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Co-creating solutions with 22 hubs across the Arctic

## What's new from the ArcticHubs

Dear **reader**,

Welcome to the Winter edition of our newsletter!

During the second half of the year, ArcticHubs has been building on the strong base of **research results** generated by one of our research team (WP1). These initial results reporting on **key global drivers and mega-trends impacting the Arctic** provide a fundamental grounding for the project's investigation of socioeconomic and cultural effects and on **future scenarios**.

Over the past year an increasing number of collaborations and activities took place across the hubs, particularly in regard to testing **participatory map-based tools** (Maptionnaire, RenGIS3.0, CodGIS). All of which contribute towards the analysis of land-use issues and co-creation of solutions with locals and stakeholders.

We were also thrilled to once again bring together our full consortium in person for the **third annual meeting** in September 2022 – which this time was hosted at **Magma Geopark hub in Norway**.

In this newsletter edition, we will be introducing:

- our recent annual meeting
- bringing focus to 4 new research reports
- present the Delphi research method
- highlight 2 participatory map-based tools

Additionally, we will hear news from some of our researchers, our project partners and some Arctic based networks, and events.

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**Keep informed by following ArcticHubs on Twitter, LinkedIn and on its website**





*Building the big picture around a mining in Egersund, Norway*

## Finding a blend and a balance across disciplines, research tools, and livelihood sectors: ArcticHubs annual meeting 2022

"ArcticHubs has increasingly shared and met up across online, face-to-face and blended meeting platforms. Then once a year all these approaches come together for our annual...*I was going to call it just a 'meeting', but it is actually much more significant than a simple meeting.* The latest iteration in 2022 was hosted at Egersund, Norway, which is the administrative hub for the project partner **Magma UNESCO global geopark**. [...]

### *Mining for solutions in an Arctic hub*

Our hubs or nodes hosting either a combination of economic activities, or one main industry or means of livelihood, are where our research activities are focused. Hence, we always seize the opportunity during the annual meetings to step out in to the field and build up a further comparative snapshot to broaden our understanding of how each Arctic hub and associated sectors operate locally."

Read Jonathan's summary on our 2022 annual meeting [here](#).



*Egersund Granite quarry manager Kurt Saestad*

## New ArcticHubs reports!



A short [explainer](#) summarises what common thoughts about the Arctic are overturned by the reports' findings.

### Report 1

#### (D1.2) Global economic drivers in the development of different industrial hubs

The report presents the global economic drivers affecting the development of major

### Report 2

#### (D1.1.3) Analyses of the CSR reporting of the main international companies operating in different Arctic hubs

The report investigates how companies in different resource-based industries (i.e., aquaculture, tourism, mining, and forestry)

industries of aquaculture, forestry, mining and tourism in the European Arctic.

### Report 3

#### (D1.4) Analysis of climate change impacts in different industries and hubs

The report looks at the meaning of climate change as a global driver and at challenges that are simply too complex and uncertain to concretize hence remain as suggestions. This deliverable **is data-driven** and not based on previous academic literature.

understand their corporate social responsibility (CSR) in the context of their business operations in the Arctic.

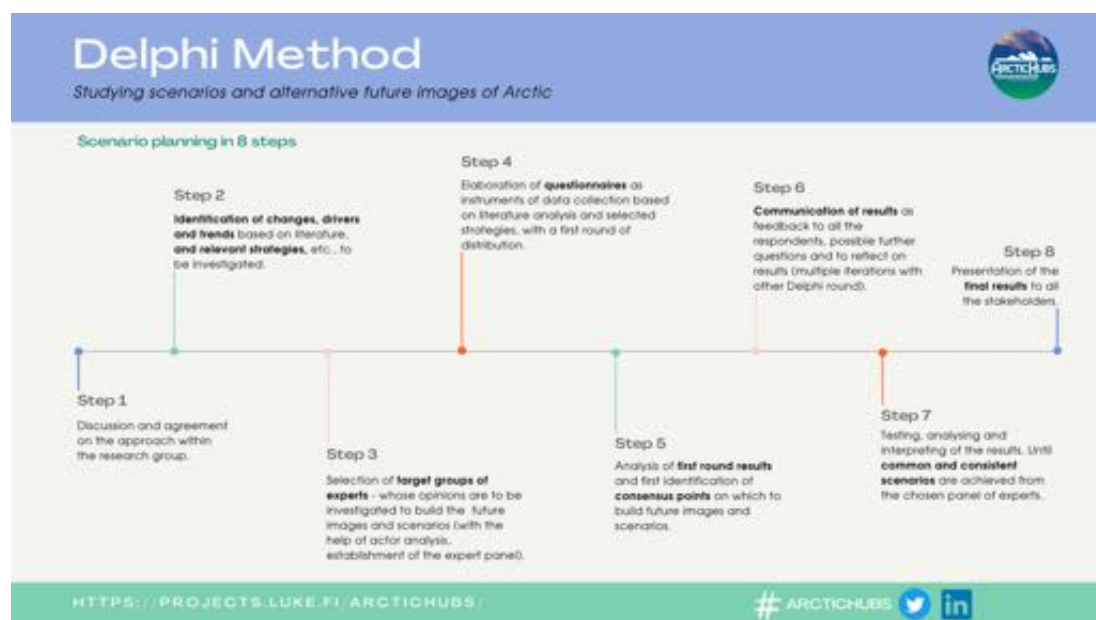
### Report 4

#### (D1.3) Political drivers for development of different industries in the European Arctic

The project report discusses **geopolitical tensions** and drivers affecting the development of major industries in the European Arctic (aquaculture, forestry, mining, and tourism).

[Click here to read the reports](#)

## Looking for alternative to build possible future scenarios



*Infographic elaborated with the support of Pasi Rikkonen and Stefania Cardinale*

The Delphi is a research method that concentrates on **assessing and forecasting the future**. Difficult to sum up in a compact manner, we will leave a more comprehensive **description of the method** to the [project website](#) where our colleague **Pasi Rikkonen**, research professor at the Natural Resources Institute Finland (LUKE), explains what the **Delphi** method involves, and why it has been chosen among the project research tools. Together with **Seija Tuulentie**, research professor at LUKE and WP5 leader, they have been utilising this research method in one of the indigenous hub, in [Inari, Finland](#).

As this is not a familiar research approach to many Arctichubs researchers, the project has built in a series of training meeting and discussions coordinated by Pasi Rikkonen and Seija Tuulentie to ensure that hubs can confidently apply it also to their work.



Read more [here](#).

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## Participatory map-based tools: what's new?

The project is exploring the adaptation of various types of **participatory mapping tools using GIS** (geographical information systems) to collect data on Arctic land and resource uses. Some of these tools bring onboard collaborative inputs from local communities and stakeholders (such as [Maptionnaire](#) which is a more complex version of a PPGIS – Public Participation GIS).

Whilst others are drawn from **data gathered through Arctic animal species** that are significant to local livelihoods.

### RenGIS3.0

RenGIS is one such participatory tool, **used to visualise and explain** the extensive and complex **land use system of reindeer husbandry** in relation to all other ongoing and proposed land use forms.

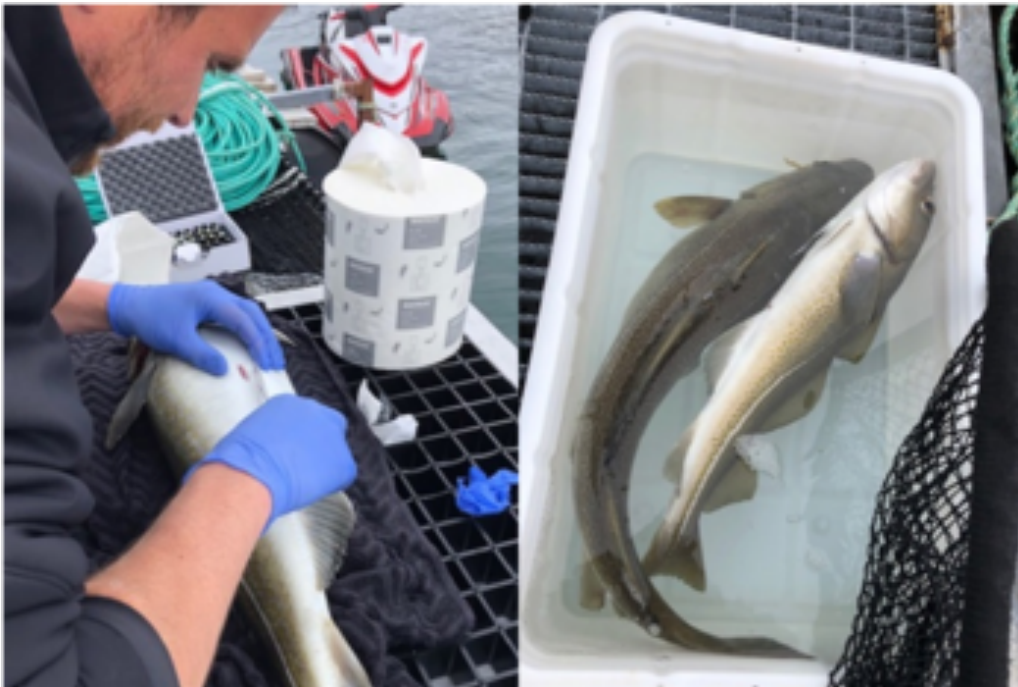
The most recent version of RenGIS version 2.0, (reported on as an ArcticHubs deliverable during 2022) is freely available [here](#), together with **data about reindeer husbandry and other land uses**. The current version of RenGIS runs on stand-alone computers with data on each user's local hard drive.

As part of ArcticHubs **RenGIS version 3.0 is being tested and developed by SLU** together with the **Sami parliament**. The new RenGIS will be converted to an online GIS system with centrally stored data. During December 2022 researchers from SLU together with reindeer herders took part of the first Demo of the new system. During 2023 further testing and improvement will be undertaken before the official launch of the new system. Data and knowledge communicated via RenGIS contribute to land use dialogues, negotiations, and consultations in Sweden. Data from RenGIS play a major part in governmental and non-governmental reports and strategies.

### CodGIS

With many of the Arctic hub study areas being coastal, an area of interest where GIS is being applied is in the **interactions between fish, fishing and aquaculture**. One of the ways that the ArcticHubs team in **NOFIMA** have been contributing to this research is by conducting a long-term study of cod behaviour around salmon farms which they call **CodGIS**.

CodGIS involves **tagging and monitoring adult cod around the fjords** where fish farm cages are distributed. In turn, this data is helping understand **whether fish farm activities influence the behaviour of cod migrations and in what ways** the fish habitat is changed. Armed with this new CodGIS information, researchers can then assist in building a more complete knowledge as to **how aquaculture and fishing may interact**. For example, this can lead to future solutions where these different users of the fjords may adapt through **more sustainable and spatially aware management of the marine resources**.



*CodGis: tagging wild cod for CodGIS survey*

## INTERVIEW



*"When conducting our research on global drivers and mega-trends in the Arctic, I was amazed by the considerable number of informants stressing the role of China in the Arctic. My fear is that **the Arctic will be a battle ground for economic interests**. Local people and politicians will also - in the future - meet **tremendous pressures from global industries** investing in new resource development, also in the name of global demand and of the "green transition".*

*Vigdis Nygaard, senior researcher at NORCE*

### Interview with Vigdis Nygaard, senior researcher at NORCE

In this interview with **Vigdis Nygaard**, senior researcher at **NORCE**, introduces us to some recent **research findings** around geopolitical and global drivers impacting the Arctic scenario.

Read her full interview [here](#).

# ANNOUNCEMENT



## Welcome

to **Taru Rikkinen** to the ArcticHubs team!

Taru Rikkinen is a **physical geographer**, she holds a master degree from the University of Oulu, where she focused on arctic environment and ecology. Taru originally comes **from one of the hubs** of the ArcticHubs project – Inari, in Finland. Taru started her collaboration with the project ArcticHubs at the Arctic Centre University of Lapland. But she has recently and officially joined the staff at LUKE - Natural Resources Institute Finland in Rovaniemi as researcher. *Congratulations on her career achievement!*

We are very happy that she is continuing her collaboration with the project team.

For the #Arctichubs project, Taru Rikkinen is focusing on the investigation of Inari area, in Finland, and the analysis of land use conflicts and possible future solutions.

## Inari hub

Inari is Finland's largest municipality but extremely sparsely populated. It has long traditions in nature-based tourism: with nature and wildlife tours, fishing and hunting trips. It is also a centre for indigenous Sámi culture which serves as a big attraction for tourism. 60% of the tourist overnights are made by foreign tourists.

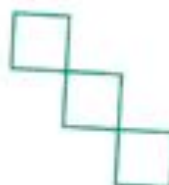
In addition to bringing work and income, nature-based tourism affects a lot to land use in Inari. The area needs to reconcile tourism with other livelihoods, especially reindeer herding.



The questions regarding the use of Sámi culture in tourism are also important.



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Horizon 2020

# News from Arctic Networks and Partner Projects



## Organising a workshop together with sister projects from the Arctic

Taking advantage of the annual [Arctic Frontiers](#) event in Tromsø, Norway in 2023, three sister EU Horizon 2020 funded research projects **ArcticHubs** / [Charter](#) / [JustNorth](#) are coming together to stage a **collaborative workshop** titled *Land use, reconciliation and justice in the Arctic*.

Hosted at the offices of our partner the **Norwegian Institute of Food, Fisheries and Aquaculture Research** (NOFIMA) on **1st February 2023**, the workshop will provide an initial opportunity to share and exchange recent research findings and experiences across the three projects. In particular, we will be considering issues around **environmental change, land use policies and Arctic futures**. Additionally, colleagues will reflect upon some of the innovative and adaptive research tools they have been utilising in their research.

For those who would like to participate, please communicate with Taru Rikkonen ([taru.rikkonen@luke.fi](mailto:taru.rikkonen@luke.fi)) and confirm **by 17th January 2023** at the latest. Further updates may be found on the [Polar Catalyst](#) events page.

## Climate crisis & globalization pose land use problems: news from MAPITA

Our partner **Mapita** recently wrote a newsletter about us, on solving land use challenges in the Arctic with public participation.

Mapita's Community Engagement Platform - **Maptionnaire** - is used within the ArcticHubs **for surveying local perceptions** of environmental and societal conflicts, **for engaging residents and stakeholders** — digitally, at schools, and during workshops.

Read Mapita's newsletter about ArcticHubs [here](#).

To learn more about Mapita, subscribe to their newsletter [here](#).





## ArcticHubs is part of the EU Polar Cluster!

The new Polar Cluster winter newsletter is out. Lots of news and events coming, news from the cluster in-person meetings in Brussels in June 2022, a new version of the EU Polar Cluster website and a restructuring of the Task Group structure. You can read it [here](#) and [subscribe here](#).



## Conferences & Events

 Save the date

 17 1st February 2023

👉 **Collaborative workshop:** *Land use, reconciliation and justice in the Arctic*  
organised by ArcticHubs, JustNorth and Charter  
📍 NOFIMA, Muninbakken 9-13, Breivika, Tromsø, NORWAY

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### That's all for now!

Want to explore research collaborations?

Email at [arctichubs@luke.fi](mailto:arctichubs@luke.fi)

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