



NATO BIOTECHNOLOGY CONFERENCE

“Prepare, Foster, Protect”

Community Building Session’s Theme 5: ***Human Enhancement Applications in Defence and Security***

Overview of session objectives:

The session will explore why human enhancement, especially within biotechnology, is becoming a strategic priority for defence and security. Participants will discuss potential benefits, risks, and the responsible use of these technologies, aiming to identify ways to enhance human performance and resilience. The goal is to generate insights that can guide future NATO research, policy, and capability development.

During the panel, participants will collaboratively try to define the concept of human enhancement in security and defence, ensuring a mutual understanding of its scope and purpose. They will assess the impact of human enhancement’s application to boost performance and operational effectiveness, considering its relevance to military operations and NATO’s strategic needs, and identifying scenarios where it could offer significant advantages. Participants will evaluate the current state of readiness for implementation, analysing technological barriers, realistic timelines, and distinguishing genuine potential from hype. In alignment with NATO principles, they will examine how human enhancement respects existing policies and values, discussing necessary adjustments to ensure compliance and integrity. Finally, participants will brainstorm and propose tangible actions for responsibly exploring or adopting the technology, considering research, policy development, and collaboration strategies that address ethical, legal, and social implications while advancing the session’s goal. Through these activities, participants will engage in a comprehensive exploration of human enhancement technologies, focusing on strategic priorities, responsible use, and actionable insights for future NATO endeavours.

Some guiding questions:

- How do we define human enhancement within the context of biotechnology and defence?
- What specific aspects or capabilities are being enhanced, and what are the expected outcomes?
- In what ways could human enhancement applications improve military capabilities and fulfil NATO's strategic needs?
- What technological, operational and logistical barriers exist in adopting human enhancement applications in the defence context?
- How shall NATO principles guide the responsible and strategic use of human enhancement?
- What concrete steps can be taken to responsibly explore or implement this technology?