

Istituto Affari Internazionali and NATO Defense College are glad to invite you to the closed-door workshop on

MILITARY TECHNOLOGY: RISKS AND OPPORTUNITIES FOR THE ATLANTIC ALLIANCE

27-28 FEBRUARY 2020

**IAI LIBRARY
VIA ANGELO BRUNETTI, 9 – ROME**

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CONCEPT NOTE

The rapid pace of technological innovation is bringing transformations of unprecedented scale to societies and the human way of living. This includes the military domain and the related technology. Differently from the past, when major equipment innovations were developed directly in the defence sector, innovation is now coming also from the civilian sector, being adopted by the military afterwards. The appearance of transnational commercial actors ready to lead and set the pace in the field of technological innovation and R&T&D by allocating resources incomparably higher than most states, resulted in a structural change for both public and private actors/stakeholders, increasing the relevance of the latter, i.e. Microsoft, or Apple, as well as contributing to the development of dual use technologies. Areas set to drive innovation like artificial intelligence and machine learning, robotics, autonomous systems, or biotechnology, have the potential to trigger disruptive change and drastically change how conflicts unfold. Innovations regarding internet of things and big data, 3D printing, nanotechnology, material science and quantum computing, sensors, cyber, electronic warfare, and high-altitude and space platforms will have a groundbreaking impact. Developments in these fields do not come without a risk: overreliance on sophisticated technology pose challenges that go from vulnerability, i.e. when faced with potential cyberattacks, to operational difficulties in finding adequate expertise to effectively operate, manage and maintain such costly systems.

New trends in technological innovation bring risks and opportunities at the same time for the transatlantic allies and NATO as such. Cutting edge technology is not an exclusive prerogative of Europe and the US anymore, as non-Western competitors are investing and increasingly disposing of last generation capabilities. The spread of technological innovation implies the growing ability for countries like China, Russia or India to develop in-house advanced capabilities. This process is accelerated by technology transfers from Western defence industries towards these and other emerging non-Western actors which have been increasingly able to invest significant resources in the defence domain. For instance, they became important clients for European industries next to the Europe's Ministries of Defence, incapable of guaranteeing defence investments sufficiently high to secure the survival on the market for these industries. Despite the slight increase in defence spending by European NATO members in the last four years, the inadequate levels of defence investments force the European Defence Technological Industrial Base (EDTIB) to export its products on extra-European markets, with a significant amount of technology transfer deals. As a consequence, EDTIB strategic advantage is decreasing, favouring other players, and making Europe more dependent from and less interoperable with defence capabilities of the US when it comes to defence, deterrence, and military interventions. This challenge has been partially addressed by EU initiatives such as the Permanent Structured Cooperation (PESCO) and the European Defence Fund (EDF) that aim to enhance defence cooperation and integration – both in the military and industrial domains – to fill the capability gaps and reduce the fragmentation of European procurement. On the other hand, these new initiatives have fostered tensions with the other side of the Atlantic, since Washington deems American industries excluded from the new business opportunities, and criticized the alleged closure of the European market. At the same time, Eastern European partners are worried about the risk of duplication or/and competition with NATO, thus being reluctant to engage fully in the new EU framework.

To stimulate a discussion about these topics, NDC and IAI are organizing a closed doors workshop.

AGENDA

DAY 1 – 27 FEBRUARY

14:00 Welcome coffee

14:30 Welcome remarks

ALESSANDRO MARRONE Head of Defence programme, IAI

14:45 **I Session: Military technology in 2020-2040 - a 4th industrial revolution? Opportunities and challenges**

The first session will analyze the major trends in future military technology, touching upon the main developments expected for the 2020-2040 period, among others in aerospace capabilities, electronic warfare, autonomous systems, cyber domain and artificial intelligence.

Moderator: **ALESSANDRO MARRONE** Head of Defence programme, IAI

Speakers:

DOMINIK KIMLA Consulting Associate, Avascent Europe

CATHERINE WARNER Director, CMRE

Q&A

16:30 Coffee break

17:00 **II Session: Allied Capabilities between requirements and planning, gaps and interoperability**

The second session will concentrate on what military capabilities will be of uttermost importance for the Alliance in the mid- to long-term future. A particular attention will be dedicated to the NATO and national defence planning process, looking for potential weak points in the Allies' procurement also in relation with interoperability issues. The growing divide between the US and Europe in terms of military capabilities could pose a major challenge for future common operations. Allies who will fall behind in this phase of runaway innovation risk to be cut out from joint operations. This is especially true when comparing European members of NATO with the US, particularly in terms of investments R&T, R&D and major equipment.

Moderator: **VINCENZO CAMPORINI** Scientific Advisor, IAI

Speakers:

LUCIE BÉRAUD-SUDREAU Director, Arms and Military Expenditure programme, Stockholm International Peace Research Institute (SIPRI)

MICHAEL CALLENDER Head Aerospace Capabilities Section, NATO

Q&A

18:45 End of day 1

20:00 Networking dinner at Hosteria Grappolo d'Oro (Piazza della Cancelleria, 80)

DAY 2 – 28 FEBRUARY

9:15 **III Session: Transatlantic relations and defence: overcoming tensions, finding a way ahead**

The third and last session will focus on the recent tensions emerged among the Allies in particular on defence industrial and economic issues. Actually military cooperation and trade relations are interlinked, and this is particularly true when it comes to defence procurement and industry. The session will consider from a transatlantic perspective PESCO and EDF and the debate they have sparked between Washington and its European partners. The final part will be dedicated to the way ahead, with the goal of delivering constructive recommendations on how to overcome current tensions while seeking both a balanced transatlantic cooperation and the enhancement of European military capabilities.

Moderator: ANDREA GILLI Senior Researcher, NDC

Speakers:

JUSTYNA GOTKOWSKA Project coordinator, Centre for Eastern Studies

NICCOLÒ PETRELLI Adjunct Professor, Roma Tre University

Q&A

11:15 **Concluding remarks**

THIERRY TARDY Director of Research Division, NDC

11:30 End of workshop