

The Global Biodata Coalition

An overview

The Global Biodata Coalition—a vital mission

Scientists around the world are critically dependent on open biodata resources for their research. Spanning genomic, molecular, ecological, morphological and biodiversity data, biodata resources - databases that archive and analyse research data - number in the thousands. They are maintained across a diversity of institutions and supported by dozens of funders, forming an essential global infrastructure that allows researchers to share data and generate new scientific knowledge. The most actively used databases are accessed by millions of users each month.

Despite the indispensability of this crucial component of the life sciences, many biodata resources lack stable funding and are at risk. With no internationally coordinated plan to develop, maintain and sustain this infrastructure, it remains fragile and under threat. The Global Biodata Coalition (GBC) exists to address this challenge.

Working to safeguard the world's life sciences, biological and biomedical reference data, in perpetuity

As the volume and complexity of research data continues to grow at an unprecedented rate, research funding organisations have joined together through the GBC to secure essential biodata resources that underpin all life science, biological and biomedical research across the world. Foundational biodata resources form a globally distributed infrastructure that must be protected, maintained and secured to enable discovery and innovation by current and future generations of researchers in academia and industry.

GBC Membership

Our work is well underway thanks to financial support from our Members: the National Institutes of Health (US), the National Science Foundation (US), Wellcome (UK), the State Secretariat for Education, Research, and Innovation (Switzerland), the Biotechnology and Biological Science Research Council (UK), the National Health and Medical Research Council (Australia), the Research Council of Norway, the Chan Zuckerberg Initiative (US), Genome Canada, the European Molecular Biology Laboratory and the African Academy of Sciences; with in-kind support from the the Human Frontier Science Program Organization and Observer participation of the European Commission, Inserm (France), National Research Council of Korea and the South African Medical Research Council.

Letter of Understanding

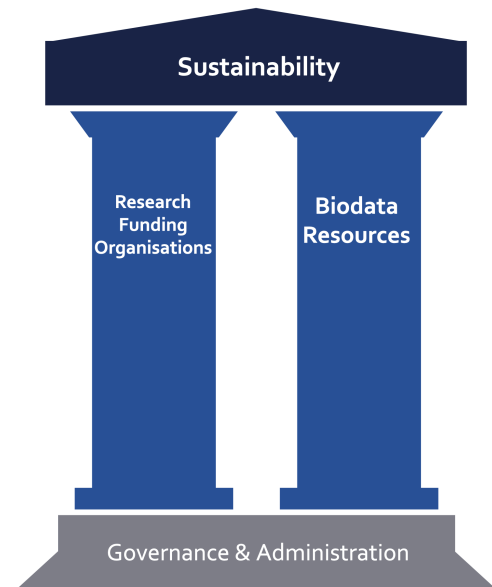
The [GBC's Members](#) are signatories to our [Letter of Understanding](#) and acknowledge that, to achieve their vital mission, the GBC must grow to include new members from a wide range of funding organisations. This includes not only funders at national government level and foundations with an international reach, but also commercial organisations working in, for example, drug discovery and agritech, as well as philanthropies, institutes and other academic bodies of differing sizes.

Working with Funders and Global Core Biodata Resources to build Sustainability

The GBC works with its two pillar communities—research funding organisations and managers of biodata resources—to characterise the global biodata infrastructure and develop, explore and implement cooperative models of sustainability. Some 52 foundational databases and knowledgebases have been selected as [Global Core Biodata Resources](#) (GCBRs), defined as being of fundamental importance to the wider biological and life sciences community and the long term preservation of biological data. They:

- provide free and open access to their data,
- are used extensively both in terms of the number and distribution of their users,
- are mature and comprehensive,
- are considered authoritative in their field,
- are of high scientific quality, and
- provide a professional standard of service delivery.

GCBR managers meet regularly through the GCBR Forum to work with GBC and its member funders on the development of new models for cooperative cross-funder support of biodata resources.



Global Inventory of Biodata Resources

An important component of the work of the GBC is the characterisation of the global biodata resource infrastructure and its components. The GBC's 2023 publication in PLOS 1, identified 3112 unique biodata resources using machine learning-enabled natural language processing approach. Read the paper [here](#).

Strategy and Targets

The work of the GBC is guided by and detailed in its [Strategy and Targets 2023-26](#) document and includes raising the profile of biodata sustainability through campaigns and advocacy, to secure widespread support and commitments from global funding and research organisations.

GBC Governance

The GBC is governed by a [Board of Funders](#), comprising representatives of its Member organisations, that oversees a distributed Secretariat led by its Executive Director, Dr Guy Cochrane. An independent [Scientific Advisory Committee](#) provides advice to the Board.

The GBC is supported by its Members, and its funds are managed by the Human Frontier Science Programme Organisation (HFSPPO).

Further information: <https://globalbiodata.org/>

Enquiries: info@globalbiodata.org