Aurora Space

Petri Välisuo

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Vaasan yliopisto
UNIVERSITY OF VAASA
THE ARCTIC UNIVERSITY OF NORWAY · UiT ·
VAMK
VAASAN AMMATTIKORKEAKOULU
UNIVERSITY OF APPLIED SCIENCES
Aalto University
SGO
UNIVERSITY OF OULU
HANKEN
FINNISH METEOROLOGICAL INSTITUTE
UMEÅ UNIVERSITY
SLU
LULEÅ UNIVERSITY OF TECHNOLOGY
NORD University
NTNU

Why Nordic space collaboration?

- Finland is already an important player in Space business
  - Earth observation: Hyperspectral imaging, SAR
  - Satellite communications
  - Satellite positioning and timing (GNSS)
  - Satellite platforms
- 200 space related companies
- 150 M€ turnover
- over 800 employees
- 100 M€ export

See The Nordic Space Technology Ecosystem report.

Some existing businesses

- ICEEye, Radar satellites
- Kuva Space, Hyperspectral satellites
- Aurora Propulsion, Water based satellite propulsion
- Sharpnav, Low Earth Orbit navigation satellites
- Zero Gravity, Thermal imaging sensors and satellites

Space inspires students and startups and allows new business opportunities

Power from collaboration

- For global markets Finland is small. Nordic collaboration makes better visibility, and allows making bigger impact.
- Launch facilities very important for whole Europe, cannot be provided by every country
- Collaboration opportunities: Launch capacity, research, education, space technologies and space business
- Aurora space is about collaboration between universities, companies and space administration in the Nordics
- Aurora Space
  - possibilities in cube satellites, launch facilities, sensors, data products, data processing, space business
  - space ecosystem exchange and mobility and commercial ecosystem support
  - Collaboration in research, education and between companies
  - Linked with ESA BIC and ϕ-Lab activities



Purpose

- boost space businesses
- enhance sustainability practices
- address societal challenges in our region.

By fostering collaboration and generating new businesses, we're not only advancing commercial processes but also paving the way for a sustainable future.

Aurora Space web site

Vaasan yliopisto UNIVERSITY OF VAASA · The Arctic University of Norway UiT · VAMK Vaasan ammattikorkeakoulu University of Applied Sciences · Aalto University · SGO University of Oulu · HANKEN · Finnish Meteorological Institute · Umeå University · SLU · Luleå University of Technology · NORD University · NTNU

Steering group participation

- Large industries: Andøya Space, Esrange Space Center, Kongsberg Satellite Services, Kongsberg, Skogstekniska klustret, Swedish Space Corporation, Swedish Space Port, ICEYE, Huld, DA-Group, Vaisala, Wärtsilä, TietoEvry, CGI.
- SMEs: Bitcomp, Metria, Fliq, NorthBase, Aurora Propulsion Technologies, Kitsat, Boreal Vision, Arctic Positioning Systems, Skyfora, Harp Technologies, EIDEL, VAKE.ai, Sasken

WP1: Space Ecosystem Exchange and Mobility

- Design and implementation of mobility and exchange for space
  - Higher-level education and research and linking them with businesses
  - Internship opportunities, research exchange, student visits
- Workshops on improving and coordinating space related education and research
- Identify and develop cross-border education processes
- Organize workshops and summer schools
- Share information in website
- Researchers and students as space ambassadors
  - Presentations of space education and business in various high schools in the Interreg Aurora region and guiding visitor groups

WP2: Commercial Space Ecosystem Support

- Map and the space market and economy ecosystem
  - Industry-specific map-based list of companies involved in the space economy ecosystem in the area.
  - A comprehensive survey of companies operating in space economy ecosystem.
- Facilitation of joint space co-creation projects
- Information and networking sessions for SMEs/other companies.
- Support for business incubation processes
  - Presentation material for companies
  - Seminars, workshops, hackathons
- Aurora ecosystem service portal
  - Portal of space related upstream and downstream services in the region
  - Online access to AuroraSpace portfolio

Jointly developed solutions

- Portal of space education and research
- Workshops and summer school program on space
- Material repository for internship opportunities
- Recommendations to improve cross-border space economy
- Facilication jo joint co-creation projects and new project development still going on
- Marketing of presentation material for space industry companies and entrepreneus
- A lot of visibility in education material developed
- Publications and a PhD thesis: Mikko Punnala: Internationalising in the Space Economy : Ecosystems, Institutions, and the Strategic Behaviour of Small and Medium-Sized Enterprises in the New Space Economy
- Many MSc theses

Selected examples

Visit to Sodankylä



Visit to Esrange satellite launch facilities in Kiruna

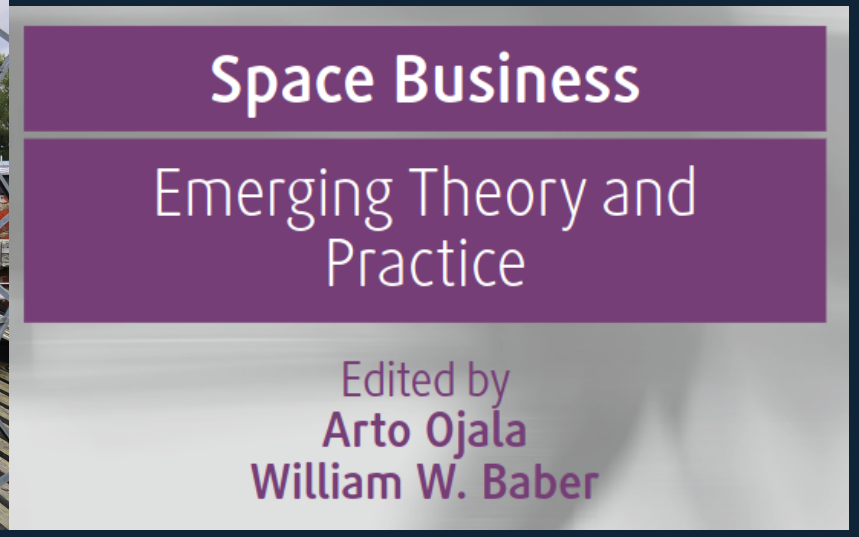


Visit to Andøya-Space satellite launch facilities in Norway



Publication of the Space business book





Regular Space Garage events for students



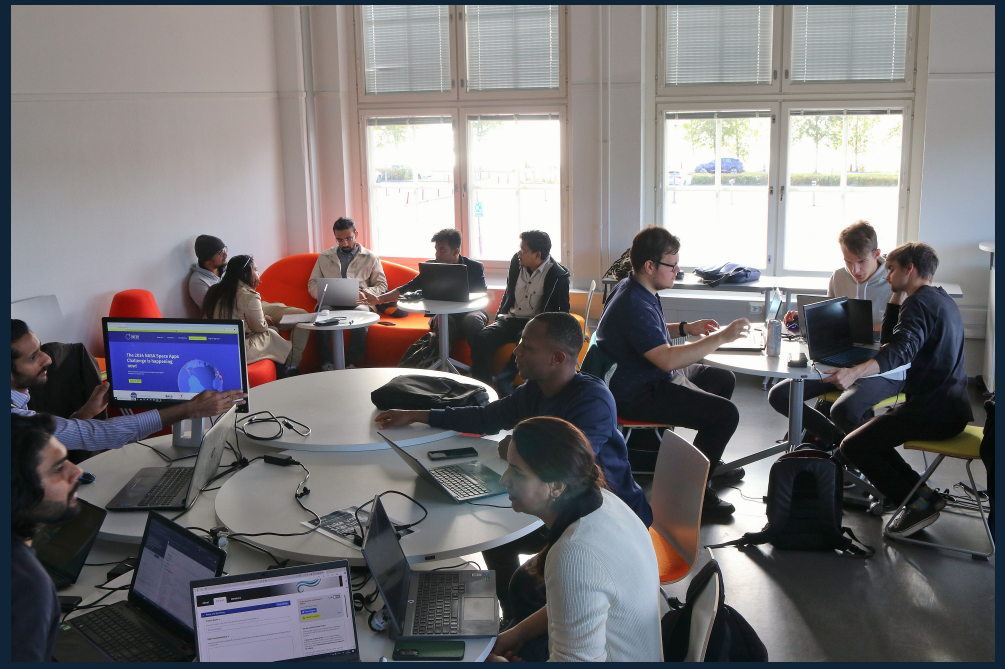
Space inspires

- Space hackatons attracts students and spreads knowledge of Space technologies and opportunities
- e.g. Cassini Hackaton, Praha 2024
- Second place from team from University of Vaasa



NASA Space Apps hackatons in Vaasa

- Inspired students from all Ages working with real challenges, using space based data
- Representatives from industry were evaluating results, providing expertese and defining challenges.
- The participation increases knowledge and interest towards space technologies and businesses and entrepreneurship



2024



2025

Space data laboratory

- Space research requires infrastructures: Satellite building, space data processing and satellite positioning, for example



Space communiation

- Space is good way to learn telecommunication technologies and reliable embedded system development



Panel discussion

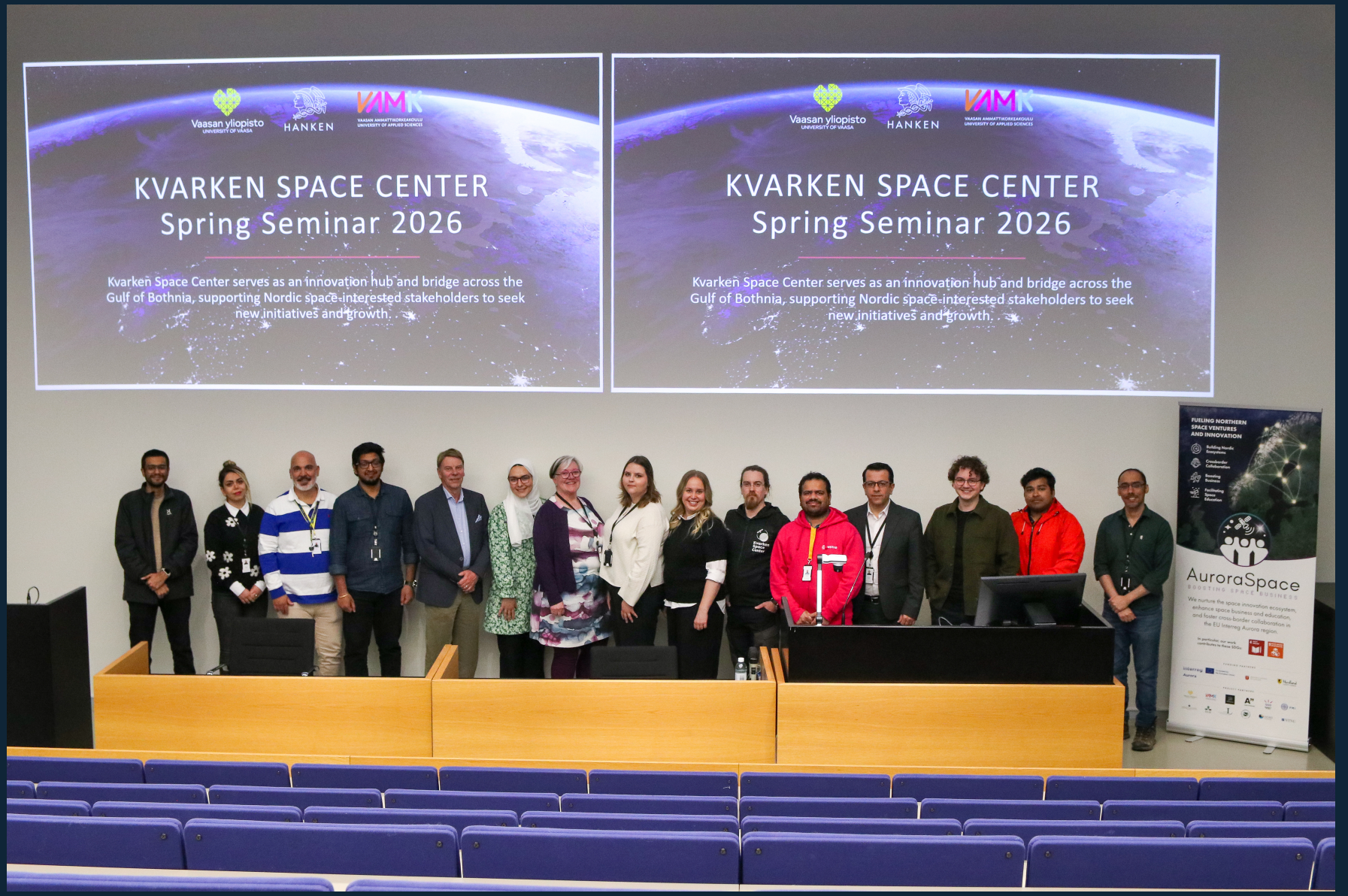
- How space based data can support resilient energy supply
- Vaasa energy week 2026



Powered by space, Energy Week 2025



Kvarken Space Center Spring Seminar



Thank you, on behalf of our space team

