



I programmi dello SCAR

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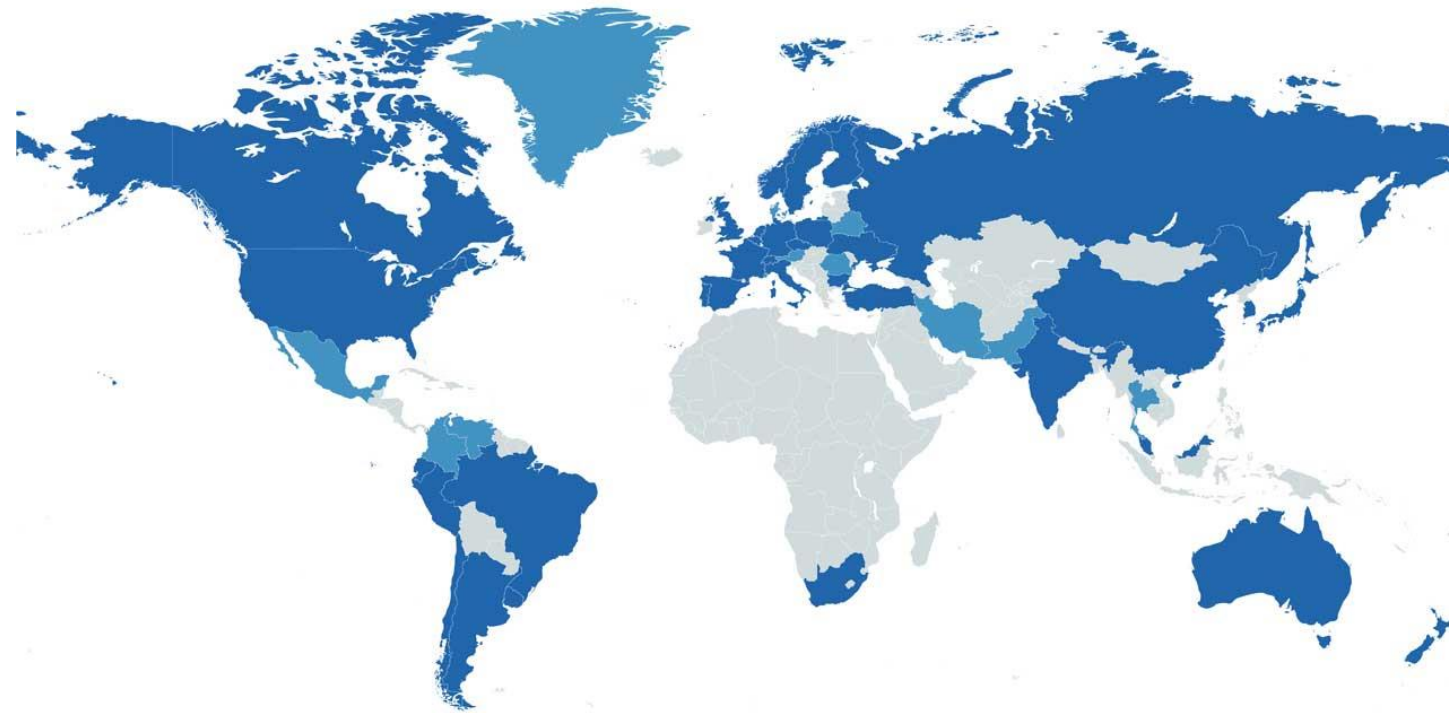
Workshop PNRA - 5-6 dicembre 2023
Programma Nazionale di Ricerche in Antartide
Una visione del futuro



The Scientific Committee on Antarctic Research (SCAR)



SCAR is a thematic organisation of the International Science Council (ISC), and currently includes 46 member countries (comprising 34 full and 12 associate members) and 9 ISC unions.



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Union members :

- International Astronomical Union (IAU)
- International Geographical Union (IGU),
- International Union for Quaternary Research (INQUA)
- International Union of Biological Sciences (IUBS)
- International Union of Geodesy and Geophysics (IUGG)
- International Union of Geological Sciences (IUGS)
- International Union of Physiological Sciences (IUPS)
- International Union of Pure and Applied Chemistry (IUPAC)
- Union Radio Scientifique International (URSI).

Full Members are in dark blue, Associate Members in lighter blue.



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Mandate of SCAR

- Initiating, developing and coordinating high quality international scientific research in the Antarctic region (including the Southern Ocean), and on the role of the Antarctic region in the Earth system.
- Provides objective and independent scientific advice to the [Antarctic Treaty Consultative Meetings](#) and other organizations such as the [UNFCCC](#) and [IPCC](#) on issues of science and conservation affecting the management of Antarctica and the Southern Ocean and on the role of the Antarctic region in the Earth system.

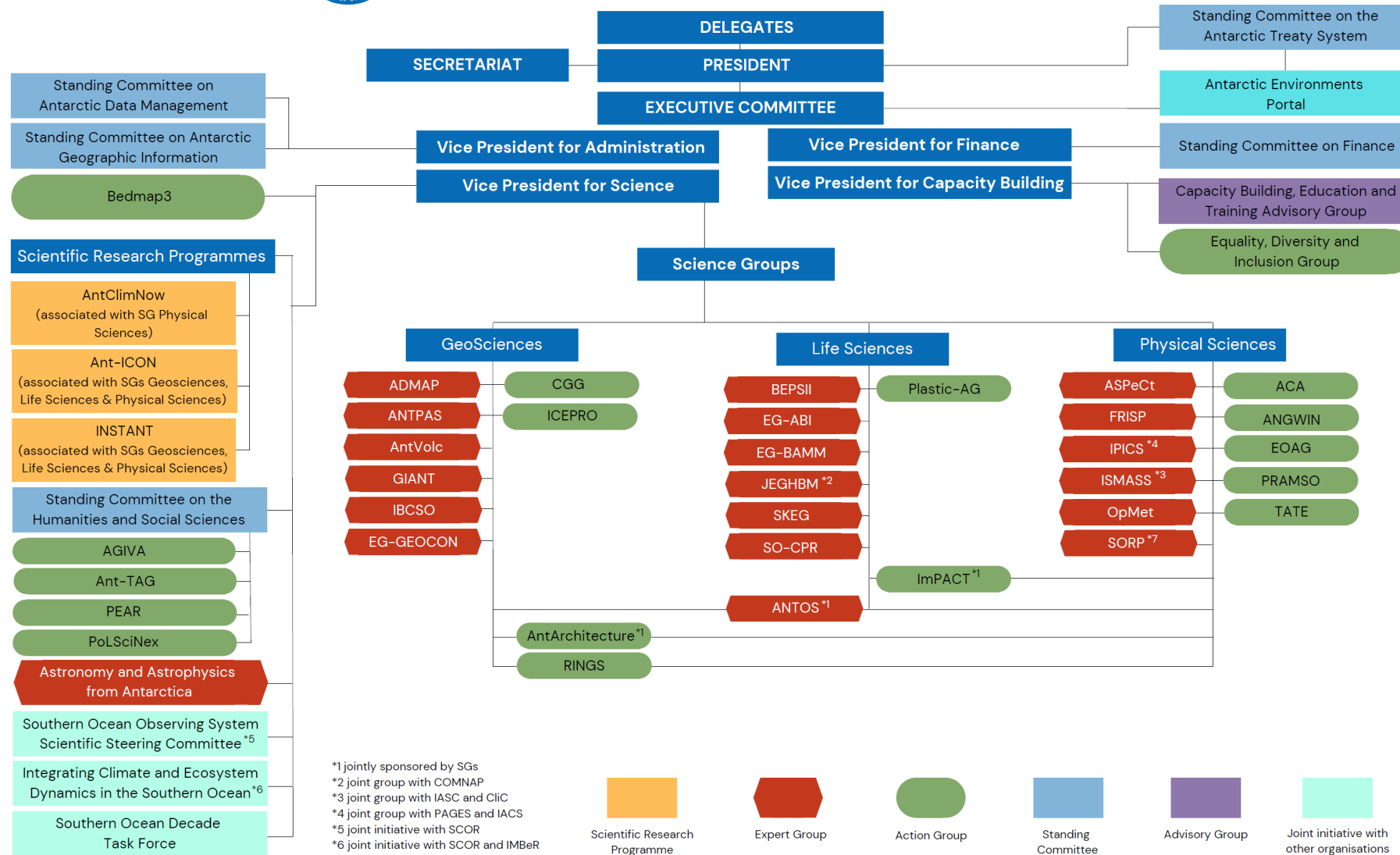
SCAR Organization



Note: Click on the boxes to be redirected to the respective group web pages.



The Organisation of the Scientific Committee on Antarctic Research (SCAR) (August 2023)



*1 jointly sponsored by SGs
 *2 joint group with COMNAP
 *3 joint group with IASC and CliC
 *4 joint group with PAGES and IACS
 *5 joint initiative with SCOR
 *6 joint initiative with SCOR and IMBeR
 *7 joint initiative with CLIVAR and CliC

Scientific Research Programme
 Expert Group
 Action Group
 Standing Committee
 Advisory Group
 Joint initiative with other organisations

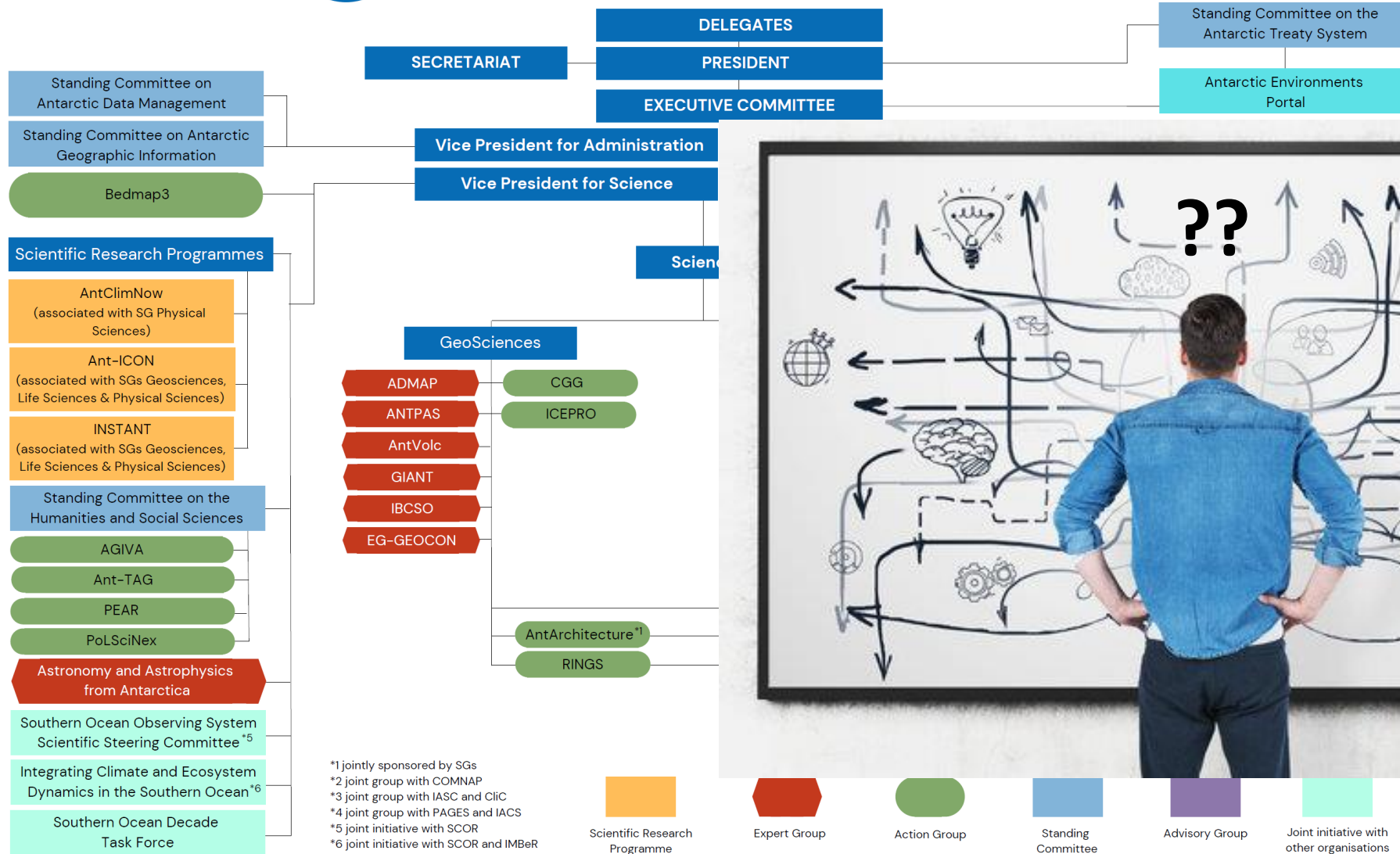
SCAR Organization



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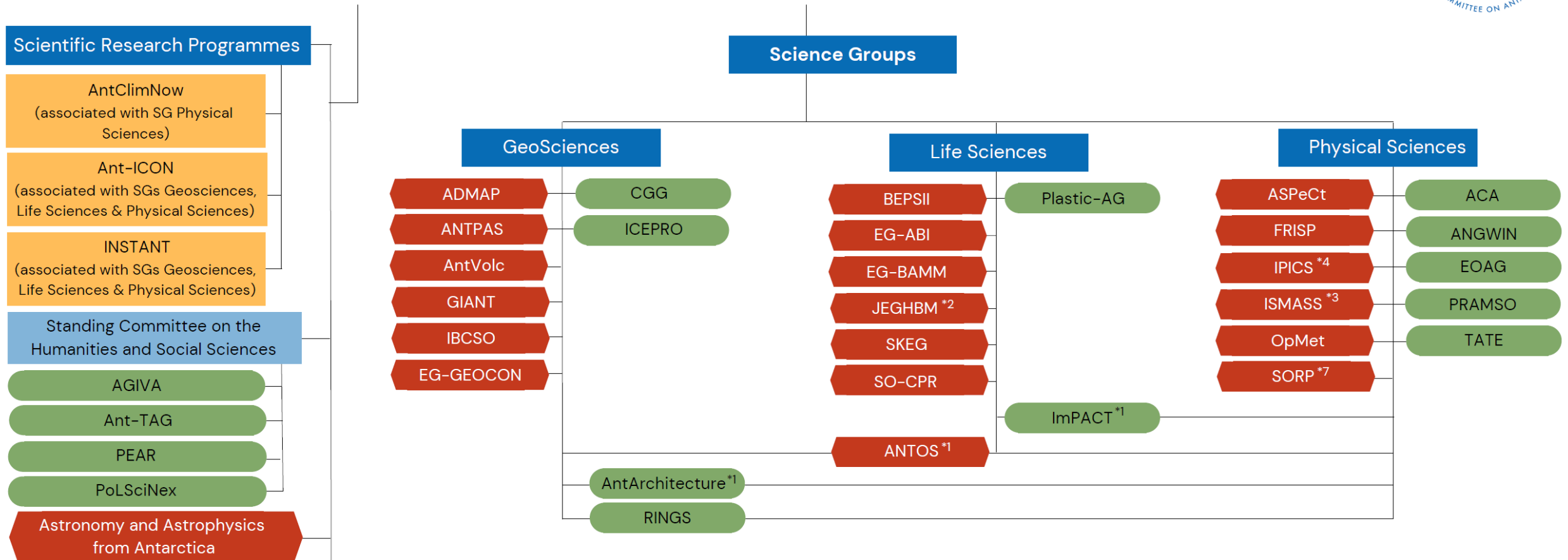
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SCAR Organization – Science Focus



temporary



Scientific Research Programme

permanent



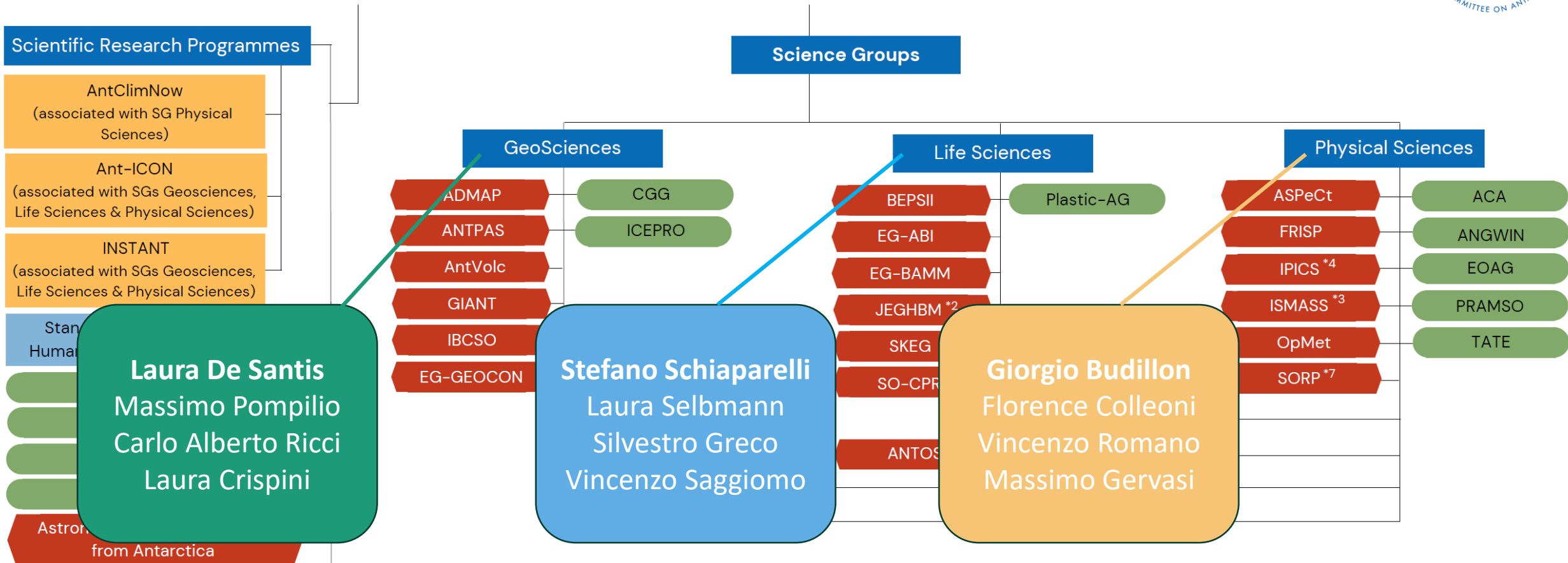
Expert Group

temporary



Action Group

SCAR Organization – Science Focus



temporary



Scientific Research Programme

permanent



Expert Group

temporary



Action Group

I Programmi Scientifici

SCAR focuses its science efforts on high priority topical areas through its Scientific Research Programmes. Three new programmes were approved by the Executive in 2020 and began officially in January 2021.



AntClimnow - Near-term Variability and Prediction of the Antarctic Climate System

Ant-ICON - Integrated Science to Inform Antarctic and Southern Ocean Conservation



INSTANT - INSTabilities and Thresholds in ANTarctica

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INSTANT - INSTabilities and Trends in ANTarctica

AGATA ANTARCTIC GEOSPACE AND ATMOSPHERE RESEARCH

The Antarctic Geospace and Atmosphere reseArch (AGATA) Programme Planning Group is a coordinated, worldwide effort to monitor, investigate and better understand the physics of the polar atmosphere and the impact of the Sun-Earth interactions on the polar regions.



AntClimnow - Near-term Variability and Prediction of the Antarctic Climate System

AntClim^{now} aims to answer fundamental science questions relating to Antarctic climate variability. The programme aims to take a regional approach to observing and modelling the Antarctic environment, but taking an integrated approach that will consider the Antarctic as a whole.

- **Theme 1.** Antarctic climate variability and its linkages to the global climate system
- **Theme 2.** Understanding present-day climate trends in Antarctica
- **Theme 3.** Predictability of the Antarctic climate system
- **Theme 4.** Global and regional cross-disciplinary impacts
- **Theme 5.** Communication of results to stakeholders

Committee

- Tom Bracegirdle UK Co-Chief
 - Ilana Wainer Brazil Co-Chief
- No Italian in the Committee
- Several Italian members



Ant-ICON - Integrated Science to Inform Antarctic and Southern Ocean Conservation

The Ant-ICON Scientific Research Programme aims to answer fundamental science questions (as identified by the SCAR Horizon Scan and emerging issues), relating to the conservation and management of Antarctica and the Southern Ocean. It will focus on research to drive and inform international decision-making and policy change.

Theme 1. Current state and future projections of Antarctic systems, species and functions,

Theme 2: Sustainability and impact mitigation of human activities in the Antarctic region and

Theme 3 Socio-ecological approaches to Antarctic and Southern Ocean conservation,

Committee

- Mercedes Santos Argentina Co-Chief
- Daniela Liggett New Zealand Co-Chief

- No Italian in the Committee
- Several Italian members



INSTANT - INStabilities and Thresholds in ANTarctica

The aim of **INSTANT** is to “quantify the Antarctic ice sheet contribution to past and future global sea-level change, from improved understanding of climate, ocean and solid Earth interactions and feedbacks with the ice, so that decision-makers can better anticipate and assess the risk in order to manage and adapt to sea-level rise and evaluate mitigation pathways”

Theme 1. Improved understanding of atmosphere-ocean forcing processes of marine-based ice sheet dynamics

Theme 2: Improved understanding of solid Earth feedbacks on ice sheet dynamics and regional sea-level variations.

Theme 3: Improved projections of Antarctic contribution global sea-level change – consequences and impacts.

Committee

- Tim Naish New Zealand Co-Chief
- Florence Colleoni Italy Co-Chief

➤ Several Italian members

SCAR - Strategic Plan 2023 - 2028



The vision :” to create a legacy for Antarctic science and knowledge that addresses a foundational requirement for discerning a path to a more sustainable future for our planet “

1. Promote SCAR’s leadership in science by strengthening and expanding high-quality, collaborative, visionary and societally relevant research through **international partnerships** while addressing urgent global priorities including climate change and biodiversity.
2. **Provide independent scientific advice** to the Antarctic Treaty System (ATS) and other international bodies in response to science and knowledge needs identified by policymakers.
3. **Encourage and facilitate unrestricted and free access to Antarctic research data and samples** in support of all the above objectives.
4. Enhance and expand research capacity in SCAR’s member countries, recruit new members, and encourage the **support of research that addresses the above imperatives**.
5. **Increase public awareness and understanding of Antarctic** issues and the essential roles Antarctica and the Southern Ocean play in the Earth’s climate systems.
6. Ensure equality, diversity, and inclusion (EDI) principles are applied to all of SCAR’s activities and actions, including SCAR’s management, structure, and the realization of its missions and vision.
7. Reduce the carbon footprint of all SCAR activities.

Future and near future



- SCAR OSC Conference – Pucon- Chile August 2024
- Bi-Polar meeting IASC-SCAR 2030 - preparation starts !
- IASC- SCAR - IPY 2032- 2033 – preparation starts !

