



NEWSLETTER



EU BON consortium at the Kick Off in February 2013

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Greetings from the EU BON coordinator:

Dear readers,

From the entire project consortium, we are delighted to introduce you to our first EU BON Newsletter!

This newsletter will keep you informed on the progress, recent achievements, and forthcoming activities of the EC FP7 project EU BON, as well as related activities by our partners and associates. As EU BON stands for “Building the European Biodiversity Observation Network” and with the aim to build a substantial, highly integrative part of the Group on Earth Observations Biodiversity Observation Network (GEO BON), we depend on actively involving experts and communities engaged in assembling and using biodiversity information across Europe and elsewhere.

Apart from offering regular updates about EU BON, we intend to provide news on important scientific developments concerning biodiversity data recording, as well as data analysis and modelling, and about the challenges of communicating and interfacing relevant biodiversity information with politics and the greater public.

We intend to make this newsletter a regular publication which will appear bi-annually. It should address and serve not only researchers and individuals of the biodiversity information community but all stakeholders with broader biodiversity interests. As with every communication effort, success will largely be determined by the evoked feedback and responses. Therefore, I would like to encourage you to approach the EU BON consortium and the project coordination with any questions, critics or suggestions you may have concerning the issues addressed here. Further information about the project, including results, publications and PR materials, can be found on the EU BON website: www.eubon.eu.

With best wishes for a stimulating further communication and fruitful cooperation,

and warm regards,

Dr. Christoph Häuser

EU BON Outline & Objectives:

On 1st December 2012, 30 partners from 15 European countries, Israel, the Philippines, and Brazil and more than 30 associated partners started EU BON - “Building the European Biodiversity Observation Network”. This €9 million, EU-funded research project aims to advance biodiversity knowledge by building a European gateway for biodiversity information, which will integrate a wide range of biodiversity data – from on ground observations to remote sensing datasets – and make it accessible for scientists, policy makers, and the public.

The main objective of EU BON is to build a substantial part of 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 supporting IPBES. Due to EU BON’s contribution, overall European capacities and infrastructures for environmental information management will be strengthened. EU BON will build on existing components, in particular GBIF, LifeWatch infrastructures, and national biodiversity data centres.

EU BON will deliver several important products, including a European integrated biodiversity portal, a roadmap for EU citizen sciences gateway for



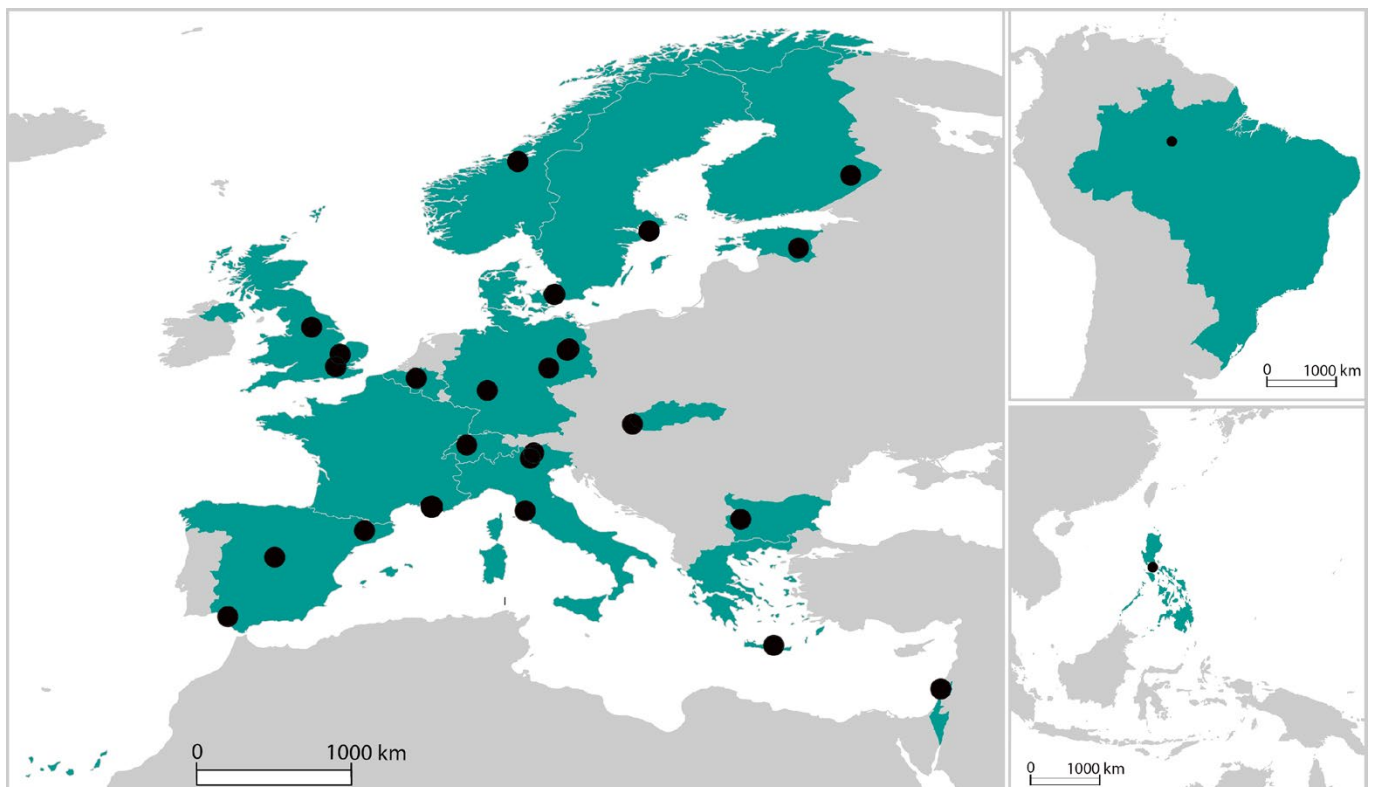
biodiversity data, an open data publishing and dissemination framework and toolkit, a policy paper on strategies for data mobilisation and use in conservation, a prototype of integrated, scalable, global biodiversity monitoring schemes, strategies for EU-integrated national and regional future biodiversity information infrastructures, and a sustainability plan for regional and global biodiversity information network.

A key feature of EU BON will be the delivery of near-real-time relevant data – both from on-ground observation and remote sensing – to the various stakeholders and end users ranging from local to global levels. Doing so will require

- (1) the establishment and adoption of new data standards and integration techniques,
- (2) harmonized data collection,
- (3) the development of new approaches and strategies for future biodiversity monitoring and assessment.

The EU BON Consortium – Introduction:































The EU BON consortium consists of 30 partners from 15 European countries, Israel, the Philippines and Brazil. The partners are members of networks of biodiversity data-holders, monitoring organizations, and leading scientific institutions. The nature of the EU BON project requires the close collaboration of experts from both the IT and biodiversity spheres. The EU BON work packages involve research topics covering data sources, data integration & interoperability, and improving tools and methods for data analysis and interface on the IT side. In terms of biodiversity research EU BON looks into linking environment to biodiversity: analyses of patterns, processes and trends. The approach aims to integrate social networks of science and policy and technological networks of interoperating IT infrastructures.



Geographic representation of the countries, where black dots on the map indicate the location of the EU BON partners (map by J. Penner)



List of partners (from west to east):

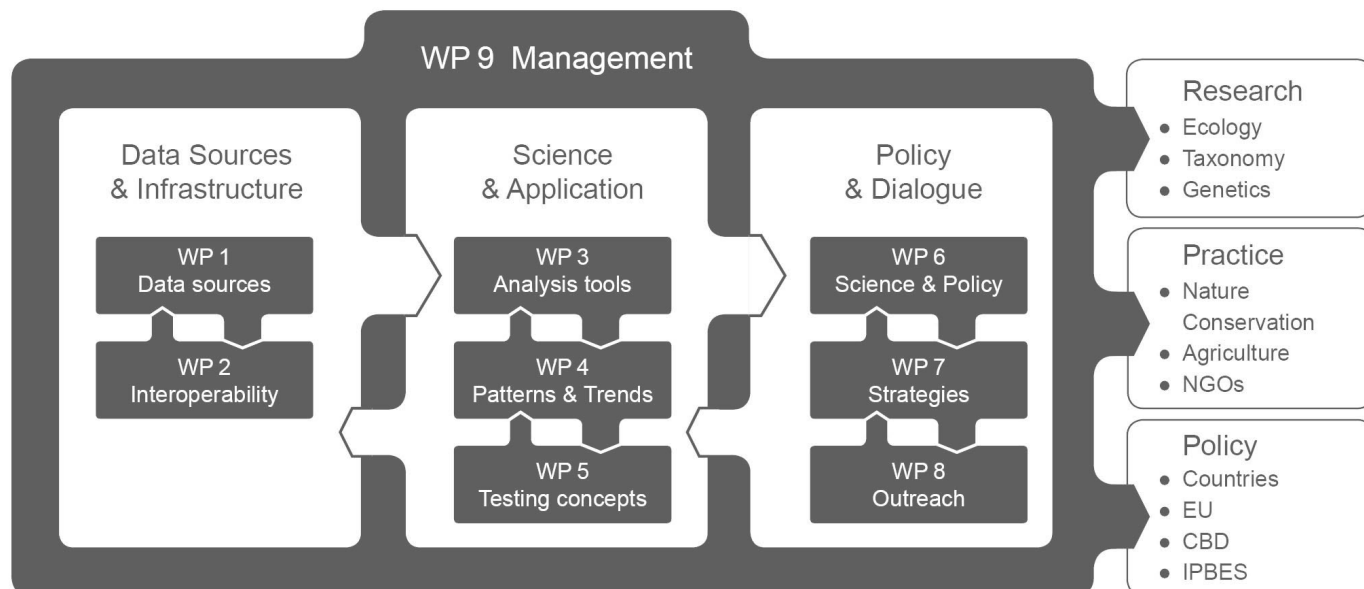
-  Spanish Council for Scientific Research (CSIC), Doñana Biological Station, Seville
-  Vizzuality S.L., Madrid
-  European Bird Census Council, Forest Technology Centre of Catalonia (EBCC-CTFC), Solsona
-  University of Cambridge, Centre for Science and Policy, Cambridge
-  UNEP World Conservation Monitoring Centre (WCMC), Cambridge
-  University of Leeds, School of Biology, Leeds
-  The Natural History Museum (NHM), London
-  Institute for European Environmental Policy (IEEP), London
-  National Center for Scientific Research (CNRS-IMBE), Aix-en-Provence
-  Royal Museum of Central Africa (RMCA), Tervuren
-  Plazi GmbH, Bern
-  TerraData environmetrics, Monterotondo Marittimo
-  Fondazione Edmund Mach, San Michele all'Adige, Trento
-  European Academy of Bozen/Bolzano (EURAC), Bolzano
-  Senckenberg Gesellschaft für Naturforschung (SGN), Frankfurt/Main
-  Helmholtz Centre for Environmental Research - UFZ, Leipzig - Halle
-  Museum für Naturkunde - Leibniz Institute for Research on Evolution and Biodiversity (MfN), Berlin
-  Freie Universität Berlin, Botanic Garden and Botanical Museum Berlin-Dahlem (BGBM), Berlin
-  Global Biodiversity Information Facility (GBIF), Copenhagen
-  University of Copenhagen: Natural History Museum of Denmark (NHMD), Copenhagen
-  Norwegian Biodiversity Information Centre (NBIC), Trondheim
-  Slovak Academy of Sciences, Institute of Botany (IB SAS), Bratislava
-  Swedish Museum of Natural History (NRM), Stockholm
-  Pensoft Publishers Ltd, Sofia
-  Hellenic Center for Marine Research (HCMR), Heraklion
-  University of Tartu, Natural History Museum (UTARTU), Tartu
-  University of Eastern Finland, Digitisation Centre (UEF), Joensuu
-  GlueCAD Ltd. - Engineering IT Solutions, Haifa
-  FishBase Information and Research Group, Inc. (FIN), Laguna
-  National Institute for Amazonian Research (INPA), Manaus

The EU BON project is structured in nine work packages; each is led by one of the consortium partners:

- WP1 (UTARTU): Data sources: requirements, gap analysis and data mobilization
- WP2 (UEF): Data integration and interoperability
- WP3 (UnivLeeds): Improving tools and methods for data analysis and interface
- WP4 (UFZ): Link environment to biodiversity: analyses of patterns, processes and trends
- WP5 (CSIC): EU BON testing and validation of concepts, tools, and services
- WP6 (UCAM): Stakeholder engagement and science-policy dialogue
- WP7 (CNRS): Implementation of GEO BON: strategies and solutions at European and global levels
- WP8 (Pensoft): Dissemination and outreach
- WP9 (MfN): Consortium management and organization



EU BON



EU BON's organization structure

You are most welcome to read more about the EU BON partners and work packages on the EU BON website: www.eubon.eu

EU BON Launch: EU BON Kick-off: International Biodiversity Symposium marked the beginning of the project

An International Symposium „Nature and Governance – Biodiversity Data, Science, and the Policy Interface“ was held by EU BON from 11–12 February 2013 in Berlin bringing biodiversity stakeholders from across the globe together. The symposium aimed at clarifying and popularizing EU BON's objectives prior to the official EU BON Kick-off Meeting held from 13–15 February 2013.

The symposium was hosted by the Museum für Naturkunde Berlin (MfN) and brought together 150 guests, high-ranking speakers and EU BON partners to talk and discuss the different aspects of the EU BON project. Among the main issues were the future of biodiversity information, the challenges in front of new data policies, new approaches in collecting information, and ways to engage the public in biodiversity monitoring and assessments. Find out more about the EU BON project Kick-off [here](#).



Christoph Häuser - EU BON coordinator



Opening session of the symposium in the Dinosaur hall at MfN



Bob Scholes – one of the prominent speakers



Reception at the MfN

First EU BON Meetings:

First meeting of WP 5: EU BON testing and validation of concepts, tools, and services held

The first meeting of work package 5 (EU BON testing and validation of concepts, tools, and services) was held between 2nd and 4th April, 2013 in the Doñana Biological Station, Spain. Twenty three people from 10 different institutions (7 of the EU BON consortium) worked towards building a draft on principles and guidelines for establishing and operating EU BON test sites.



Participants of the first meeting of WP 5 in the Doñana Biological Station in Spain



During the meeting the members agreed on starting documenting each of the sites, using a common format to be decided in May 2013 on the Informatics Task Force meeting of WP 2 (Data integration and interoperability) in Norway. A data inventory will also be built in each of the sites, adding monitoring protocols in stepwise fashion. In addition the meeting served to get a better view of the variety of Ecosystems in Doñana as well as the monitoring protocols that are being conducted in this area.

Initial Informatics Workshop: plans and actions for the future

The first informatics workshop of EU BON (WP 2) was held from 29 to 31 May 2013 in Trondheim, Norway. The meeting was hosted by the Norwegian Biodiversity Information Centre (NBIC). The aims were to highlight the link to infrastructures and processes like GEOSS or DataONE and to discuss the data standards and informatics architecture that will be followed by the EU BON project.

During the three-days of the workshop, the participants of the meeting discussed the important aspects regarding the informatics architecture and decided on the next steps to develop a new open-access platform for sharing biodiversity data and tools in order to advance the European biodiversity knowledge.



Participants of the EU BON Initial Informatics Workshop in Trondheim, Norway

The First EU BON stakeholder roundtable: What policy needs

The first EU BON stakeholder roundtable, organized by Katrin Vohland, Florian Wetzell and Anke Hoffmann, was held on 18 June 2013 at the Leibniz Association in Brussels, under the topic "Requirements for Policy". Important topics related to biodiversity information were discussed with 24 scientists and political stakeholders and as a result a variety of valuable recommendations were given for the future EU BON process. The discussion showed that distinct and meaningful indicators for answering burning questions regarding biodiversity



Participants of the first EU BON Stakeholder Roundtable in Brussels

are required from a European policy perspective. Also, it is expected that EU BON will continuously make contributions to the global process (like for GEO), answer crucial questions regarding data policy and find solutions for handling 'big data'. Part of the roundtable were members of the European policy, representatives of European biodiversity projects, EU BON members and representatives of major biodiversity stakeholders. Among the attendees were Gilles Ollier, Jane Shiel and Sofie Vandewoestijne from the European Commission, DG Research and Innovation; Anne Teller – European Commission, DG Environment; Georgios Sarantakos – GEO Secretariat; Cigdem Adem – European Environment Agency and representatives of recent European biodiversity projects (FunDiv, BioFresh, STEP and INSPIRE). For more information such as presentations and minutes, please visit the News of the EU BON [website](#).



Recent publications of relevance to EU BON:

A decadal view of biodiversity informatics: challenges and priorities

Alex Hardisty, Dave Roberts, and the biodiversity informatics community

Published in *BMC Ecology*. doi:

[10.1186/1472-6785-13-16](https://doi.org/10.1186/1472-6785-13-16)

The white paper „A decadal view of biodiversity informatics: challenges and priorities“ published by BMC Ecology focuses on the challenges and perspectives for biodiversity informatics after a decade of development. The authors Alex Hardisty and Dave Roberts alongside 77 contributions from the biodiversity informatics community share experience and set future directions of biodiversity informatics as a tool for addressing conservation and ecological issues.

Essential Biodiversity Variables

H. M. Pereira, S. Ferrier et al.

Published in *Science*, doi:

[10.1126/science.1229931](https://doi.org/10.1126/science.1229931)

Reducing the rate of biodiversity loss and averting dangerous biodiversity change are international goals, reasserted by the Aichi Targets for 2020 by Parties to the United Nations (UN) Convention on Biological Diversity (CBD) after failure to meet the 2010 target. With the first plenary meeting of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) soon under way, partners from the Group on Earth Observations Biodiversity Observation Network (GEO BON) are developing—and seeking consensus around—Essential Biodiversity Variables (EBVs) that could form the basis of monitoring programs worldwide.

A specialist's audit of aggregated occurrence records: An 'aggregator's' perspective

Belbin L, Daly J, Hirsch T, Hobern D, Salle JL

Published in *ZooKeys*, doi:

[10.3897/zookeys.305.5438](https://doi.org/10.3897/zookeys.305.5438)

Improving data quality in large online data access facilities depends on a combination of automated checks and capturing expert knowledge, according to a paper published in the open-access journal

Zookeys. The authors, from the *Atlas of Living Australia* (ALA) and the *Global Biodiversity Information Facility* (GBIF) welcome a recent paper by Mesibov (2013) highlighting errors in millipede data, but argue that addressing such issues requires the joint efforts of 'aggregators' and the wider expert community.

Events:

EU BON relevant past and up-coming events are extensively listed on the EU BON website (www.eubon.eu/events/). In this place we like to indicate some significant conferences.

Past events where EU BON was present:

Pan-European stakeholder consultation on the intersessional process of IPBES

From 16th to 18th of July, a European stakeholder consultation for the Intergovernmental Platform on Biodiversity & Ecosystem Services (IPBES) took place in Leipzig (Germany). IPBES will greatly influence future biodiversity policy and research, and EU BON is expected to provide a European contribution to IPBES. IPBES will be in particular of high interest, because it will need tools to integrate and analyse different data sources, to develop relevant infra-



Discussions during the European stakeholder consultation for IPBES, Leipzig (Germany)



structure and to do assessments of state and trends of biodiversity at multiple scales. EU BON was represented by several partners at the meeting and we acted as facilitators in the round-tables, gathered input for the project, participated in discussions and exchanged ideas with many representatives and colleagues.

GEO European Projects Workshop 2013

The GEO European Projects' Workshop (GEPW7) took place on 8 and 9 April 2013, in Barcelona, Spain. The event, hosted by CREAM (Centre for Ecological Research and Forestry Applications) of the Universitat Autònoma of Barcelona, brought together all those interested in and actively contributing to GEOSS from all over Europe in order to present their work and actively discuss how Europe can contribute to GEO and GEOSS.



EU BON was represented at the workshop by Dr Christoph Häuser, Project coordinator and WP 9 leader, who had been invited to give a presentation showcasing the project and its objectives. The presentation given provided an introduction to the project and expected results for the future, also focusing on the project's kickoff and first meetings and their outcomes and perspectives for the future development of EU BON.

Big Data from Space: Handling „big data“ is no small feat

Policy-makers and science and industry representatives are discussing how to make large amounts of Earth observation data accessible to a wider user community. To explore this idea, some 250 science, industry and policy-making representatives and national delegates from Europe, the US, Australia, China and Africa met at ESA's ESRI centre in Frascati, Italy 05–07 June 2013 for ESA's first 'Big Data from Space' event.

Representatives from ESA and NASA opened the event together with the European Commission. European Commission Directorates-General for Enterprise and Industry, Research and Innovation and Communications Networks, Content and Technology, along with representatives from the European Environment Agency, the *National Oceanic and Atmospheric Administration* and the *Open Geospatial Consortium* acted as session chairs.

Javier de la Torre, representing the EU BON partner Vizzuality gave a presentation 'Global Deforestation through Time: Big Data Meets Scalable Visualiza-



'Big data from Space' meeting, group photo. Photo Credit: ESA–M. Valentini



tions,' which included some of the work Vizzuality is doing toward the EU BON project. The event concluded with a strong call by all parties for the ability to handle and use big Earth observing data. This could potentially open new opportunities for research and international cooperation schemes such as programmatic and industrial coordination.



Forthcoming events of interest



Biodiversity Informatics Horizons 2013

Biodiversity Informatics Horizons 2013 (BIH2013) is part of a continuing process that helps to structure and organise the biodiversity informatics community at the European level and beyond. BIH2013 will take place from 3rd to 6th of September in the Sapienza University, Rome, Italy.

EU BON is planning a side event at the conference. The side event will focus on the topic „Linking the European Taxonomic Backbones (like Fauna Europaea, Euro+Med) to the EU BON project“. The current state and the future approach of the taxonomic databases will be outlined and possible approaches for the future advancement and for a gap analysis will be determined. Furthermore, there will be a discussion on the long-term developments of the common European taxonomic databases and how EU BON can contribute to sustain such an approach and stimulate improvements. More information can be found on the conference [web page](#).

Biodiversity Knowledge 2nd Conference

The FP7 Coordination action BiodiversityKnowledge on „designing a network of knowledge on biodiversity and ecosystem services to inform decision-making in Europe“ is organizing its second international conference on September 24th to 26th in Berlin. The objective of this second conference is to discuss and finalize the recommended design of a future Network of Knowledge (NoK) on biodiversity and ecosystem services in Europe. Considering the importance of this future Network of Knowledge, representatives of the biodiversity and ecosystem service knowledge community - from practitioners, researchers to policy makers - are warmly invited to actively participate in this conference and to contribute to the design process of a European Network of Knowledge during 2013. To learn more about the conference, click [here](#).



2013 TDWG Annual Conference: „Virtual Communities for Biodiversity Science“

Biodiversity Information Standards (TDWG) will hold its annual conference in Florence, Italy on October 28 – November 1, 2013. The primary theme of TDWG 2013 will be „Virtual Communities for Biodiversity Science“.

TDWG 2013 is soliciting symposia and individual presentations that address the theme, but any contribution addressing the management, integration, and interoperability of biodiversity information are also welcomed.



For more information on this event and a detailed list of symposia and meetings planned, please visit the [event's website](#).

consultations in development for IPBES-2 are also under preparation. Further details can be found [here](#).

ICT 2013 - Create, Connect, Grow

The "ICT 2013 – Create, Connect, Grow" will take place on 6-8 November, 2013 in Vilnius, Lithuania. The event will bring together more than 4000 researchers, innovators, entrepreneurs, industry representatives, young people and politicians. The focus of ICT 2013 will be placed on Horizon 2020 - the EU's Framework Programme for Research and Innovation for 2014-2020. The event will feature top ICT professionals from industry, academia, research, participating in discussions built around 3 thematic plenaries: ICT for Excellent science; ICT for Industrial Leadership; and ICT for Societal challenges. Experts will present details on how to participate in Horizon 2020. A special focus will be placed on Digital Futures - a journey into 2050's futures and policy challenges. Apart from the conference the ICT 2013 will also feature an exhibition as a unique opportunity for projects and companies to showcase their research, ICT products and innovative creations. In total, 185 projects will showcase the latest findings in advanced research, technologies, new systems, innovation in services & business and ICT products just coming to market.

In addition networking sessions and investment forum are also planned within the event. ICT 2013 is also organizing activities for students and young researchers.

More about the event and information how to register can be found [here](#).



Second IPBES plenary

The second session of the IPBES plenary (IPBES-2) is now assigned to be held in Antalya, Turkey from 9 to 14 December 2013, following the decision of the IPBES Bureau.

As part of the current intersessional process, various draft documents prepared by the Bureau and Multidisciplinary Expert Panel will be available online for review [here](#). These include the draft IPBES work programme, stakeholder engagement strategy, guidance on the development of strategic partnerships, and procedures for the preparation of IPBES deliverables. In addition, various regional





EU BON Website & Contacts:

For more information on the project, please visit the EU BON website at:
<http://www.eubon.eu/>

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