

Hungary does enter the space race



The first serially produced Hungarian satellite can enter Earth's orbit in 2027-28, announced Minister for National Economy Márton Nagy at the laying of the foundation stone of REMRED Zrt.'s factory building in Martonvásár.

4iG Group and its member REMRED Zrt. laid the foundation stone of Hungary's first space industry manufacturing centre in Fejér County, in Martonvásár. REMTECH's facility, suitable for manufacturing, assembly, integration and testing, will manufacture, assemble and test satellites with a mass of up to 400 kg using a modular technology unique in Europe. A special laboratory of 1500 square metres is to be created in the 4000 square metre technology centre, featuring ISO8 and ISO5 classified cleanroom technology.



Gellért Jászai, István Sárhegyi, Zoltán Tessely and Márton Nagy

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Developments establishing competitiveness

Related to the opening, Minister for National Economy Márton Nagy said that when the Government had accepted in 2021 the first space industry strategy in the history of the country, highlighting space industry as an important area to be developed, many people had felt amused. And now we are here at the laying of the foundation stone of the latest manufacturing base of a high-tech space industry company. According to the plans, 85 new and high-added-value jobs will be created here.

By establishing technology centres in the new industries, such as electric cars and the space industry, Hungary can have stronger positions in the trade war. Each such business deal strengthens our innovativeness, improving our competitiveness. This is crucial for establishing the stable economic environment of the future. The competitiveness strategy accepted by the Government also serves this purpose, reminded Márton Nagy.



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According to the Minister, the goal is to manufacture the first satellite in the new factory in 2027 or 2028. Hungary's satellite manufacturing capacity is not just a question of economy and security, but also that of sovereignty, stressed Márton Nagy. The future of the sector appears to be secure, because the space industry is one of the fastest growing industries that is crisis resistant even according to international surveys. Certain estimates show that its value can increase to 1800 billion dollars by 2035 from 630 billion dollars of 2023.

FURTHERMORE, THE SPACE INDUSTRY, WHICH REPRESENTS THE PEAK OF TECHNOLOGICAL DEVELOPMENT, HAS A VERY HIGH MULTIPLIER EFFECT. IN OTHER WORDS, INNOVATIONS AND TECHNOLOGICAL INVENTIONS CREATED HERE CAN ALSO APPEAR IN OTHER SEGMENTS OF THE ECONOMY.

Hungary's economic ecosystem, infrastructure and intellectual capital all make it suitable to be a determining player of the space industry. And this is what makes the investment of 4iG, the Government's strategic partner, significant. Thanks to it, the company can aim at becoming a regional leader in the space industry in addition to ICT.

Márton Nagy recalled that the Government entered into a strategic partnership agreement with 4iG Group in the ICT market. According to the agreement, the

company undertook high-tech developments in the amount of 150 billion forints. Additionally, the company performs cutting-edge developments not only in Hungary but also abroad, in the Balkans and most recently in Egypt, which yield significant market positions in one of the most important high-tech sectors of the future.

The Minister pointed out: the space engineering master's degree programme has been launched at Budapest University of Technology and Economics. The course will also become available at University of Miskolc starting next September, and the education of science professionals in the field is planned at Eötvös Loránd University. Incubating space industry startups has been a long-standing role of Design Terminal, which cooperates with European Space Agency.

The space technology manufacturing centre, implemented as a joint investment of 4iG Group and REMRED, is also a significant initiative for advancing the technology. This investment will provide the group of companies with unique abilities and infrastructure in Central and Eastern Europe. Space industry, as part of the technology and defence industry holding, is the area with the largest growth potential in addition to the traditional business divisions of 4iG Group, IT and telecommunications, emphasized Gellért Jászai, Chairman of Board of 4iG group of companies.

The services and satellite manufacturing capacities of the space technology manufacturing centre will further strengthen 4iG Group's international presence and the establishing of new domestic and international partnerships. The centre will, however, not simply be an outstanding domestic base of satellite technology and related space industry developments. It will be a centre of innovation where the domestic knowledge industry will play a role in addition to international strategic cooperations. Therefore, we can enter a manufacturer's market which will create world-class technologies by combining state-of-the-art equipment and the latest knowledge, said Gellért Jászai.



Gellért Jászai

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On existing fundamentals

According to István Sárhegyi, CEO of 4iG Group's space industry and technology holding company, there has been a significant race in the space industry since the Apollo program. This race has strengthened further with the involvement of private capital, whether we are considering telecommunications, climate monitoring or the defence industry.

Launch costs have been radically reduced in the past decades. As a consequence, space industry investments are now approachable for smaller countries in addition to the major powers. Additionally, smaller states, in addition to major powers, have an increasingly important role in developments as well. Therefore, Hungary also has the opportunity to take part in space industry developments.

Ever since Zoltán Bay and his group detected in 1946 an echo from the Moon using their experimental radar apparatus, the knowledge of several Hungarian experts has resulted in the success of space industry innovation and space research. It is a little-known fact that the Kármán line, considered to be the edge of space, is named after Tódor Kármán. Connecting past and present, István Sárhegyi reminded: the dosimetry equipment Pille was first taken to space by the first Hungarian astronaut, Bertalan Farkas. Since then, it is REMRED, in addition

to KFKI (Central Research Institute for Physics of the Hungarian Academy of Sciences), that has been taking part in the continuous development of the device.



Zoltán Tessely, Gellért Jászai, István Sárhegyi, and Márton Nagy

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Thanks to the investment taking place in Martonvásár now, Hungary can quickly become a determining player of the global space industry. The chief executive officer said that the largest international companies and manufacturers already offered their cooperation during the design phase of the space industry centre. This confirms the significant international market demand for the manufacturing of low Earth orbit space equipment and satellites with mass of up to 400 kg.

Space industry and as part of it, data received via satellites and the services relying on the data, have become a part of critical infrastructure in the 21st century. The increasing frequency of natural disasters and the European geopolitical and economic situation give strategic significance to technologies that enable precise, data-driven, real-time information and communication. The international conflicts have also highlighted in the past decades how the lack of space capabilities can make a country vulnerable by the lack of its own capabilities, such as the appropriate infrastructure and knowledge base. The investment, launched in the cooperation of 4iG Group and REMRED, can, in addition to playing a key role in the Hungarian and international space industry

from 2026, be a strategic component of national sovereignty and security policy due to its technological capabilities, pointed out the chief executive officer.