

JOINT LEARNING BETWEEN ARCTIC AND ALPINE HUBS

POLICY BRIEF



RECOMMENDATIONS

- Share the latest, research-based knowledge with local stakeholders
- Enhance community engagement
- Utilize infrastructure for new, sustainable purposes
- Establish a collaborative platform between Arctic and Alpine actors
- Promote joint concrete initiatives – start with sustainable tourism
- Pay attention to economic diversification

ArcticHubs (2020-2024) is a Horizon EU project which develops tools to promote sustainable development of industrial and cultural hubs in the Arctic. Besides Arctic hubs, the project includes Alpine learning cases to be compared and analyzed against the Arctic hubs.

The Synthesis report of the ArcticHubs Work Package 2 includes a comparative analysis between Arctic and Alpine hubs, with focus on similarities, differences, and interactions.

This Policy Brief focuses on the key findings and recommendations of the comparative analysis.



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ARCTIC AND ALPINE HUBS

HOW TO PROMOTE JOINT LEARNING AND COLLABORATION?

“Alpine regions, facing same kinds of environmental and socioeconomic problems at the moment as Arctic regions are predicted to have in the future, have been selected as ‘learning cases’ for the ArcticHubs.

The learning cases contribute to point the value of co-creation of knowledge to support a sustainable development of industrial and cultural landscapes in hubs and to enable benchmarking.”

(ArcticHubs Grant agreement 2021)

Arctic hubs (Sweden: Jokkmokk, Malå, Gran Sameby and Gaellivare, Norway: Varangerfjord and Egersund, Westfjords in Iceland, Suduroy in Faroe Islands, Nuuk in Greenland) were compared against Alpine hubs (Alagna Valsesia and Germanasca Valley in Italy).

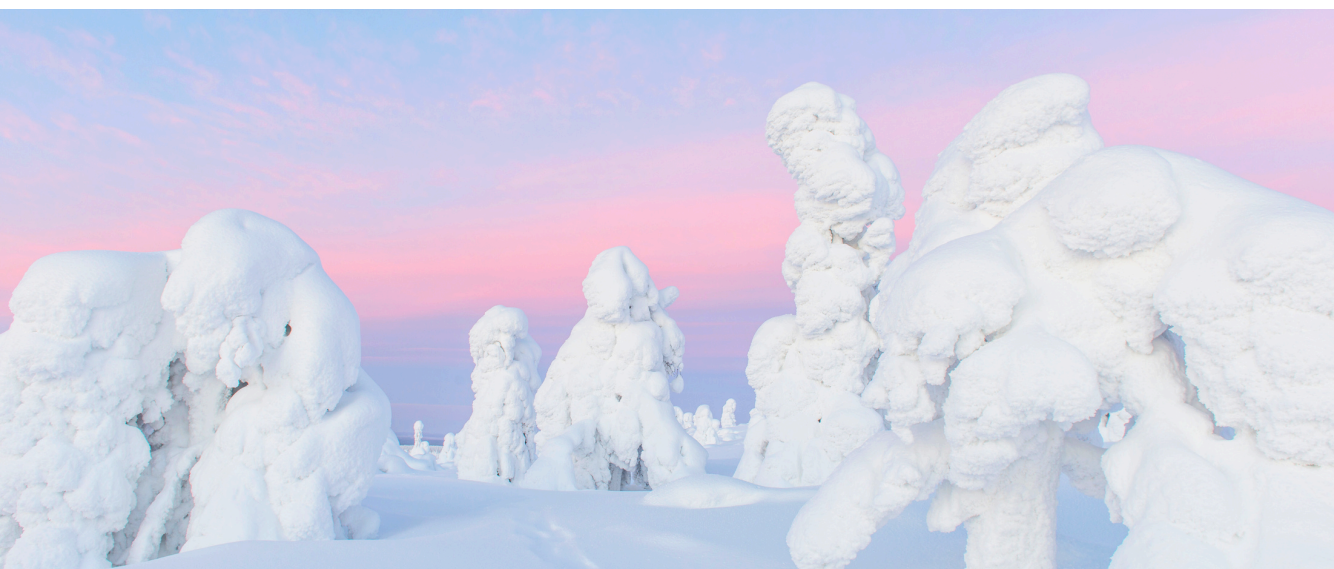
The comparison was done in 2023- 2024 by NORCE Norwegian Research Institute and UniTO University of Torino, Italy, assisted by ArcticHubs research members related to the hubs selected in the comparison.

WHAT DO WE MEAN BY ARCTIC HUBS?

Hubs are nodes hosting either a combination of economic activities, or one main industry or means of livelihood, where the challenges and impacts facing the Arctic region are tangible and acute.

The Arctic hubs in the project fall into categories of fish farming, forestry, tourism, mining and indigenous hubs. The learning hubs outside the Arctic provide points for comparison with the Arctic cases.

More information: <https://projects.luke.fi/arctichubs/hubs/>.



THE COMPARATIVE ANALYSIS IN BRIEF

A selection of Arctic hubs (Sweden: Jokkmokk, Malå, Gran Sameby and Gaellivare, Norway: Varangerfjord and Egersund, Westfjords in Iceland, Suduroy in Faroe Islands, Nuuk in Greenland) were compared against Alpine hubs (Alagna Valsesia and Germanasca Valley in Italy).

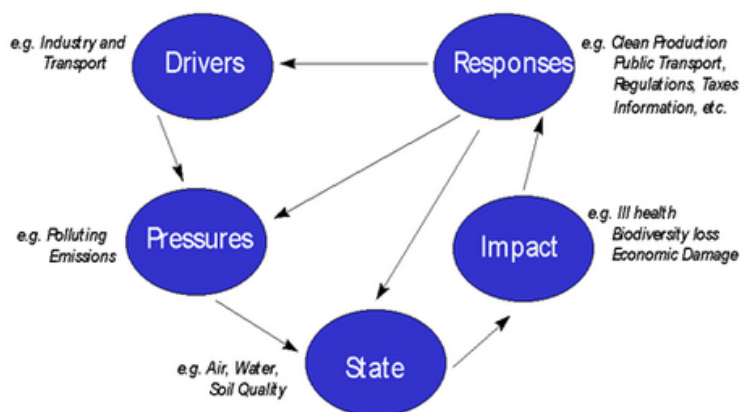
ArcticHubs applied the **DPSIR** (Drivers, Pressures, State of the environment, Impacts, and Responses) framework to analyze Arctic and Alpine hubs and to describe their internal interactions between society and environment. The hub-specific DPSIR analyses acted as a point of departure for comprehensive comparison between the Arctic and Alpine hubs.

Based on evaluation and comparison of the Arctic and Alpine hubs, the analysis was structured according to:

1) similarities, 2) differences, 3) interactions, 4) conflicts, and 5) opportunities.

The ArcticHubs WP2 research group paid specific attention to organizing meetings, interviews, workshops, and field trips with the participating hubs in focus. This added great value to the research outcomes.

The comparison between Arctic and Alpine environmental impact assessment data led to new insights, mutual learning, and new opportunities for future collaborative research.



The DPSIR framework according to the European Environment Agency (EEA, 2020) is a popular tool for environmental impact assessment:

Drivers (social, economic, environmental developments) exert environmental **pressures** which change the **state** of the environment. This leads to **impacts** (social, economic or environmental) to which a societal **responses** is found (Tscherning et al, 2012).

COMPARISON OF ARCTIC VS ALPINE HUBS

MAJOR SIMILARITIES

- Cascading effects due to climate change, impacting key economic sectors and ecosystem services
- Tourism as one of crucial economic sectors in both Alpine and Arctic hubs
- Local minority populations whose livelihoods and cultures are deeply intertwined with the environment

MAJOR DIFFERENCES

- The varying altitudes in Alpine region contrast with the Arctic's lower-lying and expansive geography, affecting local ecosystem differently
- Significant differences in population density and demography
- Natural resources: The Arctic hubs possess large water and forest resources and more expansive land area compared to the Alpine region

“The comparative vision for the sustainable development plans of the Arctic and Alpine countries highlights peculiar elements, and transferability of good practices that deserve to be practiced, taking into account the different contexts.”

Marco Giardino, University of Torino

“The DPSIR tool was able to provide a holistic overview about environmental, cultural and social impacts caused by economic activities in Nuuk, Greenland”

Kristine Lynge-Pedersen, Greenland Institute of Natural Resources

POLICY RECOMMENDATIONS

Share the latest, research-based knowledge on the development of Arctic and Alpine hubs with local stakeholders. ArcticHubs research work, including the comparison of hubs, deserves to be disseminated among the local stakeholders for learning and further development.



Enhance community engagement. Prioritize community engagement and inclusive measures in the development of the hubs. It is vital to respect and integrate traditional practices and minorities into contemporary activities to ensure local ownership.

Utilize infrastructure for new, sustainable purposes. Explore opportunities to “reuse” the existing industrial and/or mining infrastructure, experiencing structural change, for new growing and sustainable activities such as green energy production and sustainable tourism. The Arctic and the Alpine regions could leverage their heritage to attract visitors interested in exploring unique sites and their history (including industrial history), but respecting nature and its geo/biodiversity.

Establish a collaborative platform between Arctic and Alpine actors. The WP2 research team recommends actions to create a platform, or network, where Arctic and Alpine hubs can share experiences, good practices, and strategies for sustainable development. This platform would facilitate collaboration in research, business development, and regulatory frameworks and to foster mutual learning and innovation.

Promote joint concrete initiatives – start with sustainable tourism. Encouraging joint concrete initiatives between Arctic and Alpine hubs could start from tourism sector: the WP2 work has identified similarities and willingness to learn from relevant cooperation partners, for example in developing sustainable tourism that respect environment and local culture. This could involve knowledge exchange, joint marketing efforts, and local development of more sustainable tourism attractions and activities and transition from mass tourism to more sensitive



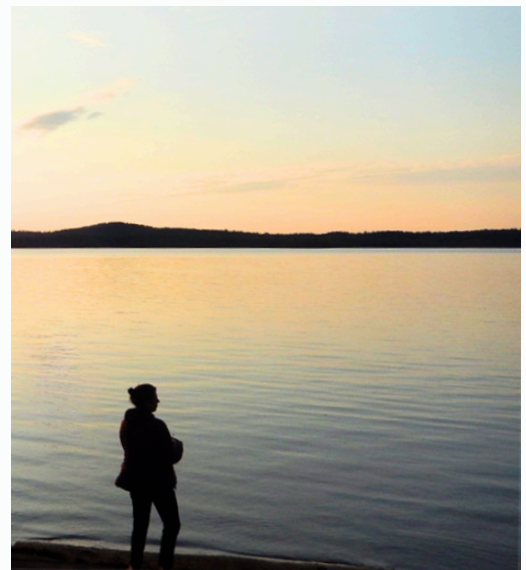
Pay attention to economic diversification. Arctic as well as Alpine regions and their communities expose to risk of relying on only one business sector. Promoting economic diversification in both Arctic and Alpine hubs would reduce dependence on one (sometimes too resource extractive) sector.

CONCLUSION

The comparison between the Arctic hubs and the Alpine learning cases has been a valuable addition to the analysis of global drivers and local consequences of the Arctic hubs.

The research findings and recommendations from WP2 were a crucial contribution that was actioned by other ArcticHubs work packages such as future scenario building.

The results of the comparison of Arctic and Alpine hubs deserve to be disseminated not only among the local stakeholders but also in a wider international context.



ARCTIC HUBS IN BRIEF

The EU-funded ArcticHubs project (2020–2024) develops solution-oriented tools, guidelines, and future scenarios for Arctic communities, industrial stakeholders, policymakers and other relevant actors.

The Arctic Hubs project assists in the creation and implementation of regional development strategies aimed at reconciling new economic opportunities with traditional livelihoods and solving land-use conflicts between different actors.

Budget 5,96 M€

Coordinator Natural Resources Institute Finland (Luke)

Study sites



- | | | |
|--------------|------------------------|--------------------|
| 1. Kemi | 7. Gran Sameby | 12. Egersund |
| 2. Kemijärvi | 8. Gällivare | 13. Westfjords |
| 3. Inari | 9. Kautokeino-Kvalsund | 14. Nuup Kangerlua |
| 4. Kittilä | 10. Varangerfjord | 15. Suđuroy |
| 5. Jokkmokk | 11. Svalbard | |
| 6. Malå | | |

Learning cases

- 18. Ennstaler Alpen
- 19. Liezen
- 20. Alagna Valsesia
- 21. Germanasca Valley
- 22. Halifax, Nova Scotia



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