mitigating Europe's PR training shortfalls. Training by simulation, based on Virtual Reality (VR) technology, was retained as the most cost-efficient solution to be explored. In autumn 2018, the Agency's dedicated PR Project Team agreed on the need to test and evaluate a "low-cost technical solution that uses the Virtual Reality (VR) technology and simulation-based software" which would allow the creation of a customisable high-realistic operational environment "anywhere in the world" where PR forces can rehearse PR Tactics, Techniques and Procedures (TTP) in a risk-free operational environment.



Some Member States have already been using simulators for helicopter aircrew training. However, those simulators are usually highly specialised and would not allow for upgrades required to deliver joint PR training involving both helicopter aircrews and land forces. Subsequently, in April 2019, EDA launched the Tactical Personnel Recovery Mission Simulator (TPRMS) project as a 'proof-of-concept demonstrator', with a two-fold objective: validate an innovative low-cost solution for conducting joint PR training; and develop a baseline architecture for a PR synthetic operational environment.

The aim of EDA's TPRMS project is to demonstrate that the simulator provides immersive training at an affordable cost, allowing Member States' PR forces to jointly gear their skills in a safe environment that enables conducting rigorous, realistic and repetitive PR training as often as wished,



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without any further additional cost. Moreover, the risk-free flying environment offered by the TPRMS allows the PR crews to practice techniques, tactics and procedures that would be considered too risky in live training events, such as helicopter night flights under extreme meteorological conditions. The simulator, expected to reach its Full Operational Capability (FOC) in July 2022, is not meant to substitute live PR training, but to complement it.


The TPRMS project is jointly run and co-financed by EDA and the Italian Ministry of Defence (Air Force). Italy acts as the project's host and lead nation providing the PR expertise required in the set-up of this unique joint PR training capability which was officially inaugurated on 18 November 2021 at Italian Air Base Poggio Renatico. This inauguration was attended by representatives from participating Member

States as well as international organisations involved in PR, namely the European Personnel Recovery Centre (EPRC), the Air Operations Centre of Excellence (CASPOA) and the NATO Joint Air Power Competence Centre (JAPCC).

Towards a common European PR approach

In the short run, the TPRMS is meant as the first step towards the development of a common European PR training approach by simulation. To further exploit the simulator's full potential, a new collaborative EDA capability project is expected to be launched in the near future, aiming to deliver multinational tactical PR training by simulation. This new project, likely to be also led by Italy, has the ambition of becoming, potentially by 2024, the most important EU platform capable of delivering simulation-based multinational tactical joint PR training. Preparatory work is already underway

within the Agency through an EDA TPRMS Pilot Course, scheduled to be launched in November 2022 with two specific objectives: familiarise national PR experts with the simulator's synthetic environment; and develop a training curriculum.

In the longer term, the ambition is to encourage Member States to replicate the TPRMS as a low-cost joint PR training capability at national level. Once established, those national simulators could be interconnected via Internet to allow the PR forces of all participating countries to train together in a shared common PR operational environment, while being physically in their home locations. The creation of this European network of national joint PR training simulators is expected to be the subject of another EDA collaborative project to be launched in the coming years, potentially by 2026. 



"The EU and its defence industry can do a lot"

In the following interview, **Esa Rautalinko**, the President and CEO of Patria*, warns against the reputational risks the European defence industry is facing in the context of the 'taxonomy' debate related to Environmental, Social and Governance (ESG) criteria to be applied in the context of the EU's Green Deal. He also pleads for close cooperation between civil tech companies and traditional defence producers and calls for limiting red tape and bureaucracy for industry in the implementation of EU defence tools such as the European Defence Industrial Development Programme (EDIDP) or the European Defence Fund (EDF).



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Your company went through a major transformation and strategic overhaul last year. How important are European partnerships and joint EU defence projects in your new strategy?

Joint European defence projects and European partnerships form one of the cornerstones of our new strategy. It is extremely important for us to be integrated into European research and development projects and new European value chains.

And the war in Ukraine and Europe's sudden focus on security and defence: how do you think they will affect your company and the wider European defence industry in the coming years?

First of all, I hope that this focus on security and defence will finally clarify the European defence industry's irreplaceable role as a crucial integrated part of our defence capabilities. In fact, there can be no secure societies in Europe without a competitive European defence industry. The EU must

realise that the draft texts put forward last year during the taxonomy process, in which our industry is considered socially harmful, have already hurt our industry, meaning they make it harder for many companies to get access to financial services. If the EU fails to correct this, the only ones who will benefit are our adversaries.

The war in Ukraine reminds us all how important it is to be prepared for the threats we are facing. In the short term, the new →

defence investments announced by many EU Member States will speed up the planned procurement programmes and increase the volume of ongoing programmes. In the longer term, if defence budgets increase permanently in the Member States, we will see a quicker development and delivery of new and more capable defence capabilities. It will be interesting to see if this war will also have an effect on the size of the European Defence Fund as the present budget was agreed in a different situation. The Finnish government has also announced an increase in defence spending. Patria, together with its partners, will adapt operations to the updated needs of our main customer. Patria's strategic partnership agreements with the Finnish Defence Forces form the backbone of our operations under all conditions.

The announced rise of defence budgets across the EU will trigger high demand for the supply of full-spectrum defence equipment in the short and medium term. Is the EU's industry ready and competitive enough or will the new funding mainly benefit non-EU suppliers?

The majority of these procurements will be national. Bigger EU countries traditionally mostly buy from their domestic defence industries. Besides the suppliers' competitiveness, the status of supply chains and materials in stocks will be important in the short and medium term. Both Covid-19 and increasing tensions between the USA and China have shown how vulnerable many of our supply chains are, even before the war in Ukraine. Probably both EU and non-EU suppliers from partner nations will benefit as the best value for money is sought by the end users. Even if non-EU suppliers win contracts, it is equally important that local EU industries can take a role in the supply chain and establish cost-effective lifecycle management.

From Patria's perspective, how important are the EU's defence initiatives – CARD, PESCO, European Defence Fund – for building a more competitive European defence technological and industrial base? What is perhaps still missing?

The European Defence Fund has been the most concrete and important initiative from Patria's perspective. The EDF is definitely

important in building a more competitive European base for defence technology and industry. Hopefully the EU's renewed focus on defence will lead to a budgetary increase of the fund. What is missing? This will depend on where we are heading. It is a fact that the EU has a more fragmented defence technology and industry base than the USA, with more overlapping systems and platforms. If our aim is a genuine European Defence Union, it is important for the industry to know in advance when this will happen and also whether Member States are truly committed to it. Even with less ambitious targets we need better aligned strategic planning processes between the EU, EDA, NATO and the Member States.

What is also missing is a rigorous implementation of the EU's past defence initiatives, like the procurement directive. We consider it an important directive for building a more level playing field in Europe. It might even be good to ease up the speed of new initiatives and to make sure that the already agreed ones are properly implemented by the Member States.

Also, an ambitious focus on the area of Lifecycle Management is still missing. Combining LCM with the EU's big topics, Digitalisation and Green Transition, can bring huge savings and better strategic autonomy in the defence industry's service sector.

The EU's aim is to move towards strategic autonomy in the security and defence domain. What needs to change to make that happen in the foreseeable future? How is Patria affected by existing supply chain dependencies?

It is a good idea to move towards strategic autonomy in the security and defence domains. We should probably be talking about an 'appropriate level of strategic autonomy' in order to be realistic in the foreseeable future. ASD, which represents the European Aeronautics, Space, Defence and Security Industries, has done a good job in showing how important it is to clearly define these concepts.

Patria has mainly suffered from longer delivery times of components and raw materials. The situation is most severe with

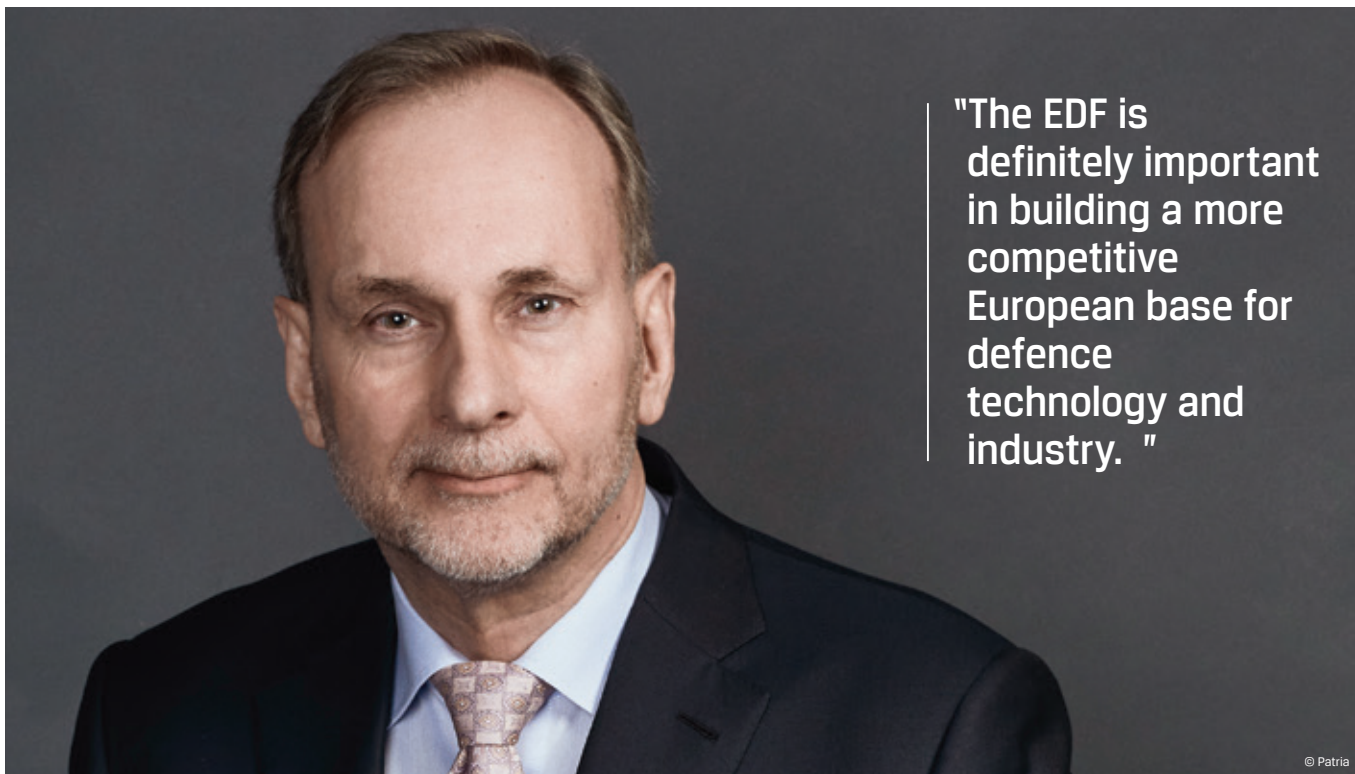
some electronic components where the defence sector is a small player compared with other sectors.

Patria is involved in several EU-funded projects under the EDIP framework: it is the industrial coordinator of the FAMOUS project (European Future Highly Mobile Augmented Armoured Systems) and participates in the PADIC (Passive Acquisition by Digital Convergence) and e-COLORSS (European COmmon LOng Range indirect fire Support System) projects. What's your experience so far with these collaborative EU projects?

So far Patria's experiences are positive. Hopefully bureaucracy will not further increase in the future, and contractual issues between Member States are clarified and harmonised. There has been a lot of learning by doing – including how to work with governments and how to secure financial support. Now the Grant Agreement between the consortiums and the European Commission is clear. However, in many cases, the involvement of Member States is negotiated separately and there are no common rules for this which can be problematic, for instance in terms of intellectual property (IP) rights. Being a lead nation requires a lot of work from the government as well. We are using the same critical resources for these projects as for any other customer projects. Therefore, the time-lapse given to respond to call for proposals should be longer and more predictable. Better visibility on the next upcoming steps in the projects through multiyear working programmes would also help industry to plan its resources.

One of the projects, PADIC, brings together companies from Sweden, Finland and Estonia. Is there something like a special Nordic cooperation from which the EU could perhaps learn?

I tend to think that we are target-oriented, pragmatic and innovative in building a winning team. An open way of communication with minimum politics helps as we typically have to do miracles with scarce resources. These features can be found all over Europe, I'm sure. Another issue is perhaps the small boundaries between civil and defence industries in



"The EDF is definitely important in building a more competitive European base for defence technology and industry. "

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Esa Rautalinko, President and CEO of Patria

our countries. Anyway, it is excellent to have also smaller teams succeeding. Some consortiums are extensive, and it would be a pity if this was the only way to be in the winning team. I understand the need for flagship projects as well, but these competitive bids are important for boosting our industry's innovations.

Key disruptive defence technologies are increasingly driven by AI and autonomous systems. From Patria's perspective, what might be the next big technological step in those areas?

There are already quite a lot of disruptive technologies available, even though they are not yet fully utilised by the defence industry. The next big technological step will probably be the smart utilisation of existing defence and civil technologies including AI, cyber, autonomous systems and perhaps space. There are big steps to be achieved in new capabilities but also in the areas of training and life cycle management.

In general, are you optimistic that the EU and its defence industry will be able to keep up with the pace of innovation and

what does it take for the EU to remain relevant in this domain?

The EU and its defence industry can do a lot. In order to improve and remain relevant in this domain it is good to remember that things may also start to deteriorate. This will happen when universities and research organisations don't consider defence as a relevant domain anymore, and when the industry cannot tempt resources. The EU has an important task to combine policies on civilian industry, defence and space. We also have to make sure that we can attract civilian firms, including start-ups, to team up with defence companies. This will not happen if working with defence gives them a stamp of being 'socially harmful'. Therefore, it is vital that the EU communicates properly about the defence industry's important role.

When reputational risks for working with defence are avoided, the EU can do a lot. We can still promote cooperation and innovation in our fragmented industry by, for example, inventing ways of linking defence related ecosystems with non-defence EU funding instruments.

We often hear comments that defence procurements should be coordinated at

EU level and that the defence industry is fragmented, at least when compared to the USA. There does not seem to be a credible roadmap to change the existing situation in the near future, but we can still do a lot to improve EU's capabilities, innovations and resilience. [K](#)

Patria

* Patria is an international provider of defence, security and aviation life cycle support services, pilot training and technology solutions. The Patria Group consists of the parent company, Patria Oyj, and its subsidiaries. Patria has several locations including Finland, Sweden, Norway, Belgium, Estonia and Spain. The net sales totaled EUR 547.7 million in 2021, and Patria employs over 3,000 professionals. Patria is owned by the State of Finland (50.1%) and Norwegian Kongsberg Defence & Aerospace AS (49.9%). Patria owns 50% of Norwegian Nammo, and together these three companies form a leading Nordic defence partnership.

EDA as manager of EDIDP projects

Turning cyber and C2 projects into capabilities

The European Defence Agency (EDA) is entering a new phase in project management regarding a trio of military development projects funded by the European Commission's European Defence Industrial Development Programme (EDIDP). Two of these projects strongly complement each other as they involve cyber security capabilities and strategic command and control (C2), respectively.

At the request of the two projects' participating Member States, the Agency assumed management responsibility for their linked endeavors in December 2021. The new project arrangements (PAs) mean EDA is now providing contracting, legal, administrative financing, technical and project management support to them, reinforced by a national military expert seconded to the Agency.

The two projects are: the European Cyber Situation Awareness Platform (ECYSAP) and the European Strategic Command and Control (ESC2) system.

European Cyber Situation Awareness Platform (ECYSAP)

ECYSAP's main objective is to develop and implement an operational platform for real-time cyber situational awareness that enables rapid defensive response and decision-making for military end-users. It will allow the sharing of operational data in user-friendly ways across all kinds of information: incidents, threats, risks, impacts, analysis – and thus foster better informed and faster decisions, based on predefined workflows.

"The ultimate goal is to develop a real-time defensive system with automated cyber response capabilities that can be linked between intelligent nodes," said Luis Andres Teston, EDA's Project Manager for European Strategic Command and Control and

ECYSAP. "Such a system would be useful for any Member State's cyber command, whether for national or European common security and defence policy (CSDP) operations and missions, or for operations and missions under other frameworks. But it requires robust and mobile infrastructure on the battlefield."

"The basis of theoretical concepts of situation awareness go back to when the US Air Force modernised cockpits and their graphical user interface. We would like to have the same approach to cyber space, which is not easy," explained Salvador Llopis Sanchez, EDA's Project Officer for Communications and Information Systems.

To help refine ECYSAP's software, industry and military experts from the project's four participating member states (Spain, France, Italy and Estonia) will elaborate four use-cases to support the verification and demonstration of ECYSAP's functional services. The cases will replicate the kind of threats deployed to an area of conflict, including protection of the force's communications systems and key local infrastructure where the force is operating.


ECYSAP's functional platform should be available by the first half of 2025, and it will be operating either as a standalone system, or can be integrated as the cyber-space component of the other related project, ESC2.

European Strategic Command and Control (ESC2)

A 30-month, EUR 22-million project led by Spain and involving five other EU countries (France, Germany, Italy, Luxembourg, Portugal), ESC2's goal is to deliver a system fully interoperable with C2 systems of the EU and its Member States.

It will develop a suite of integrated C2 tools and functional area services that exploit emerging capabilities such as cloud computing, big data, artificial intelligence and block-chain technology to support the decision-making, planning, and conduct of military missions and operations, from the strategic level down to the operational.

"If ESC2 succeeds, then for first time we will have one platform with many common elements where all are integrated, meaning that whatever is viewable at the operational level can be carried up to the strategic level to decision-makers at the right level of granularity," said Andres. The ESC2 team also aims to design a system interoperable with NATO and civilian agencies.

While the ESC2 project will not directly handle tactical information, its design will make space for so-called points of presence at the tactical level which enable exchange of data collected from the various military units involved in a multi-nation deployment. 



Interoperability, fired by EDA



Hot engines, highly professional and motivated crews, and plenty of good cooperation vibes at FIRE BLADE 2022, the 16th helicopter exercise held under EDA's Helicopter Exercise Programme at Pápa airbase in Hungary (7-24 June). →



Images: © Hungarian Armed Forces - Veronika Devenyi

EXERCISES



20 helicopters, 5 aircraft and a total of some 1,000 military staff from Austria, Belgium, Slovakia, Slovenia, and Hungary joined this unique event, this time hosted by the Hungarian Defence Forces. Bulgaria, the Czech Republic, France, Greece, Italy and Switzerland also sent observers.

The focus was on enhancing interoperability at tactical level between helicopter units by using the Composite Air Operations (COMAO) concept in a realistic and challenging environment. Common goal: be prepared for future joint missions & operations!



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