



Star Wars, Starlink and Space defence



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When the *Star Wars* movie was released in 1977, I was not even born. Rightfully, at this point you might be asking what I am writing given the nature of the topic

Many reading this article know that the commercial Space industry is technologically advancing and it has become cheaper and easier to go beyond the Kármán line to explore outer Space.

Perhaps, you might have or have not heard about Starlink; a satellite internet constellation operated by SpaceX. SpaceX is owned by the entrepreneur and billionaire Elon Musk and it consists of a satellite constellation system that provides internet access to several countries around the world, especially for outermost areas where internet infrastructure is difficult to build. Following the Russian invasion of Ukraine, SpaceX volunteered to offer the services of Starlink to Ukrainians, thereby providing the Ukrainian military and its people an internet service from Space, to defend themselves. Let's recall that the Ukrainian internet infrastructure and services were damaged and disconnected by Russian military forces.

A fortnight ago, billionaire

Musk was whinging about the fact that his company is offering the satellite internet service to Ukraine for free and it is costing his company millions of dollars per month. Musk said that he will be stopping the service to Ukraine, citing expensive maintenance costs. Let's leave aside the impulsive comment on Twitter of a Ukrainian diplomat who told Musk to f*** o** and Elon Musk replied that he will comply.

Personally, I believe that the reason cited by Musk is just a pretence in such a highly geopolitical context. When considering Musk's fortune relative to the costs associated with the services of Starlink the figures are merely naught. The pressure on Musk relates to geopolitics and the assistance, be it military or otherwise, that is being provided to Ukraine by Western allies. Certainly, Musk is being pressured by non-Western likeminded countries to stop the internet service to Ukraine. Musk owns supplementary investments and flourishing business interests

in other countries around the globe to produce Tesla vehicles. Indeed, critical raw materials for batteries and advanced technology for greener products are rare and we can understand where the pressure is coming from to stop the internet services to Ukrainians. However, the White House summoned Musk and reports emerged that he was encouraged to keep on offering the internet service to Ukrainians. Furthermore, the White House encouraged Musk to also provide the same internet service of Starlink to Iran amid the current ongoing protests.

Last week, a Kremlin official suggested to down one of the commercial satellites owned by SpaceX that is currently beaming internet services from Space towards the Ukrainian territory. This statement elevates the Ukraine war and the conflict to an astronomical level. Whereas a war or a conflict is normally limited to territory, air and sea, Space is now being involved. When Russia invaded Ukraine, I recall men-

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tioning on state TV the defence Space package that was about to be issued by the EU. Surely, it was not a premonition, but it related to my background work and for which it was also in the public domain. Undoubtedly, what I am writing here, it might sound like fiction. However, the commercialisation and subsequently militarisation of Space is not science fiction anymore. Unquestionably, Europe is a substantial Space power. The Space sector in Europe generates a turnover of over 75 billion, amounting to almost 20% of the global market and employs about 50,000 personnel.

Clearly, the two major EU assets in Space relate to Galileo and Copernicus. The former is used for positioning, timing and navigation, while the latter serves as the largest earth observation system. Obviously, the EU is on a new path

to define its strategic autonomy and Space will be involved to achieve this objective. In its defence package the EU stated that Space is becoming increasingly congested and any debris can damage the EU's assets in Space.

The High Representative of the EU, Josep Borrell said that more than 20,000 satellites are expected to be launched in the next decade. For this reason, the push from the EU – also when you read and delve deeper in text of the Strategic Compass – is to regulate the Space industry and Space Traffic Management. Studies show that debris threatens the EU's assets and the services provided to Europeans both from a commercial and defence point of view. However, the push is more of a military and defence nature rather than commercial.

Notwithstanding that the EU is working with likeminded partners, including NATO and the US, research and innovation are rapidly increasing due to the strategic dependencies in critical technologies, not least those designated for security and defence. Evidently, in the coming decade we will see a completely different defence push due to capabilities involving Space as an enabler of such technologies. Hopefully, by then international institutions and multilateralism would work towards a better regulatory framework involving many countries around the globe to strictly regulate assets in space and any associated military capabilities.

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