# NATO 2030: NATO-Private Sector Dialogues with GLOBSEC

## The Future of Warfare and the Role of New and Emerging Technologies – 25 November 2020

**Policy Takeaways**

- **Technology needs to match values:** The transatlantic community should look to remain a leader in technological innovation. New innovations need to help fortify societal resilience to threats such as climate change and pandemics but cannot come at the expense of compromising our values. Moving forward, a concerted effort to embed values in new technologies must be undertaken without restricting healthy competition to foster innovation in the private sector. This includes encouraging technology firms to consider what societies and values they serve and support, as opposed to only prioritizing shareholders or their bottom lines. These firms also need to become more "security ready" in order to prepare for the consequences of heightened technology capabilities. The heightened use of sensitive technologies has potential repercussions for theatre operations and societies. Therefore, the establishment of red lines is necessary to ensure basic ethical standards of use. At the moment, NATO's technological superiority is being challenged by Russia and China. These countries do not share transatlantic values or prioritize the ethical deployment of these powerful technologies. However, they will also look to export these technologies and systems. This reality requires us to revisit how to keep our citizens safe from these developments and poses serious consequences for the long-term deployment of these technologies in theatres of war. Failing to act and lead with responsibility will reduce our chance to set global standards and usher in a race to the bottom. If the West is willing to sacrifice values for profits, then our credibility as a moral actor would be irreversibly damaged.

- **Closing daylight between public and private:** Closing the strategic distance between the public and private sector is essential for maximizing cooperation between these two actors. The benefits of a well-structured public-private partnership are well documented, and essential elements of success in both peace and wartime. We are currently operating in a hyper war environment and will be for the foreseeable future. This means that NATO members and the private sector cannot afford to have this strategic estrangement continue, when it comes to assessing threat perceptions and taking decisive action to ensure Alliance wide security. Ending this estrangement is crucial because states such as Russia and China, are immune from this strategic distance and can quickly mobilize and co-opt the private sector to achieve its objective. This lack of distance represents a comparative advantage vis-à-vis NATO. In response to this challenge, NATO needs to acknowledge this reality and pursue efforts focused on aligning the public and private sector interests on global security. Although there is a diverse collection of innovative and "disruptive" firms across the transatlantic sphere, much work to close to the strategic distance remains. Closing these gaps will not occur overnight. This will be a long-term process advanced by building channels of dialogue and trust between NATO and the private sector at the earliest stages of policy and technological development.

- **Co-operation and Co-ownership:** In order to close the existing strategic distance between the public and private sector, NATO must become more "tech ready." Just as the private sector needs to consider the security implications of their innovations, NATO needs to consider how it can be a patron of technological innovation. NATO and national governments need to invest early in talent and innovations taking place across "'nontraditional" companies like start-ups and SMEs. Early investment needs to allow for co-ownership as well. This will help make nontraditional companies more of an equal partner and encourage further co-operation. At

the moment, NATO does not take full advantage of these opportunities. However, it does have longstanding connections to the private sector, that continues to strengthen, in a way that national governments do not. Consequently, ensuring that national governments are included in this drive for technological readiness is essential. Despite the stubborn nature of this challenge, there are ample opportunities to positively reframe relations.

- **Smarter Capital:** Public sector organizations like NATO needs to address the perceived "valley of death" between the initial funding and implementation stages of projects. Bureaucratic challenges and lengthy processes of approval disincentivize SMEs and start-ups from working with the public sector, because the former are more receptive to instant action and financing. The traditional model of investment that focused on engagement with traditional defence companies is no longer sufficient. To shift the paradigm of engagement NATO needs to develop quicker procurement cycles and establish flexible working relations with SMEs. They also need to devise more creative ways to provide capital to companies and should consider options like a non dilutive capital strategy.

- **Higher Risk Investment Appetite**: A disconnect in corporate culture between SMEs, start-ups, and the public sector is also producing adverse impacts. It is not in the nature of the public sector or NATO to embrace financial risk, but this is now a pre-requisite for success in today's fast paced technological world. However, if properly mitigated, the public sector's aversion to risk can allow it to serve as 'patient capital' for start-ups whose innovations require more time to develop. There is also much to be gained for NATO by learning from venture capital practices when it comes to generating innovation and new technologies into the future. Developing innovative purchasing strategies like the "use fast, fail safely" model would be useful. This model executes military exercises in a more virtual settings more accurately test whether new technologies from young companies are a good fit for NATO objectives. While some member states have begun to regularly use similar models, it must proliferate Alliance wide and eventually become the norm for development and operations.

- **No Single Technology can cut the Gordian Knot**: Emerging technologies like AI have much to offer the military and civilian spheres. However, these technologies will not solve the issues facing militaries or societies. Rather, these technologies have the potential to increase efficiency wherever they are used. Increased efficiency has the potential to mitigate some problems, but will undoubtably exacerbate others. This goes to show that there are not savior technologies. In addition, technologies like AI or quantum computing need to be integrated into systems at an early stage. They cannot be placed on top of a system that was not built with them in mind. AI also relies on a number of dependent technologies like cloud computing to function. This means that integrating AI into systems at an early stage requires updating those dependent technologies to ensure optimum functionality