European Defence and AI:
Game-Changer or Gradual Change?

By Simona R. Soare

SYNOPSIS

Since 2018, Europe has made significant progress in developing Artificial Intelligence (AI) strategies, including in security and defence. However, significant challenges remain for the European approach to AI.

COMMENTARY

EUROPEAN EFFORTS to accelerate AI adoption are motivated by the objective of achieving European strategic autonomy. This means the ability to analyse, decide and act autonomously to defend European interests and values when needed, and with partners when possible.

European strategic autonomy aims to achieve a greater degree of European technological and digital sovereignty by reducing Europe's dependencies on external actors for key emerging technologies, raw materials, industrial capacity and critical supply chains and increasing its operational capacity.

Europe's Ambition: A Global Leader in AI?

Strategic autonomy and technological sovereignty also reflect Europe's aspiration to become a global leader in critical technologies, like AI, and in global value chains. This is at the core of the upcoming EU's Strategic Compass, the European Defence Agency's (EDA) work on military AI and the European Commission's comprehensive digital agenda.

Since 2018, the EDA has established a common AI taxonomy and glossary and developed an action plan on AI. The aim is to foster a greater number of collaborative

AI projects, enhance cooperation with industry and support AI projects funded by Permanent Structured Cooperation (PESCO) and the European Defence Fund (EDF).

The European Commission's (EC) own strategy to facilitate AI adoption is evolving, which affects European efforts towards military AI. Under the Action Plan on synergies between civil, defence and space industries, the EU will develop specific civil-defence technology roadmaps and standards, establish innovation incubators and cross-border defence innovation networks, and provide new forms of funding for European AI development.

While European AI governance is developing, key technical and political challenges to faster European adoption of AI persist. They include the increase in European production of high-performance, low-energy computer processors and the establishment a single EU data space, which could be the first step towards greater military data shareability to fuel faster military AI adoption.

AI: Europe's Game-Changer or Gradual Change?

AI is expected to be a game-changer in European security and defence. It will be a key part of future European weapon systems, such as the Europe's future sixth-generation fighter and next-generation main battle tank.

Nevertheless, the European approach to AI-enabled capability development and operational capacity has been incremental. Europeans tend to use AI technologies to gradually optimise and improve capabilities, plug capability gaps and increase operational capacity in national and EU-funded projects.

Examples of scalable projects that include AI are project SCORPION, which develops a new motorised capability for the French land forces, and the German-Dutch project TEN which develops reliable tactical edge communication networks for land forces. However, these are upgraded iterations of programmes that have been in place for a decade or longer.

In 2019, the EU developed a concept for the digitalisation of defence which sees AI as an enabler for plugging capability shortfalls that relate to achieving information dominance. Its focus seems to be on available and interoperable AI-augmented conventional capabilities and less on new operational concepts for their deployment.

This incremental approach is inconsistent with the European level of ambition of global leadership in emerging technologies and, if it is maintained, it could undermine the Union's goals of strategic autonomy and technological sovereignty.

Course Correction in European AI Adoption

The EU is a collection of 27 states with varying degrees of technical capacity and AI ecosystems in place. Only one (France) in 26 EU member states has a dedicated AI strategy for defence. The majority of the remaining 26 EU member states vary in the incorporation of defence use cases in their national AI strategies, defence planning and AI R&D/T funding. This raises the risk of emerging intra-European AI capability gaps and lower interoperability.

Ongoing AI national projects in Europe may result in non-interoperable AI-enabled capabilities and risk perpetuating structural vulnerabilities in the European defence sector and the European defence industry, which make Europe less globally competitive.

To overcome European fragmentation of military AI adoption along national lines, member states need to urgently incorporate the strategic and full-spectrum European capabilities landscape into their defence planning and cooperation.

However, the 2020 Coordinated Annual Review on Defence confirmed there is little room for course correction in the short-term. The aim is to move towards greater European defence cooperation in the mid-term (mid-2020s).

So far, progress on greater European defence cooperation in AI has been very slow. 2019 has seen the lowest record of collaborative R&T funding in Europe (at roughly 31% of 2007 levels), although defence procurement is increasing. This suggests that despite the goal of supporting greater European technological sovereignty and despite greater European defence spending, Europeans buy more military equipment and technologies off-the-shelf than they are willing to jointly develop in Europe.

Techno-Diplomacy and EU Partnerships

The EU and NATO can be institutional accelerators of European AI adoption in defence and can leverage multilateral engagements and partnerships for more effective AI governance. EU-NATO cooperation on AI has been slow, despite overlapping interests. Since 2018, the two organisations have had only two exchanges on the development of their respective AI strategies and institutional over-compartmentalisation has often obstructed deeper cooperation.

Despite this, the Biden administration creates new opportunities for greater, faster and more ambitious transatlantic cooperation on military AI. And the EU's evolving approach to techno-diplomacy recognises the centrality of the transatlantic partnership.

To take advantage of the new political and technological landscape, Brussels needs a new, more strategic approach to technological diplomacy that links its domestic AI policies to its outward-looking multilateral engagements. This includes areas that impact security and defence, such as computer processors and critical digital infrastructure of 5G, data and cloud.

A new approach to techno-diplomacy should enable the Union to take a prominent global role on human-centric AI governance, particularly on the ethical and legal aspects of AI military use. It should also enable the EU to achieve synergies between its regional and sectoral strategies, such as the EU's connectivity strategy, its emerging Indo-Pacific strategy and its efforts in partner capacity building.

A variety of instruments are being explored by EU institutions in this area, including international digital partnerships and digital coalitions of the willing with like-minded countries for cooperation on AI.

However, the EU needs to channel its efforts into developing a clear technological offer and a coherent political messaging on AI towards its partners.

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