



Will IPY Leave a Legacy Of Continued Canadian Collaboration in Polar Science?

IP3
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This Presentation

- Explain where IPY is and where it is headed
- The IPY “Legacy”
- Describe strengthened and opportunities for new and critical Linkages and Collaborations

Please Interrupt Me if you have an Update-
Things are happening very rapidly

IPY has facilitated building Collaborations

Some of which may have
developed over time on their
own but probably not as
quickly!

IPY Status & Where To Next

- Now in the later half of Year 2 of the IPY Observational Period.
- IPY will officially close on March 1st 2009
- Several Projects and Programs will be ongoing since funding arrived late in many countries
- Officially 63 countries contributed
- *ACUNS & APECS Young Scientists Conference*- Yukon College October 2-5 2009
- *Final Results- Oslo Science Conference* - Norway, June 2010
- *Science & Policy Conference* - Canada, 2012

Remaining IPY Schedule

- Meta Data entry initiated by December 2008
- JC preparing *State of Polar Science Report* - February 2009
- February – March 2009: IPY Closing Events
- Last Polar Day- March 2009
- Joint meeting of Arctic Council and Antarctic Treaty Consultative Members in Washington D.C. - April 2009
- *“Proceedings of the IPY”* following Oslo Conference
- Proceedings will inform the 2012 Policy Conference

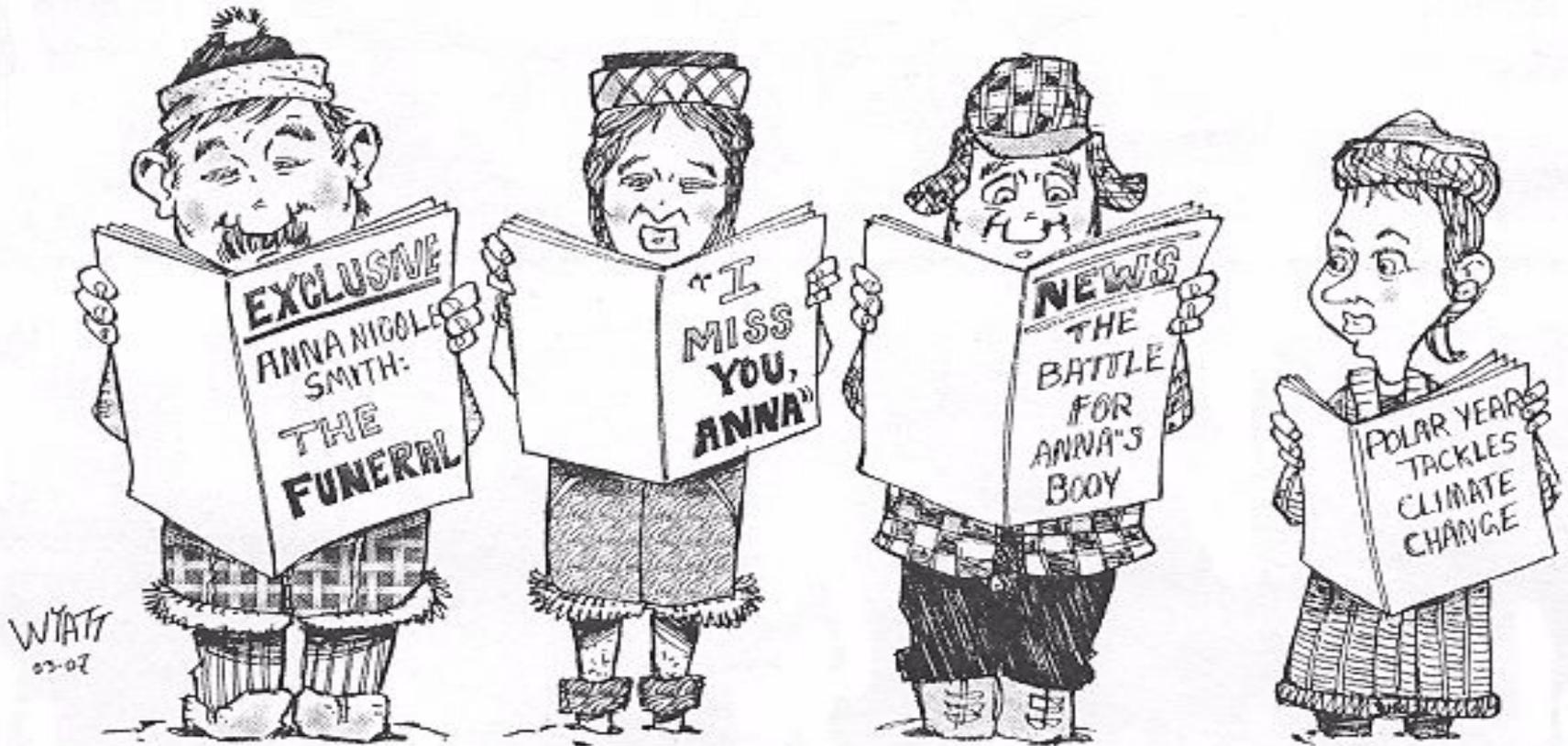
Joint Committee & National Committee

- International Joint Committee's last meeting will be in February 2009
- Canadian National Committee will finish in March
- Federal Program Office -2012 to manage federal dollars
- Mechanisms are being discussed as to maintaining key functions internationally and nationally
 - Potentially embedding in ongoing Programs
 - International Program Office

Did IPY Succeed? The Public

- The Public- The results of IPY science – not necessarily IPY has caught the public and media attention.
- Increasing recognition of the importance of the polar regions globally
- Polar regions and polar science have gained a new international prominence.
- Continuing media interest in science results
- Several media products will be emerging over the next 2-3 years which will continue to keep the polar regions on the agenda.
 - Example Polar Film Festival
- Has the Science Community learned something?- The importance of formal and informal Outreach.

Which Story Lasted? Who was Anna?



A More Scientifically and Polar Literate Public



Doug Urquhart

Research Community

- IASC and SCAR expressed a desire in St. Petersburg to keep many IPY activities, including Education & Outreach, functioning beyond 2009.
- New multi disciplinary and international collaborations
- “*Human Dimension*” and “*Life Sciences*” formally incorporated into IPY Science Programming
- Increased recognition internationally for *TK* and collaboration with people living in the arctic.
- Not just participation but Organization of the “*Next Generation*” (APECS)

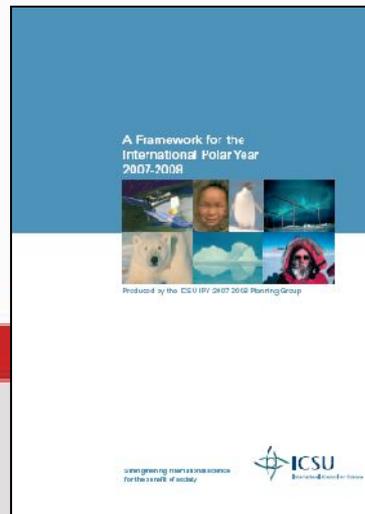
The “Bottom Up” Approach Worked and Exceeded all Expectations

OECD Has Studied IPY as an approach
of how to organize international science
programs

Collaboration within the IPY Themes

- Current Status of Polar Regions
- Change in the Polar Regions
- Global Linkages
- New Frontiers
- Polar Regions as Vantage Points
- The Human Dimension
(Human Dimension runs through ALL Themes)

Environmental Change Became a Unifying Theme



IP3 Is Also About Collaboration, Linkages and Not Just *Weird*

Acronyms

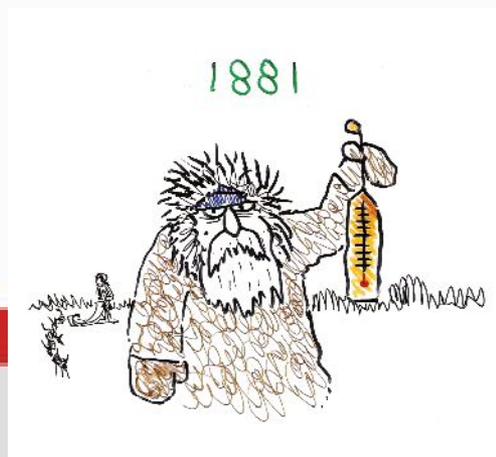
- Arctic Hydra
- Climate and Cryosphere (CliC)
- Arctic Freshwater Systems
- SAON
- WC2N

- Collaborations have and continue to developed “organically”!
 - Maybe Ice Patches Archeology etc.

Northerners

Compared to the involvement of Northerners in Past IPY's:

- More engagement, collaboration and in some cases even leadership.
- Appreciation that “Traditional Knowledge” contributes to Knowledge
- Increasing recognition by northerners including northern based scientists that IPY can open opportunities.



Doug Urquhart

But We didn't Achieve Doug's Vision of Full Partnership & Engagement



Doug Urquhart

The Polar Agenda

- Polar agendas and / or Arctic Agenda are on many Political agendas including non Polar Countries- China, Korea, **Malaysia**, **Portugal**, etc
- Polar Processes are seen as being linked to Global Processes and larger Global Issues
- The Arctic issues of transportation, natural resources and sovereignty are understood as requiring knowledge.
- Health and sustainability of northern communities- including economic, cultural well being and infrastructure

The Agenda led to International Results

- Closer working relationship between **IASC & SCAR**
- **63 Countries** Participating in IPY(and maybe more)
- Several non Circumpolar Countries looking for closer links to Arctic Council
- Association of Polar Early Career Scientists (APECS) & Permafrost Young Researchers Network
- Discussions about more formalized strategic international relationships- recently announced EU science funding calls and ERA Canada Initiative.

The Agenda led to Results in Canada

- Nationally Increased commitments
 - Northern programming, research funding (example- SSHRC)
 - Infrastructure - Icebreakers, Canadian Arctic Research Initiative (CARI)
- Territorial Government
 - 3 Territorial Premiers Northern Vision
 - Yukon: Yukon Cold Climate Innovation Cluster, Climate Change Centre of Excellence, Research Forest, Wildlife Preserve and increased funding in several science related programs.
- Discussions How to maintain the momentum of IPY, Arctic Net and many Arctic is very much on the agenda- SAON?
- Canada looking at more formal international collaborations (CARI)
- Maybe a Canadian National Arctic Research Committee -CNARC

Canada added \$150 Million for IPY to Its Total Contribution

- The allocation was not politicized
or criticized
- Seen by All as a Good News Story

Formal Assessment

- Canadian IPY Secretariat and the National Committee are conducting an Assessment
- Federal Government included IPY related questions in Public Survey on the north in 2007
- During the 2012 Conference we will need to consider Lessons learned for future IPYs

The IPY Framework

A Framework for the
International Polar Year
2007-2008



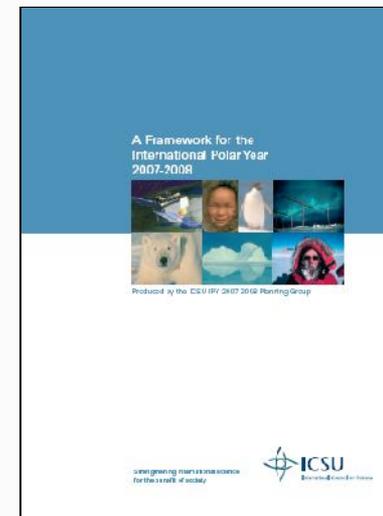
Produced by the ICSU IPY 2007-2008 Planning Group

Strengthening international science
for the benefit of society

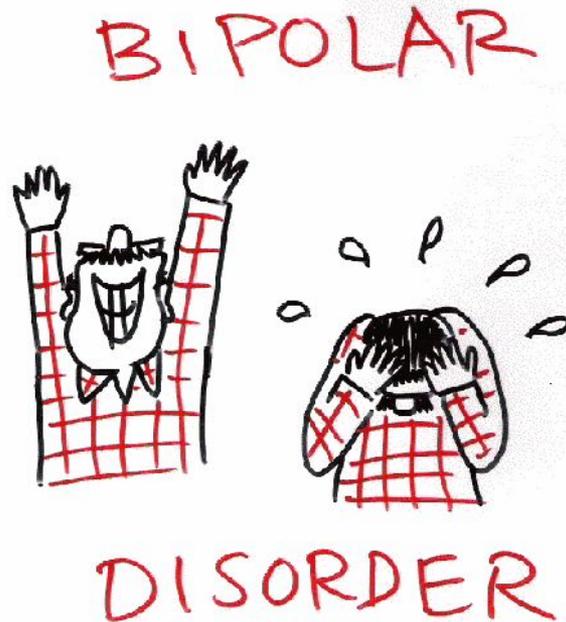


International IPY Objectives- Legacy Items We Will Be Judged On

- Observational Initiatives & the Science
- Open and coordinated Data Management
- Education, Outreach and Communications
- Future Generation of Polar Scientists
- Community Capacity
- Demonstrate and utilize New Technologies
- **Observational Networks** & New Infrastructure



Canada's Antarctic Science Engagement is Still Weak Though Canada Has Significant Economic Interests



IPY Legacy Items

- Sustainable Arctic Observatory Network (SAON) and Pan-Antarctic Observing System (PANTOS)
- Data
- Media and other Communications Products
- Infrastructure
- Next Generation

SAON

SAON

- Identified in IPY Framework and others documents as a primary objective of the IPY
- Salekhard Declaration
 - Arctic Council Ministers requested AMAP to cooperate with IASC others to create a coordinated Arctic Observing Network.
 - Endorsed as an IPY legacy by WMO & ICSU.
 - Representatives of 13 organizations formed the SAON Initiating Group
- Helsinki report being drafted
 - Tentatively will be available for “Arctic Change” in Quebec
 - Being Discussed by EU Parliament this Week
 - Arctic Council Ministers will take lead at Ministerial meeting in April
- All Documentation from Workshops
 - <http://www.arcticobserving.org/>

SAON: A Network of Networks

- Build on Existing Networks (for example)
 - Circumpolar Biodiversity Monitoring Network
 - <http://www.cbmp.is>
 - Fred Wrona led Arctic Freshwater Systems included
 - Global Cryosphere Watch
 - <http://clic.npolar.no/>
 - Arctic Hydrology Program (Arctic Hydra)
 - <http://www.arcticportal.org/arctichydra>
- Contributes to GEOSS
 - <http://www.earthobservations.org/>

IPY Legacy- Data

- Responsibility of PI's to comply with Data Policy and Conditions of Funding
- IPY Data and Information Service (IPYDIS)
 - <http://ipydis.org/>
 - Meta Data
 - Polar Data Catalogue
 - <http://www.polardata.ca:8080/polardata/login.ccin>
 - Data Warehousing
 - Include ICSU World Data Centres
 - <http://www.ngdc.noaa.gov/wdc/>
 - Federal, territorial and provincial archives
 - Your secure and accessible data archive
 - International Polar Year Publications Database
 - <http://biblioline.nisc.com/scripts/login.dll>
 - Canada AINA's ASTIS
 - http://www.arctic.ucalgary.ca/index.php?page=astis_database

Joint Committee Direction on Data

- Compliance with Data Policy condition of being part of IPY
- Communication from Joint Committee to National Committees to PIs, Funding bodies and Institutions

Data

- IPY Projects are Required to Comply with the conditions of the Data Management Policy- St. Petersburg
- Direction from Joint Committee
- Correspondence to PIs, Funders and Institutions
- Meta Data Systems such as the Polar Catalogue
- Secure and make data accessible

2007	2008	2009	2010	2011	2012
IDENTIFICATION					
		AVAILABILITY			
			PRESERVATION		
COORDINATION					

Legacy – Communications Products

- We are working to find “long term homes”
 - Digital Training Resource Library (DiTRL)
 - Arrange login through IPY Secretariat
 - <http://sunsite.ualberta.ca/Projects/IPY/>
- Exhibits, Films and other media
- Establishment of a formal Polar Artist Organization
 - <http://www.polarartists.com/>
- Film Festivals
- Pleasant “Surprises”

“Preserve the Polar Regions and Glaciers” 40 Nation Stamp Release



The Next Generation

- Canadian Youth Science Foundation
- Canadian Youth Steering Committee Time Capsule Project
- APECS
- University of the Arctic
- International Antarctic Institute
 - <http://www.iai.utas.edu.au/>
- Programs Focusing on Youth Engagement
 - Students on Ice
 - Students on Board
 - British Council- Cape Farewell

ACUNS & APECS National & International IPY Conference

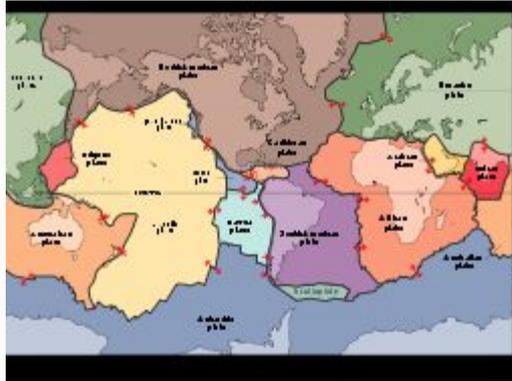
October 2-5, 2009

Yukon College

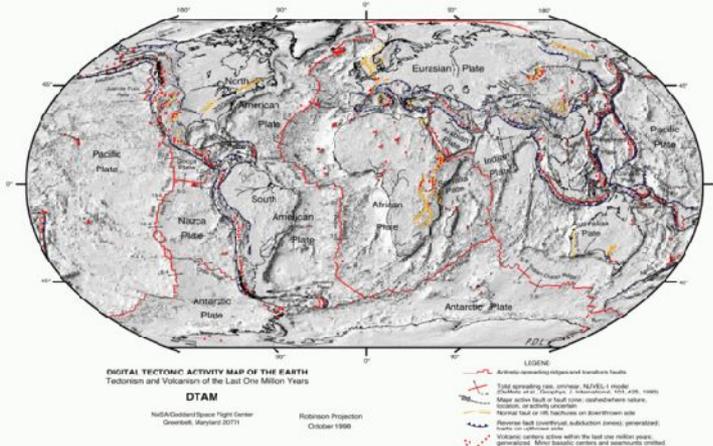
Spectacular New Knowledge?



IGY Data was Brewed Slowly

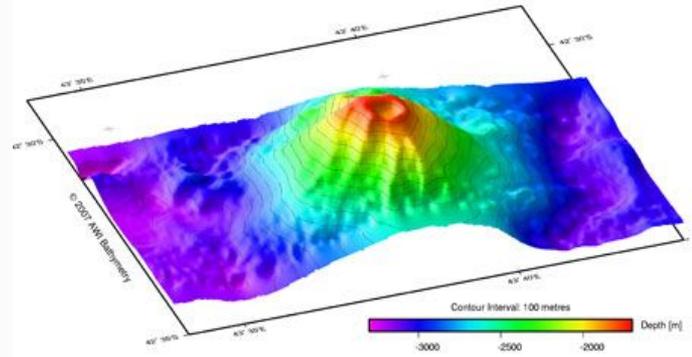


- 1912 Alfred Wegener-Theory of Continental Drift



- 1960's Tuzo Wilson et al. Plate Tectonics

There Have Been New Discoveries



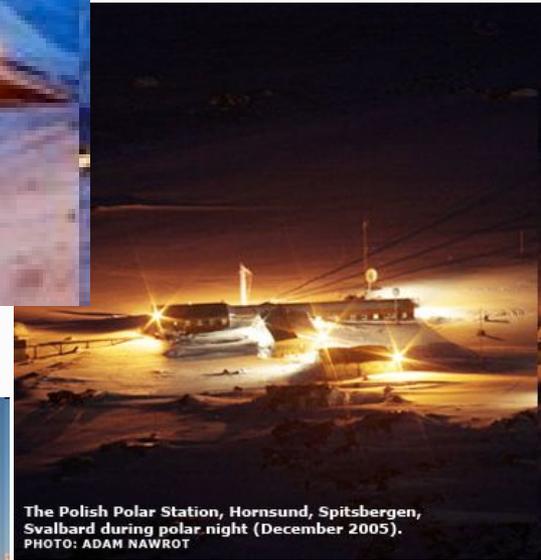
But What Will Be the New Universal Knowledge Product?

- Increased Understanding of the Processes driving Abrupt Change to Environmental Systems on Global Scales?

We Partnered With Others (& Learned From Them) -Opening New Doors

- International assessment of Canada's Canadian (High) Arctic Research Initiative (Institute)(Station) needs.
- Open invitation for more Canadian involvement- Example Scan Net, BAS, EU
- Experienced experiments like Svalbard

Svalbard Collaborations



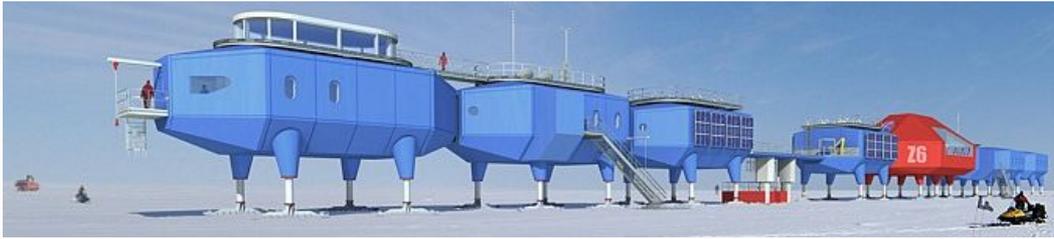
Polar Universities

- Canadian Institutions and the Canadian Government are active players in University of the Arctic
- Canada is the only circumpolar nation without an Arctic University
- Might this Change?
- We aren't involved in the International Antarctic Institute

Infrastructure

- Internationally
 - New stations, new networks, new ships
- Canada
 - Canadian Polar Commission Report on Research Stations
 - Canadian Arctic Research Station Visioning Document- Now Reviewed Internationally and by the Council of Canadian Academies
 - Promise of New Ship / Ships
 - IPY Federal Program \$\$s for small upgrades
- Territorial Government, Canadian Polar Commission, Universities and Institutes Strategies are all pursuing plans

The Innovative Antarctic. Can we Learn?



Halley VI, British Antarctic Survey



Princess Elisabeth Station, Belgium

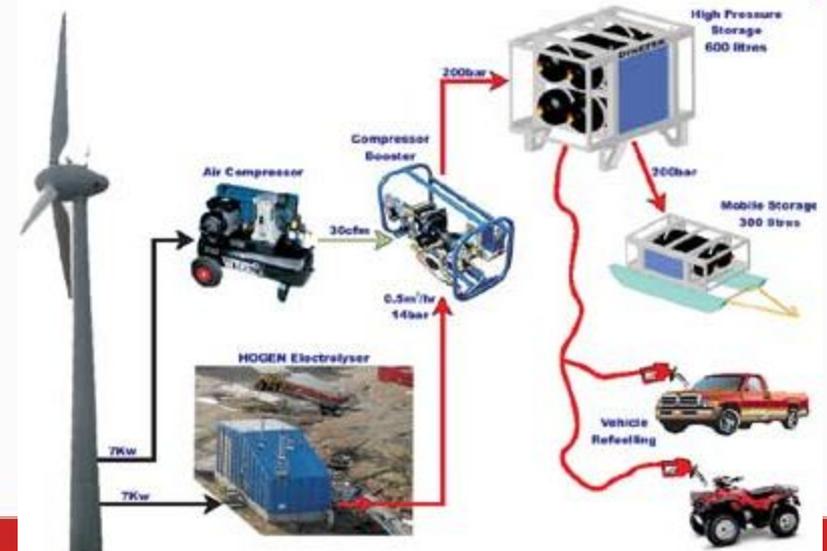


Neumayer Station III, Germany



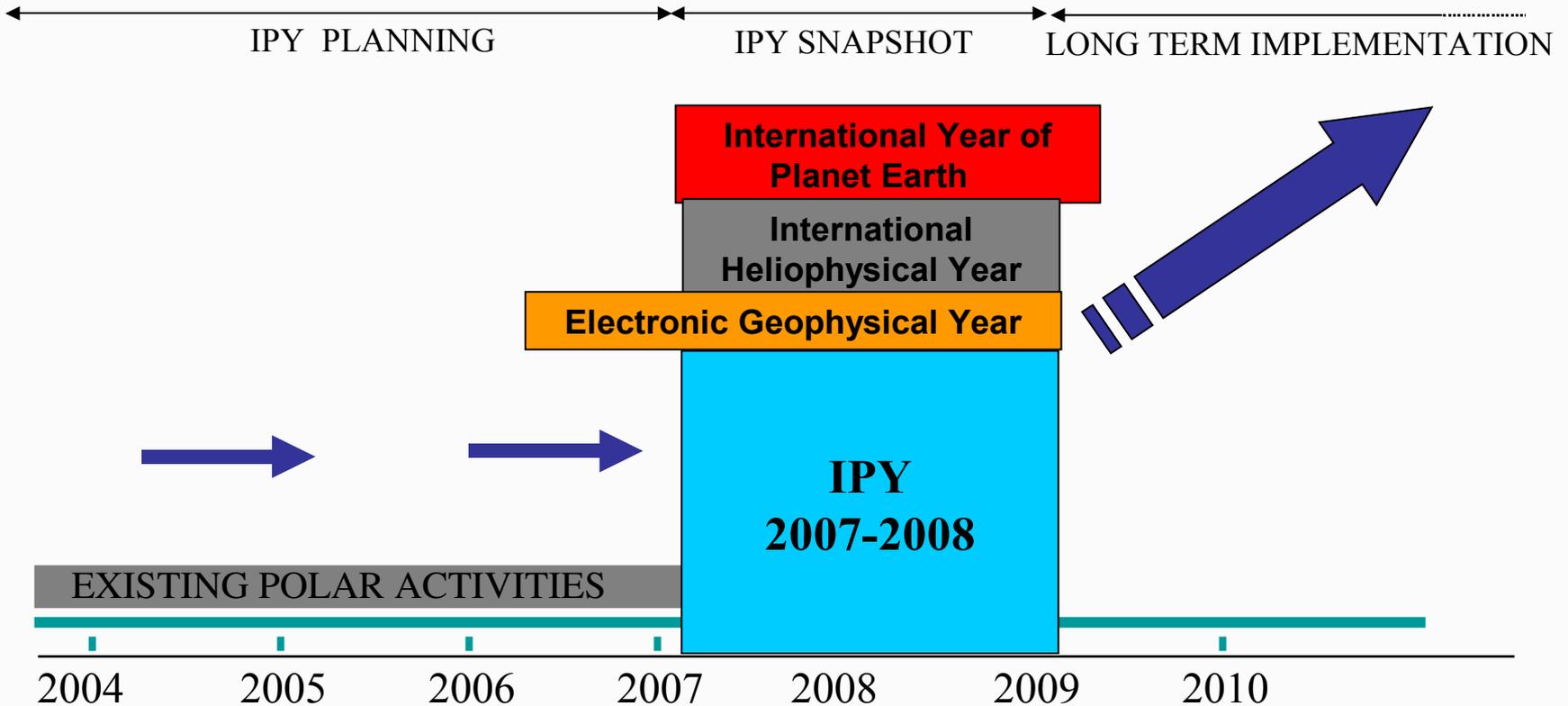


Dome C Concordia Station, France / Italy
Solar & Stirling Engine Energy Source



Mawson Station, Australia

The Legacy IPY Supporters Sought



Karl Weyprecht's Vision Just May Come True

“Polar Science is Global
Science”

&

No one Nation Can Afford to do
it all.





From the Canadian National Committee

Thank You for Your Contributions, Your
Support and Your Patience.

But we also Need Your Help to Secure the
IPY Legacy and Move Forward

