GLOBAL
BIODIVERSITY
INFORMATION
FACILITY

Report from the Task
Group on Financial
Sustainbility

GBIF towards Financial Sustainability

GBIF towards Financial Sustainability
Report by Task Group

Executive Summary

The Task Group strongly recommends GBIF to re-articulate its value proposition and mission: The Core Mission, to be a strictly apolitical global science infrastructure for biodiversity informatics, should be focussed much stronger and promoted as the identity of GBIF. The Supplementary Mission, to be manifested in a User Programme, should be primarily externally funded. GBIF should openly invite proposals to its User Programme and set up a mechanism to review and select the best proposals. The Task Group recommends that GBIF splits its activities in these two, clearly separated parts, one being the Core Mission and the other the Supplementary Mission.

We recommend that the GBIF Core Mission is funded with a small fixed amount paid by all Members, and a larger flexible and to GDP proportional amount paid by Members above a threshold of GDP/capita. For the Supplementary Mission, GBIF should have available a Matching Fund to be used for specific programmes/projects in the User Programme. GBIF should also make better use of outsourcing, secondments and in-kind contributions.

The TG recommends a modified governance structure with a new GBIF Council to replace the Governing Board. For science communication an Open Science Conference every second year is recommended. Further, a User Programme Board is suggested to decide on the content of the GBIF User Programme. We also recommend GBIF to continuously register its users and establish different User Groups for feed-back and support.

It is recommended that all member categories should contribute economically to the GBIF activities. Members are primarily states/gvmts or equivalent. Associate Members are national or international NGOs. We also suggest Financial Members. The Members have all a seat in the GBIF Council, while Associate Members have seats in GBIF User Programme Board. Financial Members do not participate in the governance but are invited to Open Science Conferences.

Lastly, the Task Group recommends GBIF to consider changing its name to Global Biodiversity Data Infrastructure to better reflect its core mission and provide clarity for a wider range of funders.

Recommendations:

1. The GBIF role as a strictly apolitical global science infrastructure for biodiversity informatics should be focussed much stronger and globally promoted as the identity of GBIF.
2. Split the activities of GBIF in two separate parts, the *Core Mission* being the global science infrastructure for biodiversity informatics and the *Supplementary Mission*, manifested in a User Programme.
3. Identify the extent and content of the GBIF Core Mission (Biodiversity Data Infrastructure) and estimate its annual budget (or alternative budget levels)
4. Revise Membership criteria: Members (states), Associated Members (NGOs), Financial Members and Alliances (partners)
5. Establish a new funding mechanism for the Core Mission where every Member contributes to its budget with a small fixed component (ca 5000 Euro) and the remaining budget is shared in principle according to GDP (except countries below a certain GDP/capita)
6. Establish a funding mechanism for the administration of the Supplementary Mission (User Programme) based on contributions from Associated Members.
7. Establish a new mechanism to invite, review and select proposals for Programmes and Projects (for the GBIF User Programme) according to criteria decided by the Governing Board.

8. Revise Governance and substitute Governing Board with a GBIF Council as highest decision level where only Members are represented. Introduce a new User Programmes Board to overlook review processes and decide on Programmes and Projects.
9. Review the MoU to see what changes are required.
10. Consider changing the name of GBIF to Global Biodiversity Data Infrastructure to better reflect its core mission and provide clarity for a wider range of funders.

Contents

1 GBIF Mission and Finances

1.1 The GBIF Service Benefit

As a premier biodiversity information source of the world, GBIF provides data, support for standards and tools development, and a global network with a common philosophy for sharing biodiversity data and tools. We call this the *GBIF Core Mission*. And as GBIF continues to grow and provide more data of high scientific quality and quantity it will increasingly be recognized as a major global scientific resource. How GBIF provides its data is important to its mission and cost. Whether it is totally open access free of charge or in some way restricted depending on membership are options. Open access does not necessarily mean free of charge.

GBIF has also undertaken a number of other activities that are *additional* to its Core Mission. These activities have all so far been funded by the GBIF general budget.

1.2 The GBIF economic situation

GBIF has 56 participating countries with 32 as paying participants with voting rights. Since 2006, the budget process is activity driven, i.e. budget is a consequence of the agreed Work Programme.

GBIF has a 5-yr planning cycle for its Work Programme and budgets are constructed to cover this 5-yr period. Starting at the end of the 2007-2012 Work Programme-cycle, payment shortfalls began to have serious negative effects on the ability of GBIF Management to execute the agreed-upon Work Programmes. For the first year (2012) of the 2012-2016 WP-cycle GBIF only received 64% of its anticipated budget. As a consequence, major parts of the agreed-upon Work Programme could not be started.

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Table 1: Budget to fund agreed Work Programme for the 2007-2012 WP-cycle and the beginning of the 2012-2016 WP-cycle.

	2007	2008	2009	2010	2011	2012 (prel)
Decided Budget	3081	3543	3839	4117	4364	3526
Received by end of financial yr (kEuro)	2258	3414	2923	3006	4000	2254
Received by end of financial yr (%)	73	96	76	73	92	64
Received after financial yr (kEuro)	823	120	820	967	8	0
Received after financial yr (%)	27	4	22	24	-	-
Total received of expected budget (kEuro)	3081	3543	3743	3973	4008	2254
Total received of expected budget (%)	100	100	98	97	92	64

Table 2. Payment discipline. According to agreement, membership payments should be with GBIF by end of March.

	2007	2008	2009	2010	2011	2012
Decided Budget	3081	3543	3839	4117	4364	3526
Prepayments (before start of fiscal yr) (kEuro)	243	530	474	1266	1594	363
Prepayments (before start of fiscal yr) (%)	8	15	12	31	37	10
Received by end of March (kEuro)	1160	1868	2312	2249	2066	1201
Received by end of March (%)	38	53	60	55	47	34
Date when 75% was received	May 8	Sep 8	Nov 9	Jan 11	Nov 11	Not

Among the 32 GBIF Voting Participants, five countries account for 69.3 % of the budget while 20 countries accounts for 9.5 %. This situation is similar in many other international science organizations. It is the norm for many to be dependent on a few participants' contributions instead of having a more even economic base among participants.

In 2011, a number of countries, including the UK and Spain expressed concerns about rising costs in time of global economic crisis. In 2012, a few Voting Participants who were major contributors informed GBIF that they were unable to pay their contributions even at the 2011 level. This resulted in the budget level for the GBIF Work Programme decreasing by ca 30% to approximately 3 MEuro. This decrease was unplanned and inequitable.

A budget decrease of 30% from one year to the next offers extremely difficult planning and working conditions, especially when payments are also received late in the fiscal year. Such a large decrease may even lead to the remaining budget being used in a very suboptimal way.

For any organization, but especially for one that is a repository-like infrastructure that is meant to provide data over the long-term, the present situation is untenable and must be improved.

1.3   The Task Group: Recommendations and Implementation

At the Governing Board meeting in Lillehammer 2012, reasons contributing to the increased unpredictability of the GBIF budget were discussed. The Budget Committee suggested that a special Task Group should be appointed to analyse the situation in a broad sense and suggest different ways to achieve more sustainable funding. The Task Group was named the *GBIF Task Group on Financial Sustainability*.

The recommendations presented in this report are of different character. Some are very easy to implement while others will need more long term planning. Yet other suggestions may require changes in the MoU. Some of the suggestions are not even primarily economic. However, the Task Group has included a few suggestions that we thought a funding agency might appreciate from a Global Science Infrastructure.

We recommend that GBIF uses the period 2013 – 2016 to discuss, refine and implement the ideas and suggestions from the Task Group on Financial Sustainability. We are convinced that these suggestions will lead to a more stable and sustainable financial situation for GBIF. We estimate that the majority of our suggestions can be implemented immediately. Parts of Sections 4 and 7 will however involve a few changes in the MoU (Membership and Governance). The transition of the non-voting participants (non-paying) to Voting Participants (paying) has already been going on for two years. Within additional three years (2016) all Non-voting participants have been asked to decide whether to become Voting Participants.

Of special note is the recommended change in membership fees. We suggest that these changes occur over a two years period, i.e. 2014, 2015 to reach the estimated Core Mission Cost in 2016. The fact that the Core Mission Budget is set in 2014, allows for a Supplementary Fund to be built up during the transition period. The fund would be a Matching Fund for the GBIF User Programme.

2   Free and Open Access to Data

We thoroughly discussed the GBIF philosophy of offering data openly and free of cost. At present the paying participants provide approximately 93% of the GBIF data and non-paying participants 7%. One option discussed is that the paying members have exclusive rights and access to the full data, while non-members would have access to data at a certain cost and perhaps not all the data. This would of course make the benefits of being a dues paying member obvious.

We have, however noted the very strong commitment within the science community and many nations to the principle of free access to scientific information and primary data. In fact, some GBIF participants see GBIF's leadership in this area as a primary reason for involvement. Further, even though it may seem tempting to be a free rider, suggestions in this report aim at making it easier to do the right thing and be a paying supporter.

Therefore, the Task Group does not suggest that access of GBIF data to individual scientists or research groups be restricted.

However, in the special case of organizations who harvest, aggregate and then serve GBIF data to others we suggest that GBIF should encourage such use but control and regulate the access by means of contracts and payments, perhaps serviced from a special commercial bureau within the GBIF Secretariat.

Further, we recommend that the use of data is continuously logged by the GBIF Secretariat and that the information is used to set up User Groups and an Internet Forum to provide opportunities for feedback (see Sect 5.2). We also recommend that GBIF make use of the network for communication with various stakeholders, including funding agencies.
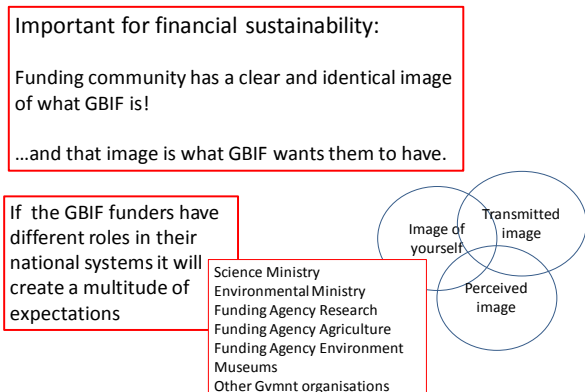
3   A New Organisational Architecture

3.1   Separate GBIF into two complementary functions: Core Mission Programme and User Programme

GBIF was established after a proposal by the OECD Mega Science Forum (now Global Science Forum) in March 2001. The OECD, by proposing such an initiative was advising its member governments to share in the responsibility of establishing and supporting a science infrastructure of global importance. It was understood that an organization like GBIF with a global mandate, was not to be a temporary project but a long-term investment in biodiversity information infrastructure for the benefit of the global science enterprise.

As an infrastructure for biodiversity informatics GBIF is apolitical. However, data from GBIF, as all scientific information, can be used not only for science but also to underpin different policy needs (e.g. for the CBD-system and IPBES) or to inform other societal or economic issues.

According to the MoU (2.1) the key objective of GBIF is to be a co-ordinating body *with the overall aim of furthering technical and scientific efforts to develop and maintain a global information facility for sharing of digital biodiversity data.*

Important for financial sustainability:

Funding community has a clear and identical image of what GBIF is!

…and that image is what GBIF wants them to have.

If the GBIF funders have different roles in their national systems it will create a multitude of expectations

Science Ministry
Environmental Ministry
Funding Agency Research
Funding Agency Agriculture
Funding Agency Environment
Museums
Other Gvmnt organisations

Image of yourself

Transmitted image

Perceived image

We suggest that this mission - to be a global science infrastructure for biodiversity informatics - should be better defined, given a stronger focus and increased promotion as the *GBIF Core Mission*. The basic expertise and resources necessary for this core mission should also be identified and accorded significant space in planning documents and resources in budgets.

We suggest that the Members of GBIF (see Sect 4.1) should share the responsibility for the continuous maintenance, development and funding of the GBIF Core Mission, defined and budgeted in the <u>GBIF Work Programme</u> (see MoU para 6-7) and estimated by GBIF Secretariat (App. 3) and subject to Secretariat specifying what could be included in this and other options.

We also suggest that the *GBIF Supplementary Mission* be formalised and called a <u>GBIF User Programme</u> that should be supported by members and non-members on a project by project basis. The activities in the new User Programme would arise from external proposals and be selected by a review mechanism decided by the Governing Board. Projects within the GBIF User Programme thus could be funded by a variety of funders and interest groups, e.g. member- or non-member countries, research councils, research groups, development aid organizations, private companies, charitable organizations, and NGOs.

GBIF could decide to co-fund programmes/projects of particular interest through a special Matching Fund, of approximately 1.5 MEuro accumulated over a two year period 2014 - 2016.

To summarise:
- In order to focus on its core mission we recommend that the funding mechanism be split establishing a Core Budget to cover the Core Mission and essential capacity and user support: and a User Programme to support wider engagement and use.
- The Secretariat is tasked with specifying core mission and essential supporting activities in advance of the next Governing Board meeting.

A more sustainable economy…

GBIF

Economic factors:

A more evenly distributed resource base
Less dependence on few. Now 5/69%.

More "Relevant" Funding Community
Similar expectations

Preparedness for temporary reductions or drop-outs
Savings for rainy days

Other relevant factors:

Strong visibility

Increasingly perceived quality of the infrastructure

Loud users

Regular contacts with funders

### 3.2   Broaden the group of funders and expertise

By identifying and dividing its expertise in two areas - the area of (i) coordinating and operating a global biodiversity data infrastructure and (ii) of focused enhancement and targeted deliverables to support applied data mobilization discovery and use, GBIF rightly identifies itself as an organization of wide expertise and opens up opportunities for new interest groups.

In its basic role to mobilize and provide scientific biodiversity data, GBIF should demonstrate expertise in different areas, e.g. standards and protocols, efficient up-loading tools, efficient data quality improvements, basic analytical tools, up-to-date automatic digitizing technology, etc. Although the support of this latter function is the primary responsibility of the members, there may also be opportunities for additional funding from computer and software companies, companies in scanning, robotics, text analysis, etc.

In its role to support to the use of its biodiversity data (GBIF User Programme), GBIF could provide expertise to a variety of Programmes and Projects suggested and funded by users and interest groups and selected by GBIF. Here we identify the important and emerging role as a partner to IPBES but also the growing importance of mentorship and capacity

building in many countries. In all these areas, GBIF should only participate in projects that are, at least partly, externally funded. GBIF should develop a procedure for deciding what levels of partial funding are acceptable for it to participate in a project; recognizing this may vary from project to project.
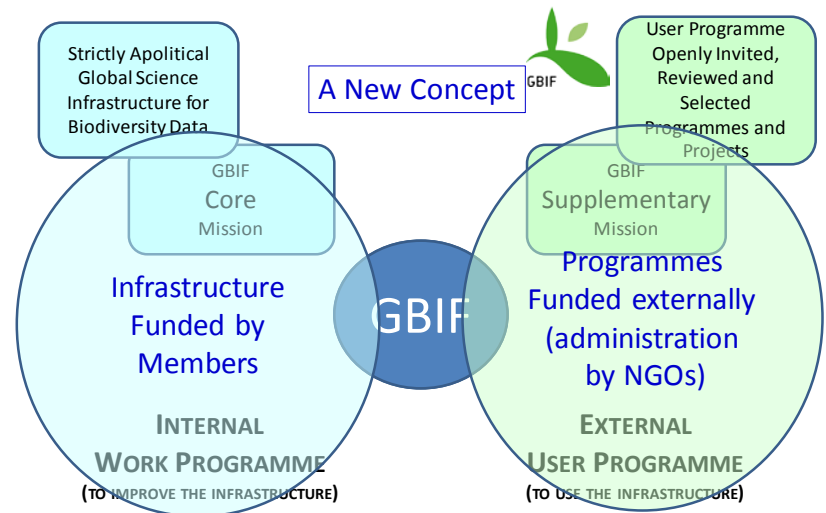
For some projects, GBIF may decide to collaborate with researchers or research groups and seek funds from research councils. In other cases, base funding may be provided from charitable organizations, and in yet other cases support may be sought from development aid organizations, e.g. for training and capacity building in developing countries (cf SEPDEC and SEP). NGOs may be interested in getting analysis of specific situations. Naturally, the member countries may also wish to participate in the GBIF User Programme.

It is not the intention of the Task Group that GBIF Secretariat should bear the primary responsibility for fundraising to the User Programme. The one proposing a certain programme or project should also have the primary responsibility of fundraising for it.

By making the GBIF User Programme more visible and externally funded, GBIF establishes that its involvement outside the Core Mission is important and appreciated by significant user groups (demand-driven).

3.3   Funding Scenarios

From its start in 2001, GBIF used a funding model where countries were grouped in categories according to their GNP. All countries in each category paid the same amount to GBIF. This model was abandoned in 2006 and replaced by a strict proportional model where participating countries pay in accordance to their individual GDP (UN-scale). The model operates with special mechanisms in both ends (cap and floor). This model for sharing of costs is widely used by science infrastructure organizations and is considered to provide a relatively fair sharing of costs. One negative aspect of the model is that a few countries often constitute a fairly large share of the budget, implying a certain risk, especially to an infrastructure like GBIF.

We suggest that GBIF considers two modifications of the present model with the purpose to make funding more secure:

(i)   Funding for Core Mission: The Core Mission should be funded by all members through a base contribution. This contribution is calculated as follows: A small fixed component of the total Core Mission Budget is divided equally among all Members. The remaining is divided proportionally between members in proportion to GDP ac-

cording to prevailing GBIF standards. Countries with a GDP/capita below a certain threshold only pay the fixed component.

Using this methodology spreads the financial responsibility for the GBIF Core Mission Budget more evenly over all members, creating greater robustness and stability. With the present member structure, the fixed component is suggested to ca 5400 Euro (12%) per member (55 members).

(ii) Funding for GBIF User Programme: A Supplementary Budget. The GBIF User Programme is composed of more time-limited projects. We suggest that the user groups whose projects are selected for the GBIF User Programme sign a temporary Consortium Agreements or other suitable international agreement mechanisms, noting that Government bodies will struggle to join Consortium Agreements. The purpose of the agreement is to consolidate the deliverables and secure resources for a particular Programme or Project. By doing this, GBIF establishes individual commitments to the particular activities.

Besides external funding for User Programme projects, GBIF Secretariat may also choose to support a project from a special Matching Fund (built up within its Core Budget). The dues paid by Associated Members are all used to cover the administrative costs associated with the GBIF User Programme (here ca 49000 Euro).

We also identify the option of a voluntary mechanism to pay for data services. There could for example be a *code of practice* for researchers to include a contribution to the core data infrastructure in bids to research funders (possibly scalable depending on whether the funds are from charity, public or private sources).

3.4 Outsourcing, Secondments and In-kind Contributions

GBIF is an international network including a Hub with more than 30 national Nodes. Many of these Nodes are staffed with specialists in the same competence areas as those at the GBIF Secretariat. Counted together the GBIF organization may involve more than 100 experts in relevant fields. We suggest that the GBIF Hub Secretariat mobilizes and makes use of this expertise, either in exchange programmes, by outsourcing work or by offering opportunities for in-kind contributions. The secretariat should also consider providing secondment opportunities for people with relevant competence.

4 Membership

4.1 Members and Associated Members

Membership should be open to (i) States/government agencies and political and/or economic integration organizations, and (ii) national or international non-governmental organizations. The first category (i) is <u>Members</u>, the other (ii) is <u>Associate Members</u>. We suggest that both categories pay dues.

The Members share the responsibility to fund the Core Mission Budget and participate in the GBIF Governing Board.

The Associate Members pay according to a fixed scale to cover costs associated with the GBIF User Programme (User Programme Board, Committee meetings, Open Science Conferences, etc). An Associate Member may influence the direction and focus of the GBIF User Programme by participating in committees and the User Programme Board.

4.2 Financial Members

GBIF should also encourage a new class of membership composed of charitable organizations, foundations and other organizations that may wish to contribute money with no restrictions in use. A Financial Member may participate for free in Open Science Conferences, receives special information materials, etc.

4.3 Alliances

GBIF uses advanced information technologies to serve multiple stakeholders. Certainly, GBIF may benefit from cooperation and experience sharing from other, similar organizations or activities. Such alliances, based on a win-win situation, may strengthen GBIF in its role as an informatics infrastructure providing open access to data.

	Type of organisation	Financial contribution	Influence
Member	State/gvmt, political or economic integration organisations	Pay either proportional to GDP or fixed amount	Participate in the GBIF Governing Board
Associate Member	National or International non-governmental organisations	Pay according to scale similar IUCN (categories)	Participate in the GBIF User Programme Board
Financial Member	Charitable organisations, foundations,	Pay without restrictions in use	Participate for free as invited in Open Science Conference
Alliances	Where GBIF benefit from cooperation or experience sharing (win-win)	Nothing paid	Cooperates

5 Upstream and Downstream Partnerships

5.1 Upstream: Provider alliances

We suggest that GBIF communicates with other biological informatics organizations that provide sequence data, or data at other levels of biological organization to explore potential collaborations. The newly formed ELIXIR, an outflow of EMBL and EBI (European Molecular Biology Laboratory and European Bioinformatics Institute), is also setting up a distributed database. Such collaborations may widen the use and strengthen the role of GBIF informatics. Similarly, the INCF (International Neuroinformatics Coordination Facility) is focused on the function, organization and development of the brain. INCF was discussed by OECD together with GBIF but was started a few years later. Further, the Barcode of Life would serve an important complementary role to GBIF, as do Catalogue of Life, Biodiversity Heritage Library and Encyclopedia of Life (EoL).

5.2 Downstream: User Groups

We suggest that GBIF should consider establishing user groups with members drawn from different user communities. The intention is that these groups should serve as an interface to the respective user community and provide advice and guidance to GBIF. We identify three distinct groups below:

(i)   Basic science: Publications mentioning GBIF as a data provider are increasing in number. We recommend that GBIF identifies the researchers and their institutions behind the publications. Are certain universities or research groups using GBIF data more than other? Further, GBIF should continuously monitor and iden-

tify the visitors logging in to the database. We suggest that GBIF identifies patterns in the wide group of users and establish contact with major user researchers or groups to better understand how data is being used.

(ii)   Science Policy: GBIF has a great potential to serve as a data provider for biodiversity monitoring purposes. This is a globally important policy area. However, it is also scientifically problematic in that monitoring requires structured and repeated sampling. It seems that there is no other global organization to date that can serve this purpose better than GBIF. Taking on such a role of global biodiversity monitoring would probably necessitate upstream partnership with other organizations for sampling and delivery of data (ILTER, MAB, etc). The CBD-system with IPBES and the independent IUCN would be interest groups downstream.

(iii)   Industry: Partnership with organizations like ELIXIR and GenBank provides connections between species and sequence data. Many companies in the pharmaceutical, enzyme and biotechnology sector work with advanced technology to identify interesting genome properties. These species are often found in extreme environments showing extreme adaptations. An alliance with ELIXIR opens up a spectrum of opportunities.

6   Risk Assessment

The Task Group has discussed risks connected to the change of criteria for membership and introducing new scales for financial contributions. Guidelines for the recommendations by the Task Group have been as follows:

-     To divide GBIF in (i) the infrastructure core mission (ii) the User Programme
-     To introduce Membership groups to match the (i) and (ii).
-     To make all parties contribute financially.
-     To modify scales for financial contributions to make GBIF less dependent on a small number of countries and consequently more robust.
-     To recommend changes in governance reflecting the division in (i) and (ii).

We believe that the recommended changes will provide the different GBIF interest groups a stronger influence on specific and, to them, relevant activities within GBIF. However, there is always a risk of losing momentum, money and members during a transition. We recommend that sufficient information is gathered to inform the Governing Board in connection with its decision.

-     Will the potentially higher financial contribution to the Core Budget from smaller VPs impact on their decision on whether to remain as a VP (Noting that the benefit is a more sustainable funding platform for GBIF).
-     Will the APs and other associates contribute to the financial package for the User Programme? And if so, for what type of projects? (Noting that the benefits are that they would gain genuine participating in governance).

We recommend that the Secretariat seeks specific feedback on these issues during the consultation period to provide the Governing Board with information on the significance of these risks prior to making a decision.

7   Reconsider Governance

When GBIF was established in 2001 one major issue was how to include other, similar organizations that had a regional or taxonomic focus and how to get all to agree on protocols and standards. GBIF broadly invited related organization to its Governing Board which at some meetings counted two hundred people. Now, twelve years later, GBIF has gained respect for its work and established default protocols for data format.

The Task Group suggests that GBIF now may be better served by a different governance structure. We suggest the Governing Board meeting is replaced by an Open Science Fo-

rum every two (three?) years, and held in conjunction with another international biodiversity event/meeting. A *GBIF Council* composed of members should replace the Governing Board and meet annually. As now an Executive Committee, a Science Committee and a Budget Committee have responsibility for the day-to-day management.
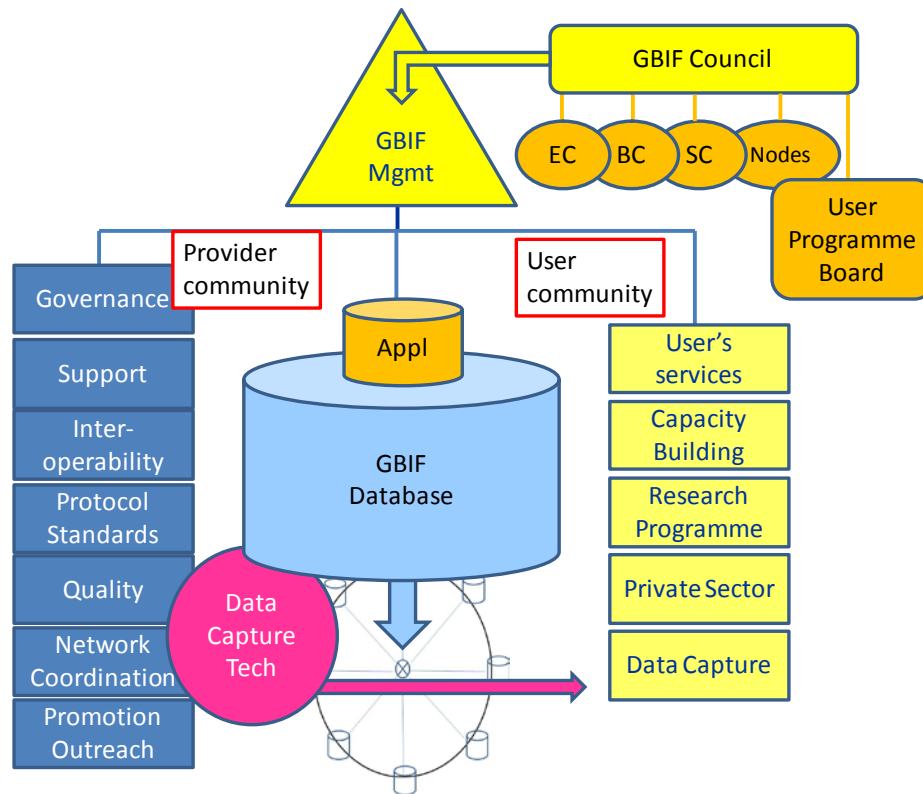
With the new, explicit identification of a GBIF Core Mission and Supplementary Mission, GBIF needs to establish a mechanism for inviting, reviewing, selecting and deciding on Programmes and Projects for the GBIF User Programme. The overall criteria for such a process should be decided by the new GBIF Council. However, we recommend that a new *GBIF User Programme Board* is set up and given the mandate to provide oversight and decide on the Programme focus and orientation.

The Task Group also recommends the Governing Board to consider a change in the GBIF name to better reflect its core mission and provide clarity for a wider range of funders (i.e *Global Biodiversity Data Infrastructure*)

8 Revisit GBIF Budget Lines

We suggest that GBIF should be very restrictive or not use Core Mission Budget to fund the participation of representatives at different meetings, courses and training events. The Core Mission Budget should be used only for the Core Mission functions. However, other money, supplied outside the Core Mission Budget may be used to enable such participation.

9 Develop Expertise in Automatic Data Capture

For a global infrastructure for biodiversity Informatics, the data content, coverage and quality is of vital importance. This is a critical function for GBIF and the strongest rationale for continuing to fund the facility. We have noted that GBIF is serving some 400 million

data records, increasing by approximately 50 million records annually. The data is dominated by observational data. Museum data are growing at a much slower rate and in many ways the two data sources complement each other and are essential for a fully realized GBIF.

 When GBIF was started in 2001 it was anticipated that the global museum data (ca 3 billion data records) would be digitized to ca 80% in ten years. We now know that it is much more difficult and the digitized share is still below 10%. So obtaining museum data is an ongoing challenge largely beyond the scope of GBIF itself to resolve.

Several Nodes have tried different kinds of modern technology for automatic data capture and digitization. Different technology will apply for different types of collections, e.g. herbariums, jars with preserved organisms, insects, or stuffed birds and mammals. Some of the GBIF Nodes are very active and provide information and offer training in certain technologies.

We suggest that GBIF Secretariat keep abreast of developments in these areas in as much as they directly impact its mission. Further, GBIF should encourage and perhaps create incentives for the development of specific and critical technologies for data capture targeted to important taxonomic groups. All information should preferable be available on the web. However, we also suggest that on-demand and on-site available expertise provided by the Nodes but administered and funded by GBIF, would be very appreciated, efficient and attractive.

We recommend that the concept of data capture, quality control and publishing should be focused in the GBIF User Programme. We recommend that GBIF actively seek funds for co-funding digitization and open for proposals from Nodes.

Appendix 1.

Terms of Reference for Task Group for Financial Sustainability

1 ToR for the Task Group on Financial Sustainability LL/4073011

Terms of Reference for the GBIF Task Group on Financial Sustainability

Introduction
The 19th Governing Board of GBIF (Lillehammer, September 2012) approved the Budget Committee's proposal to establish a *Task Group on Financial Sustainability* that would make concrete recommendations on ways in which GBIF could develop a more robust and sustainable funding base.

GBIF is supported by its Voting Participants who make financial contributions in accordance with the approved *Suggested Table of Financial Contributions for Voting Participants (2012-2016)*. This *Table* follows on two earlier versions used in the first decade of GBIF. The funding model continued to work well up to 2011 with the majority of Voting Participants meeting their agreed contributions.

Two trends in recent years signal the need to revisit the funding of GBIF as it is clear that the *Table of Financial Contributions is* no longer a reliable predictor of the future funding for GBIF. The first is that some of the largest contributors to GBIF have not met their agreed financial commitments since the new *Table* commenced in 2012. Most countries have experienced acute reductions in their national budgets, including in portfolio areas that support GBIF membership, as a result of the 'global financial crisis' or other domestic issues.
Secondly, the current funding for GBIF has declined significantly over the past couple of years with potentially severe consequences in current and forecast years and with little hope of near term recovery and future growth. The current arrangement means that consensus on agreed core contributions is reached at the level determined by those Voting Participants that are least willing or able to support increases in their contribution. As a consequence, GBIF forgoes potential income from other Voting Participants who would be willing and able to pay more.

Terms of Reference
In accordance with the Governing Board Rules of Procedure (§7.2.2) the Executive Committee has given a Task Group the following terms of reference:

Purpose
The Task Group will analyse the current financial situation of GBIF, including its financial model, and make recommendations on ways in which the funding base for GBIF can be made more robust and stable from 2014 onwards.

Mandate
The Task Group will:

1. Review the current financial situation of GBIF and its consequences.
2. Review funding arrangements for other relevant international organizations (such as ICES, ILTER, GEO, CGIAR, IUCN, WCMC, CBD).
3. Develop and analyse alternative arrangements for GBIF that provide a more sustainable financial base including options to increase the benefits of being a Voting Participant.
4. Submit a draft report with its overall recommendation to the Budget Committee by 15

April 2013 for consideration by the Executive Committee at the end of April, 2013.

5. Submit a final report to the Executive Committee by 15 May 2013.

It is not intended that the Task Group make recommendations on the issue of voting rights for 2013 or the GBIF current approved Budget Plan. Its mandate terminates with the submission of its final report.

Membership composition

The Task Group will have 11 members as follows:

1. An independent Chair selected by the EC.
2. One representative from each of the 5 largest contributors to GBIF according to the suggested *Table of Financial Contributions:* USA, Japan, Germany, United Kingdom and France.
3. Two representatives selected among nominations from other Voting Participants that have made their 2012 contribution according to the *Table of Financial contribution* and expressed an interest for the work of the Task Group*.
4. Ex-officio members:
   a. Chair of the Governing Board
   b. Chair Budget Committee
   c. Executive Secretary

The Report

The report should preferably be no more than twelve pages, supported by additional supplementary information as required. It should list, as clear action points up to ten top level recommendations and their rationale. More detailed recommendations can be incorporated in the text or in attachments.

Work plan

- The Budget Committee (BC) will discuss the TORs at its teleconference in November and will provide input to the Executive Committee (EC), enabling the EC to approve the TORs on 26 November 2012.
- The TOR will be circulated to the Governing Board (GB) by end of November with an invitation to Voting Participants to nominate experts to the task group and with an outline of the consultation process leading up to the Governing Board meeting in October 2013, when the Board will discuss and decide on the TG recommendations.
- The TG Secretariat (see below), in consultation with the BC, will prepare support materials for the TG by the end of January 2013, including: ☐The current financial situation of GBIF and its consequences
- Funding arrangements for other relevant international organizations and specifying issues to be addressed by the TG
- The TG Chair will consult with each of the members of the TG before its first virtual meeting. If possible, a kick off teleconference will be arranged in late December/early/mid-January depending upon availability of TG members. The first meeting will include discussion of the TORs, a meeting plan and the document to be presented.
- The TG may agree on follow-up consultations with key GBIF Participants.
- TG Chair and TG Secretariat will develop draft documents according on the findings of the TG for a meeting in mid-March 2013 (including both analysis and suggestions/recommendations for funding GBIF). TG members may assist in the preparation of these documents.
- The mid-March meeting will be a face-to-face meeting – once all base documents and the first draft report (with analysis and recommendations) are available.
- The GBIF Secretariat will provide secretariat assistance (TG secretariat)

Representatives of the Task Group are expected to discuss the analysis and recommendations with the full Budget Committee and the Executive Committee at the GBIF mid-term committee meetings in end of April beginning of May. The Task Group should be represented in these discussions by two members who would not otherwise attend the mid-term meetings (referred to as Task Group representatives) in addition to those members who would normally attend these meetings.

Costs

Any additional secretariat support required to carry out analyses will be covered by the Secretariat within its existing budget. With the exception indicated below, *all costs for travel and accommodation etc. for Task Group members in connection with the March face-to-face meeting of the full Task Group will be paid by the member countries represented on the Task Group*. Costs of the Chair of the Task Group and the cost of two Task Group representatives attending the GBIF mid-term committee meetings will be covered by the Secretariat. Other Task Group members may attend by video conference or face-to-face at their own expense.

Approved by the Executive Committee
28 November 2012

Appendix 2
GBIF Task Group for Financial Sustainability

Lars M Nilsson, Sweden, Chair
Michel Guiraud, France
Christoph Haeuser, Germany
Fumiko Nakao, Japan
Joann P Roskoski, USA
Mark J Stevenson, UK

Ex-Officio
Joanne Daly, Chair GBIF Governing Board
Per Backe Hansen, Chair GBIF Budget Committee
Donald Hobern, GBIF Executive Secretary

The Task Group has met in teleconferences
1 February 2013
15 February 2013
and in a meeting 20-21 March 2013 in Copenhagen

Chair has also had individual telephone consultations with the members.

Appendix 3.
Estimated costs for the GBIF Core Mission.

Revision of the GBIF accounting structure and funding principles

Introduction
The GBIF accounting structure currently works with the following main sections (See Financial Regulations for details):

I.   Work Programme (subdivision according to the Strategic Plan: Content – Informatics – Participation)
II. Governance
III. Management (General Secretariat costs)

This structure was selected to be able to identify in particular the resources that went into the Work Programme and to secure a fairly simple management of the GBIF Budget. The Work Programme figures with further details were outlined in the GBIF Work Programme. The GBIF budget proposal only included the overall WP figures. This structure has been in place since 2007 and has allowed valuable time series analyses of various spending.

By 2006-2007 GBIF launched its Data Portal prototype and the overall aim of the period 2007-2011 was to take GBIF further towards full operations as a global infrastructure.(See Strategic Plan 2007-2011). So by now GBIF should be regarded as an operating infrastructure.

Even though GBIF will continue to have a Work Programme developing new features/standards/services for various communities it also at the same time operates a running business 24/7 serving between 60.000-75.000 visitors a month on the web-site providing universal access to more than 390 million biodiversity records from more than 400 data publishers and adding approximate 5 million records to the GBIF index every month.(Mean for the period 2010-2012). The estimated number of data downloads from the portal is approximately 12.000 on a yearly basis and the number of scientific publications in per-review journals using GBIF enabled data are more than 250 – growing every year. These data services are seen as the key delivery from GBIF – but not the only one - to the community and society, but it isn't possible from the current structure of the Financial Statement and associated notes to detect how much the 'core' costs.

The TG Chair has therefore proposed to change the structure of the GBIF Financial Statement so it can better reflect what resources are necessary to keep an effective global infrastructure running (See TG Chair 10 point paper) separated from developing new services that could have a broader and more diversified funding base.

A revised structure
The TG Chair proposal suggest that the there should be a separation as mentioned above between the running of GBIF infrastructure, its governance and Secretariat administration as the core budget (Budget Part I), while Work Programme activities should be regarded as an additional separate budget section (Budget Part II). This split will also open up for financial contributions from organizations (EU, Chinese Taipei, etc.) and other stake holders/non members which would allow for an overall increase and flexibility in the GBIF budget as the funding of the Budget II should be 'concrete' and not formula related as Budget I.

Even though it is possible to make a conceptual and also actual split between the core business of GBIF it is not that easy as most of the professional staff are involved both in the running business of the organization and in development tasks. Secretariat expertise is needed to ensure the running of the network and to form the expert base for being invited to take part in various future collaborative projects. As the international recruitment costs are significant and building competence in various areas is time-consuming the staff continuity should be considered a priority from an efficiency point of view. However this must always be carefully monitored to ensure that it is in accordance with the needs of GBIF.

In this proposal the Work Programme (Budget part II) has four dimensions:

- New informatics services
- New data mobilizing services
- Science Policy Services
- Broader Participant services

The Work Programme (Budget Part II) should include the Supplementary Fund (externally funded projects) where relevant. To be able to respond to interests of various stakeholders to these areas, the Secretariat most as mentioned have some experts that are known in the community and can lead/or participate in projects or be an expert partner if funding is made available. (This is already the case in several EU-consortium projects).

To be operational and flexible the budget breakdown for the Secretariat core only reflects the manpower (Full time equivalent) under the four dimensions while the operational costs are summed up under the 'Secretariat general costs'. These figures can be compared to the revised 2013 budget. (Just up for approval by the GBIF EC).

Under 'General costs' are included the general costs of health insurance, other insurances, school fee etc. for the full staff. This reflects that all staff – independent of financial source – are hired and classified according to the GBIF Staff Rules with the same privileges and obligations to avoid a two class structure. Overhead and reserve funds are used to balance out any difference that might arise between a contract/grants and GBIF conditions. One of the implications of this is that if the funds for Budget II partly come from different sources, each of the projects included in this area will have to include an overhead component to contribute to the core – as Work Programme development will be dependent upon an existing and well functioning 'core' (including computers, work place, admin functions etc.).

In the Work Programme Budget II almost the same headlines are listed – but while Budget I is the core-secretariat budget, the full GBIF organization (VP, AP countries and OAP and other funding agencies) may contribute to the Work Programme Budget II and be involved in various ways including provide in kind contributions etc.

The Work Programme is focused on developing new services that goes beyond the core. For example while training of Nodes to be able to perform their functions in a *distributed* network is a core activity, other broader aspects of training (in digitization of collections, data management, niche modeling, or mentoring etc.) can be considered to be broader services that are indeed nice and important – but not core. Similar 'Science Policy Participation' under the core is the overall readiness of the Secretariat to participant in CBD meeting, IPBES meeting, GEO meetings, planning groups etc. that may drive up projects where GBIF can play a useful role and may lead to funding that will go under Work Programme (Budget II).

The Work Programme table only shows the agreed current WP activities with the funding we have available. That is to make it comparable with the overall GBIF budget for 2013 and to make this exercise as realistic as possible. The WP (Budget II) should actually in a new structure be much bigger - but for the time being it is an illustration of the new structure.

Below is an outline of the new accounting structure:

Euros	2013 Feb budget	2013 Supp.Fund[1]	Comments
GBIF Secretariat Core Services: Budget Part I			
Informatics Services – Data portal /General IT service			
Staffing(6 Full time equivalent staff FTE) 9 persons	584,000		
Data-mobilization Services – Guidelines, Interop. etc.			
Staffing (2 FTE) 4 persons	220,000		
Participation Services – Nodes/NSG/RN/Nodes training			
Staffing (1½ FTE) 3 persons	168,000		

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[1] These are figures showing the balance of the project account by 31 December 2012. The listing is not complete and will be updated.

Science Policy Participation			
Staffing (1 FTE) 2 persons	130,000		
Communication – Engagement –			
Staffing (1½ FTE) 2 persons	111,000		
Governance Services			
Staffing (1½ FTE) 3 persons	158,000		
Other costs (GB/Com meetings/ScSymp/ENP/YRA)	125,000	192,000	Accumulated interest to be used on participation in GB etc.
Management and administration Services			
Staffing (3½ FTE) 5 persons	393,000		
Secretariat general cost			
General staff costs (Insurances, recruitment etc.)	50,000		
Running expenditures (Travel, household etc.)	175,000		
General IT licenses (Microsoft, LiveLink etc.)	25,000		
Secretariat IT Hardware (Computers, printers etc.)	25,000	23,000	From Univ. of Cop. Until end of 2016 to be received in 2013[2]
Hardware necessary for running the Data Portal	76,000		
Summary of Budget Part I Core Services	**2.240,000**	**215,000**	
Staffing	1,764,000		
Other costs	476,000	215,000	
Overhead transferred from Budget Part II	-		
Total Budget Part I (minus transferred overhead)			
GBIF Work Programme: Budget Part II	2013 VP costs	2013 Supp. Funding	
New Informatics Services to the community			
Staffing cost to be covered (1½ FTE) 4 persons	152,000		
Other costs related to development projects	155,000		
Overhead			
New data-mobilization Services – Guidelines, interop. etc.			
Staffing cost to be covered (1½ FTE) 3 persons	175,000		
Other costs related to development projects	55,000	36,000	3 grants
Overhead			
Broader Participant Services: training, mentoring, NPT, etc.			
Staffing cost to be covered (2 FTE) 4 persons	211,000		
Other costs related to providing the services	234,000		
Overhead			
Science Policy Services			
Staffing cost to be covered (½ FTE) 1 person	68,000		
Other costs related to providing the services	60,000	4,000	1 grants
Overhead			
Other WP Services			
Staffing cost to be covered			
Other costs related to providing the services			
Overhead			
Summary of Work Programme: Budget Part II	**1,110,000**	**197,000**	
Staffing cost to be covered (5½ FTE)	606,000		
Other costs related to providing the services	504,000	40,000	
Overhead (accumulated over several years)	-	157,000	
Total Budget Part I+II	**3,250,000**	**412,000**	
Staffing cost	2,270,000	100,000	To balance salary budget
Other costs	980,000	255,000	
Overhead (left) after 100.000 allocated to staff in 2013	-	57,000	
Net capital (reserve)	250,000	-	

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[2] Not yet received.