




Improved meteorological cooperation – what it means for the Arctic?

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The story begins...

WMO became an Observer of the Arctic Council in May 2017.

The mission was to bring Earth System Science Approach to support Arctic Council's work – permanently.

The Arctic Council has six permanent Working Groups:

AMAP – Arctic Monitoring and Assessment Programme

CAFF - Conservation of Arctic Flora and Fauna

PAME – Protection of the Arctic Marine Environment

EPPR – Emergency Prevention, Preparedness and Response

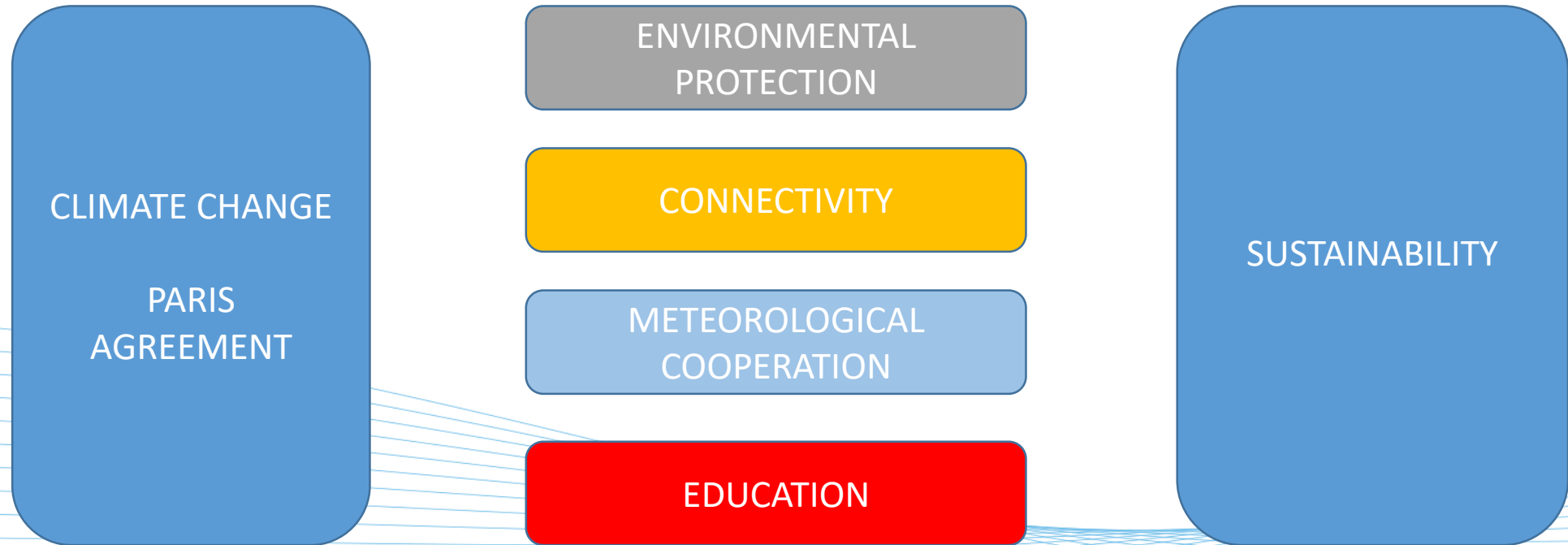
ACAP- Arctic Contaminants Action Programme

SDWG – Sustainable Development Working Group





Finland's chairmanship of the Arctic Council 2017-2019



Meteorological cooperation

WHY?

Enhanced situational awareness, forecasts and arctic climate science ensures **safety** at sea, in the air and on land, and is a prerequisite for **sustainability** in the Arctic.

Weather is The Boss: meteorology is essential for arctic communities, businesses and authorities.

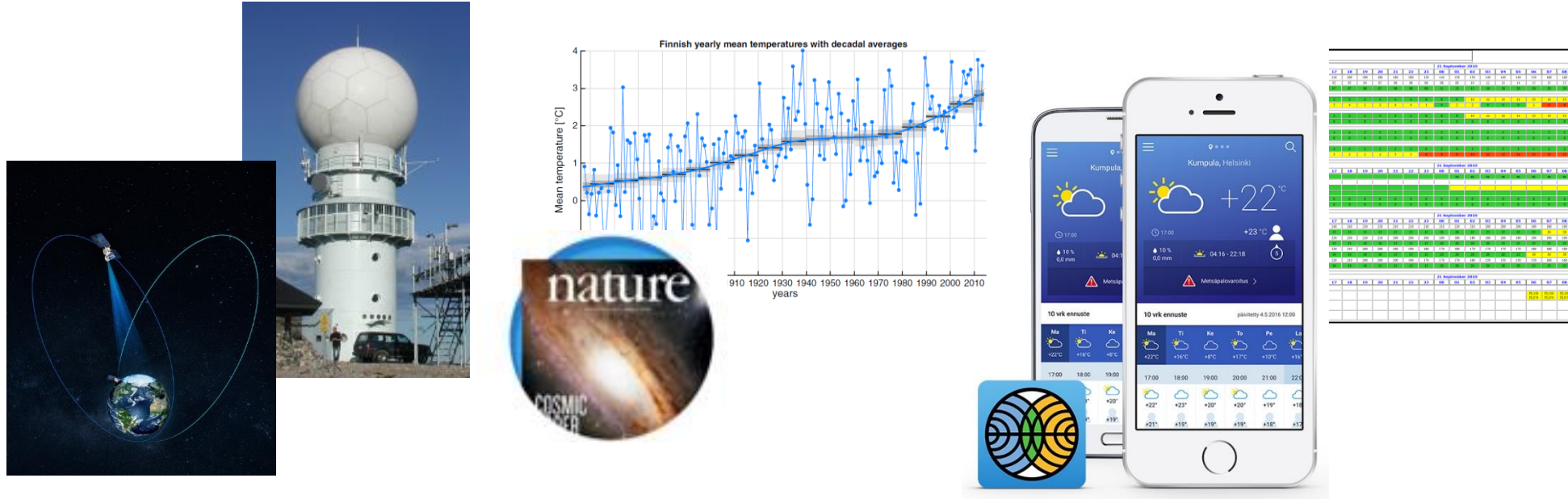
Intensified monitoring is vital for:

- ***better data coverage***
- ***improved weather, ice and ocean modeling, safety services and forecasting***
- ***improved climate change scenarios*** for adaptation measures, and to deepen our understanding of consequences in the Arctic and elsewhere.



Observing, predicting, adapting!

Our decision-making is based on facts



- Meteorological community supports decision-making in all levels of the society and in different time-scales
 - Citizens, authorities, businesses, policy-makers
 - Everyday decision-making to long-term strategic and political planning
- International cooperation, observations, research and services are all crucial to support fact-based decision-making

Meteorological cooperation

HOW?

- through implementation of WMO initiatives:

Arctic Polar Regional Climate Center (Arctic PRCC), **Year of Polar Prediction** (YOPP) campaign, and **Global Cryosphere Watch** (GCW)

- intensifying weather, climate and ocean **monitoring** in the Arctic (support SAON)
- improving weather, climate and ocean **modeling**
- developing **services** tailored for arctic users (EC-PHORS, NMHSs)
- strengthening the use of **satellite based data** for research, monitoring and services
- participating in Arctic Council permanent working groups' work: AMAP, PAME and EPPR



Sustained MET-cooperation is the key!

All levels were included:

- scientific collaboration: "Arctic Science Networking Workshop 2017"
- public-private sector: "Arctic Meteorology Summit 2018"
- joint development of strategic MET-infrastructure
- services with strong customer orientation
- indigenous peoples' knowledge and requirements:
"Connecting meteorology with indigenous knowledge and traditional knowledge 2019"

Increasing our common ambition level:

- sharing best practices, avoiding overlapping
- understanding risks, being cost-effective
- understanding stakeholders, customers and business models
- possibilities of satellite monitoring: High Elliptical Orbit (HEO) satellite mission

→ better observational coverage → improved services → increased safety, sustained environment



Connecting Indigenous Knowledge (IK) and traditional knowledge

- Arctic indigenous peoples have always been dependent on knowing and the weather, sea, ice and snow → elemental for hunting, fishing, surviving.
- Meteorology can be strengthened by including IK more than before: we wanted to get to know IK and its potential in arctic meteorology, and the service needs of indigenous people.
- "Connecting Meteorology with Indigenous Knowledge and Traditional Knowledge" was a FMI side event of the Arctic Council Ministerial meeting (Rovaniemi, Finland) in May 7, 2019.



What was left after this journey?

- WMO and meteorology is strongly engaged with Arctic Council – new strategy. Iceland Chairmanship 2019-2021, Russia 2021-2023.
- AMAP Meteorology and Climate Expert Group – new strategy.
- Improved monitoring showed its importance.
- Implementing SAON Action Plan.
- Joint infrastructure and service development. WMO Arctic Climate Forum provides climate outlooks 3 months ahead.
- Better use of satellite data.
- Exchange of personnel started.



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Was this left after the journey?

: [The Arctic Council] “Welcoming the meteorological cooperation as an elemental part of the work of the Arctic Council, recognizing the utmost importance of comprehensive monitoring network of the atmosphere, cryosphere and oceans, ensuring improved understanding of climate change, adaptation and mitigation, taking into account indigenous knowledge of weather related phenomena, and providing data for modeling and services to support safety, resilience and sustainability in the Arctic.”



Hey guys, I need improved meteorology here!

Photo:
Arctia Ltd.