



The Financing of International Polar Research

Towards frameworks for enhanced coordination of Funding agencies in the post IPY Environment

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1. The Challenges of Post-IPY Funding environment
2. Provenance and normal baseline investments
3. Enhanced funding coordination and priority setting
4. Structural responses
5. Political Engagement and appropriation





- International Polar Research requires a scale of Funding and critical mass of resources beyond the level of Individual countries investment.
- The sustainability of funding in the post-IPY Environment to implement long-term science Partnerships (How do we resource AON, ICARP II follow-up?)
- The Legacy of enhanced funding coordination and dialogue between agency on priority setting and national investments. (Connection of strategic plans)



- The creation of the International Polar Year has generated strategic injections of funding additional to normal national polar programmes. (Political Pressure and Momentum)
- Estimates of global IPY investment have been initially placed at Ca. 1 Billion\$US* (normal global baseline 1.5 Billion \$US)
- Maintenance of a new post-IPY funding Horizon and required continuity of addressing research questions and constructing Observational infrastructure.
- The provenance of IPY funding is complex and needs to be assessed (sources and normal baselines)

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Funding agency coordination is especially critical when the Magnitude of a programme/infrastructure is so large That it requires a multi-national agreement and multi-year commitments.



Katim agabi Concordia (c) 2005

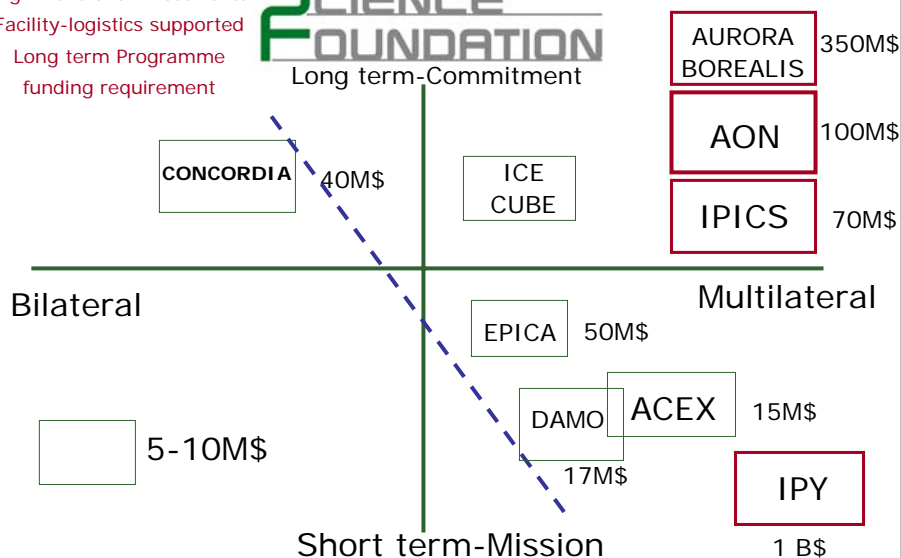
**EPICA 50Million \$
Investment by 10
European countries**

**CONCORDIA-
Construction of facility
Operation of join scientific
Programme**

**ICE-CUBE
High infrastructural-logistical
Front end investments**

*Common Feature
High front-end investments
Facility-logistics supported
Long term Programme
funding requirement

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Existing mechanisms and baselines of funding

1. National - agencies and authorities supporting competitive and thematic/strategic programmes
2. Regional- Regional groupings co-mingling (Nordic region)
3. Supranational (EU Framework programme and European Research council).
4. International-Intergovernmental (United Nations organisations)
5. Private



Political drivers to strategic investment and injections

Event or issue based investments (Eg; Tsunami/dramatic or unpredictable events-responding to

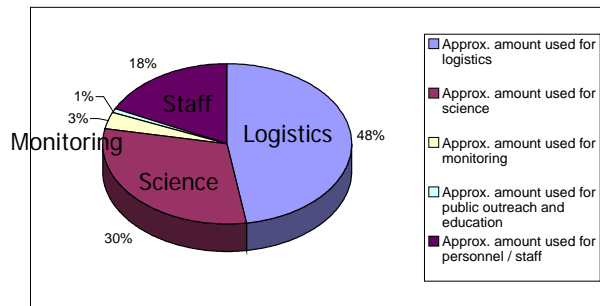
The funding is time-limited to initial high-investment Phase and several smaller pulses. The funding is Controlled and regulated according to the political Environment and public opinion.

Is IPY an event related injection? Importance of developing a Strategy for continuity and raising the baseline



The normal operating baseline in EUROPE for Polar Programmes

Strategic investments of 300M Euro per year across the 19 EUROPOLAR Countries * inclusive of the Russian Federation



*Data derived from survey of National Programmes by EUROPOLAR ERA-NET 2006



III IMPLEMENTATION OF CALLS

- Call identifier: *FP7-ENV-2007-1*
- Date of publication³⁰: 22 December 2006
- Deadline³¹: 2nd of May 2007 at 17:00, Brussels local time
- **Indicative budget: 200 million EUR from the 2007 budget**^{32 33}
- Topics called:

ACTIVITY/ AREA	TOPICS CALLED	FUNDING SCHEMES
ACTIVITY 6.1.		
Sub-activity 6.1.1. Pressures on environment and climate		
<i>1.1.1.</i>	<i>ENV.2007.1.1.1.1. Stability of the ThermoHaline Circulation</i>	<i>Collaborative projects (large-scale integrating projects)</i>

10 M Euro investment 2007 approx 5% total call



European Funding envelopes for IPY:

- Status as of end 2006 **170M Euro** of additional funding across the 10-12 European Major Polar operators
 (* including national commitments and recent EC Supranational Commitments plus IPY related infrastructural investments)

- Projected additional contributions during 2007-2010 period **112M Euro** (* includes pending FP7 applications research and infrastructural support)



The FY 2007 Budget Request for the Office of Polar Programs (OPP) is \$438.10 million, an increase of \$48.76 million, or 12.5 percent, over the FY 2006 Current Plan of \$389.34 million.

Office of Polar Programs Funding

(Dollars in Millions)

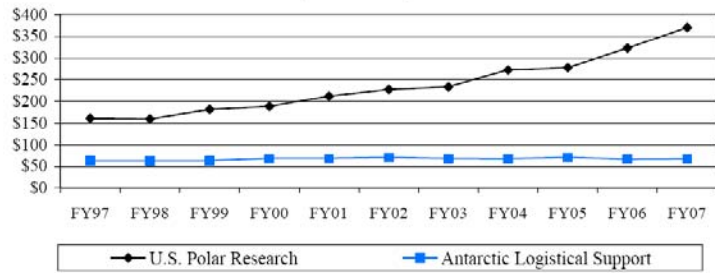
	FY 2005 Actual	FY 2006		Change over FY 2006	
		Current Plan	FY 2007 Request	Amount	Percent
U.S. Polar Research Programs	278.27	322.68	370.58	47.90	14.8%
U.S. Antarctic Logistical Support	70.26	66.66	67.52	0.86	1.3%
Total, OPP	\$348.53	\$389.34	\$438.10	\$48.76	12.5%

Totals may not add due to rounding.



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OPP Subactivity Funding
(Dollars in Millions)



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OPP NSF-wide Investments
(Dollars in Millions)

	FY 2005 Actual	FY 2006		Change over FY 2006	
		Current Plan	FY 2007 Request	Amount	Percent
Biocomplexity in the Environment	\$1.55	\$1.53	\$0.83	-\$0.70	-45.8%
Climate Change Science Program	10.50	10.50	10.50	-	-
Cyberinfrastructure	25.38	26.24	26.24	-	-
Human and Social Dynamics	-	0.20	0.20	-	-
International Polar Year	-	10.00	47.27	37.27	372.7%
Mathematical Sciences	0.20	0.20	0.10	-0.10	-49.5%



Coordination of funding agencies Post-IPY:

- Requirement for intelligent planning and dialogue over strategic investments (AON, Antarctic Climate Impact, etc)
High Front end Infra-structural/logistical investments
Longer term programme support
- Interconnected planning (multi-year commitments) needs a close liaison to prioritise
- International Polar Funding agencies venues for investment planning



EUROPOLAR ERA-NET an Operational Framework for Polar Funding and joint programme implementation



EUROPOLAR meets in Brussels

The European Polar Consortium (an EC FP6 Coordination Action) networks 25 Ministries and Funding agencies from 19 countries and complements the Strategic activities of the European Polar Board in launching joint polar programmes and agreements on Coordinating Polar infrastructures at the European level.



European
Polar
Consortium



The European Polar Consortium EUROPOLAR ERA-NET Major Operational Deliverables:

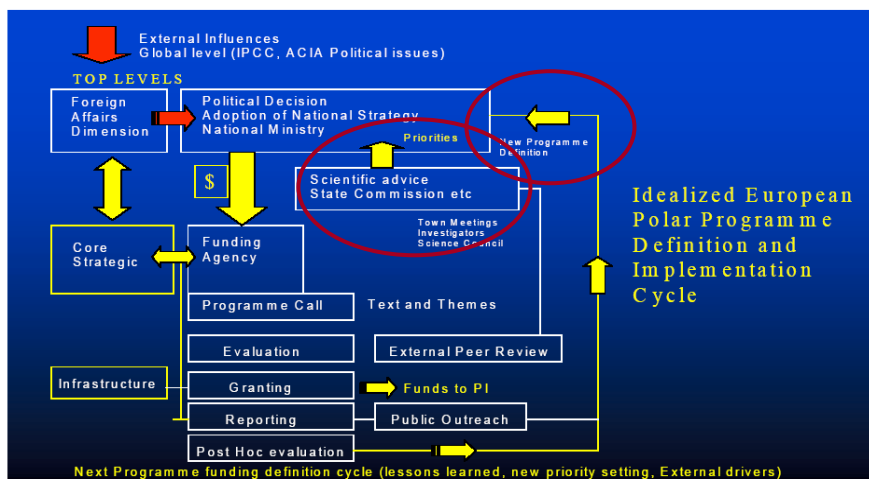
- The Development of [European Polar Programme Framework](#) operational environment for agencies to plan and operate systems of networking national funding and Infrastructures on programmes reaching a critical mass.
- [European Partnership in Polar Climate Science](#)
(Joint Calls from EUROPOLAR ERA-NET Partner countries) with Possible application for an ERA-NET + 2008/09 late/post IPY
- [European Partnerships in Ice Core Sciences \(Future Calls\)](#)
- [European Partnerships in Polar Frontier Science \(Future Calls\)](#)
(Astronomy and Astrophysics- Life sciences-Genomics)



Coordination of funding agencies Post-IPY structural responses:

- The concept of an International Polar Funding Framework (arising out of enhanced dialogue on strategic investments in the Polar Regions in the post-IPY Period)
- Mechanisms for funding prioritisation on initiatives requiring multi-national support (exceeding threshold)
- Assessment of legal or political barriers to enhanced funding coordination

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Funding is a major IPY legacy issue- it controls the future evolution of polar programmes in the post-IPY period – Increasingly the development of international partnerships (IPICS, Climate assessments, development of Pan-Arctic observing system) will require multi-year commitments and multi-lateral agreements.

Continuous Political engagement is crucial to ensure that funding appropriation for polar programmes is in line with the political/public environment- To develop foresight on the trends and threats to funding and develop strategies to ensure continuity and