



Science with Arctic Attitude

Project Manager
Kerttu Saalasti Institute
University of Oulu
Jari Joutsenvaara

CALLIO LAB **SPACE**LAB



**Callio Spacelab - An
underground laboratory for
future exploration and
analogue missions in Finland**



Who Am I?

Jari Joutsenvaara (MSc, Doctoral student)

- An underground scientist with an eye for space
- Project Manager at Kerttu Saalasti Institute, University of Oulu
 - Interests: space and beyond, future space exploration and adaptation of Earth technologies to space
 - Research coordinator of Callio Lab RI
 - Vice-coordinator of MIMAG
 - Current projects: H2020 GOLDENEYE, Horizon Europe AGEMERA
- Member of Arctic Planetary Science Institute
- Co-founder of Muon Solutions Oy





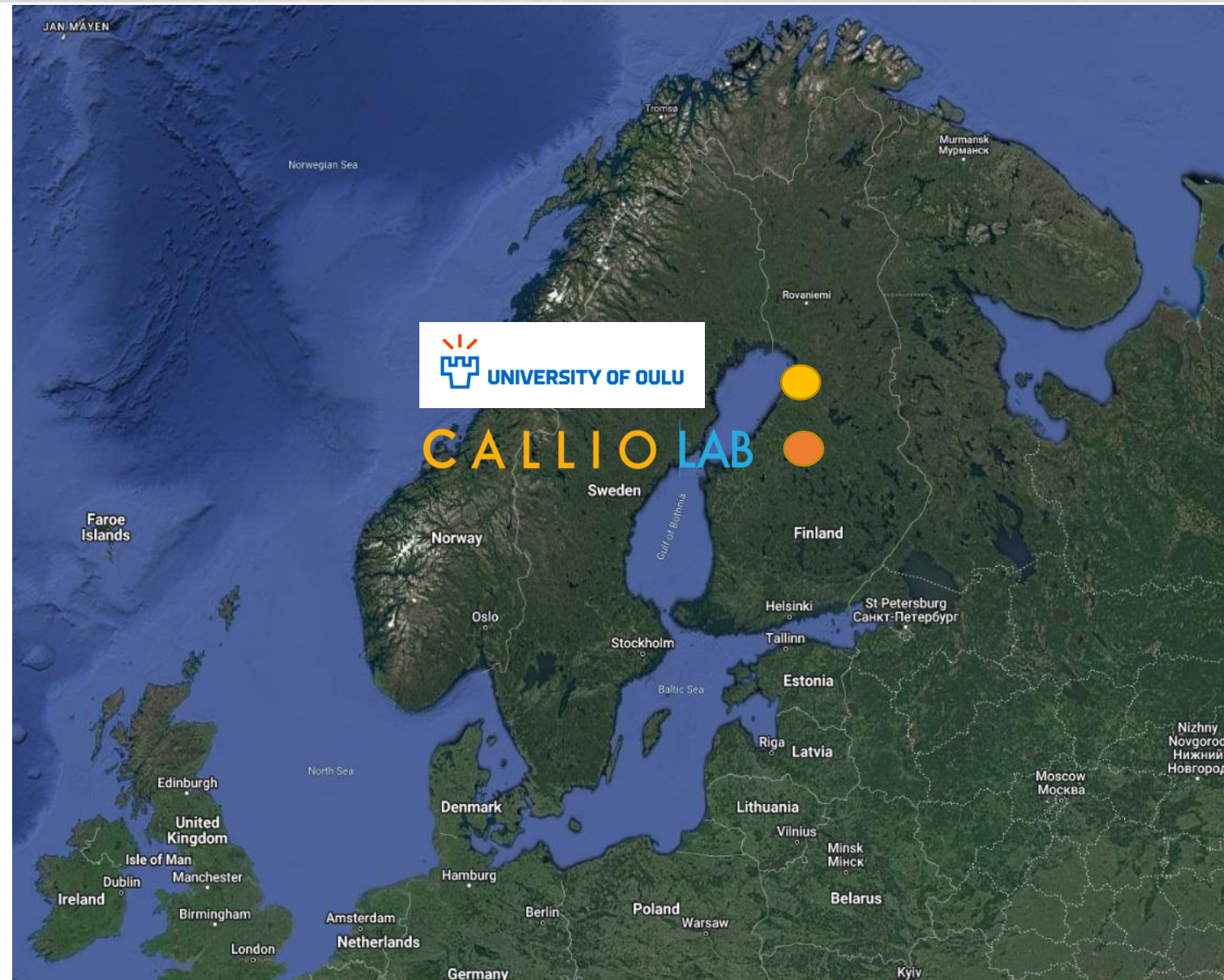
Space and University of Oulu

- A century of history in near-earth space observations and space research
- Initialisation of Space Institute 1/2022
- Fields range from Earth-based, to near-Earth sciences and engineering to space physics and cosmology
- Topics include e.g. cosmology, bioaerosols, medicine, remote sensing, mining, processing, robotics and autonomous machinery, to analogue and test environments (5G/6G, autonomous machinery, city-wide drone platform etc.)



- Part of the Callio Lab activities, coordinated by the University of Oulu, Finland
- **Callio Lab is:**
 - A EPOS research infrastructure (ESFRI)
 - A FIN-EPOS INFRASTRUCTURE (FIRI)
 - A strategic Research Infrastructure of University of Oulu, FINLAND
 - Multidisciplinary Research infrastructure
- Collaborative research initiatives with 30+ international partners
- Projects include Earth observations, mining, cosmic ray and particle physics, chemistry, circular economy...

See J. Puputti's presentation at EGU22

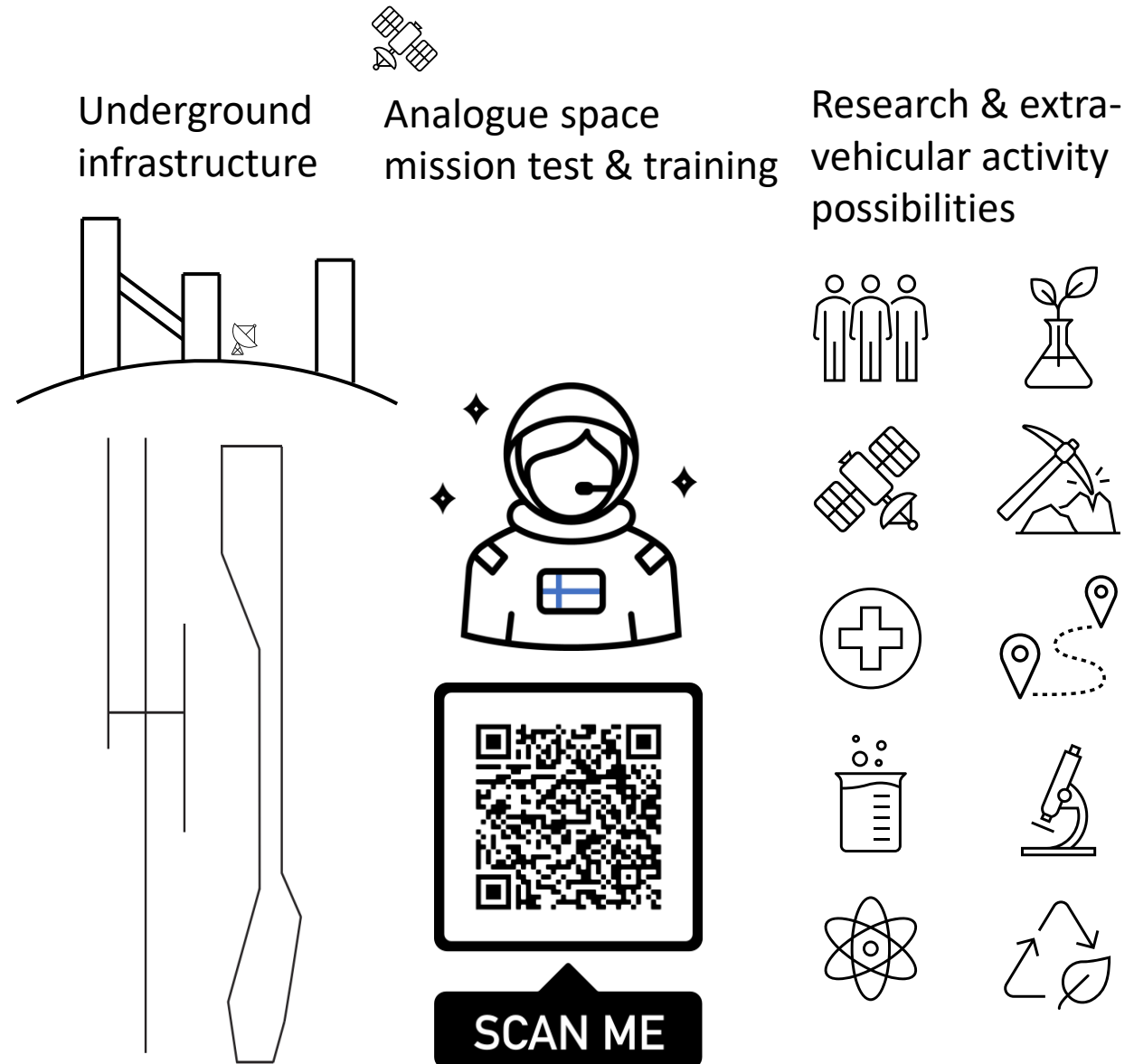




“Growing into an analogue astronaut and Lunar/Planetary mission Earth-based test & training site”

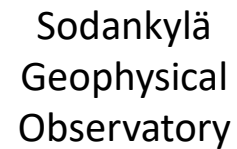
- **“Sustainable living – Sustaining Life”**
- Coordinated by Kerttu Saalasti Institute, University of Oulu
- Started with an idea of MARSCAPE - a planetary habitat simulator at the depths of Callio
- Callio SPACELAB launched in 2018
- Possible candidate for ESA’s EuroMoonMars analog astronaut mission
- Target infrastructure of MIMAG – analog moonbase

Check the QR code for more info on the underground environment



Accelerator
laboratory
at Jyväskylä

Oulu Space
Institute



Oulu Mining
School

Oulu
Kvantum
Institute



International cooperation

Contacts



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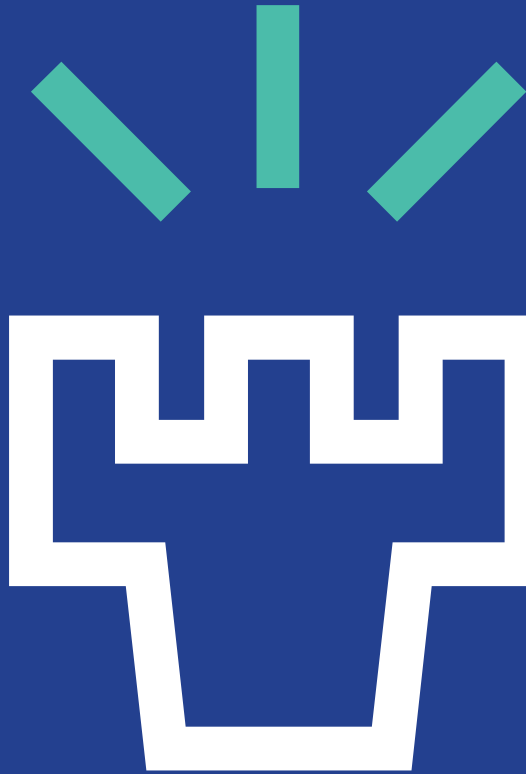
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