

## R&T CONFERENCE – IMPACT OF DISRUPTIVE TECHNOLOGIES ON DEFENCE (20 April 2021)

Speech by Jiří ŠEDIVÝ, EDA Chief Executive

***Check against delivery***

Dear Minister, distinguished speakers, Ladies and Gentlemen.

- Welcome to our traditional R&T Conference, dedicated this year to the topic of Emerging Disruptive Technologies and their impact on defence.
- I am very pleased that we have connected here more than 450 participants from 26 EU Member States, as well as many EU institutions and entities, including the Council, Commission, Parliament, the European External Action Service, EU Agencies, Industry, Academia and Research organisations. Welcome to all of you!

### **EDTs INTRO**

- As you all know, the European Union and its Member States are facing a growing number of serious threats and challenges. National responses are just not enough to counter these trans-

national challenges, so it is indeed time for the European Union to shoulder more of its own responsibilities in defence.

- For the EU to be a credible security provider and a trusted partner in defence, we must focus our efforts on the development and mastering of technologies that have a serious potential to revolutionise our military capabilities, strategies and operations.
- The Emerging Disruptive Technologies (EDTs), ranging from Artificial Intelligence and quantum technologies to hypersonic weapons and new space technologies must be in the centre of our capability development.
- While Europe has a strong potential in EDTs, indicated by a vibrant industry and start-up landscape in fields such as Artificial Intelligence and robotics, more is needed to match the efforts of our partners and competitors.

### **EDA in EDTs**

- This Conference today is therefore part of a wide range of EDA activities aiming at bringing the Emerging Disruptive Technologies to the forefront of EU defence capability development.
- EDTs are widely considered in the key EU-level defence prioritisation tools, the Capability Development Plan (CDP) and the Overarching Strategic Research Agenda (OSRA).
- So far, within the CDP, Artificial Intelligence (AI) is for example identified as a future strategic enabler. In the R&T domain, we have identified more than 50 Technology Building Blocks (TBB) relevant to AI. A key contribution of the Agency is also the AI in Defence Action Plan and Strategic Research Agenda, building on the preceding AI in Defence Definition, Taxonomy and Glossary, as well as an AI in Defence Narrative.

- To further address the rapid technological development, the Agency has been tasked to prepare an EDT Action Plan which will support the MS in:
  - monitoring the EDT landscape in and outside of the EU;
  - identifying and exploring collaborative opportunities within the EU to avoid fragmentation and duplication;
  - proposing how EDTs can become an integral part of EDA processes to maximising coordination of instruments.
- This Analysis and the Action plan on EDTs will also provide a basis for EDA's contribution to the Strategic Compass. At the end of the day, defence capabilities are made for military operations. They need to be at the cutting edge of technology to be credible and successful - and it is not sufficient if only one or two Member States have them. They must be available across all EU Member States.
- Harnessing EDT has also a vital geopolitical dimension. Without innovating together, without integrating new technologies in defence systems, EU may lose its strategic advantage over its global competitors and interoperability with its partners.

### **EDA R&T**

- Having that in mind, EDTs are today in the core of EDA's Research and Technology activities, which are delivering impressive results since the very inception of the Agency in 2004.
- Over our seventeen years of operation, EDA has managed more than 180 R&T projects with a total value of more than 1 billion Euros.
- Our collaborative research takes place within the full spectrum of EDA's Capability Technology groups (CAPTECHs), which bring together networks of experts from participating Member States,

industrial stakeholders, SMEs and research technology organisations dedicated to a particular technology area.

- The collaborative research within the CAPTECHs accounts today for almost 50% of all collaborative research projects between MS, with a forecast that this percentage will grow in the coming years.
- In the exhibition part of the Conference we have collected some instances of this work and I would like to invite you to visit this “virtual exhibition” during the breaks.

### **EDF**

- Equally important, EDA plays key roles in the support of the European Defence Fund. EDF will be a major incentive for Member States cooperation on future capabilities including EDTs.
- In the upstream phase, EDA, as an observer in the Programme Committee, provides its views and expertise in the preparation of the Work Programme. The Agency also provides advise and support to Member States on their request regarding assessment of topics and harmonisation of functional requirements.
- When it comes to the implementation phase, EDA can potentially take on three different roles: it can be a project manager on Member States’ request; it can assume indirect management of specific tasks upon the Commission’s delegation; and it can provide advice and assistance to Member States in case of need.
- The project management role is not new to EDA. The Agency runs and supports many ad-hoc projects, including in the PESCO framework. EDA therefore stands ready to assume any possible indirect management role, especially when it comes to research-related activities. EDA’s experience gained from the management

of the PADR provides a solid basis for the Agency's contribution and support to the EDF in this way, as well.

- Moreover, a downstream role to exploit the results of the R&T projects within the EDF context could also be envisaged for EDA. The uptake by MS of the results of research conducted within the EDF will be the ultimate measure of its success.

### **OSRA**

- These reflections bring me back to our key prioritisation instrument in the R&T domain, the Overarching Strategic Research Agenda (OSRA).
- EDA introduced the OSRA concept in 2016 to identify Technology Building Blocks (TBBs) that deserve particular effort and funding. OSRA combines the top-down approach from capability needs to technologies and the bottom-up approach from new emerging technologies to capabilities, to better harmonise the relevant European defence research priorities and identify potential funding instruments. Importantly, OSRA provides the links between defence research activities and the military tasks and long-term capability needs of the CDP.
- OSRA is a ready-to-use tool informing Member States' discussions and enabling decision-makers to prioritize against specific criteria. It provides a structured, systematic and transparent prioritisation mechanism for identifying common European defence research objectives, be it for ad-hoc research activities among Member States or for the Research and Development part of the European Defence Fund. The importance of OSRA has been further acknowledged by its reference in the regulation of the future EDF.

- Let me underline that this is a big achievement for EDA and our Member States. For the first time, European defence research stakeholders have an overarching approach to prioritisation of defence research agreed by EDA Member States. It has not been an easy process and a lot of thought and time has been invested by all actors in order to develop a robust methodology.

### **INNOVATION**

- I wish also to highlight the role of innovation in capability development. Innovation offers major opportunities but may also create significant vulnerabilities if left unaddressed. The significance of innovation is emphasised by EDA and it is addressed consistently and systematically in our work on Technology Foresight.
- To support innovation and the incorporation of new topics and technologies into the defence domain, EDA is engaging with non-traditional defence R&D communities and innovators to speed up access to emerging and potentially disruptive research and identify areas for additional investment.
- Let me also highlight in this context the traditional EDA Innovation Prize which further stimulates the engagement of small and medium sized enterprise, research organization and universities, mainly non-traditional defence R&T communities and innovators to come up with the innovative and ground-breaking technologies, products, processes or services applicable in the defence domain.
- We have just recently published a call for this year's Innovation Prize which is dedicated to the topic of Innovative solutions & technologies on Human-Machine Interfaces enabling Human-

Machine-Teaming for Defence. I would like to invite you all to submit your applications.

## EC

- Before closing, I would like to welcome the fact that Horizon Europe is also focusing on boosting innovation. The Innovative Europe pillar which aims at making Europe a frontrunner in market-creating innovation via the European Innovation Council (EIC), the European Innovation ecosystems and the European Institute of Innovation and Technology (EIT) are great instruments, and I am confident that by the end of this Multiannual Financial Framework we will see tangible results.
- In addition, the Action Plan on Synergies between Defence, Space and Security industries will enable stakeholders to work together and to deliver added value to our citizens. And I am very happy that we are joined today by the Director General of the JRC.

## EU-NATO

- When it comes to EU-NATO cooperation, let me confirm that we are also in close contact with all relevant NATO contacts to ensure mutual awareness, contribution to future interoperability and avoid unnecessary duplication in our work. For example, after sharing the Artificial Intelligence in Defence definition, taxonomy and glossary with NATO ASG for Emergency Security Challenges, we agreed to map our respective work on AI and EDTs at large; building on already established staff to staff contacts with NATO HQ or relevant divisions, ACT and STO, to enhance mutual transparency.
- In addition, cross participation in respective EDT-related events and activities also promote cross-fertilisation and, in this regard, I am very happy to have NATO Supreme Allied Commander

Transformation General André Lanata here today delivering a keynote speech.

## **CLOSING**

- Ladies and Gentlemen, as you can see, through our roles in defence prioritisation and capability development and our work on R&T and innovation, the Agency is not only supporting the Member States in the implementation of EU defence initiatives but also in the shaping and adapting the European capability landscape to the challenges of the future.
- I invite all of you to engage with us and take part in this rapidly evolving landscape of Capability Driven European Defence Research and Innovation.
- In conclusion, I wish to thank the Portuguese Presidency of the EU and the Portuguese Ministry of Defence for their support in the planning of this conference.

Thank you!