The beginnings of NATO's military structure:

birth of the Alliance to the fall of the Berlin Wall

More than five decades since NATO's founding, it is hard to imagine that the Organisation did not always have the complex military and political structures that have long been key features of its decision-making process. When the Alliance was created by the Washington Treaty of 4 April 1949, it possessed very little in the way of political structures and virtually no military establishments.

The first organisational structures were created by the Washington Treaty itself. Article 9 established a Council that became known as the North Atlantic Council (NAC), the top political decision-making body within the Alliance. Initially composed of member country foreign ministers, it was authorised to "set up such subsidiary bodies as may be necessary." The Council was specifically instructed to "establish immediately a defence committee which shall recommend measures for the implementation of Articles 3 [maintain and develop individual and collective capacity to resist armed attack] and 5 [an armed attack against one or more of them shall be considered an attack against them all]."

The Defence Committee, composed of defence ministers or their representatives, came into existence at the first NAC meeting of 17 September 1949. The Council also directed the new Defence Committee to establish subordinate bodies for defence matters: a Military Committee composed of the chiefs of defence of member nations; the Standing Group, a three-nation executive body for the Military Committee with representatives from France, the United Kingdom and the United States; and five committees known as Regional Planning Groups (Northern Europe, Western Europe, Southern

Europe/Western Mediterranean, United States/Canada, and the North Atlantic Ocean) to examine issues of military import in each respective area.

The first meeting of the Military Committee was held on 6 October 1949, a day after its creation, in Washington DC. It was composed of the chiefs of defence from 11 of the 12 founder countries (Belgium, Canada, Denmark, France, Italy, Luxembourg, the Netherlands, Norway, Portugal, the United Kingdom and the United States), and civilian representation from Iceland, which did not (and still does not) have military forces. The Defence Committee no longer exists as such, and thus the Military Committee is the oldest regularly convened body in NATO after the North Atlantic Council.

The Alliance's initial organisational structure was very loose. Bodies meeting at the ministerial level were only obliged to convene once a year, although they could have met more frequently. During the early years when the Alliance structure was being put into place, the Council actually met four times between September 1949 and May 1950. However, it soon became clear that a mechanism was needed for decision-making during the periods between ministerial-level Council meetings. It was not until a major NATO reorganisation was approved at the Lisbon Conference of 1952 that a true, full-time permanent session of the NAC came into existence. In parallel, a Secretary General was appointed to head a new international staff for NATO and chair the permanent session of the Council.

II- MILITARY IMPLICATIONS OF ARTIFICIAL INTELLIGENCE

10. While the opportunities of AI in the commercial sector are undisputed, many experts also believe that the integration of AI technologies into military systems has the potential to revolutionise warfare. Some even consider AI to be the third revolution in weapons technology, after the invention of gunpowder and the atomic bomb (Future of Life Institute, 2015). The potential use cases of AI in the military are far-reaching and promise advancements on decision-making, autonomous systems and the role of soldiers. Large language models (LLM) can, for instance, assume tasks such as

1

PRELIMINARY DRAFT SPECIAL REPORT - 058 STC 24 E

"intelligence data summarization, target identification and selection, decision support, labelling geospatial imagery, automating cyber capabilities, and even integration into nuclear command and control" (Shoker et al., 2024). At the same time, it remains challenging to integrate AI in the armed forces as procurement processes require adjustments and an effective human-machine interaction within and across armies cannot be taken for granted. Al applications are also not error-free and there continue to be risks for malfunction, including the problem of hallucinations by LLMs, i.e. information that is not correct, sensical or real, which poses challenges to their applicability. Moreover, the adoption of AI-powered capabilities raises fundamental ethical and legal questions for the conduct of war.

- 11. A major reason for the assessment that the technology will revolutionise warfare is the fact that Al-enhanced decision-making processes could well prove decisive. As noted by the NATO's Science and Technology Organisation (STO), AI is a "fulcrum around which big data will be turned into actionable knowledge, and, ultimately, a NATO decision advantage" (STO, 2020). Such "AI decision support systems (AI-DSS) are computerised tools that use AI software to display, synthesise and/or analyse data and in some cases make recommendations even predictions in order to aid human decision-making in war" to increase, for example, situational awareness (Stewart and Hinds, 2023). In addition, AI-driven predictive analytics and machine learning algorithms empower military planners with real-time intelligence, enabling them to conduct more accurate threat assessments that keep pace with a rapidly changing environment. AI will also enable swarm intelligence for enhanced situational awareness, as well as predictive analytics to forecast an opponent's movements (Mayer, 2023). Given their ability to handle large amounts of data in a short period of time, their capacities easily surpass those of humans. At the same time, the issue of LLM hallucinations, whereby outputs are factually wrong or do not make sense, points to prevailing implementation challenges.
- 12. By augmenting human capabilities and by optimising resource allocation across the military spectrum, Al serves as a force multiplier (Weingarten, 2023). Al will provide a boost to autonomous systems, such as uncrewed aerial and ground vehicles (UAVs/UGVs). It could prevent humans from getting into harm's way while at the same time surpassing human abilities, for example when it comes to navigation, surveillance or target acquisition. Autonomous robotic platforms equipped with Al algorithms can also serve to enhance logistical operations, supply chain management and maintenance activities. Moreover, Al-enabled cyber defence systems enhance resilience against cyber threats by reducing vulnerabilities. Al can also improve simulation and training efforts, which enhances the preparedness of military personnel. Finally, Al will also dramatically improve the ability to prevent, detect and contain biological threats, whether deliberate attacks or naturally occurring pandemics (Clement 2021).