



ARCTIC CENTRE
University of Lapland



Pavel Tkach & Adam Stepien (Arctic Centre University of Lapland)

On 15 November 2023, the Arctic PASSION's (EU-funded Horizon 2020 project, see <https://arcticpassion.eu/>) University of Lapland team, in cooperation with the Arctic Mayors' Forum, organized a session at the Arctic Spirit Conference (Rovaniemi, Finland, 13-15 November 2023), and a subnational decision-makers' workshop "Science and evidence-based policy-making: towards new steps with the Arctic PASSION project and Arctic Mayors' Forum".

1. Session at Arctic Spirit Conference "Green transition in Arctic cities and municipalities: towards evidence-based policy-making"

Moderators: Patti Bruns (Secretary General, Arctic Mayor's Forum) and Adam Stepien (Arctic Centre of the University of Lapland, Arctic PASSION)

Panelists:

- Rebecca Alty - Mayor of Yellowknife, Canada
- Robert Barr - Deputy City Manager, Juneau City and Borough, USA
- Líf Magneudóttir - City Councilor, Reykjavik City, Iceland
- Pertti Onkalo - Head of Urban Planning and Technical Services Department, Municipality of Rovaniemi, Finland
- Daniel Smirat - Chairman of the Municipal Council, Lulea Municipality, Sweden
- Volker Rachold - Head, German Arctic Office, Arctic PASSION project

The panellists highlighted success stories from their municipalities. They also discussed challenges and benefits of cooperating with private sector in green transition actions, as well as engaging the youth and Indigenous peoples in climate mitigation and adaptation. Volker Rachold introduced the Arctic PASSION project, outlining in particular the way the project interacts with Arctic and European decision-makers at different levels of governance. Patti Bruns provided an overview of the work of the Arctic Mayors' Forum, focusing on the need for Arctic towns to discuss issues of common concern.

Success stories, good practices and challenges from around the Arctic

Community engagement in Juneau: Community engagement is at the core of green transition initiatives and work, necessary for proper prioritization of actions. Engagement cannot be only about consulting with the public, it needs to provide people with agency. People's inputs need to translate to meaningful changes in actions and policies consistently. Engagement is also key to expanding common understanding of the challenges. The community is one of Alaska's leaders with respect to green transition (including being a fully hydropower-powered community taking actions. e.g., in the cruise tourism sector).

Not waiting for national policy-makers in Luleå: Technical university and research capacities, as well as the presence of the heavy steel industry, shape Luleå's actions and approach to green transition. The focus is on hydrogen, clean transport, energy efficiency and the transition in the steel industry. The city aims to be carbon-neutral by 2040, and the changes in the Luleå-based steel industry are foreseen to cut 9% of Sweden's overall climate emissions in the coming years. The power to make a difference lies to a great extent at the local level, even if local actions are greatly shaped by national policies. We should not wait for national politicians and instead act locally, using the tools at municipalities' disposal (public procurement, municipal-owned assets, etc.).

Focusing on better planning, considering gender dimension in just transition, and working together with other municipalities in Reykjavik: Transition at the local level, to a great extent, depends on planning, including spatial planning. While a clear advantage in Iceland and in Reykjavik

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101003472



**ARCTIC
PASSION**

Pan-Arctic Observing
System of Systems:
Implementing Observations
for Societal Needs



ARCTIC CENTRE
University of Lapland



is low-carbon electricity production, the key challenge is transport, as Icelanders remain highly dependent on their cars. This includes Reykjavik itself, where the development of public transport is one of the main transition actions. Electric vehicle use is growing, but this does not resolve all problems. It is also crucial to work together with other municipalities at the regional level. One action here is the plan to develop rapid transport connections. Another local municipal cooperation success story is the waste treatment plant. Food waste processing is an important way of cutting down emissions while getting, in return, methane as a fuel and fertilizer. Gender is also an aspect that needs to be considered when we discuss just the green transition, and Iceland still has much to do despite progress in the last decades.

Many smaller interventions together lead to success in Rovaniemi: Transition means many small actions. Close cooperation with the tourism sector is key, and most local companies have obtained sustainability certification. Local energy companies have become almost completely fossil fuel-free. Solar power plants have been proposed (profitability is actually comparable to more southerly latitudes), but wind power installations are now impossible due to national security concerns. With respect to urban planning, the new 2050 master plan has been influenced by the need for greater energy efficiency.

Working on energy and waste in Yellowknife: Two plans are key for transition within the limits of the municipality's competencies: Community Energy Plan and Solid Waste Management Plan. For energy, the municipality is acting with respect to its own assets (e.g. expanding district heating in public buildings), while within the community, the progress is more challenging (actions include, e.g. zoning by-laws allowing fewer parking spaces with car-sharing plan as well as facilitating community car sharing, promoting electric vehicles and charging stations, promoting energy efficiency of buildings through the introduction of local improvement charge, where the loan for energy retrofits is connected to the property not to its owner).

Engaging the private sector and the public in green transition

- Engagement with the private sector is not easy. It can be challenging to transparently prioritize the public interest, while drawing benefits from partnerships with businesses (e.g. challenges with procurement).
- Procurement is a very important tool for municipalities in advancing green transition goals.
- Technology cooperation with local businesses can support municipal actions: a good example is Juneau's work with the local brewery to utilize the technology used by the company to clean up 'forever chemicals' from municipal waste processing.
- Industrial transitions actually bring about profound changes for living in Arctic towns (a good example is rapid industrial shifts in Luleå), so it is increasingly important to show the benefits of green transition and communicate well towards the public and businesses.
- Many actions need to be taken by citizens and companies. It is sometimes important to use financial incentives (making "money talk"). In particular, working with companies is key for implementing circular economy actions. Cities can encourage, promote, and even lead many initiatives, but companies/institutions are the ones that need to take concrete actions.

Engaging Indigenous Peoples

- Working closely with Indigenous communities on green transition is crucial. The industrial developments advanced by green transition policies and market demand exert additional pressures on Indigenous livelihoods and territories, jeopardizing both Indigenous cultures and policy goals.
- In Alaska and Canada, engagement with local First Nations is a fully integrated part of local governance. In some cases, the capacity of North America's Indigenous Peoples to act as economic operators when working with municipalities enables many initiatives and developments.



**ARCTIC
PASSION**
Pan-Arctic Observing
System of Systems:
Implementing Observations
for Societal Needs



ARCTIC CENTRE
University of Lapland



Working with the youth

- It is important to discuss with young people not only problems and challenges but also to talk about opportunities and possibilities for action and transformation, and thus, to be more positive.
- Youth councils and committees can be crucial instruments with respect to long-term planning, as young people may not be willing to participate individually in planning/policy consultations.

Green transition dilemmas

- Municipalities are strongly impacted by national policies and choices, especially with respect to energy systems, financing, or changes in economic incentives for individual behavioural shifts.
- It is important to think about green transition from the whole-of-government perspective.
- We need to consider green transition over a long time perspective and in the light of other changes and challenges, especially demographic shifts. Lower birth rates and migration directly impact the planning of infrastructure and services at the local level.
- It is important to take account of good projections for the economic changes at the local level in order to set the right energy, emissions and green transition targets. Some Arctic communities experience the closure of major industrial operations, while others see the entry of new major investments.
- De-growth remains politically a very difficult conversation. We should have more discussion about values, especially the level and character of consumption. Often, it may be easier to talk about technology, innovation, circular economy or specific activities or industries rather than de-growth.
- Green bonds are used by some municipalities to facilitate investments and can be an effective tool to acquire resources and engage economically with community members and businesses.
- Dealing with waste is a challenge for all local governments and needs to be one of the central elements of green transition policies and planning: there is a need for technological advancements, public understanding of the costs, and good practice sharing.

2. Workshop “Science and evidence-based policy-making: towards new steps with the Arctic PASSION project and Arctic Mayors’ Forum”

The participants of the Workshop:

- Rebecca Alty - Mayor of Yellowknife, Canada
- Pertti Onkalo - Head of Urban Planning and Technical Services Department, Municipality of Rovaniemi
- Robert Barr - Deputy City Manager, Juneau City and Borough, USA
- Líf Magneudóttir - City Councilor, Reykjavik City, Iceland
- Daniel Smirat - Chairman of the Municipal Council, Lulea Municipality, Sweden
- Volker Rachold - Head, German Arctic Office, Alfred Wegener Institute, Arctic PASSION project
- Patti Bruns – Secretary General, Arctic Mayors’ Forum

Moderators: Pavel Tkach and Adam Stepien, Arctic Centre of the University of Lapland, Arctic PASSION project.

The workshop was dedicated to **identifying areas/topics** where subnational decision-makers in the Arctic can be supported in their efforts towards ensuring efficient evidence-based decision-making, enhancing community engagement in policy/decision-making, as well as where Arctic inter-municipal cooperation could deliver benefits.



ARCTIC CENTRE
University of Lapland



The Workshop started with the **presentation of the Arctic PASSION** project by Volker Rachold, leader of the Arctic PASSION team responsible for interactions with decision-makers at different governance levels. He outlined the objectives and scale of the project, the relevance of the project to the subnational governance as well as the importance of interactions with Arctic subnational policy-makers for different strands of work within the Arctic PASSION project. The participants asked about methodologies and approaches to collecting, analyzing and reproducing the scientific data. They emphasized the importance of access to clear and interoperable data in municipalities for enhancing decision-making processes. A significant contribution to this objective would be made if large-scale international research and development projects, such as Arctic PASSION, ensure that **data is collected using the same methodologies and approaches** across different projects. Panelists also stated that subnational environmental/climate management would benefit from **identifying/establishing clear benchmarks** (in different settings – including within the Arctic, with respect to municipalities/regions sharing particular characteristics and challenges) indicating the level of ambition and progress with respect to pursuing (policy goals) and achieving (results and implementation) environmental and policy goals.

Panelists also paid attention to **local data and knowledge needs**. For instance, in Alaska, there is a clear demand for **data and local/regional prediction capacities applicable to emergency response** with respect to flooding, avalanches, and landslides.

Furthermore, the **lack of socio-economic data** was mentioned as a common concern for municipalities across the Arctic. Nowadays, environmental and climate management is not only about natural science and technical expertise but also about a better understanding of the socio-economic context and parameters of particular actions. The participants noted that in climate and environmental governance, it is necessary to learn more about the impacts of specific decisions on social behaviour, budgeting and taxation.

Participants emphasized that the residents of Arctic municipalities are interested in being **engaged in defining climate actions**. Policy-makers expressed their concerns regarding finding appropriate ways **to explain the policy** choices with respect to particular climate actions in a way that is clear, understandable and visible to residents. Scientists and research projects can be helpful here by simplifying research results and accompanying them with high-resolution visualizations.

With respect to the future of Arctic **inter-municipal cooperation**, the participants generally expressed preferences for multilateral (as compared to one-on-one) cooperation that is driven by common challenges and gaps. It might be beneficial to establish groups of municipalities organized around the same set of topics or sharing similar circumstances. There is a value in circumpolar cooperation, not only in intra-Nordic or North American interactions, as there is much that can be learned from each other. Due to the costs of North-to-North travelling in the Arctic, cooperation formats will have to rely on virtual means, but organizing in-person meetings from time to time is crucial for establishing long-term relationships and trust-building. The involvement of civil servants alongside politicians is crucial for establishing long-term relations. One challenge for those who wish to engage in international cooperation is justifying its benefits in the light of restricted financial and human resources available to local administrations.

Participants further provided insights with respect to the question, **“How can scientists help policy-makers to make evidence-based decision-making more efficient?”**. Several ideas for future recommendations emerged:

1. Research – at least the part of scientific endeavour that is to have direct social benefits - should be **driven by communities’ needs** and not scientists’ assumptions about these needs. Direct



ARCTIC
PASSION

Pan-Arctic Observing
System of Systems:
Implementing Observations
for Societal Needs



ARCTIC CENTRE
University of Lapland



communication with local communities with respect to research needs, as well as a proper review of past projects carried out in a given region, can prevent researchers from duplicating research. Then, Arctic municipalities are less likely to experience “information jungle” when there are too many similar, unsystematized studies. It is extremely difficult for Arctic municipal administrations – that often do not have strong scientific capacities – to make additional efforts to analyze all information streams and define the most trustworthy ones. It is also important to engage not only large stakeholder organizations but also smaller actors (while, admittedly, that is more challenging).

2. Research results or outcomes should be provided in a way that is **usable and easily understandable** for people without extensive technical, natural science or social science background. Often, politicians do not have broad scientific education. In order for research findings to affect policy decisions, they need to be communicated in a language used by policy-makers, including providing socio-economic conclusions of the potential decision. Arctic research can support weighting different policy choices against each other (decision impact assessments and creating real-life scenarios). The results should be communicated at the very least at a level of non-scientific conference/forum. Moreover, it is important to clearly state what people can lose if the local authorities neglect to adopt response measures to natural events occurring locally, in the Arctic and globally.
3. Research should offer decision-makers a **comparative Arctic perspective**. Some of the issues faced by Arctic residents and authorities or the drivers of these challenges do not have borders, including climate change, melting of sea ice or long-range pollution. Arctic inter-municipal cooperation on common challenges becomes increasingly important and is more and more seen as beneficial. For example, decision-makers would like to know what knowledge gaps other municipalities have and what they do to fill in these gaps. Mapping challenges and solutions across the Arctic is already desirable but is likely to become even more needed in the future.
4. It is important to properly **disseminate and “localize” results of international research projects**. Arctic municipalities mostly use national open-access data, data services and expertise. There are a number of reasons why international data/knowledge producers do not attract subnational decision-makers’ attention. First, the applicability of international data to particular, especially remote, localities remains limited. More local sampling and research are needed. Second, local policy-makers are rarely aware of specific international data producers, systems or databases. Researchers should approach directly city councils or municipal committees/departments and propose to present and discuss their findings, especially with respect to how these can be used in practice.
5. There is a need for **cultivating direct long-lasting relationships** between Arctic universities and research institutes and Arctic decision-makers. Researchers should be pro-active in reaching out to their local city councils, mayors and civil servants – this is still not everywhere a common practice – while the latter should be open to interacting with local scientists and experts. Established partnerships can be particularly productive. **Local, traditional and Indigenous knowledge** should continue to be appreciated in Arctic research. To be done properly, this also increasingly requires building long-term relationships between scientists and communities and knowledge-holders.

However, the implementation of the above ideas is not without **challenges**. A key barrier is the structure of research funding, formats of application processes, and prioritization within research programmes. Research calls for proposals can have objectives not easily combined with community needs if the latter are not integrated at the early stages of programming. Local communities and local knowledge-holders may also have limited capacities. Nonetheless, it is important to note that some progress with respect to addressing these challenges has been gradually made over the last decades.



**ARCTIC
PASSION**

Pan-Arctic Observing
System of Systems:
Implementing Observations
for Societal Needs



ARCTIC CENTRE
University of Lapland



**Arctic
Mayors'
Forum**