

Why are space industry developments beneficial for Hungary?

Given the geopolitical situation, establishing, maintaining, and developing our own space capabilities seem to be unavoidable. That is, space industry is a key to Hungary's sovereignty from a national defence perspective. We had a conversation about this, among other things, with the space industry Chief Executive Officer of 4iG.

High-tech REMRED, which builds on the decade-long experience of our country, can take on a leading role in satellite development and manufacturing regionally and in multiple alliance systems. We asked István Sárhegyi, Chief Executive Officer of 4iG Group's space industry and technology holding company, about the plans.

What does today's fierce "Space Race 2.0" mean for a company focusing on both the space and defence sectors?

Currently a multifaceted technological paradigm shift is taking place in the space industry. The initial push came from SpaceX. With the introduction of reusable rockets, the unit cost of putting payload to space has been reduced considerably. While in the seventies, following the Apollo programme, putting a kilogram of weight into a near-Earth orbit cost about 60 thousand dollars, by today the same can be achieved from only 200 dollars.

At the same time satellites are also changing. In place of a few large and monolithic solutions, the stakeholders are considering fleets. Starlink, also associated with Elon Musk, plans to single-handedly launch 45 thousand such devices to a near Earth orbit. European [IRIS²](#) also means a large volume with a large number, dozens, of constellations.

Global satellite manufacturing capacities currently cannot meet this demand. But this is not the only reason for domestic manufacturing. The evolution of geopolitical circumstances is another. There is a growing need within the transatlantic alliance to solve development and manufacturing tasks "in-house", resulting in an additional, artificial, limitation of capacities.

The increase of profit resulted in the appearance of the first agile, innovative private companies able to follow the rapid changes of technology. At the same time, the role of large state-owned institutions and agencies, frequently burdened with bureaucracy, is shifting; they are being repositioned. Their role as customers is growing, but they are stepping back in the area of development.

What tasks and opportunities does the defence industry have in space? What risks must be averted? What expectations can a government, responsible for national defence, have?

Given the geopolitical situation, establishing, maintaining, and developing our own space capabilities seem to be unavoidable. A good example for this is the Ukrainian-Russian war, where the Ukrainian side is facing considerable exposure with regard to Starlink in terms of infocommunications. After all, the company headed by Elon Musk can at any time decide to temporarily or permanently limit access to its network of satellites.

Therefore, space industry is a key to Hungary's sovereignty from a national defence perspective. And in order to build up and develop this area, private capital must be involved, achieving that investments and developments are performed on a market basis. As soon as Hungarian knowledge,

Hungarian manufacturing capacities, Hungarian operation, and Hungarian data processing capabilities become available, the entirety of this strategic area can be kept within our borders.

How much is the dual use reflected in the space and defence competence? To what extent can civilian suppliers and developers be involved? How much is the utilised/developed technology put to use in everyday life?

It would be highly wasteful to launch more of the satellites, otherwise suitable to fulfil multiple purposes, solely to address the handling of both civilian and military tasks. Therefore, dual use is a fundamental objective in the domestic space industry. Images and videos created during Earth surveillance are, in addition to defence purposes, suitable for gathering information and supporting decisions in the areas of agriculture, disaster prevention, and environment protection, among other things. These considerations of course also arise in the areas of navigation and communication.

What does it mean for Hungary that one of the country's national champion companies enters the space and defence sector?

[Hungary's Space Strategy](#) was published in 2021. Together with the [Hunor Program](#), it provides the background requirement for the development of the Hungarian space industry, which we can serve thanks to our 50 years of space research experience and our cooperations with domestic and international SMEs and higher education institutions. 4iG Group's Space and Technology Zrt. holding company can be the financially solid flagship that attracts the larger projects resulting in the development of the ecosystem.

As a vertically integrated corporation, we are not aiming for a dominant, but a leading position. The creation of the holding is also significant as this is the first private domestic company specifically focusing on the space and defence industry. Based on the conclusions drawn from the conflicts that exist today, space infrastructure is a device of sovereignty, and we are able to cover its entire vertical. This includes, apart from rocket technology, all activities related to smaller satellites.

The REMRED acquisition serves achieving the goal according to which our country and the Hungarian space industry gain competitive edge in the region, openly aiming for the sector leader role in Central and Eastern Europe. To achieve this, we would like to invite the best of the Hungarian engineers, physicists, biologists, economists, lawyers and managers, asking them to join us in implementing Hungary's greatest space industry projects, whether these are satellite manufacturing tasks, missions to Mars, or taking part in the new Moon programme.

What business plans does 4iG Space & Technology Zrt. have?

The organisation is really new. Currently we are in the phase of launching developments and investments, as indicated by [the laying of the foundation stone of REMTECH's manufacturing facility](#). Design, manufacturing and testing of satellites and state of the art space systems will take place from 2026 in Martonvásár in the 4000 square metre manufacturing centre unique in Europe, building on 100% Hungarian knowledge and 50 years of space research experience. The technology, modular design and energy efficient operation of the building makes it unique in all of Europe. Judging by its form and complexity it can be regarded as a Rubik's Cube of the space industry.

What costs does the development of the portfolio have?

Along the strategy shared with Rheinmetall AG, we forecast revenues of €1.7 - 2.3 billion in the next five years in the areas of space industry, drone industry, drone defence, and defence digitisation.

This is supported by our IT and telecommunications services, with which we are present as a group of companies that has unique capabilities in the region.

However, our goals go beyond mere monetisation. We are confident that by developing the high-tech knowledge of Hungary, and by utilising the synergies within the group of companies, we can do a lot for the domestic high-tech industry. We create high added value jobs. Expanding the domestic and international ecosystem we cooperate with Hungarian and foreign integrators and governmental actors that are members of our alliance systems. We are strengthening Hungary's reputation through competitive and current products and services.