

# Arctic youth climate change views – from anxiety to action?

Jaana Sorvali,

Natural Resources Institute Finland (Luke)



# Natural Resources Institute Finland (Luke)

- Governmental research institute under the Ministry of Agriculture and Forestry
- Head office in Helsinki
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NEWS | 22.6.2023

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AGRICULTURE, BUSINESS



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FISH AND FISHERY, ECONOMY AND MARKETS, STATISTICS



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NEWS | 12.6.2023

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BIODIVERSITY, POLITICS AND SOCIETY, ENVIRONMENT

# The Arctic

- Many definitions: by solar radiation ( $66^{\circ} 33'N$ ), temperature, forest line, permafrost, ice cover, culture and politics
- 4 million people; 1/10 indigenous
- Dominance of Russia



# The Arctic

- Culturally diverse
- Extensive uninhabited wilderness areas
- Extensive resources of minerals and other natural resources
- Green colonialism?



# Polar Amplification – zonal mean surface temperature warming at high latitudes exceeds global average temperature change

**communications**  
earth & environment

ARTICLE

<https://doi.org/10.1038/s43247-022-00498-3>

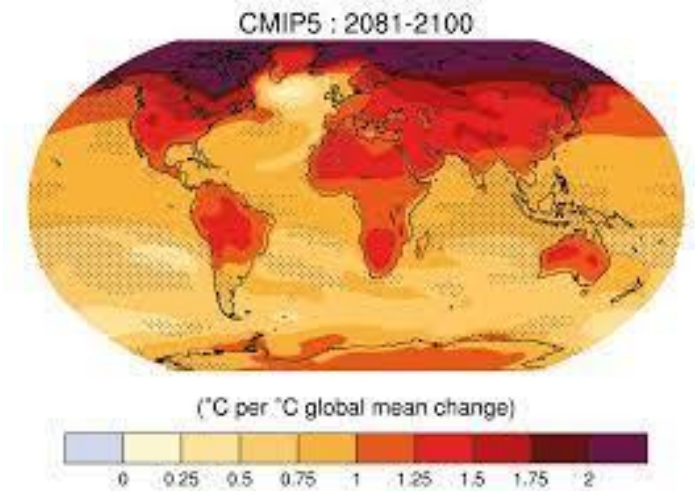
OPEN



## The Arctic has warmed nearly four times faster than the globe since 1979

Mika Rantanen<sup>1</sup>✉, Alexey Yu. Karpechko<sup>1</sup>, Antti Lipponen<sup>2</sup>, Kalle Nordling<sup>1,3</sup>, Otto Hyvärinen<sup>1</sup>, Kimmo Ruosteenoja<sup>1</sup>, Timo Vihma<sup>1</sup> & Ari Laaksonen<sup>1,4</sup>

In recent decades, the warming in the Arctic has been much faster than in the rest of the world, a phenomenon known as Arctic amplification. Numerous studies report that the Arctic is warming either twice, more than twice, or even three times as fast as the globe on average. Here we show, by using several observational datasets which cover the Arctic region, that during the last 43 years the Arctic has been warming nearly four times faster than the globe, which is a higher ratio than generally reported in literature. We compared the observed Arctic amplification ratio with the ratio simulated by state-of-the-art climate models, and found that the observed four fold warming ratio over 1979–2021 is an extremely rare occasion in the



[https://unfccc.int/files/science/workstreams/research/application/pdf/5\\_wgiar5\\_hewel\\_sbsta40\\_short.pdf](https://unfccc.int/files/science/workstreams/research/application/pdf/5_wgiar5_hewel_sbsta40_short.pdf)

Rantanen, M., Karpechko, A.Y., Lipponen, A. et al. The Arctic has warmed nearly four times faster than the globe since 1979. *Commun Earth Environ* 3, 168 (2022). <https://doi.org/10.1038/s43247-022-00498-3>



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# The Finnish Presidency of the Barents Euro-Arctic Council 2021–2023

Region of opportunities



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### Cooperation in the Barents Euro-Arctic Region

The Barents Council is the official body for inter-governmental co-operation in the Barents Region. It seeks solutions wherever and whenever the countries can achieve more together than by working on their own.

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# Youth and indigenous peoples' involvement in climate change adaptation in the Arctic and Barents region (ACAF) (2022-2024) [www.acaf.fi](http://www.acaf.fi)



Ministry for Foreign Affairs of Finland



Ministry of Agriculture and Forestry of Finland

# Project goals

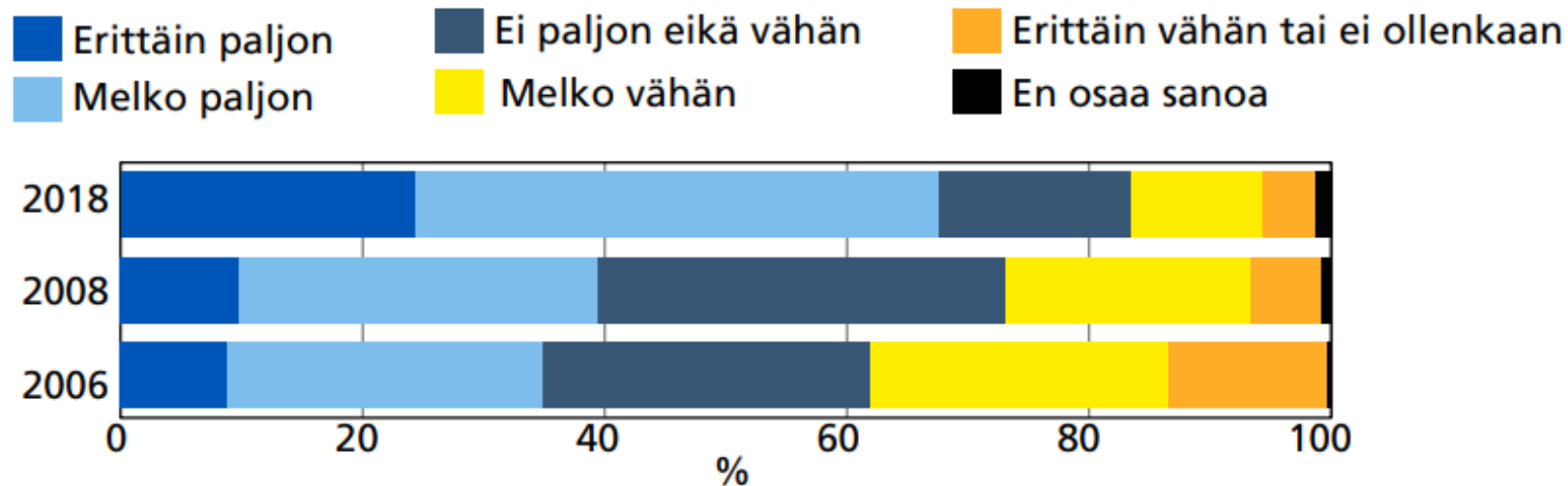
The overall objective of the project is to **promote adaptation** to climate change through **networking and research** in the **food, tourism, and forestry sectors** in the Arctic region, with a particular focus on the Barents region.

Specific targets:

1. **Indigenous peoples' participation and involvement** in the design and practical implementation of climate change adaptation measures. Use of traditional knowledge to support adaptation actions.
2. **involving and engaging young people** in the design and practical implementation of climate change adaptation actions.



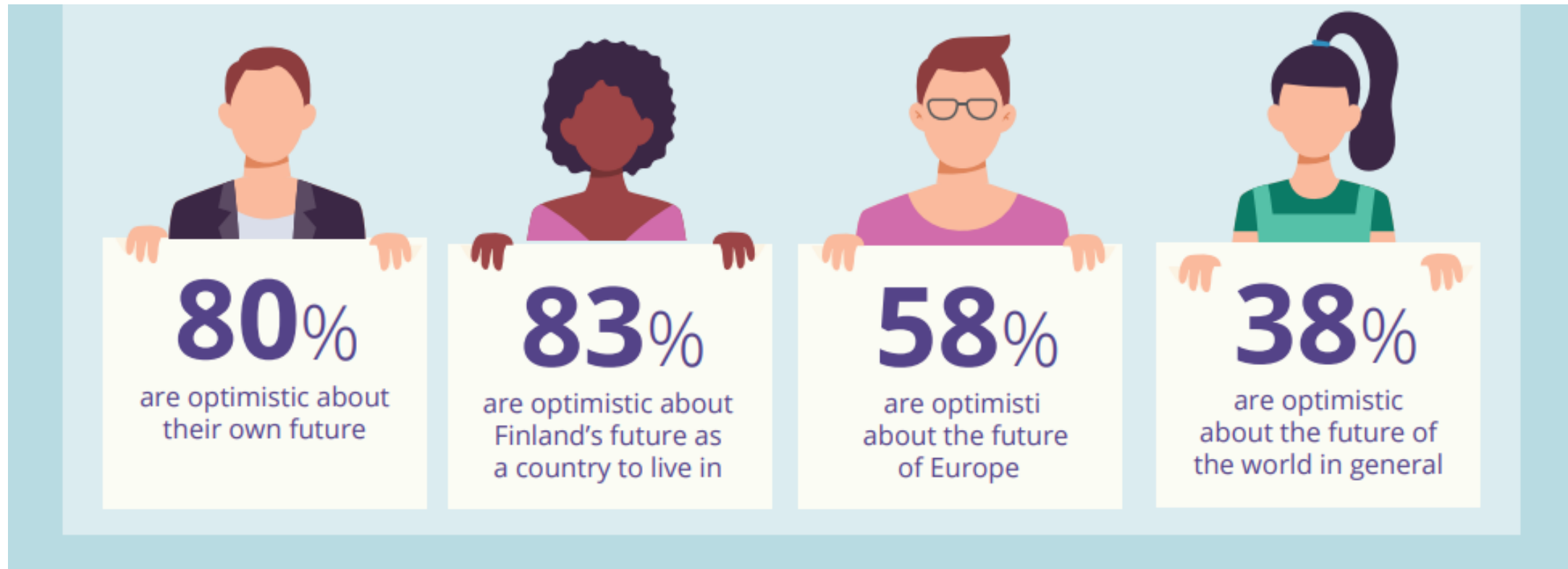
# Uncertainty and insecurity due to climate change



Kuvio 2. "Kuinka paljon koet epävarmuutta tai turvattomuutta ihmisestä johtuvasta ilmastonmuutoksesta?" Vertailussa vuosien 2006, 2008 ja 2018 Nuorisobarometrit, %.

Piispa, M. & Myllyniemi, S. (2019). Nuoret ja ilmastonmuutos. Tiedot, huoli ja toiminta Nuorisobarometrien valossa. *Yhteiskuntapolitiikka*, 84:1. <https://urn.fi/URN:NBN:fi-fe201902144980>

# Optimism and the future: Finnish youth in 2021



Youth barometer 2021

[https://tietoanuorista.fi/wp-content/uploads/2022/03/infografiikka\\_nb2021\\_en.pdf](https://tietoanuorista.fi/wp-content/uploads/2022/03/infografiikka_nb2021_en.pdf)

# Youth AND "climate change" AND arctic = 3/21

ACTA BOREALIA  
2021, VOL. 38, NO. 2, 150–169  
<https://doi.org/10.1080/08003831.2021.1982547>



RESEARCH ARTICLE



**"If we want to have a good future, we need to do something about it". Youth, security and imagined horizons in the intercultural Arctic Norway**

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## ABSTRACT

Security is an issue often raised when discussing the Arctic, a region where international relations and tensions between the great powers of the past and present often are taken-for-granted as the traditional scope of dialog. We have chosen to focus on youth in Arctic Norway, their perceived notion of security in their everyday lives, and how this influences their perceived possibilities for the future. We combine human security and ontological security perspectives with the concept of imagined horizons to grasp the discrepancy that we find between how the Arctic is defined from an international relations perspective, and the Arctic that youth in northern Norway understand in their everyday lives. We base the analysis on qualitative interviews with youth of various ethnic backgrounds in the Arctic town Alta in Norway, where we have interviewed them about security, cultural differences, climate change and environmental issues in the Arctic.

## ARTICLE HISTORY

Received 5 October 2020  
Accepted 25 August 2021

## KEYWORDS

Arctic Norway; imagined horizons; security; human security; youth; intercultural

## Introduction

Here we explore how youth in the Arctic imagine their future, and how this is influenced by their experiences of security in their everyday lives. We understand security in a broader sense, as security threats in people's everyday life (Mitzen 2006; Hossain 2013, 2016; Terminski 2013). We base this article on a qualitative study of youth in Alta, a town in Troms and Finnmark County in northern Norway, where we have done qualitative interviews with youth between 16 and 25. In the study, we have explored how the youth understand security and sustainable development, and how they link this to their own everyday life experiences.<sup>1</sup> In this perspective, security is also linked to human and ontological security, where having a stable social and cognitive environment is important for the overall experience of security in peoples' everyday life. While young people's experiences of opportunities have often been left out of research on the Arctic, youth research has also been criticized for an unacknowledged "metrocentricity", marginalizing the voices of young people in the Arctic (Paulgaard 2017).

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2018, VOL. 77, 1454785  
<https://doi.org/10.1080/22423392.2018.1454785>



SHORT COMMUNICATION



**Sámi youth health, the role of climate change, and unique health-seeking behaviour**

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## ABSTRACT

The goal of this cross-sectional qualitative study was to assess the impact of climate change on Sámi youth health, health care access, and health-seeking behaviour. Indigenous research methodology served as the basis of the investigation which utilised focus groups of youths and one-on-one interviews of adult community leaders using a semi-structured, open-ended questions. The results of the focus groups and interviews were then analysed to identify trends. We found that Sámi youth mostly associate the implications of climate change to their culture and cultural practices rather than the historical influence the environment had on Sámi health. They also take part in unique health-seeking behaviour by utilising both traditional and Western medicine simultaneously but without interaction due to social and structural factors. Our findings suggest that the health of Sámi teens is not tied to the environment directly, but through cultural activities.

## ARTICLE HISTORY

Received 30 November 2017  
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## KEYWORDS

Health and well-being; climate change; Sámi youth; reindeer herding; "Norwegianization"

## Background

Sámi identity is strongly tied to reindeer herding. Currently, only 10% of the Sámi population actively herd reindeer, but it is so integral to Sámi identity that Sámi easily identify and characterise themselves as either reindeer herder or not<sup>11</sup>. Reindeer herding can be physically dangerous due to the long distances traversed on rough terrain and the risks associated with handling reindeer, and may be linked to mental health problems [2–4]. Altered ice stability can also increase physical and economic stress on reindeer herders as the terrain is no longer capable of sustaining the movement of reindeer herds to new pastures [1,5]. The accelerated movement of industries into the Arctic, together with the accompanying increase of infrastructure and decreased snow cover from climate change, has a negative impact on reindeer herders by reducing available pastures for their animals [5,6].

Sámi health needs to be contextualised with the historical "Norwegianization" of the Sámi in Norway which targeted children in the form of boarding schools from the 1840s to the 1950s, to fully understand the current impact of environmental and cultural changes in Sámi populations [7]. The ability to internalise Sámi-associated cultural support versus

cultural shame has been found to have an impact on Sámi youth health and cultural continuity [8]. In order to counteract this, the Norwegian government passed legislation in the 1950s that makes it impossible to ethnically identify as anything other than Norwegian [7]. Therefore, it is not possible to get population statistics or health statistics on ethnic groups that identify as Sámi in anyway beyond the number of Sámi individuals associated with the Sámi parliament. However, Norwegian Arctic regions that are highly populated with Sámi individuals have higher unemployment rates and reported more cases of sexually transmitted diseases, higher smoking rates, lower education rates, lower income, and higher illiteracy rates than the Norwegian average [9–11].

The impact of climate change could particularly impact Sámi youth health as they become the next generation of reindeer herders and members of the surrounding Sámi community which, due to geography, is more likely to be strongly impacted by climate change [5]. The Sámi Arctic youth are also in an area with lower social determinants of health which could potentially include a previously unexplored link with the environment and climate change which has been recorded to be very important for the Sámi historically [12].

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**Protective factors for mental health and well-being in a changing climate: Perspectives from Inuit youth in Nunatsiavut, Labrador**

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Protective factors  
Resilience  
Youth

## ABSTRACT

The Canadian Arctic is experiencing rapid changes in climatic conditions, with implications for Inuit communities widely documented. Youth have been identified as an at-risk population, with likely impacts on mental health and well-being. This study identifies and characterizes youth-specific protective factors that enhance well-being in light of a rapidly changing climate, and examines how climatic and environmental change challenges these. In-depth conversational interviews were conducted with youth aged 15–25 from the five communities of the Nunatsiavut region of Labrador, Canada: Nain, Hopedale, Postville, Makkovik, and Rigolet. Five key protective factors were identified as enhancing their mental health and well-being: being on the land; connecting to Inuit culture; strong communities; relationships with family and friends; and staying busy. Changing sea ice and weather conditions were widely reported to be compromising these protective factors by reducing access to the land, and increasing the danger of land-based activities. This study contributes to existing work on Northern climate change adaptation by identifying factors that enhance youth resilience and, if incorporated into adaptation strategies, may contribute to creating successful and effective adaptation responses.

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## 1. Introduction

The Circumpolar North is warming in excess of twice the global average, with some regions experiencing temperatures increasing beyond 3 °C (Larsen et al., 2014; Warren and Lemmen, 2014). Subsequent impacts on ice conditions, snow, weather, wildlife, and vegetation have been profound, and are affecting the livelihoods and lifestyles of Indigenous peoples who maintain close

connections to the environment (Larsen et al., 2014). Climate change is also occurring within a context of rapid political, economic, social, and cultural transitions and transformations associated with globalization and state-led policies of assimilation (Lehti et al., 2009; Richmond, 2009; Ford et al., 2010b). Together, these changes will have potentially significant impacts on mental health and well-being, with studies identifying that Indigenous communities will face more serious challenges from climate change given their often-high dependence on the natural environment, experience of historical and intergenerational trauma associated with past colonial practices, and inhabitation in areas highly susceptible to climate change (Berry, 2009; Doherty and Clayton, 2011; Swim et al., 2011; Ford, 2012; Cunsolo Willox et al., 2012, 2013a,b; 2014).

Globally, the field of mental health and climate change is emerging, with a growing number of studies coming from Northern Australia, focused on the impacts of long-term drought on farmers' mental health (Morrissey and Reser, 2007; Hunter, 2009; Berry et al., 2010, 2011; Hart et al., 2011) and from the Canadian North, focused on impacts for Inuit populations (Cunsolo Willox et al.,

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<sup>2</sup> P.O. Box 69, Rigolet N.L., Canada AOP 1P0.

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# ACAF youth research and policy involvement in the Arctic)

- Youth = 15–29-year-olds
- Survey to indigenous and non-indigenous youth in Finland, Sweden, Norway, Canada and USA (Alaska)
  - Climate change, sustainable development, future
  - Justice, emotions, values
- Workshops for indigenous youth in Finland and Norway
- Workshops for Barents youth in Finland, Sweden and Norway
  - Co-creation of policy messages for decision-makers
- Co-writing of scientific articles
- Delivering the messages through conferences and seminars



## Connecting and Supporting Youth Making Change in the Arctic

The Arctic Youth Network is a youth-founded and youth-led non-profit organization supporting a global network of youth through international cooperation and capacity-building.

For Youth →

For Organizations →



BLI MEDLEM KONTAKTA OSS

### Who are Sáminuorra?

Sáminuorra is the Sámi national youth organization in the Swedish part of Sápmi. Our aim is to promote and protect the interests and rights of Sámi youth.

Our efforts are done for, with and by us Sámi youths. Sáminuorra is a member-driven organization, which means that our members decide what issues we should pursue and what activities we should focus on. Sáminuorra is engaged in Sámi, national and international politics and advances the interests of our members, creates meeting places for the youth of

#### NYHETER

#### Desinformation om sar rättigheter i valet 2022

7 september, 2022

#### Kallelse till årsmöte 20



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### Youth Council

The members of the Youth Council are chosen for two year term at the time. The council consists of the Chair, the Vice Chair and five other members. They all have personal deputies. Both members and the deputies have to be between age of 18 and 28 when chosen. Also five expert members are chosen for two year term. Expert members have to be between age of 15 and 17 when chosen. The Chair and the Vice Chair don't have to be members of the Sámi Parliament.

The Youth Council prepares those statements, initiatives and other comments which concern Sámi youth and their living conditions. Other main functions of the Committee are to advance the language and the cultural rights of the the Sámi youth and strengthen their Sámi identity.

### Youth Council 2020-2021

#### Members:

Niittyvuopio Anni-Sofia, chair  
Mäkinen Maria, vice chair

#### Deputies:

Pohjanrinne Mira  
Semenoff Jasmin

#### Expert members:

Ljetoff Helmi  
Ravna-Pieski Hans

# Thank you!

Interested in collaboration?  
Contact: [jaana.sorvali@luke.fi](mailto:jaana.sorvali@luke.fi)

