Socio-economic impact assessment of the ARTES 4.0 programme

Case study portfolio

European Space Agency

13th December 2024

SmallCat ARTES Optical and Quantum Communications (ScyLight)

The Netherlands becomes a forerunner in laser satellite communication

- Small Communication Active Terminal for faster, more secure and efficient direct-to-Earth data transmission

LEVERAGING ESA'S SUPPORT

- Support by ESA **technical expertise** to facilitate the development of technology
- **€2M project** funded 75% by ESA
- **Unlocked new business opportunities** through ESA market insight
- Built off previous ESA ARTES project TOmCAT

"Laser satellite communication has a great future and that the Netherlands is one of the forerunners in the development of this technology"

COMMERCIAL SUCCESS & GROWTH

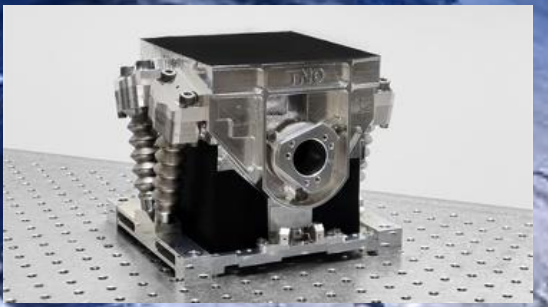
Integrated into NORSAT-TD, **launched with SpaceX Falcon 9** in April 2023

In-orbit demonstration of space-to-ground connection January 2024

2 commercial orders from AAC Hyperion

ESTABLISHING A NEW SOVEREIGN SPACE TECHNOLOGY

- Supporting **successful collaboration between** a research organisation (TNO) and the private sector (AAC Hyperion) to develop commercial products
- Laser light communication is **faster, safer** and requires lighter hardware than radio communication links
- Supporting **growing demand for data** and increased communication efficiency
- Significant milestone for advancing **technological sovereignty for Europe**



TECHNOLOGY → APPLICATION → END-TO-END SYSTEM

LE
London
Economics