



Chairman of the European Union Military Committee

General Claudio GRAZIANO

Keynote speech at the EDA Annual Conference 2018

Panel 1 - Adapting today's Armed Forces to tomorrow's technology

(Bruxelles, 29th November 2018)

INTRODUCTION

- Your **Excellences**,
- Dear Ministers, Admirals, Generals
- Ladies and Gentlemen, **let me first bring you the warmest greetings on behalf of the EU Military Committee (EUMC).**
- I would like to thank you sincerely for the opportunity to address this distinguished audience. It is an honor to be here today and to have the opportunity to deliver the military perspective on **unmanned and autonomous systems**, a topic that deserves a serious and honest discussion.
- The European Union is **not a security organization, but it is a global actor**. This elevated status comes with a "*price tag*", in the form of **global responsibilities**. What the European Union, as **a global actor, is good at** providing security by using the full spectrum of instruments in its disposal.
- Based on that allow me to share with you some facts of real life: Security and Defence are difficult and costly to build, but very easy to lose. The latter, we have witnessed happening. Security and Defence never come cheap.
- In addition, we should be reminded of what the **desired end-state** looks like. This can be found in the EU Global Strategy, where the vision of a "stronger Europe" is offered. The ways to reach this end are also described: the European Union should be credible, responsive and joined-up. What is noteworthy in the Global Strategy is the acknowledgement of the need for the European Union to further develop its **Hard Power** and, as a result, its **military instrument**.
- Therefore, I would like to express my sincere appreciation for this year conference topic, since EU Member States, and the EU as a whole, clearly identified the need for a technological revolution, with its great opportunities and, at the same time, challenges, namely the exploitation of **unmanned and autonomous systems**.

- As the EUMC has the responsibility of defining the EU military capability needs and requirements, such a sensitive topic requires an **all-inclusive analysis**, encompassing different perspectives in **terms of skills, doctrine, legal framework, and concept of operations**.
- In this sense, **considering my recent experience as Chief of Defense Staff and - above all - as Commander of men and women**, I would like to share with you some thoughts, which will enrich our common understanding regarding opportunities and challenges of these innovations.
- Nowadays, **multidimensional, unpredictable, and transnational threats** stand as a global menace that no single country can underestimate. In this magmatic operational environment, **new technological revolutions could represent quantum leaps** with an incredible breakthrough. Consequently, we have the responsibility to promptly **analyse opportunities and challenges, learn** how to exploit them and to **adapt** the military capabilities.
- In fact, the multi-faceted implications of this innovation are currently stimulating the **strategic research of many States and the main International Organizations**, for instance, the European Union and NATO.
- In this regard, **the presence of NATO Deputy Assistant Secretary General for Public Diplomacy is a clear sign of genuine cooperation between EU and NATO**, even in this field. I am sure that future discussion on this topic will enhance further cooperation.

Ladies and Gentlemen, let me now address the opportunities, challenges and constraints

- Although it is a great challenge to **provide a forward-looking vision for European Defence** or, in other words, try to anticipate the future, especially when we refer to unmanned and autonomous systems, I would depict the **opportunities** of this breakthrough.
- First and foremost, the availability of unmanned and autonomous systems is a **force multiplier**, where a single system **can replace one or more fighters on the ground**. Consequently, these systems would **expand the battlefield**, allowing combat operations to reach into areas that were previously inaccessible.
- In this new dimension, unmanned and autonomous systems can have a **very positive impact on the number of injured and victims**, replacing human fighters in missions with high levels of risk and, at the same time, **guaranteeing prolonged activities on the battlefield**, avoiding physiological and mental constraints.
- Today, **personnel safety** is the highest priority for each commander, both in training and operations; the **human resources** that serve in the armed forces **represent the “centre of gravity”** and must be absolutely preserved.
- In practical terms, integrating manned crews with unmanned/autonomous systems could extend, for example, **the operational reach of intelligence, surveillance and reconnaissance**

operations while **reducing the risk** from a direct exposure to the enemy. Their use would also be important in many other sectors, for example in the medical field, engineering, logistics, etc.

- What is more, these systems **would not be influenced by emotions** such as fear, hysteria, primordial instincts, and biases, or even being able to work continuously.
- Therefore, employing unmanned and autonomous systems will **enhance the readiness of military instrument**, usable in all circumstances and regardless of the level of risk. But the countless advantages that such systems would guarantee to our CSDP missions must be related to **some considerations and constraints** that we must take into account.
- From **moral perspective**, I would mention the challenge to **delegate the life-or-death decision making to nonhuman agents**, especially when we refer to autonomous systems, which are capable of choosing their own targets. How do they discern who is a civilian and who is a combatant? Allowing them to make decisions about targeting could result – in a disgraceful worst case scenario - in civilian casualties and unacceptable collateral damage.
- From **legal perspective**, we have to define a **clear chain of accountability**. For example, in a real operation, a human takes the decision to use force against a target, there is a defined chain, from whoever “pulled the trigger” to the commander who gave the order. With autonomous weapons systems, no such clarity exists.
- Furthermore, from a **practical standpoint**, we need to consider that it is not possible to foresee all “what if” situations on the battlefield. No **individual action would be completely predictable** or pre-programmed on a system. In this regard, what happens if a remoted automated system loses the connection with its command central source?
- Needless to say that we have to avoid **the possibility that machines and autonomous systems can turn against us and become our enemy**. In connection to this possibility, let just think to **cyber vulnerabilities** and criminal activities that could emerge in this domain (via spoofing¹), cracking remote-control signals and communications, jamming or using other highly specialized technicalities, even against future combat-grade systems.
- On the other hand, having knowledge of the unmanned and autonomous systems make us better to protect from potential use of such enemy systems. We need to consider both possibilities the beneficial use of those systems for our purposes, but, at same time, how to protect from them.
- Therefore, referring to **possible future trends**, although the effects of this technological revolution have begun and **unmanned systems are already part of the military realm**. I believe that this architecture still requires **human intervention and judgement**, especially when it comes down to critical “decision points”. In this vein, we could refer to the use of drones in a

¹ According to some sources, for example, it has been suggested that the capture of a Lockheed RQ-170 drone aircraft in northeastern Iran in December 2011 was the result of such a typology of attack (GPS spoofing).

wide range of operations, starting from the targeting, to close fire support, to casualty evacuation.

- What is more, in some areas the **role of the human being is still essential and irreplaceable** by unmanned or autonomous systems, such as the Civil-Military cooperation, PSYOPS, as well as some aspects of command and control functions which in military words we call it "**the commander's sixth sense, intuition, and vision**. This sixth sense will continue to play a pivotal role in linking the dots of a complex, chaotic operational environment. **It is about seeing beyond data!!**
- **When it comes to the European Union, the importance of unmanned capabilities marked a first milestone already at the end of 2013**, 5 years ago, during the EU Council on Defence, when the former High Representative/Vice President (HR/VP), Ms. Catherine Ashton, pointed out that *"Remotely Piloted Aircraft Systems (RPAS) are very likely to constitute a key capability for the future. They offer a broad spectrum of capabilities that can contribute to various aspects of EU-led military and civilian operations"*.
- In line with this insight and guidance, **the EUMC gave the task to the European Union Military Staff (EUMS) to draft a concept for the operational employment of RPAS** within the framework of the EU-led Military Operations.
- Today, the European Union has a greater number of instruments to face research and development of this complex sector that **a single Member State would have great difficulty to develop alone**.
- The **European Defence Fund (EDF)** is one of these tools that would provide support on unmanned military technology like armed drones, and could also support the development of fully autonomous weapons, including lethal ones. The ambition is to encourage the cooperation among Member States to develop a solution for unmanned and autonomous systems, which would become the European standard.
- Speaking of **research and development in Europe** means putting **together the best of the industrial capacities of each Member States**, so as to foster the creation of a credible military capability is so complex, multifaceted and with ample growth potential.
- If we imagine a **hypothetical future in which machines will play an essential role in the armed forces where no one would afford to remain behind by risking the inconsistency of its capabilities**.
- In this process, **PESCO appears to be a decisive tool** as it makes it possible to bring together the **operational needs** of the Member States and, above all, to identify the **limits of this particular capacity**, the development of which cannot run alone, in the face of what has been

said about ethical and moral aspects. Together with the EDA and supported by the EU Military Staff, the Military Committee has a key leading role in this regard.

- The **EUMC** is focused on the operational needs and intends to **sustain CSDP Military Level of Ambition** in developing a **common sense of responsibility** and assessing all the best practices and initiative which could be beneficial for our common security and defence dimension.
- In this regard, **EUMC offers and will always provide its most unfettered contribution** to the political decision-making of the European Union, while **frankly and synergistically collaborating with the European Defence Agency and the EU Member States.**

Ladies and Gentlemen,

- In my conclusion remarks, I need to stress that building a stronger Europe, is not an easy task. It cannot be achieved overnight and it certainly cannot be achieved without the investment of adequate resources. These include **political capital, human capital, money and time.** Persistence, patience and long-term planning should govern this endeavour.
- The EU Military Committee has been active and heavily engaged in the evolution of the Common Security and Defence Policy. In doing so, the Military Committee acknowledges, from a conceptual and operational stand point, the need to **provide a "complete package" in order to capitalize unmanned and automatic systems in CSDP operations.**
- Through PESCO, EDF, and other European mechanism we should not limit the package concept to the system itself, but also provides for an overall upgrade of military training, mentality, protection of systems and integration, with **full trust and avoiding any cultural resistance.**
- In any case, we cannot stop the Progress. Instead, we need to look at the future with optimism, considering the unmanned and autonomous capabilities with **great sense of responsibility.** Thus, any further technological advancement in this realm will involve the necessity of **new regulations** in terms of doctrine, training, legal and operational measures.
- Therefore, the challenge will be to **exploit these high performing systems**, but keeping, at the same time, the **possibility for humans to take full control of the mission in case of specific, unpredictable events.**

I think I will stop my keynote intervention here. Thanks for your attention.