

## NATO 2030: NATO-Private Sector Dialogues with GLOBSEC

### Sustainable Defence Innovation and the Fight Against Climate Change– 11 February 2021

#### **Policy Takeaways**

NATO, its Allies, and the private sector are already witnessing and experiencing the critical impact of climate change on security. Consequences such as infrastructure damage from extreme weather events and increasingly vulnerable supply chains affects both the civilian and military realms, thus demanding coordinated counter efforts by the transatlantic community. Adequately responding to these challenges will require more extensive and innovative collaboration between the Alliance and the private sector. The third of the NATO-Private Sector Dialogues with GLOBSEC brought relevant stakeholders together to exchange views and insights about how the private sector can contribute to forecasting strategic risks and opportunities, provide insights on policy, doctrine, and procurement, and help NATO innovate and build its defense capabilities in a sustainable way.

#### **- Forecast and Foresight: Strategic Risks and Opportunities –**

##### *Key insights:*

- The environment should be a lens with which NATO can view all other strategic issues rather than viewing climate change in isolation or as separate from security, defence, economic, social, or political concerns
- Sectors and enterprises that will gain prominence as a result of climate change include geo-engineering and carbon removal, the electricity and energy sectors, and AI and big data
- NATO could benefit from continuously using foresight techniques and recursive thinking as it continues to formulate its strategy for addressing climate change, for which differential gains and losses must be gamed out ahead of time in order to plan for the present

##### *Discussion points:*

In discussing how the environment affects our security landscape, participants noted the immense challenge of tackling the long-term, transnational and global threats posed by climate change, which can no longer be treated as separate from security and defence. When NATO looks at emerging security challenges, it has to make a distinction between those where it clearly has a leading role to play and those where NATO has assets and can play a useful, supporting role. Notably, some participants shared their perception that the political arm of NATO has demonstrated a greater commitment to prioritizing climate change threats than its military counterparts. In many military environments, green agendas are still viewed with skepticism or are not considered critical to future planning just yet. However, participants agreed that military actors are more willing to address climate issues when environmental threats are presented in terms that illustrate the direct and significant impact on military assets and the freedom to operate and maneuver.

Since the defence sector has a history of pioneering innovative technological solutions, military organizations are especially well-equipped to lead the way on addressing climate change-related threats. NATO could pioneer the development and implementation of new technologies and use its military forces as the testing ground for greener technology that would subsequently be rolled out onto commercial markets. In doing so, NATO should be conscious of the tangible, everyday impacts of climate change. At the same time, the Alliance is naturally suited to tackling challenges using a top-down approach, but climate change also necessitates having personnel on the ground that can assess the human impact of environmental threats.

The private sector maintains an upper hand with regard to accessing large amounts of data, thereby making long-term predictions, scenario-building, and catastrophe-modelling easier for private entities. As corporate interests and confidentiality often dictate how data is shared, NATO should focus on building trust in this area. Trust and transparency will pave the way for increased data sharing and accessibility and, as a result, improved prediction capabilities for NATO.

A challenge that both private sector actors and NATO will increasingly face is the securing of supply chains as well as physical structures (military bases, production sites) that will become more vulnerable to extreme weather and natural disasters. Identifying the nexus between climate change and the complex security implications that may be impacted and shaped by it – such as migration, global geopolitical shifts, organized crime, piracy, and more – is the key to ensuring that environmental concerns gain attention. In addition to being realistic in assessing where NATO can add value, the Alliance should act proactively and utilize private sector expertise, including implementing foresight and forecasting techniques that were pioneered by the private sector. NATO's opportunity to influence the global response to climate change cannot be underestimated, and NATO's voice – especially its military voices – could have a huge impact in encouraging the prioritization of climate issues.

### - Policy, Doctrine, and Procurement –

#### *Key insights:*

- To encourage the exchange of best practices on climate change and security, NATO should position itself as the primary cooperative platform among allies to avoid policy breakthroughs occurring in silos.
- With NATO and its allies pursuing a forward-thinking green energy transition doctrine, crafting an effective message that legitimizes its advantages for military planners and mission success should be prioritized.
- To get more green benefits out of procurement, it is imperative for NATO and its allies to broaden the scope of how they assess costs to ensure that life costs, particular on themes such as infrastructure, IT and logistics, are balanced and in some cases prioritized with traditional metrics of capital costs.

#### *Discussion points:*

Momentum and urgency have never been greater within the Alliance to address climate change. A combination of change in American presidential administration, the upcoming COP 26 in November 2021, and the NATO 2030 process has put the issue at the forefront of Alliance policy priorities, where climate security is expected to occupy a more prominent place at the next leaders' meeting and within the update of the Strategic Concept that is likely to be agreed.

NATO is focusing on improving its climate change awareness, adaption, and mitigation to help future proof its policies and support allies against the backdrop of a host of unpredictable environment-based threats. As NATO allies continue to exercise, future training scenarios should include more environmental dimensions like disaster relief operations or the failure of equipment and facilities in extreme weather conditions, to ensure they are prepared for every future contingency. Scaling up and integrating existing technologies should follow these initiatives in tandem to maximize success and Alliance interoperability.

Delivering on these promises to be a greener alliance will be heavily dependent on the defence sector achieving mission success while transitioning away from fossil fuels. It was remarked that this paradigm, should be not viewed in tension or with major scepticism. The adoption of a viable energy transition program can both increase mission performance, by increasing stealth mobility and autonomous movement, as well as grant operators more flexibility on foreign deployments to identify enemies. In addition to the operational benefits, further advantages can be justified, where less reliance on petrochemicals will produce a leaner logistical footprint and reduce the overall material burden of deployments and financial costs of mission organization.

It was remarked that all allies should diversify their portfolio of viable energy transition technologies due to dangers of being reliant on one technology that could be rendered antiquated due to the quick pace of change created by the private sector.

Looking to the future, NATO and its allies should look to take advantage of the impending electrification of materials and next-generation weapon systems that will serve to significantly reduce carbon emissions. When possible NATO and its allies should also look to export this expertise and energy transition technologies to help climate mitigation and carbon reduction efforts of other non-allied countries where they are present.

To accelerate the green innovation cycle, NATO and its allied militaries, as major customers, can leverage this dynamic and introduce ambitious green procurement targets from the private sector. By requesting for example, the creation of electric personnel carriers or specifications that tanks run on renewable fuel sources, industry will have no choice but to adapt to retain these high-value clients.

## **- Innovation and Capability Development-**

### *Key Insights:*

- To help NATO Allies invest in disruptive technologies from the private sector, NATO should make the most out of its extensive infrastructure know-how and use those capabilities in a supporting role when it comes to procurement and implementation.
- To better seize the most disruptive innovations from emerging technology sectors, NATO needs to avoid attaching a singular use to these innovations and instead consider their wider potential by trying to make use of the multiple advantages they can bring to the Alliance by adopting them to NATO's needs.
- In order to achieve higher sustainability standards, NATO needs to fundamentally rethink its perspective on capability development by considering energy a capability in its own right, not just a resource, improving its capability survey to address this reality, and factoring in the strategic balance of energy into the force and capability planning.

### *Discussion points:*

NATO and the private sector are already seeing the impacts of climate change on armed forces. The supposed contradiction between mission effectiveness and sustainability is a false narrative. In fact, more sustainable options are often also the most safe and efficient. For example, the vulnerability of fuel convoys has cost lives in Iraq and Afghanistan. In this sense, sustainable replacement options for that fuel would not just be more efficient but would also bolster operational effectiveness and reduce threats to the mission. Furthermore, renewable systems will save taxpayers money. This means that it is critical for NATO member states to introduce sustainability as a key requirement when their defence ministries invest in new vehicles and systems from the defence sector.

Without these requirements from their clients, the private sector can only change so much. NATO needs to fundamentally rethink its perspective of capability development. Energy should be considered a capability in its own right, not just a resource. NATO should also improve its capability survey, which would then feed back into the front end of the process. In the near future, defence ministries will need to demonstrate that they are good stewards of public money and prioritize sustainability in order to see more investment. One way to incentivize this good stewardship would be to let defence ministries keep their efficiency savings rather than taking them away. This would incentivize defence ministries to invest in energy sustainability.

Although many policies need to be implemented on a national level, NATO can make a big difference by lending its infrastructure resources and know how to Allies and private sector partners. It is also important to take stock of disruptive technologies that are already in use and try to find ways of adapting them to NATO's needs. Many of these disruptive technologies provide not just one, but many advantages, and it is important for NATO and the public sector to consider these innovations in their totality rather than focusing in on just one benefit they could provide. Finally, more upfront funding is needed for sustainable projects.