

IAF SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM (B2)
Advance Higher Throughput Communications for GEO and LEO satellites (3)

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ADVOCATING THE CASE FOR A LARGE-SCALE INDUSTRY MARKETPLACE FOR SPACE RF
SPECTRUM LEASING

Abstract

Radio frequency spectrum is a scarce and valuable resource for spacecraft operators. However, acquiring spectrum through traditional licensing processes has proven to be costly and time-consuming, limiting the potential for innovation and growth in the space sector.

SpectraNet is an innovative new service that enables fast and efficient spectrum leasing for spacecraft operators as an alternative to buying spectrum. Our innovative lease business model has been recognized as fully compatible with ITU and national telecommunications regulations for spectrum and capitalises on the new innovations of higher frequency bands and Software Defined Satellites (SDS). SpectraNet was also the winner of the 2023 EuroSpaceHub NewSpace and Entrepreneur Competition - an initiative by the EU Commission and the European Institute of Innovation and Technology.

SpectraNet has been in several discussions with some of the world's largest satellite telecommunications operators to secure lease buyers for their surplus space spectrum in the most used frequency bands such as Ka and Ku. This presents a unique opportunity for the rest of the industry to facilitate more rapid and cost-effective deployment of their services and would be of great interest and benefit to the industry audience at IAC.

Our study and findings through interviews across the satellite telecommunications industry, ranging from national regulators to new space telecommunications operators, has revealed that spectrum leasing can offer highly relevant benefits for the long-term sustainability of the industry. These include the advantages of bringing their service online or expanding its services quicker versus traditional spectrum licensing, thereby promoting the growth of the industry and unlocking more value to its stakeholders.

In addition, companies who benefit from the short to medium-term availability of spectrum without compromising on quality or reliability, allow them to build more flexibility into its business planning, and reduce their fixed capital costs.

Our study and service seeks to demonstrate that spectrum leasing is a viable and attractive option for satellite telecommunication companies to optimize their spectrum utilization and enhance their competitive advantage in the space sector. The report provides a detailed analysis of the spectrum leasing process, the potential challenges and risks, and the best practices and recommendations for companies to successfully implement spectrum leasing. By clearly understanding the feasibility and benefits of spectrum leasing, our study can help the industry achieve its strategic goals and vision for the future of space-based communications.