

Development of the GBIF Strategic Plan 2017-2021

GBIF is currently in the third phase of its operation, with a [Strategic Plan](#) covering the period 2012-2016, and an associated financial model for the same period.

In preparation for the next phase of GBIF's operation, the GBIF Secretariat has worked with the GBIF Science Committee and the GBIF Nodes Steering Group to prepare a set of five draft priorities for a GBIF Strategic Plan 2017-2021. These priorities aim to build on GBIF's progress to date and target the most important areas for GBIF to consolidate its activity and enhance the value of its products.

Central to these priorities is the recognition that GBIF exists to ensure that biodiversity information is available and well organized to meet the needs of researchers and of policymakers (**Deliver Relevant Data**). The most critical weaknesses in currently available data relate to the need to detect and respond to errors and inadequate detail (**Improve Data Quality**) and to the need to mobilize data from additional sources and regions to improve coverage (**Fill Data Gaps**). Achieving these aims will require GBIF and its partners to deliver a global biodiversity data infrastructure which will allow persistent management and improvement of all available knowledge (**Organize Biodiversity Knowledge**) and for GBIF to operate effectively in all regions to engage stakeholders everywhere and to enable them to develop their capacity to mobilize and use biodiversity information (**Empower Global Network**).

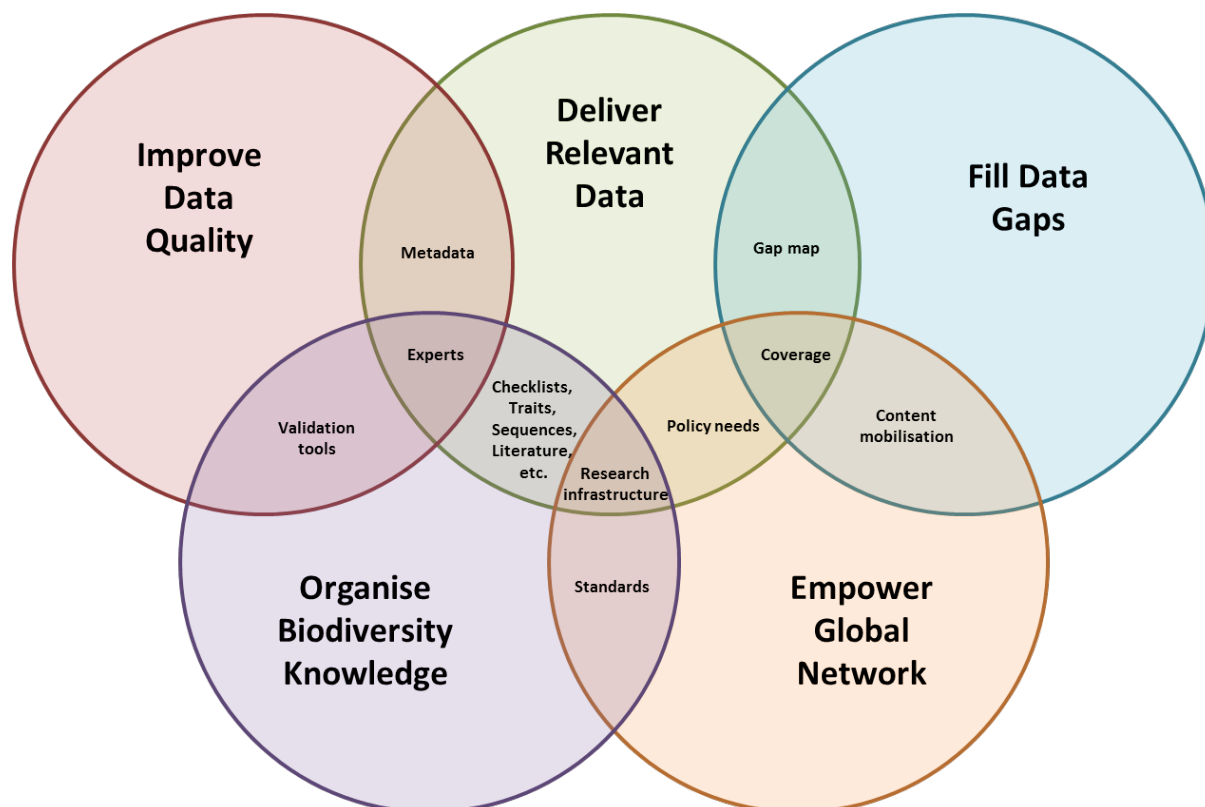
The present document sketches out the structure and outline of what we envision will be a concise statement of actionable priorities for the time period 2017-2021. The Secretariat will lead the further development of text based in part on stakeholder feedback as well as additional refinement and design of figures like the introductory diagram. For now, the intent of the diagram is to indicate the interlocking nature of the five proposed priorities and the need for GBIF to address and reinforce each of them simultaneously.

During 2015, GBIF is consulting with its Participants and other stakeholders to review and assess these draft priorities, with the aim of delivering a GBIF Strategic Plan 2017-2021 for review and approval at the GBIF Governing Board meeting late in the year. This plan will include assessment of the resource levels required to address the priorities, and the Secretariat will use it to develop work programmes for individual years within the five-year period.

The Secretariat welcomes stakeholder review of these draft priorities and requests that you [submit your comments using this form](#) to strategicplan@gbif.org by **Friday, 29 May 2015**.

In light of GBIF's commitment to open dialogue and transparency, all responses will be compiled and made available through GBIF.org. Stakeholders who wish their comments to remain anonymous should indicate this in their response.

Priorities for GBIF Strategic Plan 2017-2021



1. Deliver relevant data

Ensure that GBIF delivers data in the form and completeness required to meet the highest-priority needs of science and, through science, society.

a) Engage expert communities

- i) Engage taxonomic societies, professional researchers and amateur experts as partners in assessing and improving GBIF-mediated data
- ii) Define criteria for determining data relevance (elements, completeness, etc.) for key applications and domains
- iii) Develop mechanisms for community curation of taxonomic, geographic or thematic sectors within GBIF-mediated data

b) Deliver well-organized and validated data to support key applications

- i) Support supra-national research and inter-governmental policy needs, particularly through CBD, IPBES, GEO BON and IUCN
- ii) Provide data relevant to understanding and responding to the impacts of climate change on biodiversity
- iii) Ensure that GBIF serves as a tool for taxonomic research and for collection management

2. Improve data quality

Ensure that all data within the GBIF network are of the highest-possible quality and associated with clear indicators enabling users to assess their origin, relevance and usefulness for any application.

a) Enhance automated data validation

- i) Validate metadata for completeness and interpretability
- ii) Validate individual data records
- iii) Validate data sets as a whole (patterns, etc.)

b) Implement tools for expert curation

- i) Integrate and promote tools to annotate individual records and batches of records
- ii) Enable upload of cleaned data (“reference data sets”)
- iii) Improve communication with and support for data providers to address issues

c) Provide clear quality indicators for all data

- i) Improve metadata for all data sets explaining methods, provenance, transformations, etc. (“data stories”)
- ii) Provide metrics and filters for download of data subsets matching user criteria
- iii) Work with expert communities to develop reference data sets and/or filters for data suitable for key applications

3. Fill data gaps

Prioritize and promote mobilization of new data resources which combine with existing resources to maximize the coverage, completeness and resolution of data accessible through GBIF, particularly with respect to taxonomy, geography and time.

a) Expand checklists to cover all taxonomic groups

- i) Coordinate and deliver comprehensive solutions in partnership with Catalogue of Life and other partners
- ii) Target mobilization of checklists for remaining taxonomic groups
- iii) Mobilize national and regional species lists

b) Identify and prioritize gaps in spatial and temporal data

- i) Develop models and criteria to assess completeness and adequacy of existing data
- ii) Maintain “gap map” highlighting priority regions, taxa and time periods to fill gaps

c) Engage institutions and researchers with complementary data

- i) Ensure that tools and documentation support mobilization of data streams from all relevant research areas and observation systems
- ii) Enable GBIF Nodes to identify, engage and support all national holders of relevant data
- iii) Develop mechanisms to support data sharing from researchers and institutions in countries which are not yet GBIF Participants
- iv) Seek supplementary funding to support large-scale content mobilization

4. Organize biodiversity knowledge

Provide leadership, expertise and tools to support the integration of all biodiversity information as an interconnected digital knowledgebase.

- a) Coordinate vision and strengthen partnerships with major biodiversity informatics initiatives**
 - i) Develop and promote shared architecture to enable all biodiversity knowledge to be integrated and managed as a linked digital resource (“biodiversity knowledge graph”)
 - ii) Agree plans and secure funding to implement shared architecture in partnership with other major biodiversity informatics organizations
 - iii) Seek funding with partner initiatives to deliver a stable and efficient network of interoperable infrastructures connecting and maintaining all biodiversity knowledge
- b) Promote standardization and common mechanisms for exchange of biodiversity data**
 - i) Promote development and adoption of a comprehensive domain model, standards and vocabularies for biodiversity information through TDWG and other partnerships
 - ii) Provide leadership in development and adoption of standardized tools, data formats and vocabularies to enable mobilization and use of all biodiversity knowledge
- c) Provide stable and persistent data infrastructure to support research**
 - i) Implement and promote models and tools for persistent sharing and use of open data, including publishing tools, repositories, data licensing models, persistent identification, citation and tracking tools (the components that form [the “Culture” layer of the Global Biodiversity Information Outlook](#))
 - ii) Contribute to wider initiatives, particularly in the context of the Research Data Alliance, to standardize management and use of open data in research

5. Empower global network

Ensure that governments, researchers and other stakeholders are equipped and supported to share, improve and use data through the GBIF network, regardless of geography, language or institutional affiliation.

- a) Remove barriers to participation**
 - i) Engage with government stakeholders in all regions to expand national participation in GBIF
 - ii) Ensure that data holders everywhere have access to tools and support to publish and use data through GBIF
 - iii) Evaluate and respond to needs for delivery of data and data summaries in additional formats and through new technologies
- b) Address capacity needs**
 - i) Maintain current and complete guidance materials to support all types of data holder

- ii) Support capacity exchange and reuse of tools and expertise to accelerate establishment of national biodiversity information facilities
 - iii) Partner with other organizations, institutions and agencies to develop capacity in all regions
 - iv) Promote inclusion of biodiversity informatics training as part of relevant university and workplace education
 - v) Seek supplementary funding to support development of national biodiversity information facilities
- c) Internationalize tools and services**
- i) Develop networks within the GBIF community to translate key materials into priority languages
 - ii) Support development of national-level portals and tools to publish and use data