




Global Biodata Coalition

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Global Biodata Coalition Highlights 2023





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GBC Strategy and Targets

The GBC published its Strategy and Targets for 2023 to 2026 to clearly articulate the actions it will undertake to advance long-term funding and sustainability of the global biodata resource infrastructure. It sets out the **key strategic goals** that will shape the GBC's work and the ambitious targets we will seek to deliver. Our approach is centred on collaboration, open data, and sustainable funding models to ensure that crucial biodata resources remain freely available and robust enough to support global life science and biomedical research.

Our strategic aims are:

Coordination and Support: GBC aims to act as a forum for funders of biodata resources, enhancing coordination and sharing strategies for efficient management and growth of biodata infrastructure. This includes developing principles and models for the coordinated funding of global core biodata resources.

Sustainability of Biodata Resources: The Coalition continues its focus on ensuring sustainable financial support for global biodata infrastructure, particularly through identifying and encouraging support for a prioritised set of Global Core Biodata Resources (GCBRs) that, as key nodes in the interconnected infrastructure of biodata resources, are essential for sustaining the broader biodata infrastructure.

Our key priorities include:

Expansion of Global Research Funding Participation: We are continuing our work to increase the involvement of global research funders in the GBC to broaden engagement and support for biodata sustainability.

Enhanced Cross-Funder Dialogue: We will promote better communication and cooperation among funders to support biodata resources and ensure their long-term sustainability.

Development of New Funding Models: Working with our member funders and the Global Core Biodata Resource Forum (GCBR Forum) we will identify and develop innovative models for cooperative cross-funder support of biodata resources.

Characterisation and Support for Biodata Diversity: We will work to characterise and engage a full and diverse range of biodata resources and funders worldwide in the work of GBC.

Our timeframe:

By 2026 we will have seen growth in:

Increased Funding and Sustainability: Achieved higher levels of funding and sustainability for GCBRs and the global biodata resource infrastructure.

Growth in Membership: Expanded our membership to include at least 15 global funders with broadened global representation.

We will have Advocated and Achieved Awareness: Raised awareness and secured widespread support for biodata sustainability through advocacy campaigns.

Developed Sustainable Funding Models : Piloted at least one new cooperative funding model in partnership with member funders.

Our strategic goals tie back to the GBC's two stated aims. In our efforts to **share approaches to the management and growth of the biodata infrastructure** we will support increased dialogue between life science funders and engage more funders in our work. Additionally, we aim to ensure sustainable financial support for the biodata infrastructure, working with both funders and resource managers to characterise the infrastructure and develop new cooperative funding models.



Photo credit: Jeff Dowling

Foreword

2023 marked significant strides in the consolidating of the activities of the Global Biodata Coalition as it establishes itself as **the convener of both life science funders and biodata resource managers**, working cooperatively to tackle the challenge of sustainability of the global biodata infrastructure. Our efforts towards improving dialogue and cooperation to support and sustain crucial biodata resources took us across the world, virtually and in person; we presented at scientific conferences and met with numerous stakeholders—funders, data resource managers, and standards organisations—to raise the profile of the GBC and its work and to better understand and characterise the infrastructure and the challenges it faces. Notably, we were pleased to be able to expand the body of **Global Core Biodata Resources** (GCBRs), crucial assets in the ongoing support of worldwide life science research, taking the number from 37 to 52.

Looking ahead to 2024, our focus is on the publication of a **white paper**, based on valuable input from our Board and Scientific Advisory Committee, Forum members and other respondents to our consultation. The paper will lay out innovative new sustainable biodata funding models for consideration.

Increasing our shared understanding of the impact of biodata resources will also be a priority, developing and sharing this information among funders and stakeholders will strengthen our case for increased, sustained funding support. We invite our members and stakeholders to join us in this critical endeavour, as we **forge a path to a more interconnected and resilient biodata funding landscape**.

Dr Guy Cochrane
Executive Director

Global Core Biodata Resources

About the GCBR Forum

The **Global Core Biodata Resource Forum** is an essential component of the Global Biodata Coalition's strategy to enhance the sustainability and effectiveness of biodata resources worldwide. The Forum's members comprise representatives from each of the Global Core Biodata Resources. The primary purpose of the GCBR Forum is to provide an interface with GBC member funders to identify, discuss and develop approaches to enhance sustainability of global biodata resources worldwide and to exchange experience and good practice around sustainability and other issues of key concern to global biodata resources across their life cycles.

The work of the GCBR Forum is crucial in developing coordinated support mechanisms among funding bodies, fostering an environment of shared knowledge and mutual support. This collaborative effort not only supports the maintenance of the quality and accessibility of biodata resources but also helps in setting benchmarks for best practices in data management and sustainability.

A Second Selection Round - new GCBRs added

A second selection round for the GBC's **Global Core Biodata Resources (GCBRs)** took place in 2023, representing a critical phase in strengthening the efforts towards achieving biodata sustainability. This round is built on the initial selection of **37 GCBRs** in 2022, identifying a further group of **15 key biodata resources** that are essential for the international research community. This second selection process, as for the first, relied on an international group of experts to evaluate resources based on their scientific impact, data quality, governance, and impact.

The GCBRs designated in the second selection round are :

- BAR: Bio-Analytic Resource for Plant Biology
- Bgee
- IUPHAR/BPS Guide to PHARMACOLOGY
- Catalogue of Life
- CATH
- Cellosaurus
- GSA: Genome Sequence Archive
- GXD
- Human Disease Ontology Knowledgebase
- Human Protein Atlas
- IMEx: International Molecular Exchange Consortium
- LIPID MAPS
- LPSN: List of Prokaryotic names with Standing in Nomenclature
- Planteome Knowledgebase and Ontologies for Plant Biology
- SILVA

The outcome of this selection process not only **enhances the visibility** of these key resources but also ensures that their respective resource managers add their expertise to the GCBR forum. The GCBR forum works on behalf of biodata resources to identify, discuss and develop approaches to enhance sustainability of global biodata resources worldwide and then communicates its findings to funders.

The GCBR Forum in 2023

The GBC actively works with and engages the GCBR Forum in delivering its work programme. During 2023, members of the GCBR Forum provided valuable input and feedback on the consultation papers developed by the **GBC Board Working Groups** on Sustainability and Open Data Strategies, and the GBC will actively seek input from the Forum in shaping white papers. A key focus will be to work with Forum members to identify and pilot new cooperative models to enhance sustainability.

The **GCBR Forum** has also formed a dedicated Working Group on Sustainability Indicators which will seek, during 2024, to define key elements of sustainability, helping biodata resources and funders identify potential risks and target funding support more effectively. Forum members are also actively sharing expertise and considering approaches and tools that biodata resources could employ to more effectively track global usage and demonstrate impact



Board Working Groups -

Consultation Outcome

The Global Biodata Coalition's recent open consultation with its stakeholders on the Sustainability and Open Data Strategies has produced important feedback that we will use to shape future work on these critical initiatives.

Sustainability Working Group Outcomes

The Sustainability Working Group's consultation revealed strong support for the **nine principles** it developed aimed at fostering cross-funder cooperation to ensure the long-term viability of crucial biodata resources. These principles **emphasise shared responsibility among funders** and the development of governance structures that align with funder interests and sustainability needs, without burdening users with costs at the point of data access. Feedback from the consultation supported a number of different, but not mutually exclusive, funding models and will be incorporated into a white paper.

Open Data Strategies Working Group Feedback

The **Open Data Strategies group** received positive feedback on its comprehensive coverage of the challenges and priorities for implementing funder open data policies. However, we have agreed to concentrate on ensuring that any new activities in the open data arena align closely with its core mission of advancing biodata resource sustainability. GBC will focus on participating in broader discussions led by other organisations rather than initiation of new and potentially overlapping initiatives.



Next Steps and Development of White Papers

The GBC plans a structured approach to its next steps in respect of the outcomes from the Board Working Groups. These steps reflect the GBC's commitment to not just sustain, but also to **dynamically enhance**, the global biodata ecosystem through cooperative, well-structured strategies that meet the complex needs of the research community and funding bodies alike.

Sustainability White Paper:

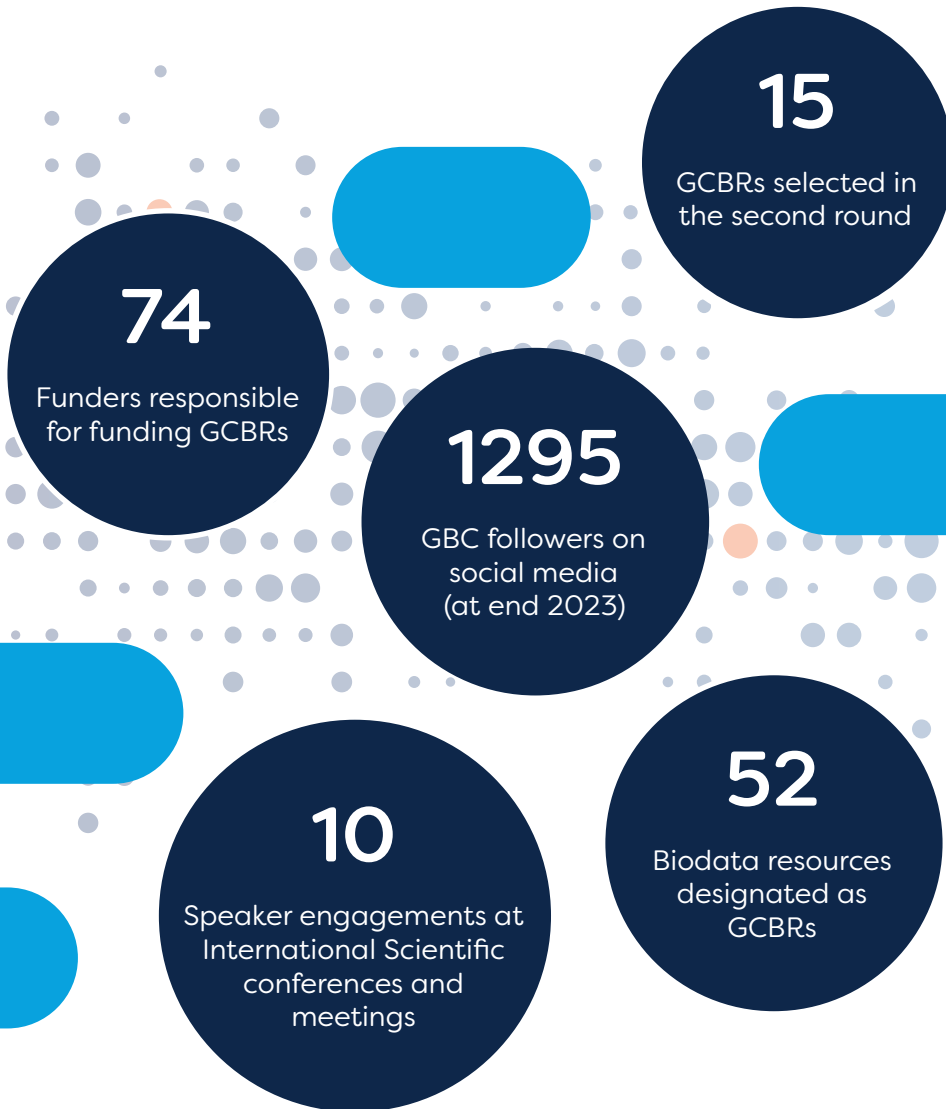
The White Paper is prioritised for development with a targeted completion within 2024, with the paper encompassing the refined strategies and models for sustainable funding, incorporating feedback from the recent consultations.

Open Data Strategies White Paper:

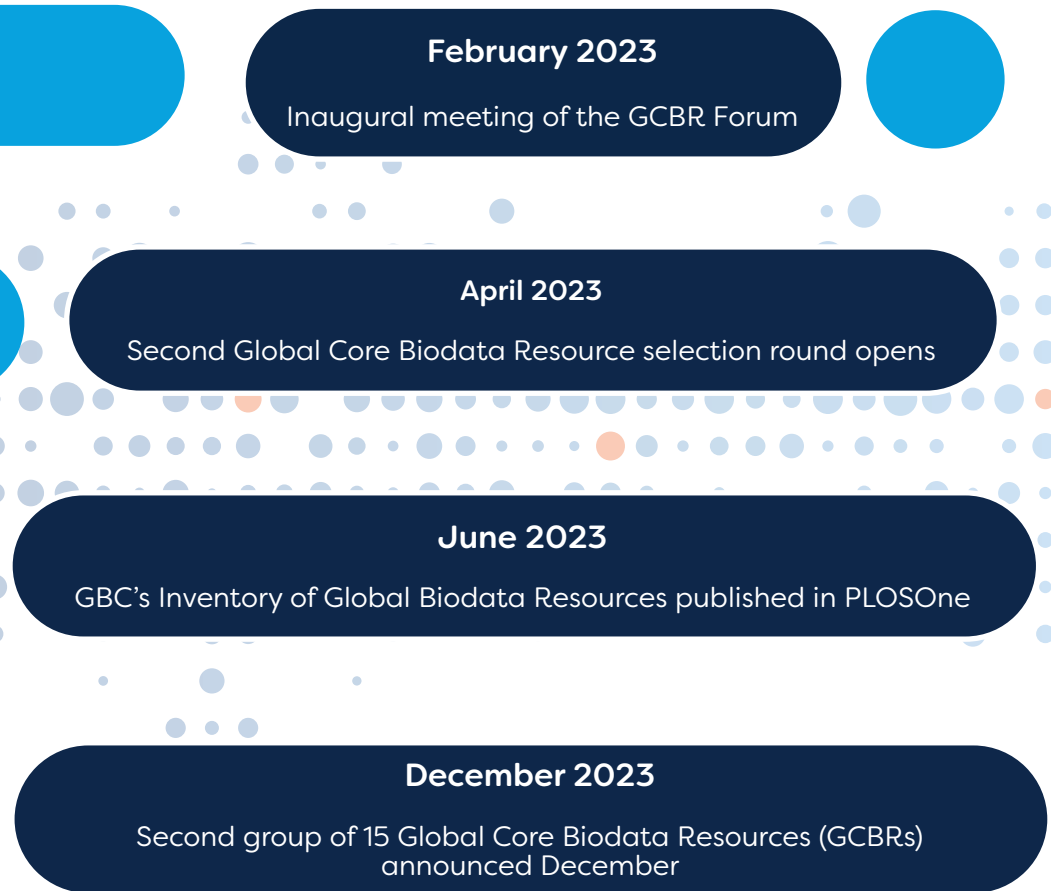
Scheduled for completion in Q4 2024, this paper will outline actionable strategies for enhancing open data practices, ensuring they integrate seamlessly with sustainability goals.

Both papers will undergo rigorous review processes, including feedback from the Board, the Scientific Advisory Committee, and the GCBR Forum, ensuring that a wide range of perspectives shape the final recommendations.

2023 in Numbers



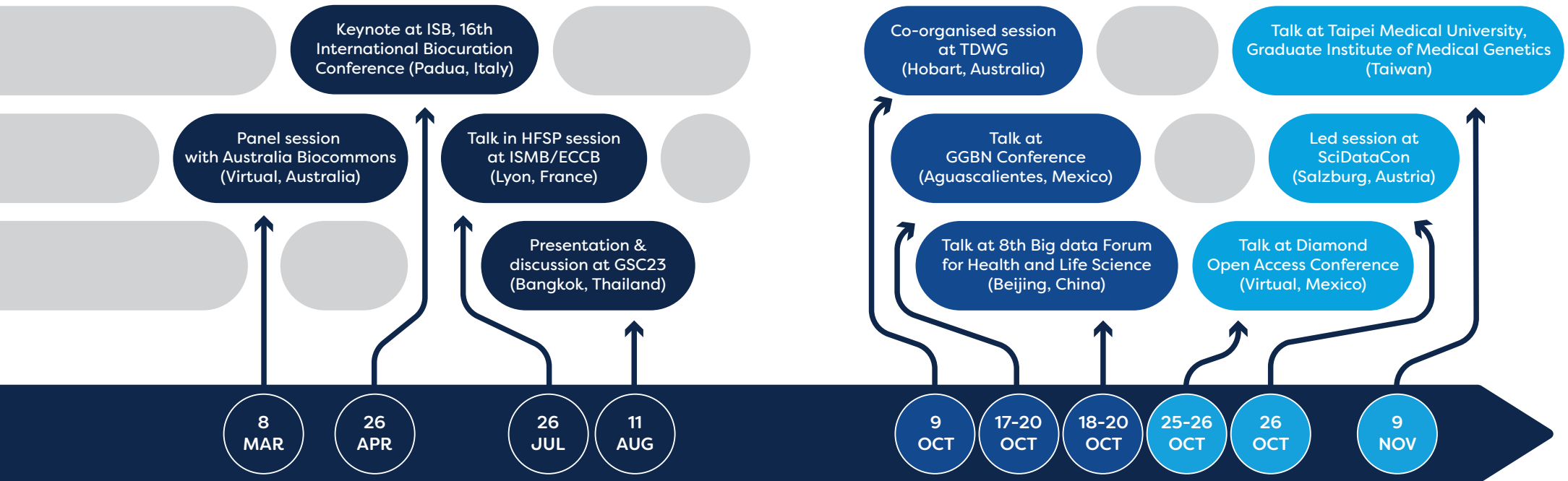
Highlights of the Year



GBC Around the World

The GBC's outreach programme, spearheaded by Executive Director, Guy Cochrane and Program Manager, Chuck Cook saw engagement with representatives of global life science funding organisations through bilateral meetings.

Additionally we continued to engage stakeholders through presentations at relevant scientific conferences and meetings and the convening of panel discussions around the world, both in person and virtually.



GBC in the News

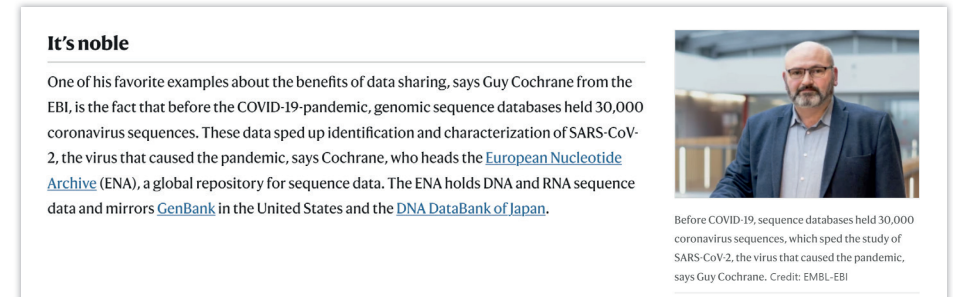
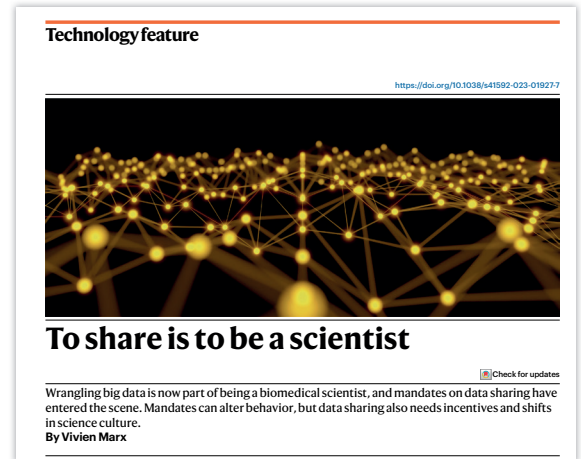
A number of important publications referenced the work of the GBC in 2023, bringing increased awareness of the GBC's efforts to unite funders and stakeholders in discussions about the sustainability of biodata resources.

A report commissioned by the **Food and Agriculture Organization (FAO) of the United Nations** on the role of genetic data in conservation and sustainability of agricultural and food resources makes specific mention of GBC as contributing to global efforts in sustaining open biodata resources.



FAO commissioned report, 2023

Nature Methods, June 2023



Nature Methods published a feature article in June 2023, examining the importance of big data and open data for life sciences in which GBC Executive Director, Guy Cochrane, describes the value of pre-existing, open biodata resources in understanding and developing treatments for SARS-CoV-2. The journal cites the three thousand plus biodata resources identified by the GBC's inventory of global biodata resources to emphasise the importance of the overall global biodata infrastructure.

Forward Look

2024 & Beyond

In line with its [Strategy and Targets 2023-2026](#), the GBC will continue to raise the profile of biodata sustainability through campaigns and advocacy, increasing awareness of challenges to sustainability and building widespread commitment from global funding and research organisations to addressing these challenges.

The [Open Letter campaign](#) will launch in 2024 and, with the support of many stakeholders from the biodata and wider research community across the world, the GBC will bring attention to the fragility of the global biodata infrastructure and the need for sustained funding and support.

The efforts of the [GBC's Board Working Groups](#) in the areas of biodata sustainability and open science will lead to the publication of white papers which will set out a path towards new cooperative funding models.

We will work with the fifty two Global Core Biodata Resources via the [GCBR Forum](#) to design and pilot new approaches for sustainability. Looking ahead to future GCBR Selection Rounds, we'll consider how the selection criteria can be extended to include biodata resources that operate controlled access models for sensitive data types.

The GBC will also provide a focus for gathering and disseminating [impact stories](#) from data resources around the world, detailing the ongoing challenges faced by resource managers in delivering open data to the world. We'll use these impact stories to draw the attention of the biodata funding community to the issues that require their collective attention.

The GBC plans to hold its first [Plenary meeting](#) in 2025, convening its many stakeholders — its member funders, observer organisations, those who lead and manage data resources, and industry representatives — to share progress and develop cooperative approaches to advance biodata sustainability.

GBC Members in 2023

We would like to thank our Members for their support for the establishment and ongoing development of the GBC.

- National Institutes of Health, USA
- National Science Foundation, USA
- Wellcome, UK
- SERI, Switzerland
- NHMRC, Australia
- Biotechnology and Biological Sciences Research Council, UK
- The Research Council of Norway
- Genome Canada
- Chan Zuckerberg Initiative, USA
- The European Molecular Biology Laboratory
- The African Academy of Sciences

Our Observers

- European Commission
 - European Research Council
- Institut national de la santé et de la recherche médicale (France)
- National Research Foundation of Korea
- South African Medical Research Council

In-kind Support

We are grateful for in-kind support for the GBC from :

- The Human Frontier Science Program Organization
- The Swiss Institute of Bioinformatics

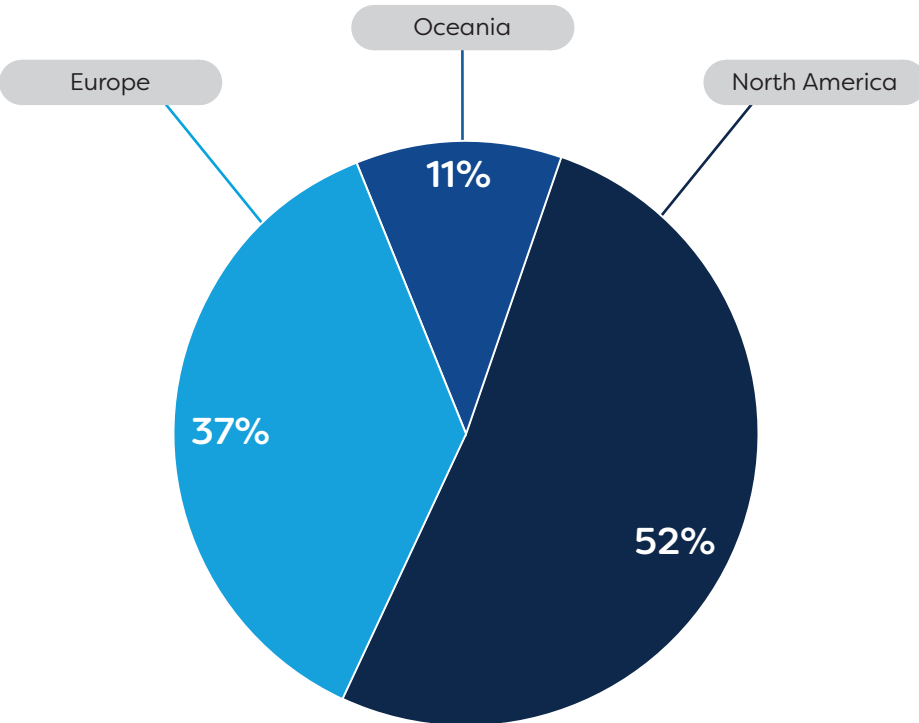
Financial Figures

Funding sources / Operating expenditure

Funding

Funding. The GBC secretariat is funded by contributions from its members who are public and charitable research funding organisations around the world. In 2023, 52% of our funding came from North America, 37% from Europe, and 11% from Australia.

GBC Annual Contributions by Region



Operating Expenditure

GBC's fiscal year is April to March. In the 2022-2023 fiscal year, GBC's total expenditure was €562,297. Of this, 80% was for support of the secretariat, 6% for external consultants, 11% for travel (including travel for staff, SAC members, and consultants), and 3% for legal services and administrative costs.

GBC Operating Expenditure 2022 - 2023

