



Aurora Science Center

Sodankylä Geophysical Observatory (SGO)
Sodankylä Municipality



Co-funded by
the European Union



REGIONAL COUNCIL
OF LAPLAND



About the project

Participants: Sodankylä Municipality and SGO



- Municipality of Sodankylä and Sodankylä Geophysical Observatory (SGO) launched a preliminary study in 2024 in establishing the Aurora Science Center in the center of Sodankylä, which will showcase space science and sustainable mining.
- During 2024, the need and requirements for a science center were investigated.
- The preliminary study project lasted 12 months and the project ended in January 2025. The final outcome of the project is a completed concept
- The Aurora Science Center preliminary study project was funded by the Region of Lapland from the European Regional Development Fund.



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Why do we need a science center in Sodankylä?



- The Sodankylä Geophysical Observatory (SGO) has conducted Finland's longest-running research on the northern lights, monitoring changes in Arctic regions and tracking natural threats since 1914. The first scientific expedition arrived in Sodankylä in the 19th century.
- Lapland attracts domestic and international tourists, and the Northern Lights are one of the main attractions alongside other natural phenomena
- The science center allows visitors to experience various natural phenomena year-round.
- Sodankylä is located in the greenstone belt and the science center provides an opportunity to showcase Lapland's modern and sustainable mining activities and the latest cutting-edge technology. Geophysics bridges the fields of space and mining sciences.
- The project will help develop local services and businesses while boosting vitality in Sodankylä and across the Lapland region.



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SGO
UNIVERSITY
OF OULU

Photo: SGO

What kind of science center?

- **An exciting** , experiential, inspiring, renewing, **forward-looking** and invigorating Science Center!
- Emphasizing the real Lapland and locality, must see – a tourist destination in the heart of Lapland!
- Offers learning experiences regardless of the visitor's background.
- The exhibitions use **the latest technology and immersive presentation methods** . VR, AR, XR, Deep Space 8K

Bringing Lapland's natural science research to the forefront

Community and cooperation, emphasizing locality and Lapland's culture

Innovativeness and looking to future opportunities



Image: Artificial Intelligence/ Canva AI

Science Center services



EXHIBITIONS

The exhibits offer interactive elements that make learning about astronomy, the environment, and Arctic research.

GUIDED EXHIBITION TOURS WORKSHOPS AND SCIENCE CAMPS

Workshops and guided tours where visitors can delve into specific topics, such as the creation of the northern lights or local nature.

CONFERENCE AND MEETING SERVICES

Conference facilities allow for organizing large events and using a mobile planetarium.
Flexible meeting rooms enable customers to rent meeting rooms of various sizes and remote workstations located within them.

STORE

The shop sells souvenirs and products that support the science center's exhibitions, which are locally produced.

Cafe and restaurant services

Pop- up business premises/program services

Learning environment spaces

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Exhibition themes



**History of science and research
in Sodankylä**



**Northern lights and
other arctic phenomena**



**The importance of space and
minerals in everyday life**

Geophysics is a cross-cutting theme of the exhibitions

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Lapland's industries



Local culture
and history



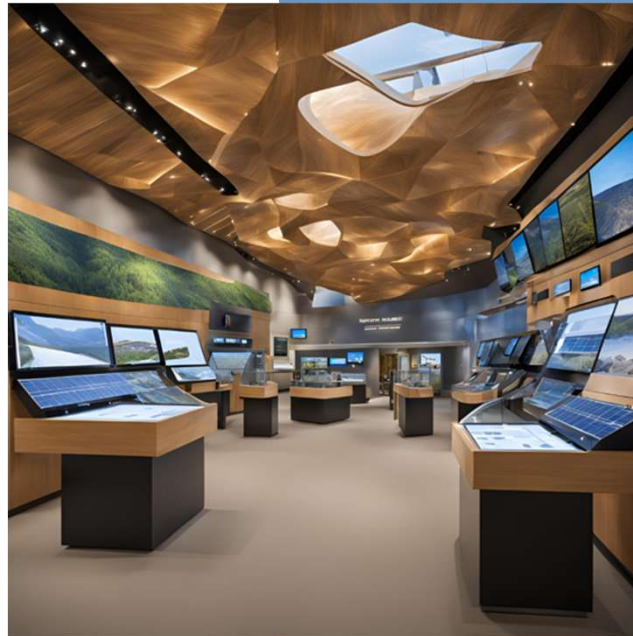
Climate change and just
green transition

Photos:

SGO, ESA/Science Office, Marjo Harjula, Visit Sodankylä, Unsplash

Mining visitor centers

- The Science Center building hosts visitor centers for mining operators, where they can showcase sustainable mining practices and modern technologies
- The operators located in the premises are responsible for providing and organizing the services in the exhibition spaces.



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Images: Artificial Intelligence/ Canva AI



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SGO
Sustainable Growth Organisation

Promoting innovation activities

- Connecting science, education and business
- Supporting local vitality, growth and development



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Sodankylä

Arrivals (2023)
87,500
Tourists*

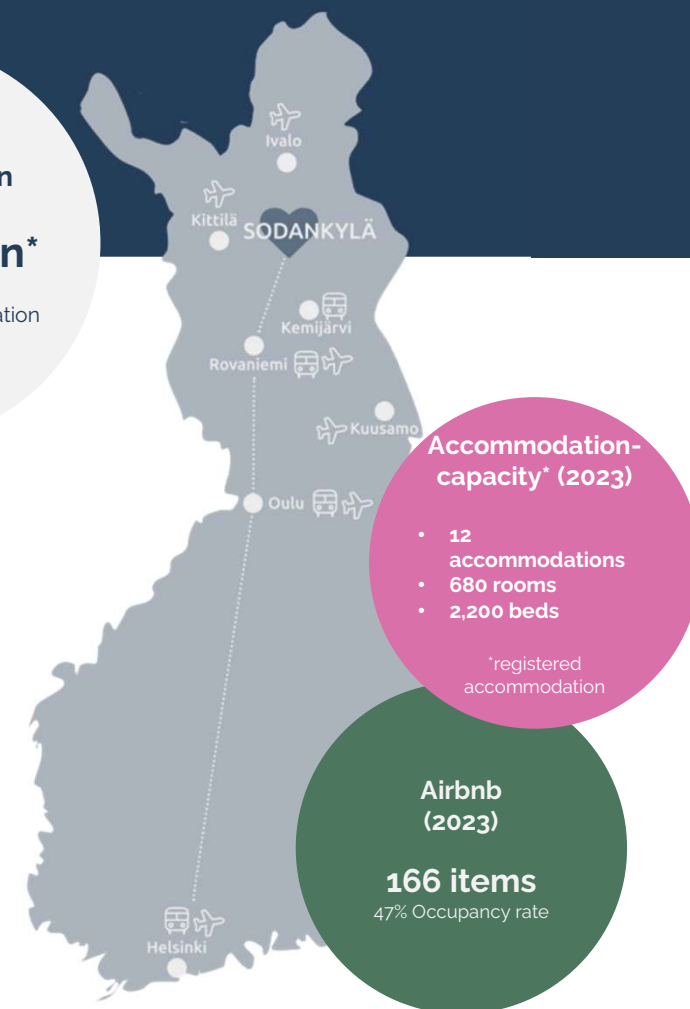
*Registered accommodation

Accommodation
sales (2023)
€17.8 million*

*Registered accommodation

- Sodankylä is located in the middle of Lapland, 130 km north of the Arctic Circle. Sodankylä has a population of 8,141.
- Diverse economic structure, including mining, tourism, reindeer husbandry and forestry
- In terms of tourism, Sodankylä attracts visitors especially because of the Urho Kekkonen National Park and the Pyhä- Luosto fell area.
- The town hosts several different events each year, the most famous of which is the Midnight Sun Film Festival held in the summer, which sells 30,000 tickets annually.
- Sodankylä's strategic location at the junction of major roads makes it an excellent site for the science center. The nearest railway stations are located in Rovaniemi (130 km) and Kemijärvi (107 km), and the airports are in Rovaniemi, Kittilä and Ivalo. The nearest airport is in Rovaniemi (130 km), but Sodankylä can also be reached from Kittilä (93 km) and Ivalo (155 km) airports, from which there are bus connections to the town.

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Sources:

Sodankylä business directory 2024

<https://sodankylankylakeit.fi/>

Sodankylä accommodation statistics and tourism statistics, Visitory 2024, <https://visitory.io/fi/>

This is how hosts earned in 2023: Airbnb Helsinki and other Finnish municipalities, Etua.fi, <https://www.etua.fi/majoitus-airbnb-2023>

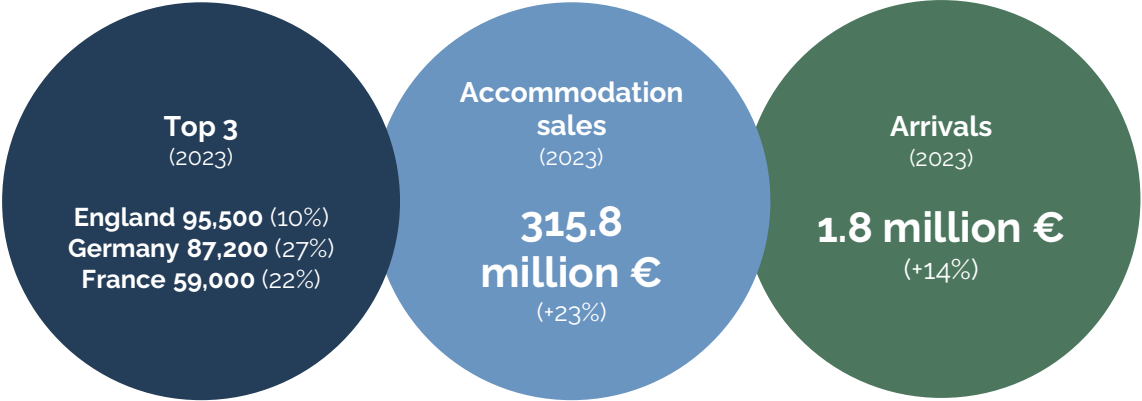
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SGO

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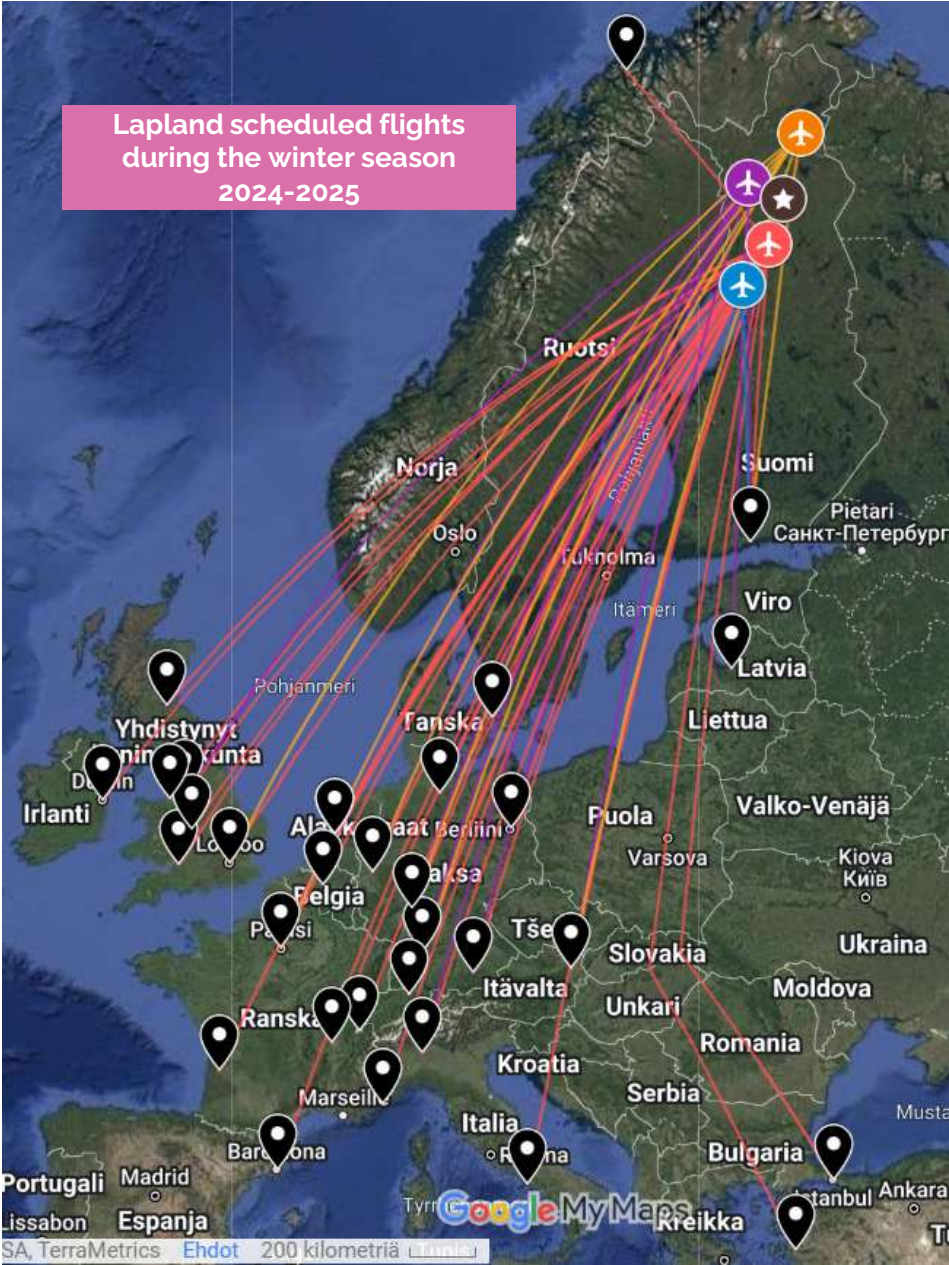
Tourist numbers in Lapland



Comparison of registered overnight stays between regions		
Target	January-December 2023	Change
Helsinki	4,140,000	11.3%
Lapland	3,350,000	7.8%
Oulu	598,000	6.9%

Tourist arrivals at Lapland airports (2023)		
Target	Number of passengers	From abroad
Rovaniemi	326,000	38.3%
Kittilä	186,000	51%
Ivalo	113,000	28.9%
Kemi	18,700	4.5%

Sources:
[Visit Rovaniemi](#)
[Visit Rovaniemi](#)
[Finavia](#)



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Collaboration and media interest



- Lapin Kansa 8.2.2024
- Sompio 14.2.2024
- YLE Lappi verkkojulkaisu, radio ja TV 9.4.2024
- Kuntalehti verkkoartikkeli 6.8.2024
- Sompio 6.9.2024, 30.12.2024, 31.12.2024
- YLE Lappi verkkojulkaisu, radio ja TV 8.1.2025



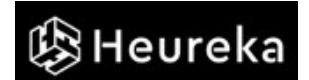
Työ- ja elinkeinoministeriö
Arbets- och näringsministeriet



LAPIN YLIOPISTO
UNIVERSITY OF LAPLAND



OPETUS- JA KULTTUURIMINISTERIÖ
UNDERSVINGS- OCH KULTURMINISTERIET



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Target groups



TRAVELERS



COMMUNITIES AND LOCAL RESIDENTS



SCHOOLS AND EDUCATIONAL INSTITUTIONS AS WELL AS RESEARCHERS AND EXPERTS



INTERNATIONAL AND DOMESTIC CONFERENCE GUESTS



COMPANIES



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Estimated visitor numbers



ESTIMATED NUMBER OF VISITORS

78,000

visitors annually

Tourist
numbers

SGO visitor
numbers

Proceedings

Schools and
educational
institutions

Traffic
volumes

LONG-TERM GOAL

140,000

visitors annually

The final visitor number target has been compared to the visitor numbers of other similar science centers. The visitor number target has been calculated in accordance with the precautionary principle.

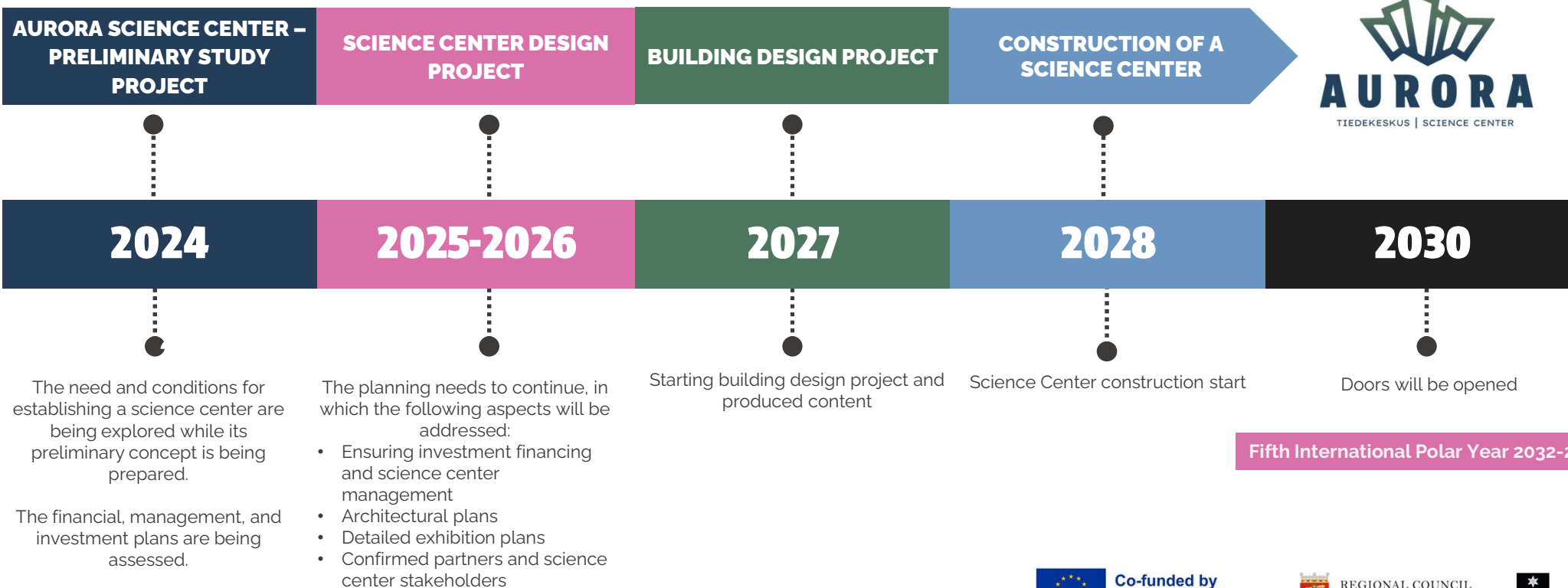
Benchmarking

Destination	Municipality	Road	Annual number of visitors (2023)
Arktikum, University of Lapland	Rovaniemi	VT 4	136,000
<i>Aurora Science Center</i>	<i>Sodankylä</i>	<i>VT 4</i>	<i>78,000- 140,000?</i>
Sami museum Siida	Inari	VT 4	140,000
Science center Pilke	Rovaniemi	VT 4	70,000
Science center Tietomaa	Oulu	VT 4	70,000
Amethyst mine	Sodankylä	VT 4	25,000
Tankavaara area (Gold Village and Gold Museum)	Sodankylä	VT 4	35,000

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Aurora Science Center Roadmap



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