## EXECUTIVE SUMMARY INVESTORS

### WHO WE ARE

Neutron Star Systems (NSS) is a pioneering space company delivering Space Mobility As A Service (SMAAS), leveraging high-temperature superconductor technology to unlock new commercial and defence capabilities. Our cutting-edge propulsion systems are designed to be more powerful, compact, lightweight, and efficient, enabling the next generation of space missions. Enhanced by artificial intelligence, our solutions create agile, autonomous, and resilient spacecraft architectures capable of operating in any orbit, ensuring mission success in even the most demanding environments.

#### NSS Image Film

### WHAT WE DO

Neutron Star Systems' flagship product, SUPREME, combines AF-MPD propulsion and high-temperature superconductor (HTS) technology to offer unmatched scalability, efficiency, and operational flexibility. This breakthrough technology empowers our customers to undertake more advanced space missions while drastically reducing costs. SUPREME's high thrust density and propellant flexibility allow it to operate on significantly cheaper alternatives to traditional propellants like Xenon, offering savings that scale with mission complexity.

Our multi-mode propulsion enables seamless integration with chemical propulsion systems, supporting versatile manoeuvres for spacecraft ranging from 500kg to 10,000kg. SUPREME enhances spacecraft agility in crowded, complex space environments, making it ideal for missions involving space situational awareness (SSA), on-orbit servicing, and space debris removal.

With AI-driven autonomy and real-time decision-making, our systems are purpose-built for defence and commercial space operations, ensuring resilient, scalable solutions for the future of space mobility.







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- Small Satellite Constellations
- Space Situational Awareness
- Fast Response Space Cargo Transportation
- GEO Communications Satellites
- Solar Weather Monitoring Satellites
- On-Orbit Servicing, Assembly, and Manufacturing (OSAM) operations
- Cargo Transfer to the Moon
- Mars and asteroid manned and cargo missions

# WHY WE ARE DOING IT

Conventional spacecraft using solely chemical or traditional electric propulsion systems cannot meet the growing challenges posed by the increasing amount of space debris, particularly between 200 and 1800 km above Earth. This debris creates significant risks for space operations, making spaceflight increasingly hazardous. The industry needs modular, standardized spacecraft architectures that are scalable from LEO to Cislunar space to address these challenges.

Emerging mission applications like on-orbit manufacturing, data centers, and in-space infrastructure demand more scalable, autonomous, agile, and resilient systems. At the same time, high-temperature superconductor (HTS) technology has reached a maturity level that makes its integration into space systems viable.

Neutron Star Systems is positioning itself at this intersection of technology and market need to secure leadership in the rapidly growing high-power spacecraft market, projected to exceed €56 billion by 2035. Since December 2019, we have successfully secured 5 governmental contracts with the EIC, ESA, and the United States Space Force (AFRL).

### WHAT WE NEED

Neutron Star Systems is seeking €5 million in seed funding to accelerate the development of our Hyperion platform to TRL 5, using a 5kW SUPREME multimode propulsion as baseline. This funding will enable us to scale our modular, plug-and-play spacecraft architecture, which is designed to meet the evolving demands of NATO and the US Space Force. With the increasing need for autonomous, resilient spacecraft capable of operating in complex and contested orbits, Hyperion will deliver unmatched scalability, flexibility, and operational efficiency.

The capital will primarily be used for: Technology development and testing, focused on integrating high-temperature superconductor (HTS) technology and AI-driven autonomy. Building and validating prototypes, with COTS subsystems to ensure cost-efficiency and rapid scalability.

Securing key talent and partnerships to further expand our technical capabilities and strengthen our existing position in the US and European market.

By securing this funding, NSS will be able to demonstrate Hyperion's unique value proposition, paving the way for future contracts and partnerships with defence and commercial sectors, while advancing the next generation of autonomous space systems.