Remarks by:
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Update on NATO's Interoperability Initiative

First I would like to thank ACT for organising this latest Industry Day and for choosing this important topic of "Working Together to Improve Interoperability.

I have a special interest in the topic, because, as some of you know, the NATO Secretary General appointed me as the NATO Senior Official to lead the implementation of the Action Plan for Enhancing Interoperability. By that appointment, I have become NATO's "Interoperability Czar".

The Action Plan for Enhancing Interoperability has its roots in the 2008 Summit in Bucharest where we were directed to "... develop and field the right capabilities and forces, with the greatest practicable interoperability and standardization".

So we have high level of attention. Building on the Bucharest declaration, at Strasbourg-Kehl earlier this year, Alliance Leaders declared "We are determined to provide the forces required for the full range of Alliance missions. We continue to support efforts to make our forces more deployable, sustainable, interoperable and thus, more usable.” and to address the interoperability aspect, they further declared “We
encourage our Defence Ministers to agree on an Action Plan to improve the interoperability of our armed forces ...”

Interoperability is not a new area of effort at NATO. In fact interoperability, in particular standardization, have been a key element of the Alliance's approach to fielding forces for decades. But as we have become engaged in challenging operations in Afghanistan and elsewhere, with the need to interoperate at lower and lower levels of command with an increasing number of nations, including non-NATO ISAF partners, NGOs, and other organizations, have made the task even more challenging.

Improved interoperability is a force multiplier for troops deployed on operations in Afghanistan, in Kosovo, in the Mediterranean and off the coast of Somalia.

What I would like to do in the next few minutes is give you a very short update on where we are with this NATO Interoperability Initiative.

We have tried to take a systematic approach to our work. Beginning at the top, we have revised NATO's Policy for Interoperability, complementing it with a Strategy for Enhancing Interoperability. Both these documents have been approved by the Executive Working Group (EWG). They will be sent to all stakeholders for comment and their buy-in, before they go to the NAC for final approval.

These documents will set the scene for our follow-on work, explaining the why, what, who, when and how of Alliance work
to develop the underpinning elements of interoperability. One important point I want to make – we are NOT creating a new stovepipe. The NATO Interoperability Initiative is designed to integrate interoperability in the new defence and operations planning processes.

A key aspect of the new policy is a new definition for NATO interoperability - "Interoperability is the ability to act together, coherently, effectively and efficiently to achieve Allied tactical, operational and strategic objective."

The effort is focusing on the ability all forces to communicate, to operate, to support each other and to train and exercise together.

The new policy identifies several important principles:
- Holistic Approach to the Achievement of Interoperability
- Completeness and Level of Detail of Interoperability
- Consistency and Coherency of Interoperability
- Timeliness of Interoperability
- Level of Ambition
- Continuity of the Interoperability Effort
- Commitment and Application

Achieving interoperability is a shared responsibility of all stakeholders, including NATO staffs, lead committees for the NATO planning domains, NATO Military Authorities, and in particular – nations. It requires a constant and comprehensive coordination of all efforts.
While we all intuitively understand the need to improve interoperability – more interoperability is better than less interoperability – but why? As I alluded earlier, in the old, Cold War days NATO was planning to defend against a Soviet attack by using what was called a "layered cake" approach. National Corps after national Corps standing shoulder to shoulder, from the Baltic Sea to the Alps. Only at the boundary between those Corps, or in the case of reserve forces who might be called upon to reinforce the line, or break through to attack the enemy in the flanks, was interoperability much of an issue. But today, with the new NATO missions, we are engaged in operational theatres where there has been a shift from where a single nation fights on its own, to coalitions where multinational units, down to the level of platoons, are working together. This reality has made achieving greater interoperability, not just a "nice to have" but rather an essential element of NATO's expeditionary operations. Both Strategic Commands consider interoperability as the cornerstone for NATO operations. And Interoperability is recognised as one of, if not the, most important force multiplier.

For a minute, let's changing our perspective 180 degrees. What is the impact of the lack of interoperability? Well, first, it can endanger operational mission success. Second, it can have a major negative impact on resources and on logistical footprint, as it makes it difficult, or even impossible, to share spare-parts, ammunition, fuel, and therefore affects the efficiency of the force, in general. But in certain areas non-
interoperability can have a dramatic impact, like blue-on-blue fire, loss of lives - people can die unnecessarily, due to a lack of interoperability.

Simplistically, the Alliance has a portfolio of “tools” to achieve, maintain and enhance interoperability:

- Standardization is one; NATO has almost 2,000 STANAGs and Allied Publications
- Training and exercises
- Cooperative development or acquisition programs (multinational, common funded)

There are instances when with relatively little effort, we can have relatively immediate effect and a considerable impact – I would mention here training, in particular language training and the use of agreed procedures and terminology. These are prerequisites for communication. The days when it was enough for one or two officers in a national higher echelon headquarters to speak English or French, are long gone – now we have to share a common language down to the level of individual soldiers in some key missions.

I will now turn to the core question of today’s event - What can industry do to better support the interoperability effort? The short answer is “A lot”. Without wishing to pre-empt any discussion over the next two days, let me share with you some of my thoughts on that question.
The industry can support standardization:

- With more flexible Intellectual Property Rights (IPR) policies or sometimes more flexible interpretation of the existing IPR policies
- With industrial experts participation and/or lead in the development of standards
- whenever possible, by embracing open standards, and here I mean *those standards that are accessible widely, royalty-free*. For example the W3C (world wide web consortium), IETF (Internet Engineering Task Force), and ITU-T (International Telecommunication Union) have all declared their standards as open. ISO and IEC require *the payment of royalty fees for the use of their standards, but they too are widely accessible.*

In training:

- enhance initial training (factory training) so that the operators become more familiar with the new equipment
- develop simulators based upon open standards
- promote distributed simulation (interconnection of simulators). This will not only reduce costs by eliminating the need to bring men and equipment together physically, but will also allow for a better multi-national training before deployment, as well as familiarization with procedures, tactics and techniques.
In cooperative programs (which not only support interoperability, but also the development of needed capabilities for the Alliance):

- enhance transatlantic defence cooperation and stimulate industrial cooperation – and here I should mention a conference on Trans-Atlantic Industrial Cooperation we will hold in Brussels next Friday -
- stimulate and enhance openness to new technologies
- engage companies beyond traditional partners ("enlarging the horizon")
- embrace “spiral development” concept (the technology is evolving too fast for the classical procurement cycle)
- accelerate the fielding of required capabilities
- stimulate jointness through platforms and equipments for multi-service use (army, navy, air-force, SOF, whenever possible)

The perfect balance between the protection of sensitive or advanced technologies, and enhancing interoperability is difficult to achieve.

One may ask: Why should industry support interoperability? What are the incentives for them doing so? And what are the disincentives? I would challenge you, our colleagues from industry to offer your answers to these key questions, but first let me tell you what I think.

It is clear that industry is the primary supplier of solutions to meet defence requirements. You - defence industries are
driven by the need to maintain your competitive edge in the market place, and make profits for your shareholders. While we - NATO and Nations are the customers, responsible for getting best value from ever diminishing defence budgets. In today's economic climate, it is clear that defence is not a growth market.

So why should you support improved interoperability? First, it is good business. The customer is less and less willing to accept bespoke solutions, particularly if it means that their forces are less efficient, or worse, put in harms way, because a technical solution prevents, or makes it more difficult to work together with the forces of Allies. Meeting NATO standards, gives you a leg up in the market place over competitors who do not meet those standards. Second, by being part of a team that develops standards, you have the opportunity to share development costs and be in on the ground floor of innovations which should lead the way in a given field. The NATO ISR Interoperability Architecture (NIIA) standards which underpin our Joint ISR work supporting the Multi-sensor Air-ground Joint ISR Interoperability Coalition (MAJIIC) and Alliance Ground Surveillance programmes are good examples of this.

On the downside, adopting a standard can increase costs. It can lead to a "dumbing down" of a system to meet a less demanding standard, agreed by consensus, or it can remove some of the competitive edge a company may have in the marketplace. You may have to share some of your ideas with
your competitors. And finally, standards can inhibit innovation, unless you are driving the development of that standard.

NATO's goal is to reach a realistic and achievable level of interoperability – total interoperability or complete synergy are difficult, if not impossible targets to achieve, both for reasons of time and money. Moreover, interoperability is dynamic, the technology changes rapidly, and the lessons learned, when truly learned, will improve the way we operate. Therefore even maintaining the current level of interoperability requires a continuous effort.

NATO can and must do more, and so should Nations. But in the end, for many aspects of interoperability, success depends heavily on industry. Industry can and does a great deal today and will need to do more in the future. I am confident that together, we can identify potential win-win situations, to our mutual benefits.