

International Polar Year 2032-2033 (IPY-5); Initial planning and preparation

IPY Norge - Informasjonsmøte
18 Juni 2025: 12-14

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Research Council of Norway

Harald Steen
Norwegian Polar Institute

Norwegian initial planning committee for IPY5

Programme today:

- **Governmental decision and status of preparatory work:** Jon Børre Ørbæk
 - Governmental decision on IPY5 and tasks for the interim planning committee
 - Mandate and planning of a National IPY-secretariat and IPY-committee
 - Status of national and international research prioritisation towards the IPY
 - Q&A
- **Norwegian ambitions and potential contributions:** Harald Steen, Sofie Smedsrud
 - Interactive session addressing priorities and needs
 - Mentimeter, wordclouds and comments
 - Discussion
- **Progress, relevant meetings and progress from 2026:** Jon Børre Ørbæk
 - Relevant meetings
 - Opportunities and involvement

In short: Governmental decision

- The **Norwegian Government** decided already in September 2024 that Norway shall plan for a significant and visible contribution to the next IPY 2032/33
- The **Norwegian Polar Institute (NPI)** and the **Research Council of Norway (RCN)** is asked to form a national interim planning committee
- **RCN** will be responsible for coordination, mobilisation and funding and set up a national IPY Secretariat
- **NPI** will lead a scientific IPY-committee with members from the polar research community and relevant stakeholders.
- Regular **dialogue with Ministries**, most importantly with Research and Education and Climate and Environment
- Preparatory phase during 2025
- **Mandate** for IPY-committee/secretariat -> Ministries June 2025
- **IPY-secretariat and -committee established from 2026**

Dykkar ref

Vår ref

Dato

23214-

18. september 2024

Planlegging av norsk deltaking i det internasjonale polaråret 2032-2033

Regjeringa har i tråd med Noregs forvaltaransvar over norsk territorium og strategiske interesse i dei polare områda, gitt si tilslutning til norsk deltaking i det internasjonale polaråret 2032-2033 (IPY).

Planlegginga fram mot 2032 vil skje i dialog mellom relevante departement, særleg Kunnskapsdepartementet, Klima- og miljødepartementet og Utanriksdepartementet, og Noregs forskingsråd og Norsk Polarinstitutt.

Vi ber om at Forskringsrådet og Polarinstituttet etablerer ein nasjonal planleggingskomite og leier planlegginga frå hausten 2024 og fram mot 2032, i dialog med ansvarlege departement.

På sikt foreslår vi at Forskringsrådet får ansvar for eit nasjonalt IPY-sekretariat for nasjonal organisering og koordinering, som ved forrige IPY. Forskringsrådet får òg ansvar for handtering av søknadsprossessar og tildeling av prosjekt. Vi foreslår vidare at det blir sett ned ein fagleg IPY-komitè, sett saman av institusjonar og ressurspersonar med fagleg spisskompetanse, og at den vert leia av Polarinstituttet.

Departementa forventar at planlegging og organisering av IPY vil ha eit omfang på om lag 3-4 mill. kroner årlig på sikt. I startfasen (2024-2025) legg vi til grunn at Forskringsrådet og Polarinstituttet sett av ressursar innanfor egne budsjettrammer.

Søknad om auka løyving for å vareta meirarbeidet med IPY etter 2025 kan fremmast i den ordinære årlige budsjettprosessen overfor dei respektive departement. For forskningsrådet bes det fremmast i tråd med [Retningslinjer for styring av virksomhetskostnader](#) i Forskringsrådet (kap. 285 post 55). Vi forventar på same måte at forslag om omfang og

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PORTEFØLJE FOR KLIMA OG MILJØ

IPY-NORGE

IPY-Norge

Norsk Polarinstitutt og Forskringsrådet planlegger norsk deltagelse og forberedelser til det femte internasjonale polaråret (IPY) 2032–2033.

Mål og bakgrunn for IPY-satsingen

Organisering av arbeidet

Det er regjeringen som har gitt sin tilslutning til norsk deltaking i det femte internasjonale polaråret (IPY), som er berammet til 2032–2033. Dette er i tråd med Norges forvaltningsansvar over norsk territorium og strategiske interesse i polare områder.

Norsk Polarinstitutt og Forskringsrådet har fått i oppgave fra Kunnskapsdepartementet og Klima- og miljødepartementet å forberede det neste internasjonale polaråret.

Nyttige lenker

- IPY internasjonalt »
- International Polar Year 2032-2033 - Updated Concept Note »
- International Conference on Arctic Research Planning - ICARP IV »



Not the first: Five International Polar Years

1882/83 -> 1932/33 -> 1957/58 -> 2007/08 -> **2032/33**

- **La Recherche 1838-1840:** Pure scientific expedition, Gaimard, Francois Auguste Biard..
- **The 1st Polar year 1882-1883:**
 - Austria-Hungary - Carl Weyprecht – 10 countries, 14 exp., Arctic/North (Jan Mayen, Kapp Thordsen..)
- **The 2nd Polar year 1932-1933:**
 - 50 year – IMO - IUGG – >40 countries - broader program –Meteorology-Aurora-Earth Magnetism-Electricity-radiation-ozone
- **The International Geophysical year (IGY) 1957-1958:**
 - ICSU/(WMO) – 67 countries – Int. global coordination – Cold war
 - Antarctica -> AT (1959), World Data Centers, Norway Station
- **The 4th Polar year 2007-2008:**
 - ICSU/WMO + UNESCO, Arctic Council, SCAR, IASC ~50.000 researchers, 60 countries, 228 IPY-projects
 - The largest research programme in 50 years, «High latitude areas», «knowledge and understanding of polar regions and their role in the functioning of the planet», «processes», Russia..
- **The 5th Polar year 2032-2033:**
 - IASC/SCAR + WMO, ISC, Uarctic, IASSA, APECS – «Polar decade», Global couplings, Tipping points, 2030->2050 Agenda, Knowledge->Action, Geopolitics..

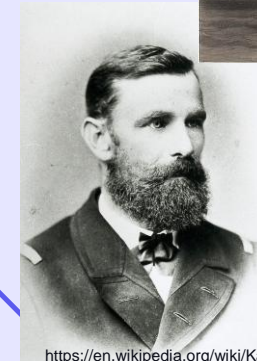


Auguste Étienne François Mayer (1805–90)

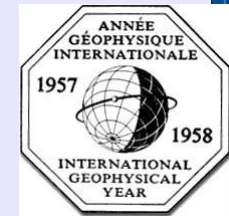
Susan Barr
Cornelia Lüdecke
Editors

The History
of the International
Polar Years (IPYs)

Springer



https://en.wikipedia.org/wiki/Karl_Weyprecht



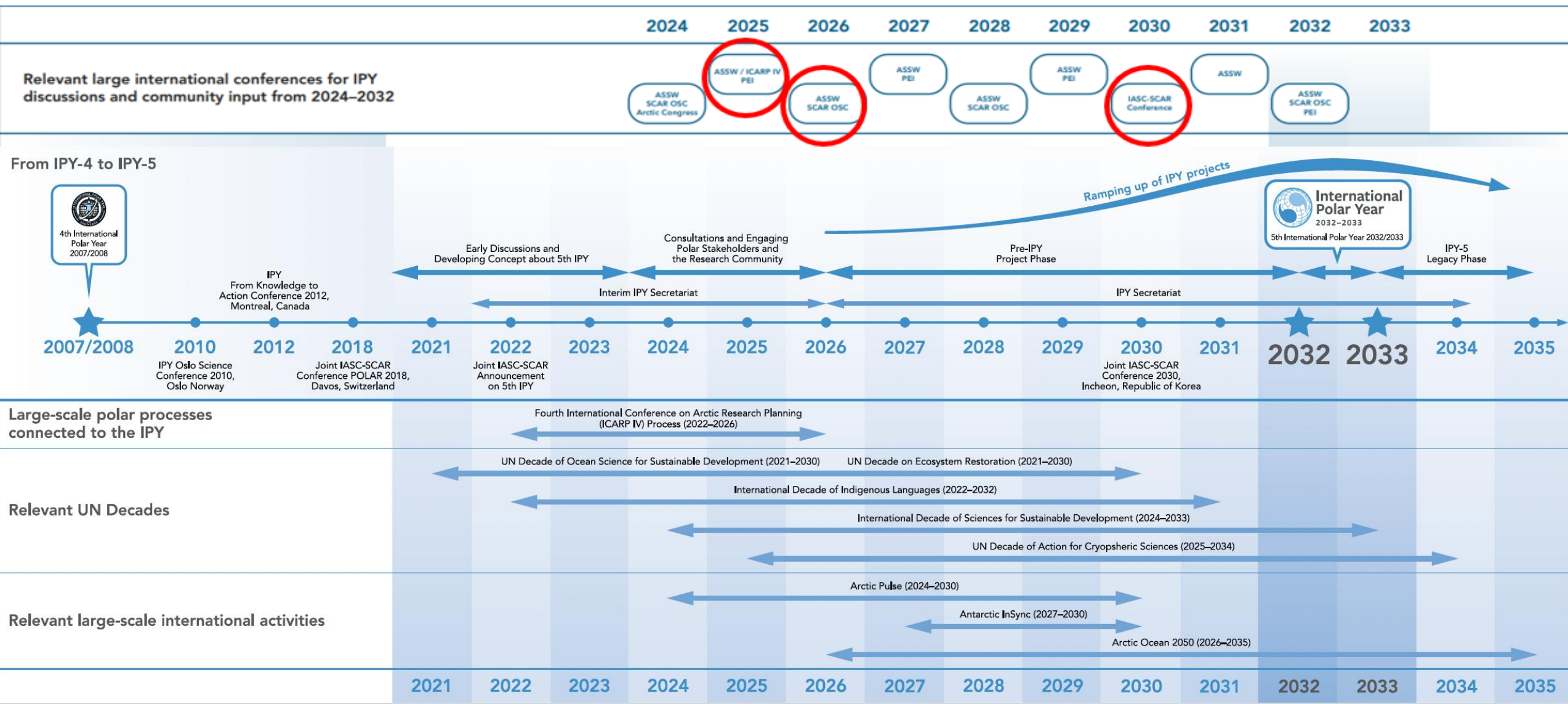
INITIAL CONCEPT NOTE
OCTOBER 2003
International Polar Year
2032–33

Why an International Polar Year in 2032–33?





IPY-5 Planning Timeline



IPY-5 Planning Timeline

«Polar Decade» - 3 phases

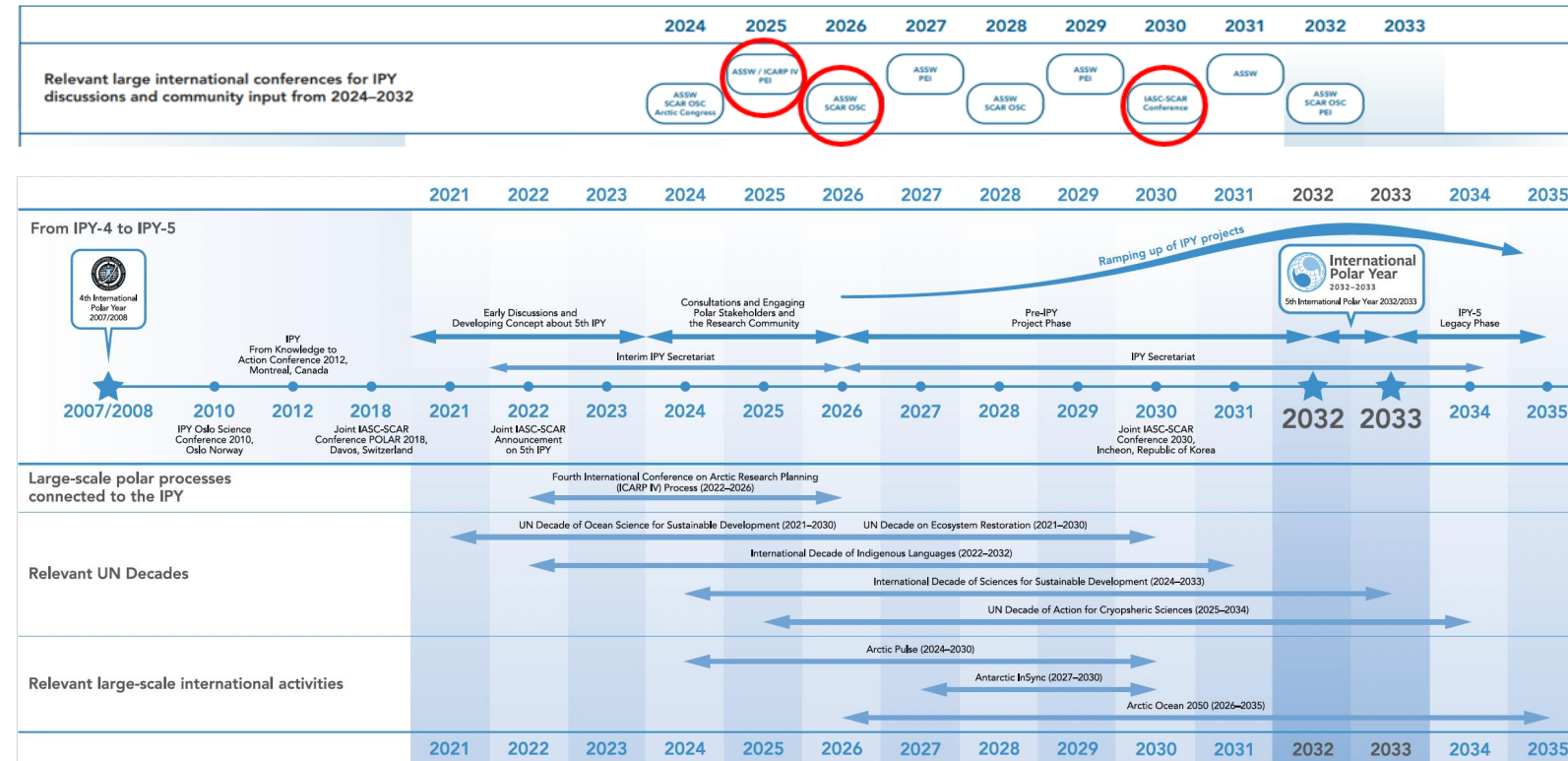
- Planning phase: 2021-2025
- Project phase: 2026-2033
- «Legacy phase»: 2034+

Planning – structure - international

- Interim IPY-secretariat
- IPY Planning Group
- IPY Executive Committee
- Task Groups
- Call for Int. Project Office / Secretariat

Further work - national

- National mobilisation and planning
- Norwegian ambitions and science priorities
- Norwegian roles in international coordination



What we expect during 2025

- **IPY Planning Committee (NPI+RCN)**
 - Mandate for the national IPY-secretariat and –committee
 - National IPY-workshop / webinar
 - International coordination
- **The National IPY-Secretariat**
 - Organisation and working mode
 - Permanent staff and gradual build-up from 2026
 - IPY-committee meetings and initiatives
 - Mobilisation, outreach and conferences
- **The Scientific IPY-Committee**
 - Scientific programme, mandate and activity plan
 - Composition and nomination of members
 - Working mode and kickoff in 2026
- **RCN budget proposals to Ministries**
 - Funding for the IPY-secretariat
 - IPY-calls and large-scale initiatives

Planning committee 2024-2025



Norwegian contribution, experience and Legacy from IPY 2007-2008

National IPY programme – from 2006

- RCN setting up a **4-year IPY Polar Research Programme (2007-2010)**
- **2 IPY calls:** Project applications total 120 MEuro
- Research projects (**28**) and Outreach/education projects (**22**) funded, total 30 MEuro.
- **All projects "endorsed"** av det international IPY-secretariat.
- **Data Management** and coordination in project DOKIPY
- «**Peoples Polar Year**» – a lot of smaller outreach and edu activities!

Funding

- **Total 35 MEuro** allocated to the IPY-programme
- **Ministry of Education and Research (330)**, Ministry of Climate and Environment (14) and Ministry of Justice (5) + own funding from institutes.
- Projects, website, smaller initiatives, outreach, administration, conference

Final work and conferences

- Norway hosted the **International final IPY-conference** in Lillestrøm, June 2010
More than 2500 participants.
- The **National final conference** organised in Tromsø, April 2011.

Legacy of IPY4

- **Centre-initiatives:** ICE-Centre (2009), Bjerknes Centre (2010), Fram Centre (2010)
- **Observations:** Barentswatch (2011), SIOS (2014)
- **Programmes and strategy:** RCN Polar Programme (2011), Policy for Norwegian Polar Research (2014->), Strengthening SSF-services
- **Research Infrastructure:** National Research Infrastructure Programme
- Increased **international cooperation** (22 of 28 projects with Russian participants..)



Legacy of IPY5 («Polar Decade»)

Ambitions, vision and what should be better this time

• Integrated Polar Observing System(s) of Systems

- Essential variables - EAV/EPV/ECV/EEVs, SAON Roads, EO/Copernicus <=> InSitu

• FAIR and CARE datasystems – that are !!

• Science to Policy (make use of the knowledge)

- Global assessments (IPCC, IPBES, SWIPA), Management plans, Town Hall Events, Policy briefings.
- Triple Planetary Crisis: Climate – Nature – Pollution

• Science to Society (understand the role of polar areas in the world and «words»..)

- General literacy on Tipping points, New paradigmas, All-Atlantic, Global couplings
- Society and people, Geopolitics, International law, Resilient societies, Green transition
- Researchers – Right holders – Local and indigenous knowledge – Stakeholders -> 2030-2050 Agenda

• Science for Research Diplomacy (promote peace, sustainable development and international cooperation)

- Arctic Strategies: Climate change – Sustainable development – International cooperation, Security and preparedness
- Scientific contribution to peaceful development – joint values – Hotspots - Arctic research agreement.

• Public-private partnerships

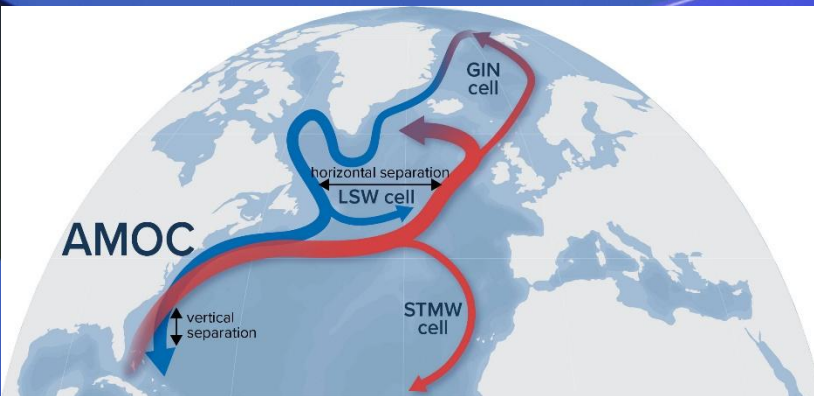
- Baseline Observing systems, SOOP, new operational services, technology and green/blue economy
- Ocean areal management, MPAs, Regulation and principles for decision making



Polar research: Addressing Large Environmental, Climate and Societal Challenges of Global Significance

North Atlantic Meridional Overturning Circulation (AMOC)

- Stability and fate
- Influencing climate, coastal ocean economy and people in Europe and the High North



Source: Foukal, N. and Chafik, L. (2024) 'Consensus around a common definition of Atlantic overturning will promote progress', *Oceanography* doi:10.5670/oceanog.2024.507.

Future Arctic Ocean

- Arctic Ocean 2050 – from white to blue
- Implication for Arctic ecosystems, geopolitics and industrial activities

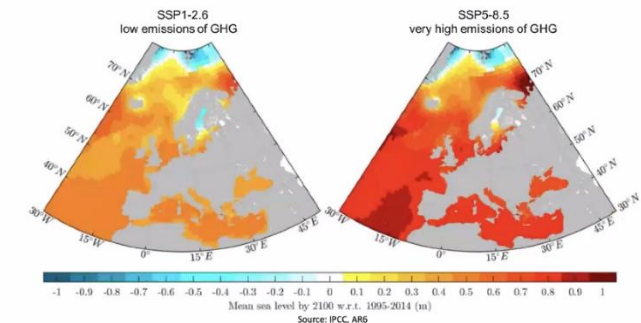


Source: Trine Lise Sviggum Helgerud/ Norwegian Polar Institute

Southern Ocean and the stability of Antarctic Ice Shelves

- Potential tipping points for ocean circulation, ecosystems and sea level rise

Past, present and future sea level changes

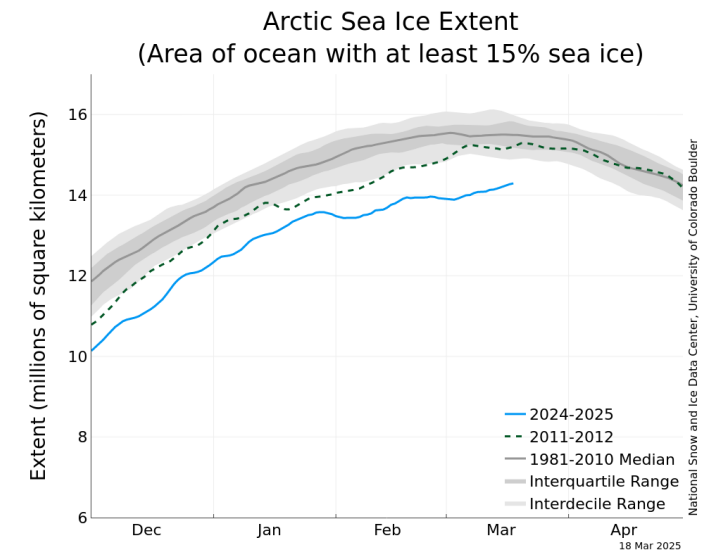
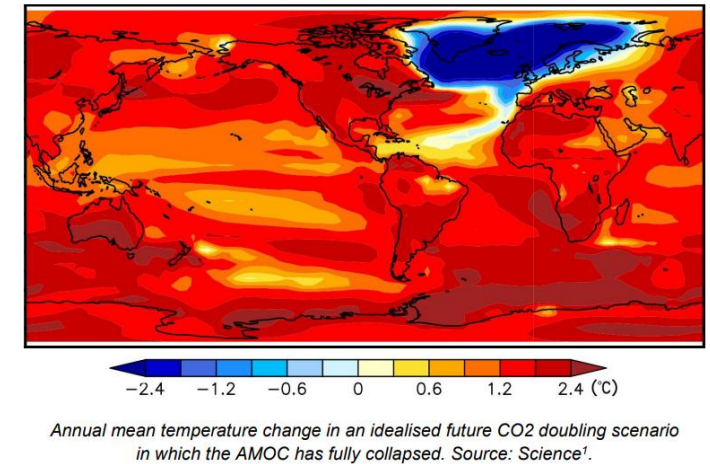


- Relative SLR throughout the 21st century over European Seas (except in the northern Baltic Sea and parts of the European Arctic : north / south gradient)
- Broadly in line with global mean projections, but with regional disparities
- ~40 cm under low emissions
- ~80 cm under very high emissions

Source: Melet et al.: Sea Level Rise in Europe: Observations and projections In: Sea Level Rise in Europe, 1st Assessment Report, Copernicus Publications (2024)

Motivation for IPY5 now: Addressing Large Environmental, Climate and Societal Challenges of Global Significance

- Stability and fate of the **North Atlantic Meridional Overturning Circulation (AMOC)** – influencing climate, coastal ocean economy and people in Europe and the High North
- Future Polar Ocean – from white to blue** – implication for Arctic ecosystems, geopolitics and industrial activities
- Strong need for **sustained polar and ocean observations and baselines** to monitor and forecast natural variability, speed of change, potential tipping points, extreme events and non-linear processes influencing the health and resilience of ecosystems, local and indigenous communities, economic development and the security and preparedness of ocean industries..



Research priorities towards IPY 2032-2033



Integrated European Polar Research Programme 2020



The EU-PolarNet White Papers 2020

Identification report of critical future research needs in the Polar Regions
20 TOPICS + 8 Large-scale Initiatives



European Polar Research Priorities



Evaluation of Norwegian Polar Research (2017)



Evaluation Follow-up plan (2020)

Draft Summary: Survey of Norwegian research priorities towards the next International Polar Year (IPY)

Draft Summary: Survey of Norwegian research priorities towards the next International Polar Year (IPY)

Introduction	1
About the survey	2
Research priorities	2
Research Needs (according to the EPFP)	3
1. Better understanding of climate change in the Polar Regions and its links to lower latitudes	3
2. Informed Weather and Climate Action	4
3. Resilient Socio-Ecological Systems	5
4. Empowering Communities in the Arctic	6
5. Challenges and Opportunities for Polar Operations	6
6. Inclusive Creation, Access, and Usage of Knowledge	7
7. Other research needs	7
Workshop 5 June 2023 on Zoom	8
Proposals received at the workshop	9
Better understanding of climate change in the Polar Regions and its links to lower latitudes (EPFP Research Need 1)	9
Inclusive Creation, Access and Usage of Knowledge (EPFP Research Need 6)	9
Informed Weather and Climate Action (EPFP Research Need 2)	10
Comprehensive study of human impacts on polar ecosystems	11
Challenges and Opportunities for Polar Operations (EPFP Research Need 5)	12
Additional materials	13

Survey of Norwegian research priorities towards next IPY (2023)



Havforsknings-tiåret
Forslag til nasjonal satsing



Norsk polarforskning
Forskningsrådets politikk for 2024-2033



IASC State of Arctic Science Report 2024



International IPY5-planning: Status after ASSW25 / ICARPIV

ICARP IV Research Priority Teams (RPTs)

- Draft RPT reports – comments during spring 2025 -> final reports in November 2025
- Publishing finale reports from ICARP IV: **ASSW March 2026, Aarhus**
- SCAR Horizon Scan Revisited (Strategy 2032-2028): **SCAR OSC August 2026, Oslo**

IPY International Project Secretariat (IPO)

- **Call for host** – some time during 2025 – structure, tasks and organisation not decided
- Considering **desentralised and coordinated services**
- The interim-secretariat at IASC now stronger with assistance from SCAR, ISC, Uarctic..

IPY international funding coordination:

- **Funding:** RCN active towards EU, ASFF, EPB and bilateral
 - **ASFF** - Arctic Science Funders Forum – IPY on the Agenda, Belmont Forum
 - **EU-FP10** – a Programme Level cooperation discussed for Polar research
 - **EPB/EPCO** – European Polar Board - international cooperation + IPY Action Group
- **Large Initiatives:**
 - **Arctic Ocean 2050** – on the IPY map
 - **Antarctica InSync** - Ocean Decade endorsed

Towards IPY5: Potential contribution and opportunities

Arctic Ocean 2050

2026+

- Initiative from large national consortium
- Central institutions that owns and operates FF Kronprins Haakon
- Own funding + funding from RCN

Antarctica InSync

2026-2027

- Un Ocean Decade project
- Initiative from national polar research institutions (AWI, BAS, NPI..)
- Plans involving ships and land stations

National IPY-calls

2028 + 2030?

- RCN competitive calls
- Arctic, Svalbard and Antarctica
- Can also be international, MoU, Belmont,..
- Networks, conferences, research schools?

Education and outreach

2026 ->

- Recruitment and education
- Communication and outreach
- Cooperation and involvement
- Equality, diversity and inclusion

Svalbard

2025 ->

- International coordination
- Svalbard Conferences 2025-2027-2029..
- RCN grants for field work and strategy work (AFG, SSG), SIOS access

Antarctica

< 2032

- New upgraded station at TROLL
- Use of the research infrastructure TONe
- Campaigns with FF Kronprins Haakon
- RCN-calls for Antarctic research, fields grants?

IPY5: Norwegian contribution and opportunities – some ideas to follow..

Norwegian roles in a decentralised international coordination:

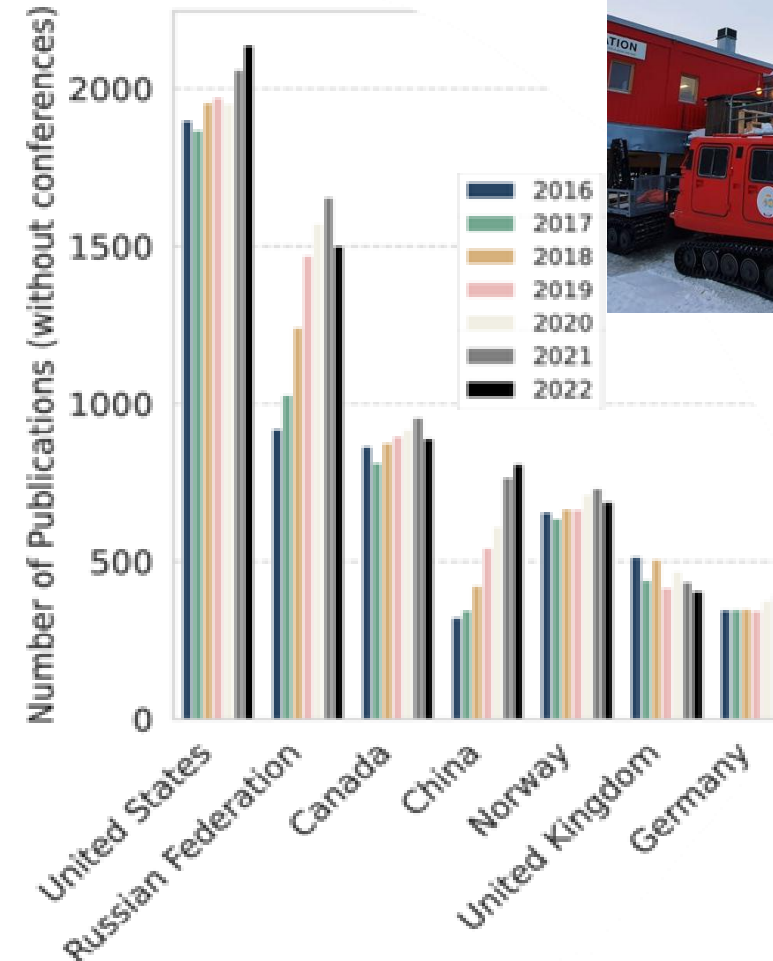
- **IPY-IPO:** Hosting the IPY International **Project Office/Secretariat**
- **IPY Final Conference 2035?**
- **EDUCATION and Networks:**
 - **Networks:** Hosting APECS under the «decade for polar sciences» (IPY5)?
 - **Platforms:** Svalbard as research and education platform for IPY5..
 - **Education:** Research schools, INTPART,
 - **Grants:** SSF AFG/SSG, EVENTS, Network, Communication&Dissemination
- **OUTREACH - «Peoples Polar Year»**
 - Educational programmes, schools, networks
 - A multitude of outreach activities, media, involvement
 - Science museums, art exhibitions, history, legacies

Some things to work out in 2025-2026

- **IPY IPO:** Endorsement process and coordination
- **IPY Committee:** Nomination + Science/Activity Plan
- **RCN Investment plans:** Calls for IPY projects and involvement
- **International coordination and Large Initiatives**

Motivation for IPY5: Norway - a Polar Nation

- **High priority** in Governmental strategies (Svalbard, Antarctica, High North)
Svalbard, a Norwegian platform for international polar research cooperation
- Almost **2000 polar research scientists** at around 40 univ. institutes, 30 institutes and 22 companies
- Advanced marine, atmospheric, landbased and space related **research infrastructure**
- Permanent all-year activities in **Antarctica and in polar waters (FF Kronprins Haakon)**
- **Historic traditions** from the Legacies of Nansen, Evensen, Amundsen, Sverdrup, Norwegian Polar Institute
- **Land areas, claims and historic commercial interests in both the Arctic and the Antarctic.**



Number of Arctic Scientific Publications by Country (Arctic Research Trends, Bibliometrics 2016-2022, Uarctic 2023)



A few take home messages - towards IPY5

- **Norwegian Government Decision 2024:** Norway shall start preparing a significant and visible contribution to the next 5th International Polar Year
- **Decade of Polar Sciences:** UN Decade of Ocean Sciences, Action for Cryospheric Sciences, Sciences for Sustainable Development, ..
- **National structure for IPY5 2026:** RCN + NP setting up an IPY secretariat and IPY Committee from 2026
- **Coordination and funding:** RCN working with own budget proposals + ASFF, EPB, EU-FP10 – securing funding for a coordinated and integrated Norwegian and European contribution – National, European and International **IPY5 calls** + coordination of **Large Scale Initiatives**
- **EDUCATION, NETWORKS and OUTREACH:** Peoples Polar Year, Young researchers



ARCTIC
FRONTIERS
SCIENCE

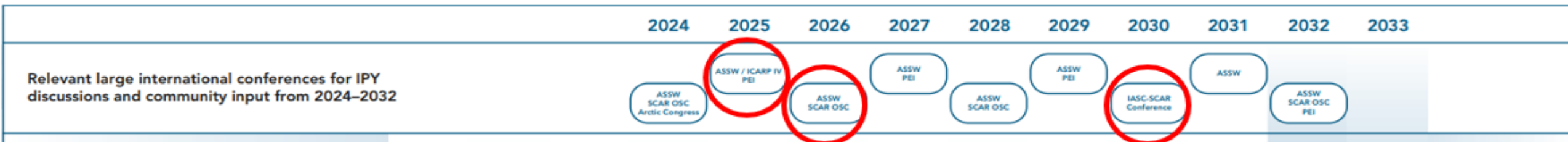
International Polar
Year (IPY) V:
Research, Data and
Science Cooperation

2025 ARCTIC FRONTIERS BEYOND BORDERS
27 - 30 JAN TROMSØ, NORWAY / DIGITAL





Conferences and involvement 2025 -> 2026:



- Arctic Frontiers – IPY Science Sessions + Round Table
Tromsø, 27-29 Januar 2025
- ASSW2025 + ICARP IV – Norwegian input to RPTs and IPY sessions:
Boulder, 24-29 March 2025
- Mini Antarctic Seminar (NP)
Online 7 May 2025
- IPY-WEBINAR – Information meeting
Online 18 June 2025
- Arctic Circle, IPY Side events
Reykjavik, 16-19 October 2025
- Svalbard Science Conference 2025 – IPY session
Oslo, 28-29 October 2025
- ASSW 2026, Aarhus – IPY, ICARP IV published reports
25-31 March 2026
- SCAR Open Science Conference 2026
Oslo, 8-18 August 2026
- IASC/SCAR Joint Open Science Conference
Incheon (South Korea), 2030

Idékraft verden trenger

