Dear Juha (RAdm Vauhkonen, FIN MILREP),

Dear all,

Many thanks to the Finnish Presidency and the Finnish Military Representation to the EU and NATO, for organizing this Away Day.

It's a pleasure for me to open this event, covering topics of extreme interest, indeed.

This morning we discuss the military priority of the Finnish Presidency, digitalization and artificial intelligence in defence.

Today's meeting, I must recall, is part of a series of events organized by the Presidency on this subject, starting from the EUMC working lunch in July, the seminar in September in Helsinki during the EUMC Away Days, today's event and the experts’ seminar the 6th of November, co-hosted by the Presidency and the EUMS.

This afternoon, instead, you will dive into another subject of the utmost importance: the arctic and the Russian military approach to it.

But let's proceed in order.

Integration of digital technologies into everyday life, by digitization of everything that can be digitized.

This is the widely-accepted definition for Digitalization.

But in few words, it means to transform all we see, say and do, into zeros and ones.
If you recall the movie Matrix, you have a clear picture of the concept. AI, on the other hand, is defined as the theory and development of computer systems able to perform tasks that normally requires human intelligence, such as: visual perception, speech recognition and decision-making.

If we put these two definitions together, we are presented with a huge array of amazing opportunities.

Which also hide few serious challenges.

Opportunities and Challenges. I just realized that we seldom use these terms in this order…

But the inversion is not by chance.

I will come back on this later.

While most of you probably knew those definitions, there are some peculiarities of AI that are unknown to many, possibly.

First that AI isn’t really new.

AI is a relevant field of computer science since the first computer was created, almost one century ago.

We have already seen countless AI applications in both the social and technological aspects of our lives.

And we, in the military, and commercial companies use it every day.

Think about how Gmail uses AI to prioritize your emails, which of them is unimportant or spam. Or how Twitter selects the tweets based on your habits. Or Uber, which suggests you a restaurant since it learned what you like to eat.

We know there are basically no limits for potential applications.
But a second important point is that artificial intelligence is not really what many people think.

AI simply identifies probable and improbable choices, categorizing inputs, generating outputs to fit models.

The temptation to imagine Terminator is strong, but there is not such a thing happening now, or in the near future.

What machines and systems are doing now is basically to use models to replicate decision mechanism.

In fact, we could say that AI – as we know it nowadays – is not “intelligent” at all. In this context, there is a very interesting definition of intelligence:

“Real Intelligence Is Whatever Machines Haven’t Done Yet”.

And still related to this, let me mention one last point, maybe unknown.

A specific tool is currently pursuing AI, since the 80’s: Artificial Neural Networks.

This is the real future where research will be pushed to develop systems using the principles (not the mechanism) that are governing the human brain, applying those principles in our daily lives.

Having said that, we need to be fully aware that Digitalization and AI applied to Defence are decisive factors increasingly shaping the character of modern warfare.

They can offer an amazing power and speed of data elaboration, which go beyond the possibilities of human brains.

And this power and this speed would allow the decision makers to take quicker and more informed decisions, possibly anticipating crisis, which is what we all aim and would love to see.
We know that AI is already helping the civilian domain: fighting cancer, controlling diabetes, predicting earthquake, floods and hurricanes.

It can foresee climate changes.

Or even create art and melodies.

In the military domain, for activities like intelligence, surveillance, reconnaissance operations and, above all, situational awareness, AI can be a real game changer.

We know that we will greatly benefit from these technologies, often reducing the risk from a direct exposure to the enemy.

Today, then, we are witnessing a new process: weaponization of AI.

It’s Here Already.

Among other advantages, systems based on AI would NOT be influenced by emotions like fear or instinct, and will be able to work continuously, in any condition, enhancing the readiness and effectiveness of our military tools.

We have now the obligation to learn how to exploit technologies already available or for which the research is ongoing, often driven by our own military needs.

In this context, we know, the European Union has many instruments (like PESCO and EDF) to accompany research and development.

more than the ones that single Member States have.

And we, as EUMC, we must play our role.

The EUMC offers and will always provide its most unfettered contribution to the political decision-making of the EU, while trustfully cooperating with the EDA and with all the EU Member
States, also trying to avoid - or at least to deal with - any cultural resistance.

In fact, the countless opportunities for our CSDP missions and operations, and for our military toolbox in general, bring some serious challenges…

Among others, moral, legal and safety considerations.

In fact, delegating the life-or-death decision making to nonhuman agents, or the issue of accountability when a machine takes a “decision”, all this raises many questions.

And I have not touched the potential vulnerabilities in this domain. Hackers are out there, and they are not waiting, they are already acting, now…

Along with our allies and partners, we need to lead and ensure that these considerations, and the associated implementation of these technologies, fully reflect the values and interests of free and democratic societies.

Last week, I was fascinated by a job advertisement that the Pentagon posted online:

Wanted: military “ethicist”.

Skills: data crunching, machine learning, killer robots.

Must have: cool head, moral compass.

Not wanted: generals, scientists and even presidents.

In practice, the Pentagon is looking for the right person to help the militaries to navigate the morally muddled waters of AI, which is clearly labelled as the battlefield of the 21st century.

But the question comes quick: are our enemies wondering about ethics, when they apply AI to their tools?
Truth is that we should aim at exploiting these high performing systems with great sense of responsibility.

But we also should bear in mind that when we limit ourselves we may be offering unexpected advantages to our competitors.

I personally believe that these instruments will still require human intervention and judgement, especially when it comes down to critical “decision points”.

The questions then are:

Will we be able to defend forever the position of “centre of gravity” for the human resources that serve in the armed forces?

I think that in some areas the role of the human being is and will always be essential and irreplaceable, such as the Civil-Military cooperation, PSYOPS, areas where the commander’s sixth sense, intuition, and vision are still essential.

Having said that, other questions are:

Until which point do we want these systems to enhance or even replace human brain processes?

From when and until when is it acceptable to use artificial intelligence in a weapons system?

I am convinced that these questions cannot be fully answered now, but will require a continuous evaluation as we develop these systems, and, as I said before, we are presented with challenges while exploiting opportunities.

In this sense, as I mentioned at the beginning, opportunities come first, and challenges are presented afterward.

As said, together with the EDA and supported by the EU Military Staff, the Military Committee has a key leading role in this regard.
The EUMC intends to support the exploitation of the new technologies, sustaining CSDP Military Level of Ambition with a common sense of responsibility.

And this is why we have inserted this item in the agenda for the next meeting at CHODs level. The topic is very relevant.

Thank again, to the Presidency, then, for bringing forward discussions on this subject.

Concerning this afternoon session, I will be brief.

You will receive very interesting presentations on the Russian military approach to the Arctic region.

Let me first recall that, on the subject of the Arctic region, last week, the European Commission, the European External Action Service, and the Government of Sweden organized a high-level EU arctic forum in Sweden.

The meeting brought together key Arctic players and stakeholders to assess recent developments in the region and to discuss the new challenges ahead.

HR Mogherini, addressing the subject, said that the Arctic is a priority not only for the Finnish presidency, but also for the entire European Union.

The region sees growing tensions and developments that are of serious concerns, starting from the protection of the environment to the opening of new sea lines of communication, with all the associated security aspects.

Although the Arctic has no universally agreed geographic definition, one aspect is widely acknowledged: the arctic hides a huge amount of treasures.
And while the common opinion is that this region should remain an area for global cooperation, what we are witnessing today is an increased military activity and, by many, a potential scenario for future disputes and confrontation…

Armed forces, naval vessels and military aircraft from several countries have all made appearances on the scene, in recent years. more are expected to come…

Having said that, we cannot doubt that one of them wants to play the main character, as we learn from open sources.

In fact, Russia's role in the arctic definitely stands out. Geographically speaking, Russia’s northern shores encompass half of the Arctic coastline and one fifth of Moscow’s GDP comes from that region.

But while for many, the engagement by Moscow relates mainly on economical considerations, focused on energy extraction, maritime shipping and cooperation, many others think that Russia’s Arctic Strategy may be aiming to a military dominance or confrontation.

It’s a fact: Russia is extensively building up military units and infrastructure in the region.

Therefore, there are two dominant narratives for Russian approach.

By some, Russia’s actions in the region are a clear indication of a strategy of nationalism, expansionism, and aggression.

For others, activities are driven by pragmatic economic reasons and as an inclination to cooperate with regional and international institutions.

But the main issues remains: what is Russia's goal in the region? and which strategy will Russia use to achieve these goals?
As Mme Mogherini recently said: “the EU has a strategic role and interest in the arctic remaining a “low-tension–high cooperation” area.

We must keep that in mind, as well as that, as EUMC, we have a critical advisory role.

Thank you all very much.

Thank to the Finnish Presidency once more and looking forward to a very interesting and proactive discussion.