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Dissemination and Communication Strategy and Implementation Plan M10

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Introduction

As key elements within the EU BON project, a special effort will be put to ensure that communication and dissemination are properly developed, implemented and managed throughout the project lifetime. The Dissemination and Communication Strategy including a detailed Implementation plan is developed in the starting phase of the project by the principal WP8 dissemination and outreach partners to ensure the clear definition and interactions between objectives, target groups, message and implementation.

Progress towards objectives

Implementation of this Dissemination and Communication Strategy is already in progress, and will be continued throughout the project lifetime.

Achievements and current status

Completed on time.

Future developments

The Dissemination and Communication Strategy will be revised in the middle of the project lifespan.

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1. Dissemination Strategy: An introduction – Why, Where, What, Who, and How?

Dissemination activities will play a vital role within EU BON as a means of communicating purpose, activities and results at every stage during the project lifetime. Dissemination efforts will branch out mainly in two directions, namely popularization and visibility to the wider public, on the one hand, and rising awareness and promoting consensus among biodiversity stakeholders to ensure reaching goals and objectives, on the other.

EU BON presents an innovative approach towards integration of biodiversity information systems from on-ground to remote sensing data, for addressing policy and information needs in a timely and customized manner. EU BON will provide integration between social networks of science and policy and technological networks of interoperating IT infrastructures, resulting in a new open access platform for sharing biodiversity data and tools, and greatly advance biodiversity knowledge in Europe. EU BON's deliverables include a comprehensive "European Biodiversity Portal" for all stakeholder communities, and strategies for a global implementation of Group on Earth Observation's Biodiversity Observation (GEO) BON and supporting Intergovernmental Platform on Biodiversity & Ecosystem Services (IPBES).

As key elements within the EU BON project, a special effort will be put to ensure that communication and dissemination are properly developed, implemented and managed throughout the project lifetime. The Dissemination and Communication Strategy and Implementation Plan is developed in the starting phase of the project by the principal WP8 dissemination and outreach partners to ensure the clear definition and interactions between objectives, target groups, message and implementation. Dissemination will happen on two levels, external through large scale dissemination channels (international conferences, symposia, workshops, publications, journals etc.) and through internal promotion (social media: Facebook, Twitter, LinkedIn, Google +; articles, press releases, brochures etc.)

The strategy represents a concise plan to guide the communication and dissemination efforts to target the various audiences and spread out clear, understandable, coordinated and effective messages thus raising awareness and maximizing the benefits resulting from the EU BON implementation. The implementation plan describes the concrete measures, timeframe and responsibilities of the partners during the course of the project and facilitates the monitoring and reporting of the project's goals. It will be adjusted as the project evolves and will be evaluated at the project midpoint (month 24) in order to revise the plan according to accumulated experience.

The following plan outlines in detail the communication and dissemination activities, their motivation and implementation. The time schedule for their implementation is additionally laid down in a separate implementation plan (Annex 1).

1.1. Dissemination Strategy – aim, scope and objectives (Why)

The EU BON Dissemination and Communication Strategy and Implementation Plan will be of foremost importance for the project success. Its main objective is to identify and organize the dissemination activities in order to reach out to the widest possible range of stakeholders and to promote further exploitation of the project results.

The EU Directorate-General (DG) Research and Innovation Communication guide claims: "What we call here 'communication' is more than just an additional reporting burden [...] communication about European research projects should aim to demonstrate the ways in which research is contributing to the European 'Innovation Union' and account for public spending [...] There is an enormous difference

between communication strategically planned with these objectives in mind and ad hoc efforts for the sake of meeting contractual requirements." (EC, 2012) With these recommendations and objective in mind a detailed Dissemination and Communication Strategy and Implementation Plan has been planned to define, evaluate and schedule the future dissemination efforts within the EU BON project.

Hoffmann et al. (submitted 2013) state in their overview of the EU BON project that: "The goals and objectives of EU BON are ambitious and can only be achieved with outstanding engagement in both dissemination and outreach. [...] With the aim of ensuring that communication and dissemination are properly developed, implemented and managed throughout the project lifetime, EU BON is developing a comprehensive communication strategy, so that the EU BON brand is widely recognised and its results and achievements reach a broad audience across different stakeholder levels, including policy, administration, conservation managers, scientists, journalists and the general public."

To ensure that these aims of the communication and dissemination activities within EU BON are met professionally, effectively and in a timely manner the following *ten basic principles* are adopted as dissemination and communication backbone:

- 1. Open access of EU BON results to the greatest extent possible, while considering intellectual property rights (IPR);
- 2. Multi-targeted dissemination of results, based on identifying all relevant target groups;
- 3. Adjusted and targeted communication messages reflecting the needs of each target group;
- 4. Multivalent modes of dissemination based on traditional (scientific papers, leaflets, posters, fact sheets, policy briefs, press releases, newsletters) and innovative methods (online broadcasting, blogs, open access journals, data publishing);
- 5. Extensive use of social networks (Twitter, Facebook, LinkedIn, Google+) and Web 2.0 technologies (RSS feeds, semantic tagging);
- 6. Translating the scientific results, such as best practices, recommendations, fact sheets, policy briefs, etc. into comprehensive and more understandable forms, and when needed into national languages. The scientific language and the methods of dissemination will be adapted according to the needs and specifics (e.g., educational level, different background, different incentives) with the aim to reach various multi-language and multi-cultural target groups;
- 7. Widest integration of EU BON results into existing international networks, professional organizations, large symposia, and NGO's;
- 8. Regular press releases and news announcements posted through the world's leading (Eurekalert.org) and EU-based (Science for Environment newsletter, BISE, ETC, etc.) distributors of science news:
- 9. Feedback from stakeholders used to improve the usability of results and facilitate building the European Biodiversity Observation Network as a substantial part of the Group on Earth Observation's Biodiversity Observation Network (GEO BON);
- 10. Sustainability of EU BON results by maintaining the portal and website at least 5 years after expiration of the funding phase of the project.

1.2. Target groups and stakeholder integration (Where)

1.2.1. Target groups

A key to successful communication and dissemination is identifying the right target groups and tailoring your message according to their specific needs and characteristics. Prior to choosing the right message to be delivered, identifying the relevant target audiences is crucial. The identified EU BON target audiences are provisionally divided in five main groups as follows:

- 1. **Policy makers and public administration** local, regional, national, European and international decision and policy makers, non-governmental and civil society organizations EU BON will take into consideration the results from the related projects including EU FP7 funded KNEU project, published in D1.1 Overview of knowledge holders and requesters of a potential network of knowledge (NoK) available online at: http://www.biodiversityknowledge.eu/documents, Balian et al. (2012).
- 2. **Scientific community** scientists, graduate and post-graduate students active in the field of biodiversity and data management.
- **3.** Environmental managers and users of natural resources Biodiversity data and information are relevant for a broad range of environmental managers (e.g. regional or national conservation managers to subsistence farmers) of various sectors (e.g. urban development, nature conservation, fisheries, forestry, agriculture, aquaculture, and tourism).
- 4. **Citizen scientists -** Interested citizens who are engaged on a voluntarily basis in providing and analysing biodiversity data.
- 5. **General Public-** special-interest private persons (e.g. hunters, anglers, conservationists), and the general public.

1.2.2. Stakeholder integration

EU BON will integrate stakeholder perspectives from multiple governance scales throughout the project lifetime and mostly within the task of Work Package 6. In this process, WP6 Stakeholder engagement and science-policy dialogue will be leading when it comes to:

- 1. Carrying out regular engagement with relevant political authorities and other stakeholders at European and national levels in support of the delivery of the EU BON project.
- 2. Identifying and piloting new approaches to overcome barriers to the effective use of biodiversity data in conservation policy at European and national levels.
- 3. Building up stakeholder dialogue with exemplar sector specific user communities (including business).

The role of users of natural resources (e.g. water companies, hunters, fishers) in data collection, mobilisation and use will be explored. This task will result in a series of stakeholder 'task force' meetings aiming at identifying opportunities for improving the integration and use of data.

In addition, EU BON stakeholder round table will be set up expecting to build and ensure regular and efficient linkages to relevant political authorities and other stakeholders at national and European level to support the development and delivery of the EU BON project. Stakeholder involvement and mapping at the science-policy interface level has already been initiated through the compilation of a list of 'associates' involved as key stakeholders in the project. This mapping will continue during the project and further stakeholders will be involved during the project.

Apart from the contribution to conferences, which will reach mostly specialist public, EU BON will try to minimize the existing gap of the dissemination of scientific information to non-scientific stakeholders, using non-technical language. The communicating messages will be adapted to the requirements of the two main target groups identified: scientists and other stakeholders. There will be consistency in the information, yet the language and the level of detail will depend on the specific needs.

1.3. EU BON communication message (What)

An important guideline principle of dissemination will be to use one and the same key output and core message to produce various dissemination materials for a variety of channels in order to maximize uptake of the project outcomes (Figure 1). This communication message will be clearly defined depending on the raising awareness objective and the specifics of the target group and the channel chosen. As it is important to think about what we say and how we say it in order to provoke interest towards our dissemination activities we will aim at communicating three types of messages:

- 1. The policy makers and public administration will be informed about scientific research, which will be translated into a more concise and easy-to-read version. Furthermore scientific findings will be translated into policy recommendations and guidelines to enable a cross-border evaluation of the status of Europe's biodiversity.
- 2. The messages to be addressed to the scientific audience will be concise and straight-to-the-point, but using the appropriate scientific terminology and language.
- 3. Environmental managers and users of natural resources it is important to identify common generic but also group-specific preferences and needs for biodiversity information. The materials should be user-friendly and easy-to-read to enable the visualization and translation of information for practical use.
- 4. Citizen scientists similar to the message aimed at science community information should be engaging and should allow for the appreciation of the contributors.
- 5. Despite the heterogeneity of the **general public** such as special-interest private persons (e.g. hunters, anglers, conservationists), the wording of the messages will be **adjusted to be suitable for lay public** to contribute to the crucial communication and dissemination objective of the project namely raising awareness.

Alongside the necessary target group tailoring the communication and dissemination activities and the relevant message will be organized at three different semantic levels:

- **awareness** for those who do not need detailed knowledge but for whom it is useful to be aware about the project activities (e.g. general public);
- **understanding** this type of dissemination will be directed to those who need a deeper understanding of the project because they are interested, work in the same field and/or can benefit from the project outcomes (e.g. project-relevant stakeholders, scientific community);
- **action** this type of dissemination will be targeted to those having the power to influence the achievement of a real change (e.g. policy makers).

The EU BON project will aim at turning awareness into real participation by providing the tailored information at the right time to the identified target groups. Once awareness is achieved, the interested groups will require more detailed information to build up understanding. This increased involvement and need of action is the prerequisite for achievement of a real change in successful biodiversity protection. The communication activities will change progressively.

- 1. First priority will focus on awareness rising by presenting EU BON to the target audiences.
- 2. **Next,** with the progress of the work, we will emphasize on the **promotion of the project results** to the relevant stakeholders.
- 3. At a later stage, once awareness is raised and results are communicated, EU BON will aim at two-way active involvement and communication with interested parties.

The project success will be guaranteed if the people are not only aware of the project but also included and incited to be involved and active in adopting the solutions derived from the project implementation.

EU BON will also follow and take into consideration where appropriate the latest research findings and policy recommendations in the area, for example EC DG Environment Green Infrastructures, available online at: http://ec.europa.eu/environment/nature/ecosystems/ (EC, 2013)

1.4. Dissemination actors (Who)

Within the consortium of partners WP8 will take the responsibility for coordinating communication and dissemination activities and report the results to the EU BON coordination team. All other EU BON partners are expected to take part in the dissemination activities and actively contribute to popularize EU BON.

1.4.1. Dissemination leader

Pensoft as the leader of WP8 will be the dissemination leader during the EU BON project lifetime. As a dissemination leader Pensoft will be expected to:

- 1. Coordinate and monitor all dissemination activities.
- 2. Organize dissemination activities on all project levels.
- 3. Encourage partner to initiate and to participate.
- 4. Reach out and establish working contacts with relevant activities.
- 5. Ensure regular, quality content for the various dissemination channels within this strategy (see sections 1.5; 2).

1.4.2. Dissemination at all partner's level

To ensure the broadest impact and highest level of dissemination all partners will be actively engaged in the dissemination process by:

- 1. Use of their own personal and/or institutional networks and websites to **promote the project**;
- 2. Take advantage of relevant conferences to **present the project results and distribute dissemination materials**. For this purpose all the partners were allocated person months according to the dissemination effort to be done;
- 3. **Providing content** to the dissemination team. Dissemination activities will be reported through a specifically designed feature of the EU BON Internal Communication Platform (ICP) (Annex 6A-C).

The communication within the project consortium will be in English. However, most partners will be communicating to local stakeholders and disseminating project results and conclusions in their native languages. They will be encouraged to produce their own language versions of newsletters, fact sheets and popular summaries of project results.

As mentioned above, dissemination report form has been created through the ICP to facilitate dissemination reporting on a partner's level and help monitoring and reporting dissemination activities (Annex 6). The form allows three types of reporting specifically designed for the needs of the EU BON project:

- 1. EU BON Symposia and meetings form designed to allow partners to easily report activities from meetings, workshops, conferences etc. (Annex 6A)
- 2. General dissemination form designed to allow partners to report all sorts of media participation and promotion of the project such as newspaper, magazine and web publications; TV and radio broadcasts, policy briefs, press releases, teaching sessions, PhD and Masters Theses etc. (Annex 6B)

3. Scientific publications form – designed to facilitate partners to report EU BON derived research and publications. (Annex 6C)

1.5. Communication and dissemination channels overview (How)

To achieve the main goal of the Dissemination and Communication Strategy and Implementation Plan the EU BON project will work with various selectively targeted groups through formal and informal mechanisms. Once target audiences are identified, it is of foremost importance to select the most appropriate channels to reach them considering the appropriate characteristics of the specific target audience:

- The most widely used channels to convey messages to the scientific audience will be from articles published in various scientific newspapers and journals and the presentations at meetings, workshops, conferences, etc.
- 2. Dissemination to the non-scientific target groups will be mostly through publications in popular newspapers, journals and magazines, web publications, TV and radio interviews and broadcasts, presentations at information days, etc.

EU BON will ensure the integration of dissemination within the general Dissemination and Communication Strategy and Implementation Plan of the project with a clear formulation of "passive" and "active" dissemination methods. Once the target groups and end users are identified multivalent methods of communication and dissemination to reflect different educational backgrounds of the users will be applied. Open access to EU BON results will be adopted as a general procedure in the dissemination process. Traditional methods of dissemination (publications in journals, printed materials) will be combined with advanced technologies (online open access publications, e-books, e-journals, email newsletters, EU BON Online Library, etc. Special emphasis will be laid upon integrating EU BON in the already existing international networks and organizations (GEO BON, Global Earth Observation System of Systems (GEOSS), and GBIF).

Various manners of dissemination will be applied to reach different target groups. The main communication and dissemination channels to be used by EU BON are specified below. The specific use and implantation of each dissemination channel is outlined in detail within Section 2 of this plan:

- 1. Internal dissemination channels:
 - Project website
 - News digest
 - Newsletter
 - Promotional materials: brochures, leaflets, posters etc.
 - Social Networks
 - Events
- 2. External dissemination channels:
 - Journals
 - Mass Media
 - Mailing lists
 - Partnering projects' websites, social networks, events, newsletters

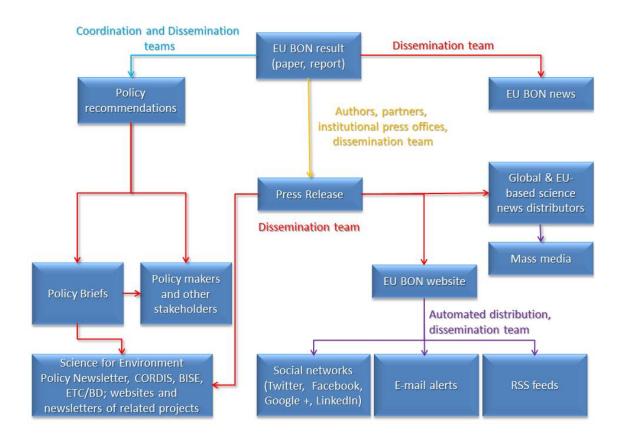


Fig. 1 Flow chart showing how multiple uses will be made of project results for dissemination and knowledge transfer purposes.

2. EU BON Communication

2.1. Internal project communication

The internal communication is aimed at better coordination of the communication and dissemination activities. It is organized in a very consistent manner in order to ensure effectiveness of the communication among the EU BON participants.

- The email messages are the primary tool for internal communication.
- Skype and/or telephone meetings are regularly used for discussion of various issues.
- Physical meetings are organized periodically, when intense exchanges and a large number of people are needed
- General Assembly meetings are held at least once during the reporting period (18 months) and Steering Committee meetings are held twice a year.
- Small workshops/evaluation meetings are organized ad hoc when deemed necessary.

An Internal Communication Platform (ICP) for exchange of data, results, coordination decisions, timetables, information material, and for reporting among partners was established. It allows each partner, the work packages leaders, associate partners, the overall co-ordinator and the Advisory Board, to

regularly monitor progress in data collation, analysis, and deliverables by checking the latest updates in a results section. Regularly updated time schedule for the work within work packages is placed on a prominent location of the intranet pages.

The ICP will also be used as an internal discussion forum for items that may emerge within work packages between the main project meetings and which need live discussions for rapid decisions. The ICP provides convenient and appropriate mechanisms for facilitating the free flow of all sorts of information. This infrastructure is expected to build a robust framework for dialogue and interaction resulting in further communication and dissemination. With the aim to facilitate the use of the ICP, at the beginning of the project implementation all project members were provided with guidelines for use of the ICP describing the main features and specifics of the public part and the restricted areas of the website

2.2. External Project communication

2.2.1. Communication with relevant initiatives

During its lifetime EU BON will build close ties with other relevant initiatives under other EU-funded projects or national programmes and intermediary organizations with the aim to help to achieve higher awareness and impact on the target groups.

- 1. At European level EU BON will establish connections with policy makers and other stakeholders, especially with the EC Directorate-General (DG), DG Research and Innovation, DG Environment, DG Communications Networks, Content & Technology, DG Connect and DG Climate action, but also with DDG1. E: Net Futures, Joint Research Centre (JRC), European Environmental Bureau (EEB), European Environment Agency (EEA), Convention on Biological Diversity (CBD). These groups will be targeted through questionnaires and series of roundtables and workshops organized by EU BON. (Annex 2);
- 2. At international level: Global Earth Observation Biodiversity Observation Network (GEO BON), Global Earth Observation System of Systems (GEOSS), Intergovernmental Platform on Biodiversity & Ecosystem Services (IPBES), International Union for Conservation of Nature (IUCN), United Nations Environment Program (UNEP), Birdlife International, World Wide Fund for Nature (WWF), etc. Those groups will be targeted through presentations of the EU BON project at international symposia. A database of contacts will be gradually built and targeted through dissemination of newsletters, press releases etc. (Annex 2);
- 3. **At national level**, important bodies of interest for EU BON include NGOs, decision makers and relevant professional organizations like consultancies and the national data centres. Each team of the EU BON consortium will take over responsibilities for advertising and dissemination activities ensuring awareness of the project. All partners are additionally encouraged to establish direct contacts with their relevant national bodies of interest.

2.2.2. EU BON - GEO BON/GEOSS

The main objective of EU BON is to build a crucial part of the European contribution to the Group on Earth Observation's Biodiversity Observation Network (GEO BON). EU BON's deliverables include a comprehensive "European Biodiversity Portal" for all stakeholder communities, and strategies for a global implementation of GEO BON and pathways for supporting IPBES. This requires a specific communication effort to establish the position of EU BON as a point of synthesis of information from the various partners on the one hand, and successfully communicating those to GEO BON, GEOSS and other relevant bodies. (Annex 3)

EU BON proposes two related networking levels, (1) a science-based community network, comprising and linking the communities of practice engaged in collecting, managing, analysing, and utilizing biodiversity observations and data, and (2) a technological network of interoperating IT infrastructures and systems that store and distribute information of all kinds held by multiple organizations and partners, and to provide a platform for data analysis and interpretation.

In doing that, EU BON will have the following specific objectives:

- advancing the technological/informatics infrastructures for GEO BON, by facilitating the
 integration of existing biodiversity networks towards standards-based, service-oriented
 approaches and cloud computing, enabling full interoperability through the GEOSS Common
 Infrastructure;
- improving the range and quality of the methods and tools for assessment, analysis, and visualization of biodiversity and ecosystem information, particularly focusing on predictive modelling, identification of drivers of change, and biodiversity indicators, and to support priority setting;

3. Interactions between the components

The following table (Table 1) reflects the interaction between the components of this Dissemination and Communication Strategy:

Table 1. Interaction between the EU BON dissemination and communication components

Dissemination tool	Target groups	Contribution to the project dissemination objectives	Verification of use			
	Project website					
General	All target groups	Inform and engage interested parties through provision of general information about the project and its main outcomes	Number of visits, number of requests, unique visitors and document downloads			
Online document library (public)	All interested stakeholders, academics, NGOs	Open access to papers, reports and deliverables				
News	All interested parties	Increase awareness of, and feedback on, project outcomes	Number of visits and comments			
RSS feeds	Stakeholders and generally interested public	Semi-automated dissemination of news and announcements to increase user base	Numbers of subscribers			
Email alert	Stakeholders and generally interested public	Semi-automated dissemination of news and announcements to increase user base	Numbers of subscribed users			
Internal Communication Platform (ICP)	Project partners, associated partners, Advisory Board members and invited persons	Inform and discuss specific topics of common interest	Number of users, number of emails			

Social networks	Academics and	Inform on key project events and	Number of posts;
		outcomes; active dialogue within	number of re-tweets
• Facebook	students,		
• Twitter	stakeholders,	networks; discovery of	(Twitter); number of
• Google+	general public,	unforeseen users and stakeholders	followers and "likes"
• LinkedIn	including potential		
• YouTube	unforeseen users		
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Scientific	Scientific	Presentation of research findings	List of publications
publications,	community	and evaluation of its scientific	
EU BON special		quality through feedback from	
journal issues		the scientific community	
Presentations at	Scientific	Presentation of research findings	List of international
scientific	community	and evaluation of its scientific	or national
conferences		quality through feedback from	conferences where
		the scientific community	the project results are
			presented
Poster	All target groups	Promotion of the project	Number of
			downloads of
			electronic copies;
			number of distributed
Leaflets	Project	Increase awareness about the	printed copies of the
	stakeholders,	topics dealt with by the project	final brochure in
	academics and	l copres deute with of the project	several languages
	students, NGOs,		several languages
	generally interested		
	public		
Policy fact sheets/	Policy and decision	Knowledge transfer from the	
briefs	makers,	project to policy makers for key	
Difeis			
	administrators,	issues; engagement of scientists	
N T 1 44 (• 4	NGOs	in the policy making process	
Newsletter (print-	Project	Provision of information about	
friendly PDF)	stakeholders,	on-going events, project	
	academics and	outcomes and related activities	
	students, NGOs,		
	generally interested		
	public		
Concise final	All stakeholders at	Provision of a concise summary	
brochure, translated	international/nation	of the EU BON project outcomes	
in several EU	al/regional level	to stimulate decision-making,	
languages		policy implementation and	
		awareness	
External blogs, e-	Various project	Dissemination and discussion of	Number of posts
newsletters, websites	stakeholders,	specific topics of interest;	_
ŕ	related projects and	facilitate collaboration / uptake	
	networks		
Project-relevant	Scientific	Dissemination and discussion of	Account of mailing
mailing lists and	community and	specific topics of interest;	lists and networks
networks	EU BON specific	facilitate collaboration / uptake	
	stakeholders	upuno	
Training events	Graduate and post-	Increase/transfer of knowledge,	List of training events
Training Cyclits	graduate students	skills and/or competences	and number of
	graduate students	Skins and/or competences	trainees
Stakeholder	Project	Stakeholder engagement and	Meeting reports and
interviews,	stakeholders	evaluation of stakeholder needs	summaries of
-	Starcholucis	Cvaruation of stakeholder needs	recommendations
meetings, round tables and			recommendations
workshops			

Press releases	Journalists, mass media, project stakeholders, general public	Announcement of significant project results Mass media	Number of press releases issued; number of visits of particular press releases
Publications	General public	Raising public awareness on data use, custody and management	List of publications or broadcasts
Interviews	General public	Raising public awareness on data use, custody and management	List of publications or broadcasts
Broadcasts	General public	Raising public awareness on data use, custody and management	List of publications or broadcasts
Multimedia clip (optional)	General public	Communication of project key messages	Number of visits and comments on YouTube, Video; number of downloads from the website

4. Aim and use of promotional tools within the EU BON project

4.1. Development of the project image

EU BON logo (Fig. 2): Developing the EU BON logo was one of the first steps taken by the EU BON Consortium with the aim to introduce and project a recognisable project identifier. The logo helps the external audience to easily identify EU BON and contributes to the project visibility by providing a corporate identity since the very beginning of the project.

The image is designed to symbolize the European Union and the satellite circles representing the interlinking and dissemination of biodiversity data.



Fig. 2 EU BON logo

The project logo along with the European Commission and FP7 logos will be placed prominently in all dissemination relevant documents.

EU BON corporate identity templates - templates for letter, milestone, deliverable, policy and technical briefs, presentation, meeting agenda, minutes, as well as peer review were designed in the very beginning of the project implementation. They are made available to all project partners via the ICP.

4.2. Project website, Online Library and Media Center

EU BON website (Figure 3): As the web acts as a principal means of dissemination of information, one of the first priorities of EU BON was to set up and launch a publicly accessible website. The website is designed in such a way that it meets the communication needs of wide range of users. The website was built with the following characteristics:

- Attractive to the different target groups
- User-friendly
- Interactive

EU BON website— has two distinct areas (public and private) each aimed at a different audience:

1. Public area – it keeps the interested parties accessing the website informed on the project and its development. Its aim is not only to inform but rather to encourage engagement of people by allowing easy access to extensive information about EU BON and its activities including background information news and events announcements, jobs and articles alerts, contact details, etc. It will make the public project deliverables available as well as the published materials the project has created

2. Internal Communication Platform (ICP) - is the private website area. It is password protected and therefore accessible only to granted users. The ICP supports the general workflow by allowing smooth communication between project partners and serves the needs of the internal communication by distributing different sorts of documents and sets of documents.

The website will be regularly updated by placing interesting items on the home page not only to keep the audience informed but also to raise continued interest of already attracted visitors.

In order for the website to be acquainted and familiar to the target audience, it will be publicized via newsletters and brochures. In addition it will be submitted to key search engines to get traffic. Websites on similar topics will be asked to link to the EU BON website. A usage logs counter is foreseen in order to verify that users are actively searching and using the website. To ensure the long sustainability of EU BON results, the website will be maintained at least five years after the end of the project:

- EU BON Online Library —will host (scientific) publications and other information (deliverables) on all project activities that are open for access/download by the external users of the website. All consortium members will be able to upload files in the Online library. While uploading external documents, the following basic information should be given: Title / Subtitle, Author(s) (of the publication/ deliverable), year of publication (not the year of upload), and standard bibliographic information varying according to the type of the documents (e.g. for journal papers: journal's name, volume, pages, etc. including web link to the document, if stored on an external web platform).
- **EU BON Media Center** –is dedicated to all communication materials produced by the project. Leaflets, posters, brochures, press releases, newsletters, etc. outreach materials will be freely available for download.

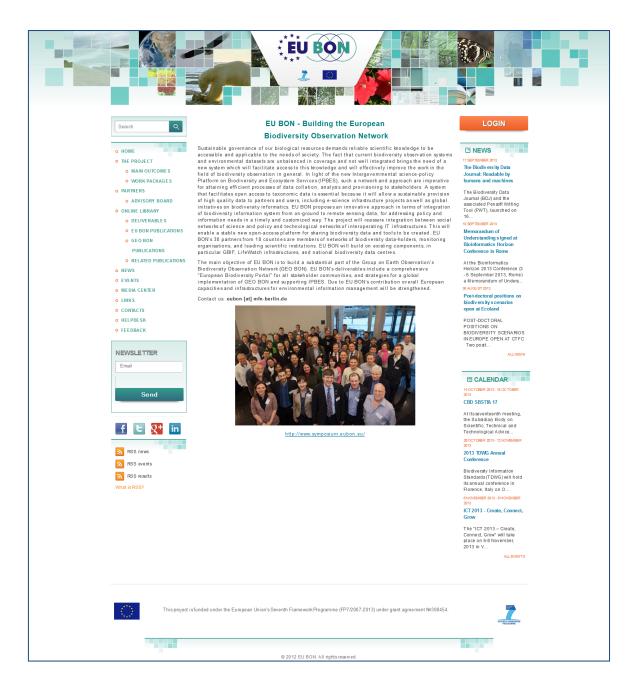


Fig. 3 EU BON website homepage (www.eubon.eu)

4.3. Outreach materials

The outreach materials (poster, brochures, leaflets, newsletters, fact sheets, etc.) will be used as a means to announce the project and provide relevant information. Before producing any PR material its purpose is clearly defined in order to choose the format that will best satisfy the specific information requirements and thus raising the chances to influence the targeted audience. All EU BON PR materials and presentations will have corporate design and the EC and FP7 logo will be prominently placed.

- 1. The EU BON poster produced at the beginning of the project implementation has an eyecatching design, communicating the EU BON message.
- 2. The EU BON leaflets are designed in a way to capture the attention of the different target groups and increase awareness of the project. They explain the rationale behind the project -

- its objectives, the activities and main tasks planned, the expected results as well as the organizations involved.
- 3. Results and major outcomes of EU BON will be made available through electronic news digests, newsletters and fact sheets.
- 4. In order to contribute to the effective communication and exploitation of the project results, each partner shall provide, as part of the dissemination plan and as soon as the project website is set up, an individual informational partner poster at the start of the project as well as at each reporting period.
- 5. Appropriate short videos or presentations, as well as sets of re-usable illustrations (300dpi) targeting a wide public audience will be published, too.

The PR materials will be disseminated in both electronic and printed form. The electronic format will be preferred due to its environmental friendliness and economic efficiency. However, as all outreach materials are also intended to support the presentations at various events, printed copies of the selected informational and publicity materials will be distributed freely while attending relevant (inter)national meetings, workshops and conferences. An electronic version will be circulated electronically to the associated interests on the list server and can be used as a communication tool when approaching the target groups via email.

All dissemination materials should be presented to the communication and dissemination leader (Pensoft) and the coordination team (MfN) for approval before publication.

4.4. News digests and newsletter

4.4.1. Electronic news digests

A news bulletin in electronic format, containing and highlighting news of interest for the EU BON stakeholders will be launched in May 2013. The EU BON news digests will be issued twice a year, on a 6 months basis. All EU BON partners are expected to actively contribute to the newsletter by providing the WP8 dissemination team with any EU BON relevant information:

- News, details on upcoming events, results and facts, publications and any other activities, which could be of interest to the project stakeholders and the general public and can aid to increase the project visibility.
- 2. These could also be interviews given for local media, published articles, public lectures, and presentations given at seminars or workshops.
- 3. To maximize the effect of the news they will be combined with any relevant photographs and/or multimedia if and when possible.
- 4. The news digests will be largely disseminated to the associate partners and to all people subscribing to the news digests via the EU BON website. It will also be available for free download in the news page of the website.

4.4.2. The EU BON newsletter

A separate high quality electronic and print newsletter will be produced every 6 months (the first issue produced August 2013). The newsletter will summarise the most important events and publications for the period including a foreword from the project co-ordinator about the progress of the project. This will be a carefully thought through and designed brochure which will provide only the most important project

related news to be distributed on conferences, meetings international symposia etc. Main characteristics of the newsletter will be:

- Issued every 6 months
- Contain a foreword from the co-ordinator
- High quality print, richly illustrated
- Provide a summary of most important events, news, publications
- Serve as a mini-report and promotional material at important meetings, symposia and workshops.

The newsletter will also available to view and download by anyone through the website Media Center.

4.5. Press releases

Throughout the project implementation and especially when the project milestones and deliverables are met, press releases will be issued roughly once every 6-8 months, to disseminate the results. Press releases for major scientific results published in peer-reviewed papers, will be used as a main communication route to reach the science journalists and other mass media.

The responsibility for preparation of a press release usually lies on the first author who, together with the WP8 team and the EU BON co-ordinator, prepares the final version. EU BON will be using the channels of EurekAlert!, one of the world largest online distributors of science news, that distributes press releases to more than 5000 mass media and independent science journalists (Annex 4).

Four press releases announcing the project launch and significant events were issued subsequently in December 2012, February 2013 and March 2013:

- 1. Bringing big data to biodiversity 19-Dec-2012
- 2. EU BON: Working towards integrated and comprehensive global biodiversity data 12-Feb-2013
- 3. International biodiversity data symposium to mark the kickoff of the EUBON project 12-Feb-2013
- 4. The large scale EU project EU BON: Towards integration with its global counterpart GEO BON 7-Mar-2013

They were addressed to both the scientific community and other stakeholders; therefore the language used was simpler, without avoiding an overload of scientific terminology and details.

With the progress of the project work, when significant results are obtained, new press releases will be prepared and largely distributed to the media, through personal and institutional channels. All press releases can be accessed via the Media Center on the project website.

4.6. RSS feeds and social networks – a strategy

News and announcements on the web platform will be disseminated using modern technologies, such as RSS feeds and social networks to address a range of readers and users, unforeseen before. The EU BON project will take full advantage of social media communication. A social media strategy is designed to

define clear and specific goals and outline a detailed and systematic plan of actions for social media use. An analysis of the project's specificities and the functionalities and specifics of each of the four outlined social networks was made which showed that each social network offers a different beneficial side to it and can have a potential unique use within the EU BON project. The project already owns accounts in the four social networks (Twitter, Facebook, Google +, LinkedIn) and the general social network dissemination strategy will be focused on developing and making the most of the advantages that these dissemination outlets offer.

As a result of the social media analysis and outline of social media to be use within the project, a social media strategy has been drafted (see below). With target users and intended message kept in mind the EU BON social media strategy aims to adapt the content and the features used within each social media. A specific action plan has been outlined to increase membership and to generate content as well as to strengthen the existing weak points within EU BON's social media visibility.

4.6.1. EU BON social media status up-to-date

EU BON supports accounts in four major channels: Facebook, Twitter, LinkedIn and Google +. The current status of these accounts is represented in the following table (figures provided as of 27/09/2013):

Table 2. Current status of EU BON social media networks

	Membership	Content	Feed from website
Twitter	133 followers	113 tweets	Yes
Facebook	42 likes	99 posts	Yes
LinkedIn	46 members	1 discussions	No
Google +	Google + 8 persons 60 posts		No

4.6.2. Social Media analyses and recommendations for use within EU BON:

Table 3. Comparison of the four social media network characteristics

	Functionalities and features –	In the context of EU BON	
	pros and cons		
Twitter	Pros: Short, fast, easy	-Generate interest and share on-going	
	communication; popular and with	news and activities through posts/tweets	
	high number of users; Twitter lists	-Twitter lists: building community	
	easy way to follow news and	around the project and getting relevant	
	interact; Event back-channelling	news	
	Cons: Rather limited in space and	-Conference live stream/post-conference	
	media sharing; Tweets have a	review	
	short searchability lifetime	-personal messages- Twitter email version	
Facebook	Pros: Useful for sharing media	-Generate interest and share on-going	
1 40000011	(pictures, videos); High number	news and activities through posts	
	of users; Create events and invite	-Share relevant multimedia (in posts, or	
	users; Community-like feel	as separate albums)	
	Cons: Less professional and used	-Events creation and promotion –	
	mainly for personal social	strengthening the sense of community	
	activities	ound the project	
		-Create groups to share group messages	
		-Insights- provide useful analytics for the	
		development of the page	
Google +	Pros: Growing network; Popular	-Generate interest and share on-going	
	in the technical fields; Sharing	news and activities through posts	
	media;	-Posts allow incorporation of videos and	
	Cons: Still not so popular among picture galleries as opposed to on		
	users picture per post		
		-Circles allow better security and	
		organization of social activity	
LinkedIn	Pros: A predominantly	-Forming a more professional meaningful	
	professional network; creates	discussion, disseminating news and	
	potential for professional	developments around the project in an	
	networking across members;	engaging discussion form	
	Participation in group discussions	-Facilitates networking among the	
	Cons: More popular in business	members	
	than in academia; Seen more as	-Job Advertising	
	an opportunity to professionally		
	showcase yourself, rather than as		
	a social tool		

4.6.3. Conclusions and foundations for the EU BON social media strategy

Following an analysis of the project's specificities and the functionalities and specifics of each of the four outlined social networks, we recommend the following social network strategy.

Each social network offers a different beneficial side to it and can have a potential unique use within the EU BON project. The project already owns accounts in the four social networks compared above (Twitter, Facebook, Google +, LinkedIn) and the general social network dissemination strategy will be focused on developing and making the most of the advantages that these dissemination outlets offer.

For example Twitter will be used for the short and catchy updates on news and events, as well as forming community through Twitter lists and for live streaming of conferences. Facebook gives opportunity for longer posts, creating and promoting events, sharing photo albums. Despite Google + is still relatively unpopular among users and offers similar characteristics to Facebook, an account will be supported as the networks give a similar experience to a blogging space, as well because it is mainly used by technical people, which is in conjunction with the nature of the project. LinkedIn is a network that needs the most attention as it is still very underdeveloped within the project. Special efforts will be put as the network gives the opportunity for forming a professional and meaningful discussion around a topic, as well as provides opportunities for networking and promoting within professional circles.

As a result of this brief social media analysis and outline of social media use within the project, the following strategy has been drafted. With target users and intended message kept in mind the EU BON social media strategy aims to adapt the content and the features used within each social media. A specific action plan has been outlined to increase membership and to generate content as well as to strengthen the existing weak points within EU BON's social media visibility.

4.6.4. EU BON social media strategy

Following the status of EU BON social media presence and the analysis of the social media as outlined above, we would recommend using the following social media strategy (SMS) (Figure 4):

Target Groups within each network:

- <u>Twitter:</u> all stakeholders, other initiatives, bloggers/media accounts, general public interested in the project topicality.
- <u>Facebook:</u> all stakeholders, general public interested in the project topicality.
- Google+: all stakeholders, Research labs/institutes, academia/students.
- <u>LinkedIn:</u> all stakeholders related Industry/Projects/Initiatives, specialists from the field.

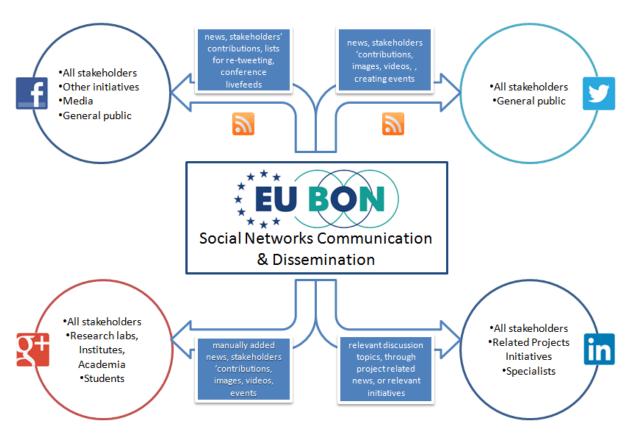


Fig. 4 The following scheme illustrates the EU BON SMS workflow.

Getting the message across for each network:

- <u>Twitter</u>: RSS feeds of the website news, additionally stakeholders can contribute with short, to the point messages, using suitable hashtags (#) and connecting to the right accounts (@), following the right initiatives and using lists for re-tweeting.
- **Facebook:** RSS feeds of the website news, additionally relevant posts, images, videos, uploading albums from meetings and conferences, creating events.
- <u>Google+:</u> manually adding the website news, additionally relevant posts, images, videos, uploading albums from meetings and conferences, creating events, posts can be longer and hashtags (#) can be used.
- <u>Linked in:</u> Posting relevant discussion topics, these can be generated through project related news, or by choosing relevant topics from other initiatives.

4.6.5. Social Network Strategy action plan

Stage 1 - Define strategy

- Social Media status as of to-date
- Social Media analysis, comparison and conclusion
- Project SMS recommendations
- Strategy outline

Stage 2 - Create and share

At partners level:

- All partners should join the project Social Media groups
- Each partner should at least launch one posting or discussion per month in one of the social networks

At project level (PENSOFT):

- Email blasts will be sent off to invited partners
- A Google calendar containing project milestones and deliverables will be created to remind partners to post a related news
- Online promotion
 - Add links to the Social Media groups in all online tools
 - Newsletters
 - Emails and blast emails
- Offline promotion Add the Social Media groups URL in all communication materials
 - Leaflets, brochures, posters
 - Reports
 - PowerPoint presentations at other events

Stage 3 - Increase Visibility and Membership

At partners level:

- Partners should invite their contacts to join the project's groups sending promotional messages and using the features (such as #s) through the social networks
- Partners should send promotional emails to their related professional networks network

At project's level (PENSOFT):

- Join other related groups (Biodiversity initiatives) and promote the EU BON groups
- Twitter lists will be created and constantly updated to provide a constant stream of news and get the attention of fellow initiatives (Annex 5)
- Invite people/organizations to join the EU BON groups
- Send an email blast
- Online promotion & Offline promotion

4.7. Policy briefs

Decision and policy makers will be targeted by production of policy briefs making available **major** outcomes of EU BON:

- The research will be made accessible to policy makers using accurate, timely and reliable evidence in order to engage them and sustain their interest.
- The language will be non-technical but professional, highlighting the project's policy relevance in order to capture the policy makers interest by explaining the project's significance in a concise way and outlining the main policy problem addressed.
- Special focus will be given to the policy implications of the information and recommendations for concrete actions will be suggested.

The Media Center will host all policy briefs issued. A copy of the policy brief will be sent to the relevant NGOs and policy makers. It will be published in the social networks and reflected in the project news digests.

4.8. Stakeholder engagement and science-policy dialogue

The existing and emerging policy requirements for biodiversity data will be reviewed with the aim to ensure policy relevance of EU BON outputs (such as trends in ecosystem service provision). This will consider work carried out by previous European projects (in particular SCALES, EBONE and EU MON) as well as added stakeholder engagement with policy makers at the EU and national levels. Also drawing on findings from WP6 this task will identify complementary processes to establish biodiversity monitoring systems to ensure added value to policy makers from EU BON activities. The outputs will lead directly to:

1) EU BON stakeholder round table

This task will help to build and ensure regular and efficient linkages to relevant political authorities and other stakeholders at national and European level to support the development and delivery of the EU BON project. While stakeholder interactions will occur throughout EU BON, this task has two elements:

The first is a support service for EU BON - mapping stakeholder engagement and providing contacts and support for stakeholder engagement to all relevant EU BON tasks. This will include establishing an overarching policy stakeholder group with contact points to relevant national and European level agencies and authorities involved in biodiversity and environmental policy, and GEO related activities.

The second element will be a more focused series of three strategic stakeholder engagement processes that will be scheduled as needed within the process of EU BON, the first stakeholder roundtable took place at the 18 June 2013 in Brussels, Belgium. The stakeholder meetings are planned as interactive workshops – at which high level stakeholders (from policy, governmental agencies and non-governmental organizations) and scientists will work collaboratively to address three sets of questions:

- What major changes need to occur in order that current and future policy needs for biodiversity data are met?
- How effective are the current approaches for improving the availability and policy relevance of biodiversity data?
- What data strategies should be put in place to realise the lessons generated during EU BON?

2) In-depth analysis of biodiversity data use in conservation policy

This task will contribute to a deeper understanding of the relationship between the needs regarding collection and mobilisation of biodiversity data and its use in conservation policy making. Case studies will be selected with high current conservation relevance that also draws on expertise within the consortium (such as birds, amphibians and butterflies). Using approaches in Science and Technology Studies available data will be mapped; conservation policy and stakeholder demands for relevant data will be mapped; barriers to gain more effective use of biodiversity data will be identified; process data providers and users will be brought together through a dialogue; and pilot processes to overcome barriers to the use of biodiversity data in conservation policy and management will be initiated (links to WP5).

3) Sector specific stakeholder engagement with user communities

This task will explore the role of users of natural resources in data collection, mobilisation and use. It will take specific sectors (such as agriculture (e.g. orchard managers), water companies, hunters and anglers) and identify opportunities for improving the integration and use of data through a series of stakeholder 'task force' meetings.

These stakeholders will be selected based on their interest in the topic: e.g. for hunters/anglers there is a need for good data and research to secure game populations; for water companies there is an incentive to reduce costs and learn about ecosystem approaches to water supply. The study will begin with a review of progress to-date and the identification of the most promising sectors to engage through a combination of research and short interviews with sector experts and user groups. For each sector specific stakeholder group, the usability of guidelines developed in task 6.4 "Sector specific stakeholder engagement with user communities" will be explored (at EU level and with test sites). The outcomes of this task will feed into recommendations for EU/GEO BON implementation strategy (WP7 Implementation of GEO BON: strategies and solutions at European and global levels).

4.9. Trainings

A training programme on data and metadata integration strategies, use of standards, and use of data tools will be developed and operated, within the EU BON consortium and beyond, thereby contributing to the communication and dissemination activities and also to the long-term impact of the project.

The training events will start with introduction courses and will first target the consortium members. As the project evolves and the tools become available, the trainings will also target external users. The plan is to invite stakeholders from and beyond Europe. An audience up to 25 participants per event will be targeted. The training programme will be organized in collaboration with the DEST (the Distributed European School of Taxonomy) set up under the European project EDIT (European Distributed Institute of Taxonomy) and currently maintained by Musee Royal da l'Afrique Centrale, National Botanic Garden of Belgium, and Royal Belgian Institute of Natural Sciences, who are also EU BON partners. Initially mainly dedicated to taxonomy courses, the scope has now been broadened to other biodiversity and environment related training activities (http://www.taxonomytraining.eu/) and are listed in table 4.

Table 4. EU BON trainings.

Milestone number	Training name	Lead beneficiary	Date
MS262	Introduction to relevant projects and technologies to training programmes and helpdesk services	MRAC	June 2013
MS281	Training workshop on data architecture and standards for up to 25 people from the consortium	MRAC	January 2014
MS282	Training workshop on standards and prototype data sharing tools for the consortium + external users	MRAC	February 2015
MS283	Training workshop on data standards and sharing tools for external users worldwide	MRAC	August 2015
MS284	Training workshop on use of standards, tools, registries, and registration of data in GEOSS	MRAC	February 2016
MS285	Training workshop on standards, tools, registration, and use of data with EU BON tools	MRAC	August 2016

4.10. Scientific papers

The scientific community is one of the main target groups to be addressed. We will focus not only on the specialists in biodiversity, information infrastructure, earth observation, monitoring, science policy, remote sensing, data integration and ecosystem services but also on scientists in any other disciplines that could in one or another way benefit by the EU BON outcomes.

One of the most effective ways to target our scientific stakeholders and the scientific communities in general is by publishing results in scientific journals. The scientific articles are deemed to be an excellent and one of the most preferred dissemination channels to reach the wider scientific community and to make them aware of the project results. Potentially, EU BON will produce a number of scientific papers that will be submitted to high ranking open access international scientific journals.

1) Authors must clearly acknowledge EU BON as a project and the European Union as a funding source's contribution in all publications by adding the following sentence:

"The research leading to these results has received funding from the European Community's Seventh Framework Programme (FP7/2007-2013) under grant agreement no 308454, EU BON Project (EU BON - Building the European Biodiversity Observation Network, www.eubon.net)"

2) If possible, the following sentence should also be added:

"This project has been funded with support from the European Commission. This publication [communication] reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein."

The EU BON acknowledgment will allow the work to be considered as a dissemination activity.

Partners are required to provide information on any scientific paper by reporting its status (submitted, accepted, in press, published) in the dissemination report form available in the EU BON ICP. An electronic copy of the paper will be sent to the EU BON dissemination leader for publication on the project website. The PDF of the article will be made available on the public part when the paper is open access or in the private section when it comes to a restricted access article.

At the end of the project lifetime the scientific results will be summarised in a special issue of a relevant, peer-reviewed, open access journal.

4.11. Presentations of EU BON results at international symposia

The presentations at scientific symposia are deemed one of the most appropriate means to reach the scientific community. The EU BON members are encouraged to participate and present the project and disseminate its results at relevant national and international meetings, workshops, conferences and congresses. It is worth to be noted that this activity is usually prepared well before the event takes place.

A list of the most relevant symposia was made with the contribution of the project partners. The list will be regularly updated during the project lifetime. The communication and dissemination activities to be performed will aim at good geographical coverage (national, Europe and worldwide), discipline coverage, scientific and non-scientific events.

EU BON relevant events are regularly published on the project website in order to assist the EU BON members to select the most suitable event to present the project and disseminate its results to the wide scientific community and all other interested parties.

5. Access to the information

The access to the EU BON information will be on an open basis. Closed mailing lists or password protected webpages will only be used when there is a good reason for restricting or limiting access, and the reason will be recorded. The information will be archived. The archiving will ensure that all important information is preserved and can be used in case it is requested at a later stage considering that most people search for information when they feel a need for it, during the project implementation but also after the project is completed.

6. Evaluation of the effectiveness of the communication and dissemination activities

In order to ensure that the different target groups will get the right messages using the best methods at the right time, the communication and dissemination activities were prepared well in advance and started together with the project launch. Yet, the environment changes during the project lifecycle and the context within which the target audience works may also change in addition. This imposes the use of suitable mechanisms to review the progress and the extent to which the Dissemination and Communication Strategy and Implementation Plan meet its objectives. Each activity will be evaluated to ascertain its effectiveness.

To guarantee the effectiveness of the Dissemination and Communication Strategy and Implementation Plan it will be updated depending on the experience so as to reflect what works better. To guarantee this the following guidelines will be accepted:

- The implementation plan will be adjusted continuously in the course of the project; it will be evaluated at the project midpoint (month 24) and updated to reflect the accumulated experience.
- Evaluation of the communication and dissemination activities is foreseen in order to receive information what methods deliver the results to be achieved.
- The focus will be on the stakeholders and whether they get and absorb the right message.
- The dissemination will be focused on quality and not just quantity in order to achieve greatest impact.
- Any activity will be estimated carefully and objectively to receive information whether the most appropriate method or channel for its achievement is being used.
- The communication and dissemination activities will be considered effective when the target audience is engaged.

Once the stakeholders are identified, the message is defined and the method is chosen, we will need to measure how effective are the communication and dissemination activities in order to learn from and/or improve them. The evaluation of the effectiveness will help to answer if the communication and dissemination activities have influenced the knowledge, opinion and/or behaviour of the target group. In order to review and measure the progress and the effectiveness of the communication and dissemination activities we have established the following targets:

Table 5. Table of the effectiveness measurement indicators.

Objective	Indicator	Baseline	Target
Raised	Number of website visits (per year)	>10,000	>20,000
public	Number of people registered for the project dissemination list to	>250	>500
awareness	receive the newsletter (in total)		
	Number of press releases issued (in total)	8	12
	Number of views accumulated per press release (in total)	700	1500
	Number of policy briefs written (in total)	3	5
	Number of outreach materials distributed to stakeholders (e.g. poster, brochures, newsletters, fact sheets) (in total)	20,000	>30,000
	Number of EU BON task force meetings and workshops	10	15
	Number of participants of all EU BON workshops (in total)	200	>300
	Number of international conferences where EU BON results are presented (in total)	5	10
	Number of people present on conferences/ big meetings where EU BON orally raised awareness(per meeting/conference)	150	300
	Number of news posts on the website (per year)	200	350
	Number of new followers in the social networks (per year)	50	100
	Number of posts in the social networks (these vary in the different social media channels)(per year)	200	>300

7. Challenges of communication and dissemination

There are some potential challenges (related to the various stakeholders, information sources, content, communication and dissemination methods) identified:

Stakeholders:

- Different type and level of information is needed/appreciated
- Information not relevant to the target audience needs
- Different type of dissemination methods preferred
- Limited number of information sources trusted
- Limited user readiness to change

Information source:

- Low level of authority
- Limited credibility of experience
- Suspicion regarding motive
- Lack of sensitivity to user concerns
- Presence of other sources trusted by the stakeholders

Content

- Low confidence in the quality of the information provided
- Restricted comprehensiveness of the information
- Unclear utility and relevance for users
- Non-user-friendly format

Communication and dissemination methods

- Limited capacity to reach intended users
- Long timeframes required to access
- Lack of flexibility
- Limited reliability
- Cost effectiveness
- Limited clarity of the information underestimation of the need to present project results in language adapted and accessible to the different target groups
- Limited attractiveness of the information
- Lags in implementation of cutting edge dissemination methods offered by rapidly developed internet technologies
- Lack of free access to scientific papers published in authoritative but expensive academic journals
- Improper use of printed and other materials intended for active dissemination but distributed passively
- Some resistance in the scientific community to publish data in forms or data papers or supplementary data files
- Some resistance in the scientific community to provide information necessary for newsletters, fact sheets and possible policy briefs

The identified barriers could be diminished or even be removed by developing a series of suitable actions.

First the target audience will be identified – individuals, groups and organizations that will be interested in getting project information and that we want to reach in order to raise awareness provide deeper understanding of the project and finally engage the stakeholders so as to incite them to be involved and active.

Another important step is the definition of a key message thinking of the characteristics of the target group that will receive it. It is essential to "translate" the scientific terms into easy to understand language when addressing the stakeholders different than the scientific ones. Usually the research projects are long lasting and complex but the messages to transmit should be simplified as much as possible. The focus will be on clear and simple messages that are easily understood and sent to the right stakeholders through the information source they trust. The language used in the communication and dissemination activities will be appropriate for the target audience. If one and the same message have to be sent to different audiences, an appropriate language will be used for each of them.

Messages will vary during the project implementation. At the start the communication and dissemination activities will be focused on the awareness while at the end they will try to engage the stakeholders. The Dissemination and Communication Strategy and Implementation Plan will give an increased role of active dissemination methods and will use up-to-date online communication and dissemination methods with the aim to ensure that the target groups learn and understand the project purpose and commit themselves to contribute to the preservation of the biodiversity.

8. Implementation

An Implementation plan (Annex 1) which describes the particular measures, timeframe and responsibilities of the partners during the course of the project and complements the Dissemination and Communication Strategy and Implementation Plan is elaborated with the aim to facilitate monitoring and reporting of the project's goals. It will be constantly updated during the implementation.

9. Technology transfer and Intellectual Property Rights, Data sharing and Open Access Publishing

9.1. Open access statement

EU BON will adhere strictly to the principles of free and open exchange of data, knowledge, and open access publishing, in accordance with the Council of Europe's policies, first declared in the 2832nd COMPETITIVENESS - Internal Market, Industry and Research Council meeting Brussels, 22 and 23 November 2007), as well as in the FP7 Open Access Pilot.

These policies will also follow the OECD's Principles and Guidelines for Access to Research Data from Public Funding, agreed by OECD countries in 2007. The project will adopt the Creative Commons Attribution 3.0 License at the maximum possible extent for publishing the project results, to balance the need to credit authors' and to ensure the widest possible distribution and usage of their work.

In data publishing and dissemination policies, EU BON will follow the basic postulates of the **Open Knowledge/Data Definition, and the Panton Principles for Open Data in Science**; EU BON will strengthen and develop various Open Source databases and tools, providing also access to the data sets underlying the published research. To secure long-term digital archiving of the results EU BON will link to global initiatives such as GBIF, GenBank, the Consortium for Barcode of Life (CBOL), LTER, Scratchpads, Dryad Digital Repository, Pangaea and others.

9.2. International property rights

The procedures to disseminate, protect, and exploit the IPR are covered in the Consortium Agreement. They were negotiated by the partners during the contract negotiation phase and further included. Aim of this agreement is to balance the requirements necessary to protect such intellectual property and the foreseen dissemination objectives. IPR will be applied according to the rules of the employer under the applicable European and national laws and regulations. The consortium will provide all necessary means for optimum valorisation of patentable inventions involving several institutions. This agreement will balance the requirements to protect such intellectual property, and the foreseen dissemination objectives.

Research results will be published only after an initial review of its potential for patenting and intellectual property rights, which may lead to commercial exploitation. The partners will be responsible that all patentable aspects will be fulfilled quickly and therefore not delay scientific publications and subsequent sharing of data via open access databases. Data that are deemed to be commercially sensitive will be indicated clearly. Furthermore, the principles of good scientific practice are to be obeyed within EU BON.

Participation of several Small- and Medium-sized Enterprises (SMEs) in EU BON is one of the ways to ensure a technology transfer and further exploitation of project results on the basis of sustainable, business-

driven principles. SMEs' and technology tools and platforms developed in EU BON will be supported by a sustainability strategy, developed by a separate task of the project.

9.3. Data sharing

It is highly recommended to aim at publishing most of the results in open access under **Creative Commons Attribution License 3.0 (CC-BY)**, which means that anyone is free to copy, distribute, transmit and remix (adapt) the work under the condition that the original sources and authors are credited (cited in academic articles or acknowledged when used for other purposes). In the event that a partner generates patentable material, the generating partner will notify the Project Steering Committee of this matter. Care will be taken to ensure that nothing is done to jeopardise the ability to patent the information through premature disclosure until the generating partner has either decided not to patent or has filed a patent application. The consortium will make all necessary endeavours for optimum valorisation of patentable inventions involving several institutions.

As a general principle, it is intended that the institutions responsible for a joint invention will be jointly in charge for filing of an application for a patent, with shared intellectual ownership rights negotiated between the relevant partners on a case-by-case basis and governed by separate agreements. Database Rights will be generated with the collation of data collections, addition of new data and new ways of displaying and archiving datasets. The partners need to agree upon the best way to manage the Database Rights with the General Assembly, with the aim of using to the maximum possible extent copyright licenses allowing free distribution of data. Such a license is **Open Data Commons Attribution License** (**ODC-By**), which allows users to freely share, modify, and use the published data (bases) provided that the data authors are acknowledged (cited in academic articles or acknowledged when used for other purposes). Data that are deemed to be commercially sensitive will be clearly identified. Authors should explicitly inform the project coordination, if they want to publish data associated with a journal article under a license that is different from the Open Data Commons Attribution License (ODC-By).

In case data have been previously deposited or published elsewhere under a license different from the above, the author should explicitly mention that in the text of the manuscript, cite the respective license and link to it. Some of the data, on discretion of the data collectors and in coordination with the project leaders could also be published under: Creative Commons CC0 (also cited as "CC-Zero" or "CC-zero") and the Open Data Commons Public Domain Dedication and License (ODC-PDDL). According to the CC0 license, "the person who associated a work with this deed has dedicated the work to the public domain by waiving all of his or her rights to the work worldwide under copyright law, including all related and neighbouring rights, to the extent allowed by law. You can copy, modify, distribute and perform the work, even for commercial purposes, all without asking permission."

Publication of data under a non-attribution waiver such as CC0 avoids potential problems of "attribution stacking" when data from several sources are aggregated for re-use, particularly if this re-use is undertaken automatically. In such cases, while there is no legal requirement to provide attribution to the data creators, the norms of academic citation best practice for fair use still apply, and those who re-use the data should reference the data source, as they would reference others' research articles. The Attribution-ShareAlike Open Data Commons Open Database License (OdbL) is NOT recommended for use for EU BON data, although it may be used as an exception in particular cases. The OdbL license assumes that "If one publicly uses any adapted version of the database, or works produced from an adapted database, he or she must also offer that adapted database under the OdbL."

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Annexes

Annex 1. EU BON Implementation Plan

Table A1. EU BON Implementation Plan

Annex 2. Current stakeholder list (Table A2), relevant projects/initiatives and organizations/institutions to be targeted by EU BON communication (Table A3)

Table A2. Stakeholder list

Table A3. Relevant projects/initiatives and organizations/institutions to be targeted by EU BON communication

Annex 3. The following scheme illustrates the relationship between partnering institutions and EU BON, on the one hand, and EU BON, GEO BON and GEOSS, on the other.

Annex 4. EU BON press releases to date

Annex 5. EU BON Twitter lists to date

Annex 6. EU BON Dissemination reporting forms

Annex 1. EU BON Implementation Plan

 Table A1. EU BON Implementation Plan

Period	Responsible party (WP and lead beneficiary)	Product	Target audience	How will it be delivered	What is to be communicated?	Scheduled
2012	WP8 Pensoft	Press release General public Submitted to EurekAlert! for distribution; Downloadable on website Awareness of the ne		Awareness of the new project	Dec 2012	
	WP8 Pensoft	Poster	General Public	Downloadable on website	General project outline	Jan 2013
	WP8 Pensoft	Press release	General Public	Submitted to EurekAlert! for distribution; Downloadable on website	Startup of the project	Feb 2013
	WP8 Pensoft	Press Release	General Public	Submitted to EurekAlert! for distribution; Downloadable on website	EU BON kick off meeting	Feb 2013
	WP8 Pensoft	Website: http://www.eubon.eu	General Public	Based on Description of Work (DoW) and with input from all partners	Website with general information on project objectives and set up	Feb 2013
2013	WP8 Pensoft	Leaflet	General Public	Downloadable on website, to be distributed at meetings/conferences	General project outline	Feb 2013
7	WP8 Pensoft	Partners posters	General public, all stakeholders	Downloadable on website	Project participants interests, views, plans	Feb 2013
	WP8 Pensoft	Press Release	General Public	Submitted to EurekAlert! for distribution; Downloadable on website	EU BON objectives and EU BON - Group on Earth Observations Biodiversity Observation (GEO) BON interaction	March 2013
	WP8 Pensoft	Email Blast	All stakeholders	Email to all stakeholders	A promotion of the project's social networks and invitation to join	May 2013
	All partners, Pensoft for production	News digest	Subscribers, interested stakeholders	RSS, Downloadable on website, direct contact with stakeholders	A synthesis of interesting news and events, communicating research findings	May 2013

 Table A1. EU BON Implementation Plan (Continued)

Period	Responsible party (WP and lead beneficiary)	Product	Target audience	How will it be delivered	What is to be communicated?	Scheduled
	WP6 - MfN	First policy/stakeholder round table	Policy makers, all stakeholders	Meeting held, press release, news item, newsletter item, social network posting	Project objectives, aims results	Jun 2013
	D8.1 Project branding (logo, flyer, powerpoint and policy briefs templates), website, online libraries	All stakeholders	Creation and dissemination of promotional tools, upload on the project website and the ICP	Project promotional materials and identity	July 2013	Jul 2013
2013	WP8 Pensoft and Partners	Newsletter	All stakeholders, attendees at meetings and conferences	Uploaded on website, email blasts, distributed and conferenced/meetings	Latest EU BON research findings, news, events	Aug 2013
	WP8 Pensoft	D8.2 Dissemination and Communication Strategy	All stakeholders	Available on website	Dissemination and Communication strategy	Sep 2013
	MfN and Pensoft	Second leaflet	General Public	Downloadable on website, to be distributed at conferences/meetings	General project outline	Sep 2013
	WP8 Pensoft and Partners	Website news and Social network postings	All stakeholders and general public	News & events, all news go to Facebook and Twitter via RSS feeds; interesting information to be posted and reposted by Partners and Pensoft	Project related news and initiatives	Throughout the period, at least once per week

 Table A1. EU BON Implementation Plan (Continued)

Period	Responsible party (WP and lead beneficiary)	Product	Target audience	How will it be delivered	What is to be communicated?	Scheduled
	WP8 Pensoft and partners	Newsletter	All stakeholders, attendees at meetings and conferences	Uploaded on website, email blasts, distributed and conferences/meetings	Latest EU BON research findings, news, events	Feb 2014
	WP8 Pensoft and partners	Newsletter	All stakeholders, attendees at meetings and conferences	Uploaded on website, email blasts, distributed and conferences/meetings	Latest EU BON research findings, news, events	Aug 2014
2014	WP6 - MfN	Second policy/stakeholder round table	Policy makers, all stakeholders	Meeting held, press release, news item, newsletter item, social network posting	Project objectives, aims results	Sep 2014
	WP1 – MfN	D1.1 Gap analysis and priorities for filling identified gaps in data coverage and quality	General Public	News item, newsletter piece, social network posting	Project research findings and results	Sep 2014
	WP2 - UEF	D2.1 Architectural design, review and guidelines for using standards	All stakeholders	News item, workshop, training event, web page, email to stakeholders	Project results and findings	Jan 2014
	WP8 Pensoft and partners	Newsletter	All stakeholders, attendees at meetings and conferences	Uploaded on website, email blasts, distributed and conferences/meetings	Latest EU BON research findings, news, events	Feb 2015
2015	WP3 -UnivLeeds	D3.1 Application software implementing remote sensing, distributional down- and biodiversity up- scaling	Public	News item, press release, newsletter piece, social network posting	Project results and findings	May 2015

 Table A1. EU BON Implementation Plan (Continued)

Period	Responsible party (WP and lead beneficiary)	Product	Target audience	How will it be delivered	What is to be communicated?	Scheduled
2015	WP8 Pensoft and Newsletter All stake partners attendees		All stakeholders, attendees at meetings and conferences	Uploaded on website, email blasts, distributed and conferences/meetings	Latest EU BON research findings, news, events	Aug 2015
7	WP6 - MfN	Third policy/stakeholder round table	Policy makers, all stakeholders	Meeting held, press release, news item, newsletter item, social network posting	Project objectives, aims results	Nov 2015
	WP2 - MRAC	D2.2 Data sharing tools	General Public	News item, workshop, training event, web page, email to stakeholders	Project results	Feb 2016
	WP2 - Global Biodiversity Information Facility (GBIF)	D2.3 Registry and metadata catalogue	All stakeholders	News item, workshop, training event, web page, email to stakeholders	Project results	Feb 2016
2016	WP8 Pensoft and partners	Newsletter	All stakeholders, attendees at meetings and conferences	Uploaded on website, email blasts, distributed and conferences/meetings	Latest EU BON research findings, news, events	Feb 2016
	WP3 - UnivLeeds	D3.2 Report on integrated distributional modeling and associated software	General Public	News item, newsletter piece, social network posting etc.	Project results and research findings	Mar 2016
	WP6 - UCAM	D6.1 Report on stakeholder engagement for integrated biodiversity information	General Public	EU BON roundtables, news item, press release, newsletter piece, social network posting, email blast to stakeholders, targeted coverage on key stakeholder websites	Project networking and results	Mar 2016

 Table A1. EU BON Implementation Plan (Continued)

Period	Responsible party (WP and lead beneficiary)	Product	Target audience	How will it be delivered	What is to be communicated?	Scheduled
	WP7 - UFZ	D7.1 Prototype for integrated, scalable global biodiversity monitoring schemes	All stakeholders, attendees at conference	News item, newsletter piece, social network posting, (Scientific) presentation at conference	Project Results	May 2016
	WP2 - MRAC	D2.4 Report and assessment of training activities and final versions of training manuals	All stakeholders	News item, workshop, training event, web page, email to stakeholders	Project result and findings	Aug 2016
	WP8 Pensoft and partners	Newsletter	All stakeholders, attendees at meetings and conferences	Uploaded on website, email blasts, distributed and conferences/meetings	Latest EU BON research findings, news, events	Aug 2016
2016	WP1 - UTARTU	D1.2 Summary report and strategy recommendations for EU citizen science gateway for biodiversity data	General Public	Press release, news item, newsletter piece, social network posting, targeting coverage in citizen science blogs, project websites etc.	Project research findings and results	Sep 2016
	WP5 - MfN	D5.2 Recommendations and strategies for building and sustaining a network of EU BON sites	General Public	News item, press release, newsletter piece, social network posting, email to stakeholders, EU BON will aim at coverage on relevant project websites	Project research findings and results	Sep 2016
	WP6 - UCAM	D6.2 Policy paper on strategies to overcome barriers for data mobilization and use in conservation policy	Policy makers, all stakeholders, general public	Policy paper, press release, news item, newsletter piece, social media postings, email blast to stakeholders, targeted coverage on relevant project websites	Project results and policy recommendations	Sep 2016

 Table A1. EU BON Implementation Plan (Continued)

Period	Responsible party (WP and lead beneficiary)	Product	Target audience	How will it be delivered	What is to be communicated?	Scheduled
	WP1 - NRM	D1.3 Systems for mobilizing and managing collection-based data (specimen + DNA-type data)fully integrated	General Public	News item, press release (joint with D1.4), newsletter piece, social network posting, training workshop	Project Results	Nov 2016
2016	WP1 - FUB- BGBM	D1.4 Summary report of operational EU BON services and data provision for the European taxonomic backbone	General Public	News item, press release (joint with D1.3), newsletter item, social network posting	Project results	Nov 2016
	WP3 - Plazi	D3.3 Updated release and report on publication datamining software	General Public	News item, press release, newsletter item, social network posting	Project results	Nov 2016
	WP7 - CNRS	D7.2 Recommendations for national and regional EU integrated biodiversity information infrastructures	Policy makers, all stakeholders, General Public	News item, newsletter item, social network posting,(Scientific) presentation at conference	Project results	Dec 2016
	WP7 - CNRS	D7.3 Recommendations for EU BON / GEO BON contributions to Convention on Biological Diversity (CBD) and IPBES	Policy makers, all stakeholders, General Public	News item, newsletter item, social network posting, communication directly oriented towards GEO BON, Intergovernmental Platform on Biodiversity & Ecosystem Services (IPBES) and CBD	Project results	Jan 2017
2017	WP2 - CSIC	D2.5EU BON portal	All stakeholders and the general Public	News item, press release, newsletter item, social network posting, workshop, training event, web page, email to stakeholders, poster and demonstration at GEO Plenary, aiming at media and relevant projects' websites coverage	Project Results	Feb 2017

 Table A1. EU BON Implementation Plan (Continued)

Period	Responsible party (WP and lead beneficiary)	Product	Target audience	How will it be delivered	What is to be communicated?	Scheduled
	WP7 - WCMC	D7.4 Strategies and business plan for regional and global biodiversity information infrastructures	All Stakeholders and the general public	News item, press release, newsletter item, policy brief, social network posting, scientific paper	Project Results	Feb 2017
	WP8 Pensoft and partners	Newsletter	All stakeholders, attendees at meetings and conferences	Uploaded on website, email blasts, distributed and conferences/meetings	Latest EU BON research findings, news, events	Feb 2017
2017	WP8 - Pensoft	D8.3 Data publishing and dissemination toolbox	All Stakeholders, general public	News item, press release, newsletter item, social network posting, email blast to stakeholders, targeted coverage on relevant projects and publication websites, workshop	Project results	Mar 2017
	WP4 - UFZ	D4.3 Quantification on sources of uncertainty in previous analyses	General Public	News item, newsletter item, social network posting	Project results	May 2017
	WP8 Pensoft and partners	Newsletter	All stakeholders, attendees at meetings and conferences	Uploaded on website, email blasts, distributed and conferences/meetings	Latest EU BON research findings, news, events	Feb 2017

REGULARITY AND SCHEDULING OF FUTURE EU BON DISSEMINATION ACTIVITIES:

1) Press releases –1 press release every six to eight months (this frequency is relative and is a subject to change in accordance with the necessities of the project and to reflect the schedule of important project results and deliverables).

2) Electronic news digests – 1 every six months

Already produced: May 2013

Following dates: Nov 2013, May 2014, Nov 2014, May 2015, Nov 2015, May 2016, Nov 2016 May 2017-to mark the end of the project and communicate findings and results

3) EU BON online and print newsletter – 1 every 6 months

Dates: Aug 2013 (already produced), Feb 2014, Aug 2014, Feb 2015, Aug 2015, Feb 2016, Aug 2016, Feb 2017, May 2017- special issue to mark the end of the project and communicate findings and results

4) News and Events on the website:

Pensoft: minimum 2 per week

Partners: minimum 1 per month

5) Social networks activity:

RSS feed to transfer news from website to Facebook and Twitter, Google +, LinkedIn to be updated manually

Pensoft: 2 additional posts per week, Pensoft and all partners are responsible for postings from meetings and conferences via social media

Partners: 1 partner post per month, 1 discussion started on LinkedIn within 1 to 3 month

The values given above are just a guideline and set as a minimum activity on every dissemination aspect per period of time. They are a subject to an increase whenever this might be necessary or possible throughout the project's lifetime.

Annex 2. Current stakeholder list (Table A2) and relevant projects/initiatives and organizations/institutions to be targeted by EU BON communication (Table A3). These lists will be updated throughout the project and makes no claims of being complete.

Table A2. Stakeholder list

Institution	Function of the EU BON contact	Unit	Stakeholder group	Relevance for EU BON WP	Communication channel
European Environment Agency (EEA)	Citizen science network coordinator		European Policy	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings, policy papers, social media
Consortium of European Taxonomic Facilities (CETAF)	General Secretary		Biodiversity	WP1, WP2, WP3, WP4, WP5, WP6, WP7, WP8	Email blasts, conferences /meetings/workshops, policy papers, social media
Leibniz Institute of Freshwater Ecology and Inland Fisheries	BioFresh scientific coordinator		EU funded Science Programme	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops, social media
Royal Zoological Society of Antwerp		CONGRESS: genetic diversity	EU funded Science Programme	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops, social media
Leibniz Association, Brussels Office	Leibniz Büro Brüssel		European Policy	WP1, WP2, WP3, WP4, WP5, WP6, WP7, WP8	Email blasts, conferences /meetings/workshops, social media
Representation City of Berlin to the European Union	Officer for Research, Education and Youth		National Policy	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops, policy papers, social media
German Federal Agency for Nature Conservation (BfN)		INSPIRE	European Policy	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops, policy papers, social media
Birdlife International - NABU	Direktor für Europapolitik		NGO	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops, social media
European Commission DG Research and Innovation - Unit I3 - Natural Resources	Head of Earth Observation Sector		European Policy	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops, policy papers, social media

 Table A2. Stakeholder list (Continued)

Institution	Function of the EU BON contact	Unit	Stakeholder group	Relevance for EU BON WP	Communication channel
GEO Secretariat		GEO & GEO BON	International Policy	WP1, WP2, WP3, WP4, WP5, WP6, WP7, WP8	Email blasts, conferences /meetings/workshops, policy papers, social media
United Nations Environment Programme - World Conservation Monitoring Centre			International Policy	WP1, WP2, WP3, WP4, WP5, WP6, WP7, WP8	Email blasts, conferences /meetings/workshops, policy papers, social media
European Commission DG Research & Innovation	EU BON Project Officer		European Policy	WP1, WP2, WP3, WP4, WP5, WP6, WP7, WP8	Email blasts, conferences /meetings/workshops, policy papers, social media
European Commission DG Environment	Administrator for the Biodiversity Action Plan (BAP)		European Policy	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops, policy papers, social media
European Commission DG Research & Innovation	Research Programme Officer		European Policy	WP1, WP2, WP3, WP4, WP5, WP6, WP7, WP8	Email blasts, conferences /meetings/workshops, policy papers, social media
European Environment Agency EEA	Head of Group, Biodiversity		European Policy	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops policy papers, social media
European Commission	Head of Unit	DG Research and Innovation, Directorate I - Environment, Climate Change and natural hazards	European Policy	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops, policy papers, social media
European Commission	Director	DG CONNECT, Net Futures	European Policy	WP1, WP2, WP3, WP5, WP8	Email blasts, conferences /meetings/workshops, policy papers, social media
European Commission	Head of Unit	DG CONNECT, Smart Cities and Sustainability	European Policy	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops, policy papers, social media
European Commission	Head of Unit	Climate Finance and Deforestation	European Policy	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops, policy papers, social media

 Table A2. Stakeholder list (Continued)

Institution	Function of the EU BON contact	Unit	Stakeholder group	Relevance for EU BON WP	Communication channel
European Commission	Head of Unit		European Policy	WP1, WP2, WP3, WP4, WP5, WP6, WP7, WP8	Email blasts, conferences /meetings/workshops, policy papers, social media
EEB	Senior Policy Officer	Biodiversity, Water & Soil Protection	European Policy	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops, social media
WWF EPO	Head, Natural Resources		NGO	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops, social media
WWF EPO	Biodiversity Policy Advisor		NGO	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops, social media
UNEP		Brussels Liaison Office	European Policy	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops, policy papers, social media
European Parliament	MEP	ENVI	European Policy	WP2, WP6, WP7	Email blasts, conferences /meetings/workshops, policy papers, social media
European Parliament	MEP	ENVI	European Policy	WP2, WP6, WP7	Email blasts, conferences /meetings/workshops, policy papers, social media
European Parliament	MEP	Subst. ENVI	European Policy	WP2, WP6, WP7	Email blasts, conferences /meetings/workshops, policy papers, social media
Univ.Cardiff		CONGRESS: genetic diversity	EU funded Science Programme	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops, policy papers, social media
Univ. Reading		STEP: pollinator biodiversity Coo	EU funded Science Programme	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops social media

 Table A2. Stakeholder list (Continued)

Institution	Function of the EU BON contact	Unit	Stakeholder group	Relevance for EU BON WP	Communication channel
UMR Agroécologie		EcoFinders: soil biodiversity	EU funded Science Programme	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops, social
Norwegian Biodiversity Information Centre		INSPIRE	EU funded Science Programme	WP2, WP4, WP6, WP7	media Email blasts, conferences /meetings/workshops, social media
Landesamt für Natur, Umwelt und Verbraucherschutz		INSPIRE	EU funded Science Programme	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops, social media
Bundesamt für Naturschutz		INSPIRE	EU funded Science Programme	WP2, WP4, WP6, WP7	Email blasts, conferences /meetings/workshops, social media

Table A3. Relevant projects/initiatives and organizations/institutions to be targeted by EU BON communication

Initiatives, projects and institutions:	Information:	Website:					
Relevant projects and initiatives:							
Group on Earth Observations Biodiversity Observation Network (GEO BON)	Some 100 governmental, intergovernmental and non-governmental organizations are collaborating through GEO BON to organize and improve terrestrial, freshwater and marine biodiversity observations globally and make their biodiversity data, information and forecasts more readily accessible to policymakers, managers, experts and other users	http://www.earthobservations.org http://www.earthobservations.org/geobon.shtml					
Global Earth Observation System of Systems (GEOSS)	The Group on Earth Observations is coordinating efforts to build a GEOSS. GEO was launched in response to calls for action by the 2002 World Summit on Sustainable Development and by the G8 (Group of Eight) leading industrialized countries. These high-level meetings recognized that international collaboration is essential for exploiting the growing potential of Earth observations to support decision making in an increasingly complex and environmentally stressed world	http://www.earthobservations.org http://www.earthobservations.org/geoss.shtml					
GBIF	The GBIF was established by governments in 2001 to encourage free and open access to biodiversity data, via the Internet. Through a global network of countries and organizations, GBIF promotes and facilitates the mobilization, access, discovery and use of information about the occurrence of organisms over time and across the planet.	http://www.gbif.org/					
Biodiversity Information Standards(TDWG)	The TDWG (Taxonomic Database Working Group) community's priority is the deployment of Life Science Identifiers (LSID), the preferred Globally Unique Identifier technology and transitioning to RDF encoded metadata as defined by a set of simplevocabularies. All new projects should address the need for tagging their data with LSIDs and consider the use or development of appropriate vocabularies	http://www.tdwg.org/					
KNEU	BiodiversityKnowledge is an initiative by researchers and practitioners to help all societal actors in the field of biodiversity and ecosystem services to make better informed decisions. In this challenge, they interactively developed a Network of Knowledge - an open networking approach to boost the knowledge flow between biodiversity knowledge holders and users in Europe.	http://www.biodiversitykn owledge.eu/					

Table A3. Relevant projects/initiatives... (Continued)

Initiatives, projects and institutions:	Information:	Website:
Biodiversity Heritage Library for Europe (BHL- Europe)	BHL-Europe is mobilizing the published knowledge of biological diversityand make this digital literature freely available to everyone through this portal.	http://www.bhl-europe.eu/
Encyclopedia of Life (EOL)	Our knowledge of the many life-forms on Earth - of animals, plants, fungi, protists and bacteria - is scattered around the world in books, journals, databases, websites, specimen collections, and in the minds of people everywhere. Imagine what it would mean if this information could be gathered together and made available to everyone – anywhere – at a moment's notice.	http://eol.org/
LifeWatch	Users can benefit from integrated access to a variety of data, analytical and modeling tools as served by a variety of collaborating initiatives. Another service is offered with data and tools in selected workflows for specific scientific communities.	http://www.lifewatch.eu
Arctic Observing Summit (AOS)	The AOS is a high-level, biennial summit that aims to provide community-driven, science-based guidance for the design, implementation, coordination and sustained long-term (decades) operation of an international network of arctic observing systems.	http://www.arcticobservingsummit.org/
European Long- Term Ecosystem Research Network (LTER- Europe)	Long-Term Ecosystem Research (LTER) is an essential component of world wide efforts to better understand ecosystems. This comprises their structure, functions, and response to environmental, societal and economic drivers as well as the development of management options.	http://www.lter- europe.net/
Oberösterreichisc hes Landesmuseum; Biologiezentrum: Zoologisch- Botanische Datenbank (ZOBODAT)	ZOBODAT (Zoological Botanical Database, formerly ZOODAT) is a digitally organized biogeographical database including analysis, documentation and communication facilities. The database contains data on the distribution of animal and plant species and diverse supporting digital libraries.	http://www.zobodat.at

Table A3. Relevant projects/initiatives... (Continued)

Initiatives, projects and institutions:	Information:	Website:
Consortium of European Taxonomic Facilities A.I.S.B.L. c/o RoyalMuseum for Central Africa (CETAF)	CETAF is a networked consortium of scientific institutions in Europe formed to promote training, research and understanding of systematic biology and palaeobiology, Together, CETAF institutions hold very substantial biological (zoological and botanical), palaeobiological, and geological collections and provide the resource for the work of thousands of researchers in a variety of scientific disciplines.	http://www.cetaf.org/
Biodiversity Virtual e- Laboratory project / CardiffUniversity, School of Computer Science and Informatics (BioVel)	BioVeL is a virtual e-laboratory that supports research on biodiversity issues using large amounts of data from cross-disciplinary sources. BioVeL offers the possibility to use computerized "workflows" (series of data analysis steps) to process data, be that from one's own research and/or from existing sources.	http://www.biovel.eu/
CABI Europe / Index Fungorum Partnership (CABI Europe)	Index Fungorum is a community resource currently co-ordinated and supported by the following partnership: Landcare Research and Royal Botanical Gardens (RBG) Kew: Mycology (the custodians). The custodians, either collectively or individually, claim no Intellectual Property Rights (IPR) over the compilation, which correctly reside with the many contributors, including the custodians. It is free of any charge to the community on a non-commercial use basis.	http://www.indexfungoru m.org/
Delivering Alien Invasive Species Inventories for Europe (DAISIE)	To help those tackling the invasive species challenge, the DAISIE website provides a 'one-stop-shop' for information on biological invasions in Europe.	http://www.europe- aliens.org/
International Trust for Zoological Nomenclature / International Commission on Zoological Nomenclature (ICZN / ITZN)	The ICZN acts as adviser and arbiter for the zoological community by generating and disseminating information on the correct use of the scientific names of animals. The ICZN is responsible for producing the International Code of Zoological Nomenclature - a set of rules for the naming of animals and the resolution of nomenclatural problems.	http://iczn.org/

Table A3. Relevant projects/initiatives... (Continued)

Initiatives, projects and institutions:	Information:	Website:
Central and West Africa Protected Areas Programme; WestAfricanScien ceServiceCenter on Climate Change and AdaptedLand Use /WASCAL/ (IUCN: PAPACO)	PAPACO website accompanies the implementation of the roadmap for African protected areas. It details each direction of the road, as well as important tools for the management and governance of protected areas.	http://papaco.org/
Kenya Biodiversity Informatics Facility; NationalMuseum of Kenya (Kenya Biodiversity Information Facility (KenBIF))	The KenBIF, a member of the GBIF intends to provide convenient free and universal access to data and information on Kenya's biodiversity so as to make available resources that support biodiversity conservation and decision making. KenBIF aims at creating a network of Kenyan Biodiversity institutions to make data free and openly accessible online to all Kenyans.	http://kenya.gbif.org/
Tanzanian Commission for Science and Technology; Tanzania Biodiversity Information Facility (COSTECH; TanBIF)	This website gives access to biodiversity information on Tanzania and worldwide. TanBIF is the National Biodiversity Information Facility, an extensive, decentralized system of national biodiversity information units that intends to provide free and universal access to data and information regarding Tanzania biodiversity.	http://www.tanbif.or.tz/
Consortium for the Barcode of Life (CBOL)	The CBOL is an international initiative devoted to developing DNA barcoding as a global standard for the identification of biological species.	http://www.barcoding.si.e du
Data Observation Network for Earth (DataONE)	DataONE is the foundation of new innovative environmental science through a distributed framework and sustainable cyberinfrastructure that meets the needs of science and society for open, persistent, robust, and secure access to well-described and easily discovered Earth observational data.	https://www.dataone.org
Dryad / The University of North Carolina at Chapel Hill (Dryad)	DataDryad.org is a curated general-purpose repository that makes the data underlying scientific publications discoverable, freely reusable, and citable. Dryad has integrated data submission for a growing list of journals.	http://datadryad.org/

 Table A3. Relevant projects/initiatives... (Continued)

Initiatives, projects and institutions:	Information:	Website:
Global Names project; MBL – Marine Biological Laboratory (GlobalNames)	For over 250 years, scientific names have been used to refer to organisms. Our literature, museums, herbaria, and databases rely heavily on names such that an infrastructure that manages (the strings that serve as) names can discover, index, organize and interconnect online information about organisms and serve the needs of biologists. That is the vision for the Global Names Architecture (GNA).	http://globalnames.org/
NationalCenter for Ecological Analysis and Synthesis (NCEAS)	Scientists at NCEAS use existing information to address important questions in ecology and allied disciplines. Hundreds of scholars, including Postdoctoral Associates, Center (Sabbatical) Fellows, and visitors in Working Groups collaborate at NCEAS each year on scores of projects.	http://www.nceas.ucsb.ed u/
University of Colorado at Boulder (VertNet)	Four distributed database networks (MaNIS, HerpNET, ORNIS and FishNet) have been the result of a massive, collaborative effort within the museum and bioinformatics communities to make specimen data interoperable, mappable and publicly available. VertNet was formed as an umbrella project to meet the common needs of the participants, maintain the existing networks, add new members and develop integrated online technologies.	http://vertnet.org/index.ph p
Atlas of Living Australia (ALA)	The Atlas of Living Australia (Atlas) contains information on all the known species in Australia aggregated from a wide range of data providers: museums, herbaria, community groups, government departments, individuals and universities.	http://www.ala.org.au/
Indonesian Institute of Sciences (LIPI), ResearchCenter for Biology / Indonesian Biodiversity Information System (IBIS)	IBIS online contains information about type specimens of Indonesian biodiversity.	http://ibis.biologi.lipi.go.i d/
Fauna Europaea	The Fauna Europaea project has been funded by the European Commission for a period of four years (2000 - 2004) within the 5 th Framework Programme. Fauna Europaea has assembled a database of the scientific names and distribution of all living multicellular EU land and freshwater animals.	http://www.faunaeur.org

 Table A3. Relevant projects/initiatives... (Continue)

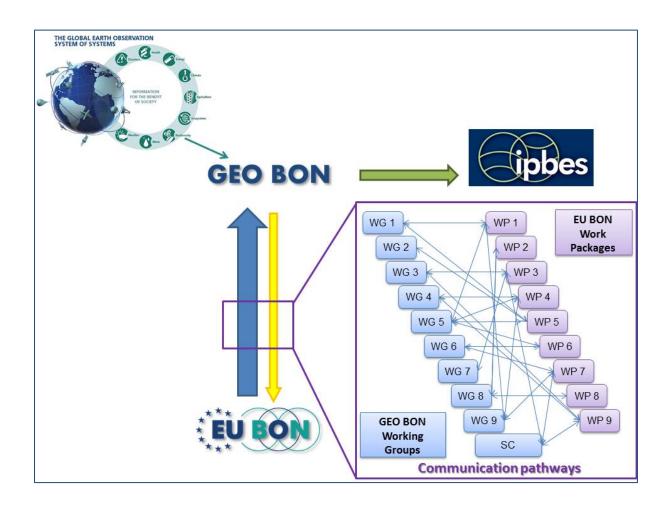
Initiatives, projects and institutions:	Information:	Website:
Man and the Biosphere Europe / Stockholm Resilience Centre (EuroMAB)	EuroMAB is the largest and oldest of the MAB Regional Networks: 52 countries, including Canada and the USA, and 289 biosphere reserves. Meetings of the MAB National Committees and biosphere reserve co-ordinators of EuroMAB have taken place almost every two years since 1986.	http://www.unesco.org/ne w/en/natural- sciences/environment/ecol ogical-sciences/man-and- biosphere- programme/networks/euro mab/euromab- webplatform/
EU Life Sciences Infrastructure for Biology Info. (ELIXIR)	The purpose of ELIXIR is to construct and operate a sustainable infrastructure for biological information in Europe to support life science research and its translation to medicine and the environment, the bioindustries and society. The collection, curation, storage, archiving, integration and deployment of biomolecular data is an immense challenge that cannot be handled by a single organization or by one country alone, but requires international coordination.	http://www.elixir- europe.org/

 Table A3. Relevant projects/initiatives/organisations... (Continued)

Relevant organizations and institutions:		
DG Research and Innovation	http://ec.europa.eu/research/index.cfm?pg=dg	
DG Environment	http://ec.europa.eu/dgs/environment/	
DG Communications Networks, Content and	http://ec.europa.eu/dgs/connect/en/content/dg-	
Technology, DG Connect	connect	
DG Climate action	http://ec.europa.eu/dgs/clima/mission/index_en.ht	
	<u>m</u>	
Joint Research Centre (JRC)	http://ec.europa.eu/dgs/jrc/	
European Environmental Bureau (EEB)	http://www.eeb.org/	
CBD	http://www.cbd.int/	
IPBES	http://www.ipbes.net/	
International Union for Conservation of	http://www.iucn.org/	
Nature (IUCN)		
United Nations Environment Program (UNEP)	http://www.unep.org/	
Birdlife International	http://www.birdlife.org/	
World Wildlife Foundation (WWF)	http://www.wwf.org/	
Biodiversity Information System (BISE)	http://biodiversity.europa.eu/	
European Distributed Institute of Taxonomy	http://www.e-taxonomy.eu/	
(EDIT)	V.110	
Swedish Species Information Centre: ArtDatabanken, Lifewatch (SSIC)	www.swedishlifewatch.se	
British Trust for Ornithology (BTO)	www.bto.org	
Centre de Recherche pour la Gestion de la	www.gbif.africamuseum.be	
Biodiversité (CRGB)	www.gon.ameamaseam.oe	
Centre de Documentation de l'Enseignement	www.cedesurk.org	
Supérieur, Universitaire et de Recherche à		
Kinshasa (CEDESURK)		
Canadian Facility for Ecoinformatics Research (CFER)	www.macroecology.ca	
Alexander von Humboldt Institute for	www.humboldt.org.co	
Research on Biological Resources Colombia	www.numoordt.org.co	
(Instituto Humboldt)		
Biodiversity Institute of The University of	www.biodiversity.ku.edu	
Kansas (KU)	, , ,	
YaleUniversity - Ecology and Evolutionary	www.eeb.yale.edu	
Biology (YaleUniversity) ASEAN Centre for Biodiversity (ACB)	www.aseanbiodiversity.org	
*This table is to be continuously undated and expended through	-	

^{*}This table is to be continuously updated and expanded throughout the EU BON project lifetime.

Annex 3. The following scheme illustrates the relationship between partnering institutions and EU BON, on the one hand, and EU BON, GEO BON and GEOSS, on the other.

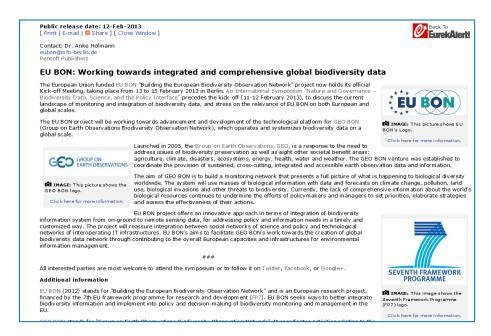


GEO BON Working Groups:

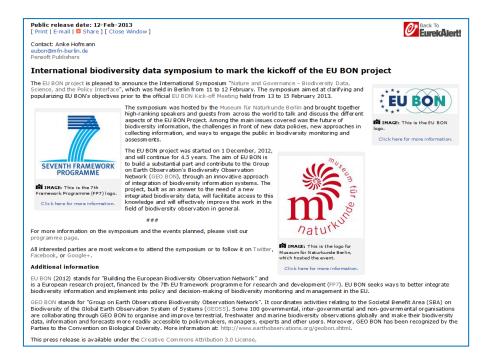
- WG 1: Genetics
- WG 2: Terrestrial species monitoring
- WG 3: Terrestrial ecosystem change
- WG 4: Freshwater ecosystem change
- WG 5: Marine ecosystem change
- WG 6: Ecosystem Services
- WG 7: In-situ / remote-sensing integration: integration and modelling across scales
- WG 8: Data integration and inter-operability; informatics and portals
- WG 9: Biodiversity Indicators

Annex 4. EU BON press releases to date

1. EU BON: Working towards integrated and comprehensive global biodiversity data.



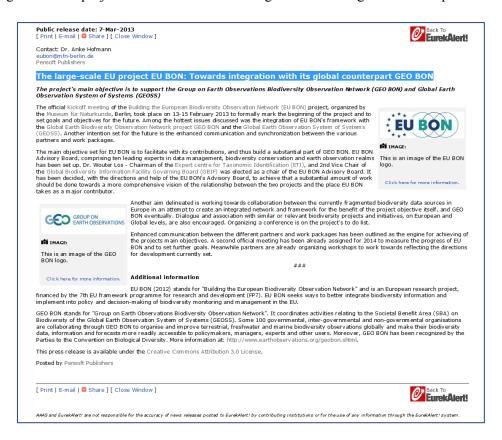
2. International biodiversity data symposium to mark the kickoff of the EU BON project.



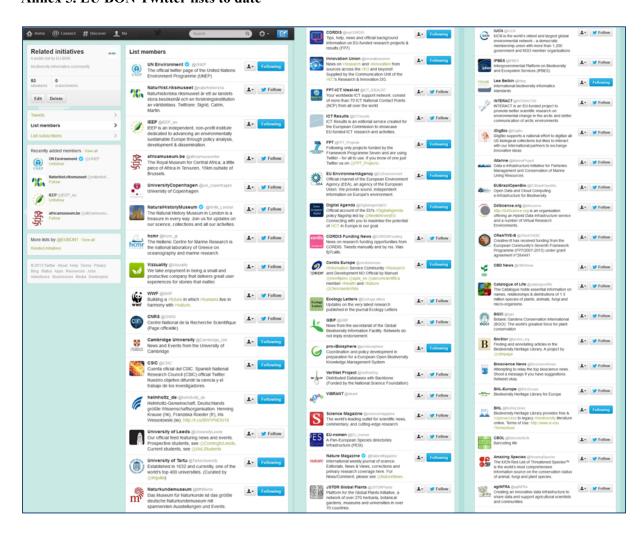
3. Bringing big data to biodiversity.



4. The large-scale EU project EU BON: Towards integration with its global counterpart GEO BON.



Annex 5. EU BON Twitter lists to date



Annex 6. EU BON Dissemination reporting forms



Annex 6A. Symposia and Meetings Form

Symposia & Meeting General Dissemination Scientific Publications
EU BON SYMPOSIA & MEETINGS form
*Required
Name *
E-mail Address *
Affiliation *
▼
Presentation at scientific symposia
Conference
■ Meeting
Workshop
Other:
Organisation of scientific symposia
Conference
■ Meeting
Workshop
Other:
Other type of activity
Organisation of training course
Direct interactions with stakeholders
Other:
EU BON partner/s involved

Annex 6B. General Dissemination Form

*Required		
Name *		
E-mail Address *	_	
Affiliation *		
.		
Type of activity		
 Publication in new 		
 Publication in mag Web publication 	azine	
Web publicationTV broadcast		
- -		
Radio broadcastPress release		
Policy brief		
Teaching		
PhD thesis		
Master thesis		
Website article		
Other:		
Other.		
Partner/s involved		

Annex 6C. Scientific Publications Form

mposia & Meeting General Dissemination Scientific Publications
EU BON SCIENTIFIC PUBLICATIONS form
*Required
Name *
E-mail Address *
E-mail Address
Affiliation *
•
EU BON partner/s involved
.4
Publication Title
.fi
Author(s)