



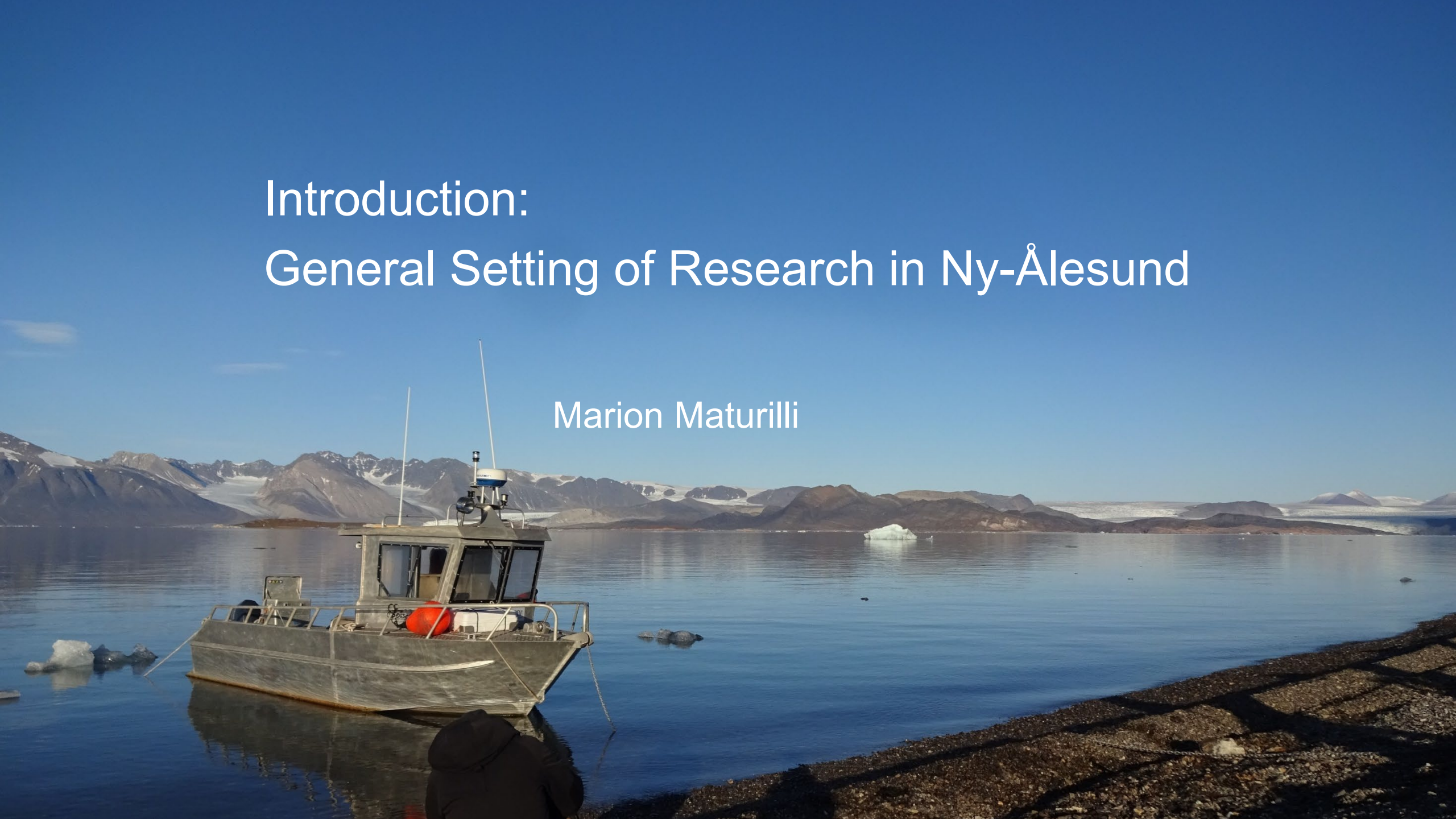
Introduction Seminar 2024

Part II: Science

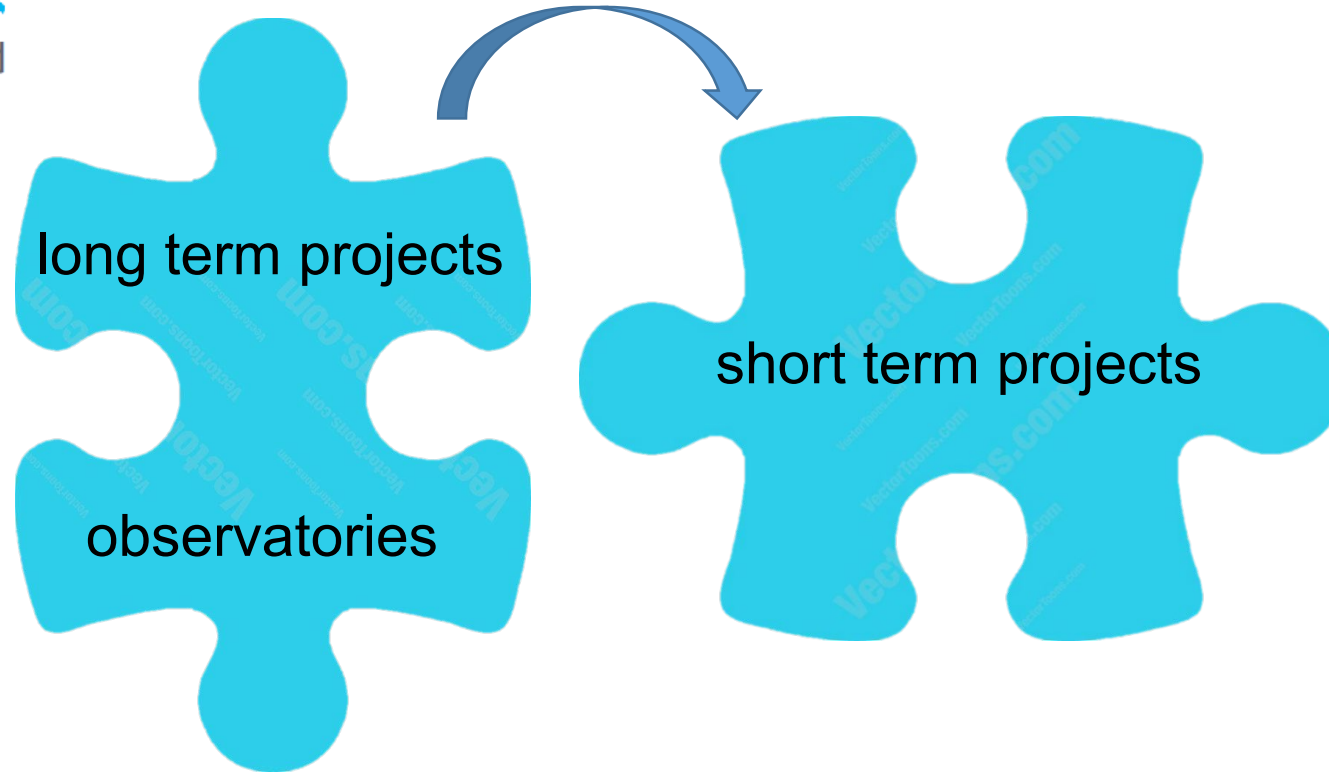
13 + 14 February 2024

Introduction: General Setting of Research in Ny-Ålesund

Marion Maturilli



Background information



www.awipev.eu

► Science

► AWIPEV Observatories

- Atmosphere
- Permafrost
- Underwater

► Projects in 2024

Atmosphere
Glaciology
Terrestrial Ecosystems
Kongsfjorden System

is part of the Ny-Ålesund Science Community.

projects from

France



Germany



Italy



China



India



Japan



Korea



Netherlands



UK



Sweden



Norway



Norwegian Polar Institute (NPI)

With the introduction of a research strategy for Ny-Ålesund Research Station in 2019, NPI was given the role as the official Norwegian host in Ny-Ålesund.



<https://nyalesundresearch.no>

Ny-Ålesund Science Managers Committee (NySMAC)

- ▶ includes representatives from all parties with major vested interests in Ny-Ålesund
- ▶ established to enhance cooperation and coordination among researchers and research activities in Ny-Ålesund

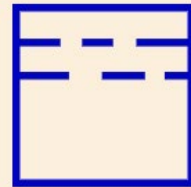
Ny-Ålesund Flagship Programmes



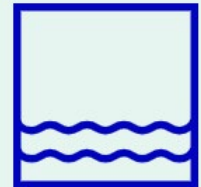
Ny-Ålesund Flagship Programmes

- ▶ arenas for contact, coordination and cooperation in science
- ▶ open to all scientists who are either actively engaged in studies in the area, or who wish to develop new insights based on monitoring and research in the area
- ▶ regular meetings; Newsletters

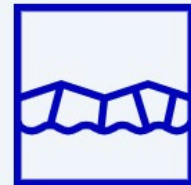
Atmosphere



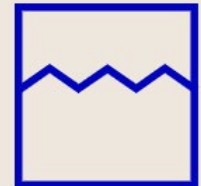
Kongsfjorden system



Glaciology



Terrestrial ecosystems

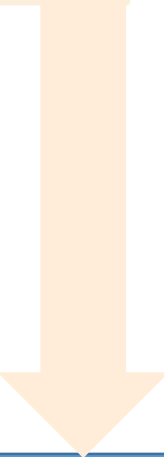


Ny-Ålesund Atmosphere Flagship

Working Groups on

- ▶ Clouds, humidity and precipitation
- ▶ Long-term observations and trends in temperature, precipitation, clouds and radiation
- ▶ Boundary Layer Meteorology
- ▶ Interaction of snow, atmosphere, aerosols
- ▶ Atmospheric aerosol
- ▶ Variability of surface UV irradiance and ozone column
- ▶ Atmospheric composition and pollution monitoring
- ▶ Middle and upper atmosphere

Atmosphere



... has been rather inactive lately.

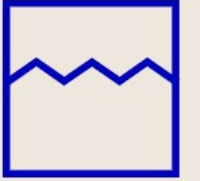
New structure and activities
currently under discussion.

→ Atmospheric projects
will receive information.

→ <https://nyalesundresearch.no/research-and-monitoring/atmosphere>

Ny-Ålesund Terrestrial Ecosystems Flagship

Terrestrial ecosystems



Working groups:

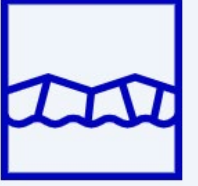
- ▶ Animal Adaption
- ▶ Vegetation Dynamics
- ▶ Soil processes and communities
- ▶ Carbon and nutrient fluxes
- ▶ Freshwater systems
- ▶ Sensitivity of ecosystems and integration

Ny-Ålesund Glaciology Flagship

Prioritized research fields:

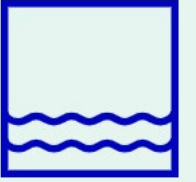
- ▶ Glacier mass balance
- ▶ Glacier dynamics
- ▶ Glacier hydrology
- ▶ Annual snow layer evolution
- ▶ Interaction between snow and atmosphere
- ▶ Ice cores (for climate and contaminant studies)
- ▶ Glacier biogeochemistry

Glaciology



Ny-Ålesund Kongsfjorden System Flagship

Kongsfjorden system

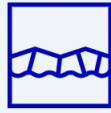


- ▶ Physical, chemical and ecological observations
- ▶ Contaminant flow and deposition
- ▶ Land-sea-atmosphere interactions
- ▶ Seasonal control of the nutrient regime
- ▶ Response to key environmental drivers and potential for acclimation and adaptation
- ▶ Approaches in modelling the Kongsfjorden/Krossfjorden ecosystem
- ▶ Kongsfjorden top trophics

Atmosphere



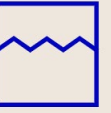
Glaciology



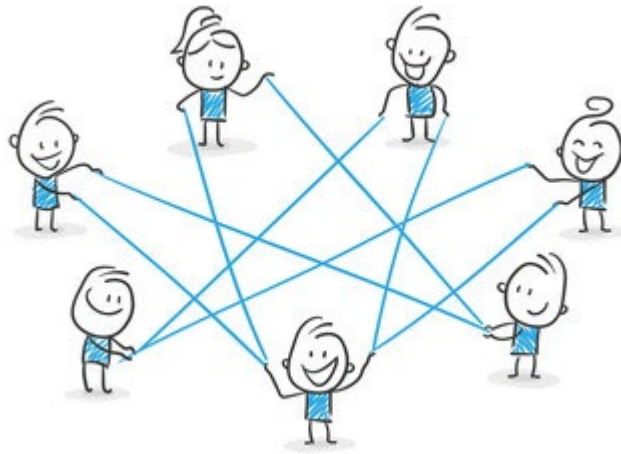
Kongsfjorden system



Terrestrial ecosystems



Get involved in the Flagship programs and collaborate!



► Inform others about your activities

► Get informed about the activities of others



e.g. Popular Science Talk
[weekly in Ny-Ålesund]

SESS Report 2023



Svalbard Integrated Arctic Earth Observing System

e.g.

Malnes et al. (2024)

A holistic approach to snow observations and models in Svalbard

Traversi et al. (2024)

Arctic haze in a climate changing world: the 2010-2022 trend.

and others.



<https://sios-svalbard.org/SESSreport>

Look up also earlier SESS Reports:

Get an overview of what has been done on Svalbard – potentially also in your field

Funding Opportunities

→ Check www.awipev.eu

→ 'News and Info' provides updates on calls and deadlines



- *Research Infrastructure Access program*



- *Arctic Field Grant (in cooperation with Norwegian institution)*

Both commonly have their application deadline in late autumn.

*Please be reminded that the expedition mini-proposals for 2025 have to be submitted by **15 March 2024**.*

<http://survey.awi.de/index.php/878496?lang=eng>

→ required to allocate AWI expedition funding for your AWIPEV stay

All projects (French, German, incl. )

→ Submission of AWIPEV project proposal as indicated on <https://www.awipev.eu/practical-info/access/>



today + tomorrow:

Get an idea of what's going on at **AWIPEV**^{79°N} in 2024.
Arctic Research Base Ny-Ålesund

Program does not cover ALL projects → see www.awipev.eu

Take the chance to get in contact with other projects using the chat function.

Enjoy the seminar !