



SIOS at Arctic Frontier 2019

22 - 29 Jan 2019

Poll results

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- In one word, describe the most important aspect of innovation in science

Background (1/2)

011

In what capacity are you attending Arctic Frontiers?
(1/2)

Researcher - natural science



Researcher - social science



Government



NGO



Indigenous Arctic community



Background (1/2)

011

In what capacity are you attending Arctic Frontiers?
(2/2)

Industry



Other



Background (2/2)

001

If other, please specify:

- Funding agency

Interest (1/2)

010

What is your main interest in the Arctic? (1/2)

Research



Monitoring



Politics



Tourism



Shipping or other transport



Interest (1/2)

010

What is your main interest in the Arctic?
(2/2)

Industry

 0 %

Other

 10 %

Do you consider innovation (e.g. use of new technology and monitoring strategies) important in research in vulnerable Arctic areas?

011

Yes



No



I don't know



Promotion (1/2)

012

What are the most important reasons to promote innovation in the Arctic (multiple choices possible)?

(1/2)

Better data



Smaller environmental footprint (including lower emissions)



Cheaper



Better spatial coverage



Sustainability



Promotion (1/2)

012

What are the most important reasons to promote innovation in the Arctic (multiple choices possible)?

(2/2)

None

 0 %

I don't know

 0 %

Other

 8 %

Promotion (2/2)

001

If other, please specify:

- To help people.

Barriers (1/2)

013

What, if any, are the barriers to introducing new technology into science in Svalbard (multiple choices possible)?

(1/2)

Environmental regulations



Environmental conditions



Costs



Lack of suitable technology



Lack of infrastructure



Barriers (1/2)

013

What, if any, are the barriers to introducing new technology into science in Svalbard (multiple choices possible)?

(2/2)

Resistance to or suspicion towards new technology



There are no barriers except in your mind



I don't know



Other



Barriers (2/2)

003

If other, please specify:

- Risk
- Underestimate how difficult it can be
- Assuming that innovation = technology only, and so forgetting about the people and social innovation.

Opportunities (1/2)

012

What are the conditions that create opportunities for using new technology in science in Svalbard (multiple answers possible)?
(1/2)

Tourism

 8 %

Engaged local population and visitors

 33 %

Existing good infrastructure, e.g. high bandwidth broadband

 50 %

Well established international and multidisciplinary research community

 100 %

Opportunities (1/2)

012

What are the conditions that create opportunities for using new technology in science in Svalbard (multiple answers possible)?

(2/2)

Other

 8 %

Opportunities (2/2)

002

If other, please specify:

- Poor communication infrastructure
- Funding and education

007

Which research topics in Svalbard have the greatest potential to make better use of technology (multiple answers possible)?

- Natural science in general.
Climate Research, safety,
- Tourists save)
- Do science activities and application of technology support, hinder, or be neutral with respect to peace, conflict, and diplomacy?
- SAR
- Biology, oceanography
- Oceanography
- Sea ice
- Glaciology Mammal behaviours
Chemical oceanography
- Glaciology, ecology,
- Cryoscience, biology, geophysics
- Understanding people-technology interactions to create safer, healthier, and more engaged communities.

Which specific technologies could SIOS use to improve research in Svalbard (multiple answers possible)?

006

- Remote sensing
- Machine learning
- Although Svalbard does not have indigenous peoples, could indigenous technologies from elsewhere around the Arctic be applied in Svalbard to support research?
- Artificial intelligence proposal writing machine
- IOT
- Better databases and software infrastructure for data sharing and collection

Survey (1/2)

0 1 2

What is most important when developing an Arctic observing system (multiple choices possible)?

(1/2)

Increasing the spatial coverage of observations



Increasing the integration of observations at existing sites



Increasing the number observations at existing sites



Making better use of remotely operated monitoring techniques



Survey (1/2)

012

What is most important when developing an Arctic observing system (multiple choices possible)?

(2/2)

Coupling measurements on the micro and meso scale with remote sensing data on the macro scale



Other



Survey (2/2)

004

If other, please specify:

- Identifying absolutely key sites where there is currently no observational capacity
- Balancing free, open access to all data with the understanding that all data need to be processed and interpreted before being applied and used for analysis.
- Coupling with models
- Ensuring that long term measurements are continued and coordinated

In one word, describe the most important aspect of innovation in science

009

A word cloud centered around the word "creativity". The word "creativity" is the largest and most prominent. Other words of varying sizes are scattered around it, including "imagination", "integration", "people", "future", "utility", "courage", "efficiency", and "coordinatio".

imagination
integration people
creativity
future utility courage
efficiency coordinatio