Sweden in NATO

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Exploring the Future of Defence AI

Sweden officially became the 32nd North Atlantic Treaty Organization (NATO) member on March 7th. Motivated by the invasion of Russia in Ukraine two years ago and the latest accession of Finland into NATO. There is no doubt that this relationship is of great benefit for both Sweden and NATO, adding a new layer to security and defence policies, but also a further exploration of the use of artificial intelligence in a defence and military context.

Sweden established a National Approach to Artificial Intelligence in 2018, focused on enhancing the growth of AI in the country through

the development of research, education, and training. The document also highlighted the role of AI in defence, adding that there are plenty of opportunities for collaboration between civil and defence research. On the other hand, NATO introduced the Artificial Intelligence Strategy in 2021 which targets the swift and responsible adoption of AI into its operations to protect against potential counter-AI threats from other states. The significance of AI in military operations has also been noticed by Sweden and its powerful and advanced defence industry. Saab, perhaps Sweden's most well-known aerospace defence company has already started with breakthroughs in this field. Predictive Maintenance is one of the most innovative technologies introduced by Saab and it consists of the analysis of data produced by military vehicles such as ships and aircraft to anticipate potential issues prior to breakdown. While maintenance may seem like a dull use of artificial intelligence in defence, it is rather important considering the costs saved. For example, two out of three battle tanks in the Ukraine warfare are in the reparation process or are completely destroyed in the aftermath. This new AI technology by Saab would not only reduce reparation costs through smart prevention but would make military vehicles even more effective.

Massive Data Fusion is another technology by Saab that could forever change military operations of the future. To put it simply, it is a cloud-based data lake that can be taken into different contexts of space and time, therefore, creating immediate predictions about the "physical behaviors of where people, ships or planes are going, and also predict the contextual behaviors of what these people, ships or planes are actually doing" according to Saab's own description of their technology. There are plenty of benefits when applied to a military scenario that can come from the data lake, through the building of redundancy in the system assures that there is no total dependency on physical sites. This is crucial considering that during warfare these sites could be under threat of attack or in the worst-case scenario destroyed, but even then the system would remain undamaged and in operational status.

I firmly believe that the integration of Sweden into NATO will bring great contributions in regard to artificial intelligence technology in all defence, security, and military aspects. Saab has worked closely with the Swedish government since their foundation and the future opportunity to collaborate with a defence alliance such as NATO is exciting and promising, I am certain that Sweden's addition will make an even stronger AI technological addiction to NATO and further explore the use of AI in defence.