ECOPOTENTIAL Terms Of Use

1. Background or Guiding Principles

1.1 The ECOPOTENTIAL project focuses on "recovering existing data, support new measurements and observations, synthesis and interpretation of data for making all information and knowledge available to scientists, policy makers, citizen and other concerned stakeholders to provide a full picture of the state and temporal evolution of ecosystems in existing internationally recognized protected areas" (SC5-16-2014: Making Earth Observation and Monitoring Data usable for ecosystem modelling and services). One key element of the project is to make extensive use of Earth Observation data (existing and new, i.e. Sentinel, VENμS) in combination with in-situ monitoring (LTER, GEO BON, GBIF, OBIS) and to create an Ecosystem Data Service related to the Copernicus space component (ECOPERNICUS). This document sets out the policy of ECOPOTENTIAL on the sharing and use of data made available by ECOPOTENTIAL Partners and Associates.

1.2 ECOPOTENTIAL conceives its work based on the GEOSS Data Sharing Principles, which claim for full and open exchange of data, metadata, and products shared within GEOSS, recognizing relevant international instruments and national policies and legislation. All shared data, metadata and products shall be made available with minimum time delay and at minimum cost. Availability of all shared data, metadata and products free of charge or at no more than cost of reproduction shall be encouraged for research and education (http://www.earthobservations.org/geoss_dsp.shtml).

1.3 ECOPOTENTIAL project will adhere to the principles of free and open exchange of data, knowledge, and open-access publishing, in accordance with the H2020 Framework Programme and its Rules for Participation (Article 43.2 of Regulation (EU) No .../2013 of the European Parliament and of the Council laying down the rules for participation and dissemination in "Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020)" and repealing Regulation (EC) No 1906/2006), as well as with the "H2020 Open Research Data Pilot" recommendations (http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf).

1.4 By collaborating with ECOPOTENTIAL and feeding data to the ECOPOTENTIAL project as well as by making use of data made available by ECOPOTENTIAL, data providers, ECOPOTENTIAL members as well as associated persons and institutions, and users agree to the following principles.

2. Definition of Terms

- *Dataset* - the ECOPOTENTIAL approach is based on the concept of dataset, which is defined as a collection of observations in a single (digital) entity. A dataset together with its aligned metadata are grouped to a data object or asset. The dataset can be provided either as a single or a set of data files or by a data service (e.g. OGC WMS, OGC SOS). The data policy applies to single data objects which can be of different types:
  - **Internal data** - data which are ***generated and managed within the ECOPOTENTIAL*** project domain so the data policy applies fully to them.
  - **External data** - data which are ***generated and managed outside the ECOPOTENTIAL*** project domain and are used or shared with the ECOPOTENTIAL project. Unless, no other data policy by the data provider is applied and distributed with the data, the ECOPOTENTIAL data policy applies.

- *Metadata* - are defined as information on data or datasets which can either be descriptive or structural. Metadata have to be provided by the data providers for all kind of data. For in-situ monitoring *datasets* applicable metadata standards are EML (Ecological Metadata Language) and ISO19115. The relevant metadata fields will be defined by the ECOPOTENTIAL community profile which will be developed and adapted in the project runtime. Metadata on the *research locations* will be collected using the LTER Europe Site Profile implemented with DEIMS (http://data.lter-europe.net/deims/). This site metadata are linked with the dataset metadata.
- *Sensitive data* - defined as any data that the Data Publisher does not want to make available, e.g. precise localities of endangered species and therefore special regulations of the data policy apply. Metadata need to be available even for sensitive data, provided the metadata do not generate risk of improper disclosure.
- *Distributed data management* - this applies to a data management architecture where data can be located at various geographically distributed nodes but still be accessible (e.g. on the level of metadata records) via a single data catalogue.
- *Data catalogue* - is defined as the place where available data in the project context (being internal or external) can be discovered using metadata records.
- *Data sharing* - defined as the process of and agreements for making data available in digital terms, in the best doing it freely and universally.
- *Data provider* - defined as the legal entity possessing the right resulting from the act of creating a digital record. The record may be a product derived from another, possibly non-digital product, which may affect the right. It can either be a person or organisation generating data in the project context (internal data) or sharing existing data with the project consortium (external data). A data provider can either be a) project partners, b) In-kind data providers (third parties) or c) any data publishing instance.
- *User* - defined as anyone who uses the Internet to access data through the ECOPOTENTIAL data portal or direct within the ECOPOTENTIAL project.

3. Obligations and Guarantees for Data Providers

3.1 For **external data** collected under the premises of ECOPOTENTIAL the data provider retain all rights and responsibilities associated with the data they make available to ECOPOTENTIAL. The data providers are responsible for the completeness of the data and metadata profiles. When data is made available ECOPOTENTIAL is granted permission to:

- Distribute the metadata via its data catalogue (has to be defined)
- Build an integrated database (or dataset), use data for data quality control purposes, complement the data with other data (e.g. climate data) and build value-added derived products and services for science and decision making, which are then seen then as *internal data*.

3.2 For **external data** Data providers guarantee that they are entitled to share their data with ECOPOTENTIAL. Data access and use conditions, including licenses, will be clearly indicated.

3.3 For **internal data** generated under the premises of ECOPOTENTIAL Data providers make reasonable efforts to ensure that data served by them are as accurate and reliable as possible and satisfy the following principles (as described in the ECOPOTENTIAL Data Management Plan):

a. Data will be structured using encodings that are widely accepted in the target user community and aligned with organizational needs and observing methods, with preference given to international standards.

b. Data will be comprehensively documented, including all elements necessary to access, use, understand, and process, preferably via formal structured metadata based on international or community-approved standards. To the extent possible, data will also be published in peer-reviewed publications referenced in the metadata record.

c. Data will include provenance metadata indicating the origin and processing history of raw observations and derived products, to ensure full traceability of the product chain.

d. Data will be quality-controlled and the results of quality control shall be indicated in metadata; data made available in advance of quality control will be flagged in metadata as unchecked.

3.4 For *internal data* Data providers refrain from asserting intellectual property rights on data served by them. As far as database protection right or other intellectual property right should protect a database served by a provider, the data provider explicitly authorises the reproduction, distribution, making available and re-use of the data collected in this database within the ECOPOTENTIAL project.

3.5 Any *internal data* need to be published in an open-access data repository by the Data provider in a timely manner latest by the end of the project life time. Only open access repositories should be used which are recognized by and linked to GEOSS data core (http://www.geoportal.org) and are described by the ECOPOTENTIAL Data Management Plan.

3.6 For *internal data* Data providers have the option to impose a time embargo before making these data openly available if there a clear motivation agreed with the ECOPOTENTIAL CCT. The maximum embargo time is of 6 months. During this period, data will be made accessible for restricted use only (see 4.2 below). As soon as the embargo time has elapsed, the data will be treated as all other non-sensitive data (see 4.1 below).

3.7 For *all data* Data providers have to specify any sensitive data contained in the data collections served by them. Sensitive data will be kept separately from all other data available in the ECOPOTENTIAL portal and will be made accessible only for restricted use (see 4.2 below). The qualification as sensitive data is only allowed for data whose free accessibility could endanger certain aspects of ecosystem conservation (e.g. data on precise locality of endangered species) or for data that are qualified as confidential by the competent national, European or international administration.

4. Obligations and Guarantees for ECOPOTENTIAL

4.1 ECOPOTENTIAL guarantees that it will provide open-access to *internal data* and *any derived products created by the project*, following the terms and principles agreed upon here, while respecting the restrictions on sensitive data or any time embargo agreed upon within ECOPOTENTIAL. However the data custodians of *external data*, are responsible for explicitly mentioning the data licence and restrictions, which ECOPOTENTIAL will comply with. ECOPOTENTIAL cannot be held responsible for any misuse of *external data* when changes occurred to the data licence of *external data* without being informed in writing of that change, and provided a reasonable time to act upon.

4.2 As far as sensitive data or data lying under time embargo are concerned, ECOPOTENTIAL will make them available only upon special justification and in accordance with the criteria convened with the Data provider of these data.

4.3 ECOPOTENTIAL does not assert any intellectual property right to data and knowledge generated through ECOPOTENTIAL project (= *internal data*). For *internal data and information* that qualify as

works in the sense of copyright are dedicated to the public domain (by CC-0-Waiver or Open Data Commons Public-domain-declaration) or made available under a CC-BY 4.0-License:

- CC0, under which data are made available for any use without restriction or particular requirements on the part of users
- CC-BY, under which data are made available for any use provided that attribution is appropriately given for the sources of data used, in the manner specified by the owner
- CC-BY-NC, under which data are made available for any use provided that attribution is appropriately given and provided the use is not for commercial purposes

4.4 ECOPOTENTIAL attributes data and datasets to the direct data provider who served the data to ECOPOTENTIAL. Further attributions, especially to the original source, are added where appropriate in the light of applicable scientific codes of conduct.

5. Obligations and Guarantees for Users

5.1 Users of the ECOPOTENTIAL network can make use of data and information provided through ECOPOTENTIAL for scientific research and for the benefit of the society as a whole, without adding any new restrictions on its use (as defined in 3.1 to 3.4 above). In addition, the data users needs to respect the data providers, and provide helpful feedback on the data quality.

5.2 Users of the ECOPOTENTIAL network are required to reproduce every attribution to data providers and data sources when reproducing or distributing data and information provided through ECOPOTENTIAL.

5.3 Users demanding access to sensitive data or to data lying under time embargo, have to provide a special justification illustrating the necessity to access these data, and have to declare their willingness to respect restrictions to re-use imposed to them by ECOPOTENTIAL.

5.4 Users using open access data to generate value-added derived products should also take action to publish their data in the public domain.

6. Citation of the Data

6.1 Data retrieved within the ECOPOTENTIAL context shall be cited according to the "dataset citation provided by the publisher", as shown on the dataset metadata on the ECOPOTENTIAL VRE, in DEIMS or any metadata catalogue. If the publisher-provided citation is either missing or incomplete, the user shall observe the "default citation" given on the dataset or occurrence page.

7. Disclaimer

7.1 Unless the data are collected through the activities funded under the umbrella of the H2020 ECOPOTENTIAL project, the project nor the project partners, own the data in the ECOPOTENTIAL Data Infrastructure and they take no responsibility for the quality of data or products based on these data, or the use or misuse that people may make of them nor can it control or limit the use of any data of products accessible through ECOPOTENTIAL, other than through the use a published Data Sharing and Use Terms and Conditions.

7.2 ECOPOTENTIAL does not guarantee the accuracy or completeness of data and information made available through the ECOPOTENTIAL network and is not liable for any use of inaccurate or incomplete

data provided through its infrastructures. Neither can ECOPOTENTIAL be held responsible for any loss, damage or alteration of data or for any inability to access or use the ECOPOTENTIAL services.

Glossary

DEIMS	Drupal Ecological Information Management System	http://data.lter-europe.net/deims/
ECOPOTENTIAL	ECOPOTENTIAL: improving future ecosystem benefits through earth observations	http://www.ecopotential-project.eu/
EML	Ecological Metadata Language	https://knb.ecoinformatics.org/#external//emlparser/docs/index.html
GBIF	Global Biodiversity Information Facility	http://www.gbif.org/
GEO BON	Global Earth Observations Biodiversity Observation Network	http://geobon.org/
GEOSS	Global Earth Observation System of Systems	http://www.earthobservations.org/geoss.php
ILTER	International Long Term Ecosystem Research Network	http://www.ilternet.edu/
INSPIRE	Infrastructure for spatial Information in the European Community	http://inspire.ec.europa.eu/
ISO19115	ISO Standard on Geographic Information including metdata	http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=53798
LTER	Long Term Ecosystem Research Network	http://www.lter-europe.net/lter-europe
OBIS	Ocean Biogeographic Information System	http://www.iobis.org/
Sentinel	Copernicus Sentinel mission (ESA)	http://www.esa.int/Our_Activities/Observing_the_Earth/Copernicus/Overview4
VENμS	Vegetation and Environment monitoring on a New MicroSatellite	