

2023 Overview: Bolin Centre funding and its contributions

Introduction: In 2023, the Bolin Centre provided crucial financial support to several institutions, including Stockholm University, KTH, and SMHI. This funding played a significant role in advancing climate science research, supporting a range of research positions, and fostering collaboration across different departments and institutions.

Financial support overview: The total budget for 2023 was approximately 21 million SEK. This funding was allocated as follows:

- KTH and SMHI: Each received around 2.1 million SEK.
- MISU, NG, IGV, and ACES: Each received about 2.05 million SEK.

Additional allocations included:

- IGV: Approximately 1.5 million SEK
- NG: Around 1.7 million SEK
- MISU: About 0.8 million SEK
- ACES: Approximately 3.8 million SEK for Directorate activities and salaries.

Bolin Centre funding supported over 50 positions across various affiliated institutions (mostly part-time), including PhD students, researchers, professors, and technical staff. This financial support contributed to salaries, facilitated climate research activities, and enabled cooperation across departments and disciplines.

Achievements and activities:

- **Climate Modelling:** Significant progress was made in climate model development, with focused efforts on the interpretation of model results and the attribution of extreme events.
- **Technological and methodological advances:**
 - Progress in atmospheric boundary layer modelling was particularly relevant for global climate models, enhancing our understanding of momentum budgets and their impact on global circulation.
 - Development of simulation codes and autonomous underwater vehicle navigation techniques.
- **Research output:** Researchers supported by Bolin Centre funding contributed to a substantial number of publications in 2023, advancing key areas of climate science.
- **Collaboration and international engagement:** The Bolin Centre's funding facilitated collaboration with international research institutions, participation in global climate research initiatives, and strengthened partnerships, particularly in atmospheric science and technology development.

Publications:

In 2023, researchers affiliated with the Bolin Centre contributed to approximately 400 publications. Members listed in our member base collectively authored around 700 publications during the same period.

The Bolin Centre Database:

The Bolin Centre Database is crucial in promoting research results and visualizing data. As of December 2023, the Database hosts appr. 390 datasets and several thematic data collections, along with interactive visualizations.

National Modelling Coordination:

Efforts are underway for potential national coordination of climate modelling by the Bolin Centre, aiming to streamline efforts and enhance collaboration across institutions for greater impact in climate research.

Conclusion:

The Bolin Centre's funding has been instrumental in supporting key researchers, enhancing research output, and fostering an active, collaborative research environment among climate scientists at six Stockholm University departments, SMHI, and KTH. This financial support is vital for sustaining communication between institutions and ensuring high-quality research, advancing key projects in atmospheric modelling and training future scientists in climate science disciplines.