

MEMORANDUM OF COOPERATION

Between

The Global Biodiversity Information Facility

And

LifeWatch

1. Introduction

This Memorandum of Cooperation (MoC) provides the basis for the Global Biodiversity Information Facility (GBIF) and LifeWatch (hereinafter 'the Parties') to collaborate together to develop and share critical biodiversity informatics infrastructure and information, in order to further their respective mandates.

As both Parties comprise membership from countries and organizations, and mandates from these memberships to develop relevant operational partnerships, it is envisaged that the conditions of this MoC will apply to the coordinating facilities of both Parties as well as their joint and respective memberships. As such, reference to the Parties (i.e. 'GBIF' and 'LifeWatch') incorporates the full organisational memberships respectively.

2. The Parties

The Global Biodiversity Information Facility is a global, multilateral initiative with a mandate to construct and provide freely the world's premier biodiversity informatics infrastructure. The GBIF data portal currently provides on-line access to more than 190 million data records from around the world. GBIF currently comprises a membership of 54 countries and 44 international organisations, with a Secretariat as GBIF's global coordinating body. GBIF relies on collaborative partnerships to accomplish many of its goals.

GBIF's mission is to facilitate free and open access to primary biodiversity data worldwide via the Internet to underpin sustainable development. Priorities, with an emphasis on promoting participation and working through partners, include mobilising biodiversity data, developing protocols and standards to ensure scientific integrity and interoperability, building an informatics architecture to allow the interlinking of diverse data types from disparate sources, promoting capacity building and catalysing development of analytical tools for improved decision-making.

GBIF members are encouraged to establish national, regional or thematic Biodiversity Information Facilities (collectively referred to as Participant BIFs) to promote and facilitate the mobilisation, publication and use of biodiversity data and information within their domain. These Participant BIFs are coordinated by Nodes, whose role is to implement infrastructure and provide technical assistance to the relevant communities of data holders and users. GBIF Participant Nodes in Europe are key partners in the implementation of the activities proposed under this MoC.

LifeWatch is a consortium of institutions and organisations acting on behalf of a number of European States and scientific networks dedicated to preparing the construction of a research infrastructure for biodiversity and ecosystem research. Its objective is to accelerate scientific progress and societal use of such science by operating facilities for the integration, analysis and modelling of (molecular, species and ecosystem) data, allowing users to build virtual collaborative environments for their specific modelling and analysis purposes. Key elements of the infrastructure will consist of distributed observatories / sensors, interoperable databases, processing and analytical tools, computational capability, and computational

capacity. Virtualisation of external data, software and computational resources is based on cooperation agreements with European and international partner facilities.

The mission of LifeWatch is to construct and operate a distributed infrastructure for biodiversity and ecosystem science based upon Europe-wide strategies implemented at the local level: individuals, research groups, institutions, countries. In cooperation with National LifeWatch Initiatives, LifeWatch provides:

- a. Organisation;
- b. Technical direction & governance;
- c. Core ICT infrastructure;
- d. Management of the LifeWatch "Product"; and,
- e. Community support.

The LifeWatch Architecture, as described by the LifeWatch Reference Model (LifeWatch-RM) is the technical basis of European strategies for local implementation. The LifeWatch preparations are planned to lead to construction from the year 2011 on.

3. Objective of this Memorandum of Cooperation (MoC)

LifeWatch is an integrating infrastructure framework that can benefit from and accommodate many GBIF developments to date, including data standards and protocols, supporting software, taxonomic services and the primary biodiversity data that GBIF serves. GBIF will look to the LifeWatch initiative, with its intended provision of relevant infrastructure, services and tools, to further enable the mobilisation, publication, deployment and use of GBIF data in a suite of application tools.

The objective of this MoC is to formalise a framework for co-operative and collaborative work between the ongoing GBIF and new LifeWatch initiatives while recognising their respective independent yet complementary missions as summarized under article 2 above.

Cooperative activities include:

- a. promotion of a common, free and open access data and software policy;
- b. contributing to and promotion of the LifeWatch Reference Model (which incorporates the GBIF architecture standards and tools) as the basis of the long-term service oriented architecture for biodiversity informatics infrastructures;
- c. fostering the use of common standards and protocols;
- d. development of joint demand-driven data discovery and mobilisation plans involving GBIF Participant Nodes in Europe and LifeWatch National Initiatives to increase the rate of data discovery through GBIF and LifeWatch infrastructures;
- e. promotion, where appropriate, of GBIF Informatics processes and tools by LifeWatch users, and LifeWatch e-infrastructure services by GBIF users;
- f. ensuring the interoperability of the GBIF architecture and the LifeWatch architecture.
- g. supporting the scientific and societal use of GBIF-mediated data together with the LifeWatch infrastructural/analytical capabilities;
- h. development of support tools to assist LifeWatch users to share their primary biodiversity data and metadata through the GBIF infrastructure (incorporated in the LifeWatch Reference Model);
- i. sustaining and enhancing common taxonomic infrastructure to ensure LifeWatch and GBIF users have access to authoritative taxonomic catalogues and species checklists.
- j. identifying and implementing collaborative projects of value to both organizations;
- k. establishing an inter-institutional team of personnel dedicated to the continued maintenance and improvement of the infrastructures to meet common goals;
- l. developing joint thematic or training workshops and other meetings both at the European and national levels;

- m. promoting the participation of European countries in both Parties;
- n. engaging GBIF Participant Nodes in Europe and National LifeWatch Initiatives in ensuring that GBIF infrastructure, capacity, and services are recognised and, where appropriate, taken into account and built upon in the implementation of national and regional LifeWatch activities.
- o. development of joint communications and guidelines on how GBIF Participant Nodes in Europe and the LifeWatch national partners can contribute to and benefit from the GBIF-LifeWatch joint activities.
- p. ensuring frequent two-way communication between the Parties on activities and joint publicity to audiences in support of these cooperative activities.

Specific agreed activities may be drafted as Addenda to this MoC with details, including personnel, funds and objectives captured on a case-by-case basis.

4. Conditions of Use

- I. Both Parties agree that they will clearly label the source of all content and require users to indicate those sources in any subsequent re-use. For GBIF-accessible data, LifeWatch will require users to meet GBIF's standards of attribution for its data publishers and its Portal. For LifeWatch-supplied services, GBIF will include all relevant attribution metadata and attribute use of such services according to policies determined by LifeWatch.
- II. Each Party agrees to fully acknowledge the other (verbally and by including logos) when citing or promoting jointly developed products.

5. Amendments and Modifications

Either Party may recommend amendments to this Memorandum of Cooperation by notifying the other Party in writing and, with the subsequent agreement of the other Party, then implementing those amendments.

Notwithstanding the foregoing, both Parties undertake to jointly review and revise (as necessary) this Memorandum of Cooperation two years after it comes into force.

6. Non-exclusive Agreement

This Memorandum of Cooperation is non-exclusive, and in no way restricts either GBIF or LifeWatch from participating in similar activities or arrangements with other public or private initiatives, organizations, or individuals.

For GBIF:

Date: 14 June 2010

Dr Joanne Daly
Chair of the Governing Board, GBIF

For LifeWatch:

Date: 14 June 2010

Wouter Los
Coordinator LifeWatch Preparatory Project