Deliverable D0.2
Data Management Plan

Creator	CREAF
Creation date	Dec. 22. 2017
Due date	Feb. 28. 2018
Last revision date	July 2. 2018
Status	Draft
Type	Report
Description	This deliverable reports the first version of the DMP of the project (M6).
Right	Public
Language	English
Citation	
Grant agreement	ERA-PLANET N° 689443

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A. INTRODUCTION

The purpose of this Data Management Plan (DMP) is to provide an analysis of the main elements of the data management that will be generated by the project.

GEOEssential's main goal is to create a Knowledge Base infrastructure to facilitate the collection and formalization of the knowledge (i.e. user needs, gaps recognition and recommendations for closing gaps, best practices, Community of Practice lexicon, etc.) stemming from the European Network of Earth Observation Networks (http://www.eneon.net/graph) and from other significant Earth Observations (EO) initiatives and programs at the National and European levels. The Knowledge Base infrastructure will facilitate and advance the generation of new knowledge through EVs and also foster data integration and harmonization efforts. This approach builds on the methodology proposed by the H2020 project ConnectinGEO. The Knowledge Base infrastructure will be connected to and will rely on the GEOSS Common Infrastructure (GCI), as well as the Copernicus Services data hub. In addition, new sources of socio-economic data will be utilized to support the implementation of national, European and international environmental policies.

This deliverable sets out a general strategy for GEOEssential information management. The DMP provides an overview of the type of data generated during the project and explains how the data (including metadata) is collected, stored and made accessible.

The present document is the first version of the DMP. It is generated at the beginning of the project activities (M6[1]), therefore it tries to outline the datasets that would be produced within the project and the storing, accessing and documentation policies to be applied to them. The DMP is intended to be a living document that will be updated as the project progresses and it will improve the accomplishment of FAIR principles and GEOSS Data Sharing strategy.

Any other dataset generated during the project and not included in this first version of the DMP will be included in the next versions of this document. The same will be done with any variation from the ones collected here.

B. DATASETS

1. Land use / Land cover map

1.1. Data Summary

This data is essential and useful as EV for future indicators calculation. It will be useful to: GEO Global Agricultural Monitoring (GEOGLAM), UN-SPIDER, TEP Food Security.

1.1.1. *Data set reference and name*

GEOEssential_LandUseLandCover_[any other specification of the product].tiff

1.1.2. Data set description

This data is essential and useful as EV for future indicators calculation.

1.1.3. Name of person/organization responsible

Space Research Institute (Ukraine).

[1] This deliverable has been delayed mainly because of the delay in the provision of the common ERA-PLANET DMP template.

1.1.4. Nature and scale

Not defined.

1.1.5. To whom might it be useful ('data utility')?

GEO Global Agricultural Monitoring (GEOGLAM), UN-SPIDER, TEP Food Security.

1.2. Making data findable, including provisions for metadata

1.2.1. Are the data produced and/or used in the project discoverable with metadata?

It will be provided geotiff files with legend and confusion matrices with accuracies.

1.2.2. Are data identifiable and locatable by means of a standard identification mechanism?

No.

1.3. Making data openly accessible

1.3.1. Are datasets openly accessible?

Openly accessible.

1.3.2. Is datasets access requiring some specific software tools?

No, it could be opened by any GIS software (QGIS, ArcGIS).

1.3.3. Where will the data and associated metadata, documentation and code be deposited

It's planned to deploy local repository according to WDS recommendations.

1.3.4. Will data and all associated metadata be discoverable through catalogues and search engines?

The data is interoperable.

1.4. Making data interoperable

1.4.1. Are the data produced in the project interoperable?

The data is interoperable.

1.4.2. Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability

The data use standard vocabularies.

1.5. Increase data re-use

1.5.1. Is the data safely stored in certified repositories for long term preservation and curation?

Yes.

1.5.2. How will the data be licensed to permit the widest re-use possible?

Dataset usage will require citation of the dataset source.

1.5.3. When will the data be made available for re-use?

It will be available as soon as possible.

1.5.4. Will data include provenance metadata to ensure full traceability of the product chain?

Yes.

1.5.5. Are data quality assurance processes described?

Yes.

1.5.6. Will be data full documented including all elements necessary to access, use, understand, and process, preferably via formal structured metadata?

Yes, metadata will be structured and understandable.

1.5.7. Will data be accessible via online services?

Only view, downloadable per request.

1.5.8. Is the complete dataset available for download?

Only view, downloadable per request.

1.6. Allocation of resources

1.6.1. What are the costs for making data FAIR in your project?

To be defined.

1.6.2. Who will be responsible for data management and preservation?

To be defined.

1.6.3. Are the resources for long term preservation discussed?

Not yet.

2. Land Cover Change Trends

2.1. Data Summary

Land Degradation Estimation, Land Degradation neutrality monitoring.

2.1.1. *Data set reference and name*

GEOEssential_LandCoverChangeTrends_[any other specification of the product].tiff

2.1.2. Data set description

Land Degradation Estimation, Land Degradation neutrality monitoring.

2.1.3. Name of person/organization responsible

Space Research Institute (Ukraine).

2.1.4. Nature and scale

Not defined.

2.1.5. To whom might it be useful ('data utility')?

UNCCD, UNOOSA.

2.2. Making data findable, including provisions for metadata

2.2.1. Are the data produced and/or used in the project discoverable with metadata?

Geotiff files will be created with land cover types transitions and the corresponding legend.

2.2.2. Are data identifiable and locatable by means of a standard identification mechanism?

No.

2.3. Making data openly accessible

2.3.1. Are datasets openly accessible?

Openly accessible for the project participants.

2.3.2. Is datasets access requiring some specific software tools?

No, it could be opened by any GIS software (QGIS, ArcGis).

2.3.3. Where will the data and associated metadata, documentation and code be deposited

It's planned to deploy local repository according to WDS recommendations.

2.3.4. Will data and all associated metadata be discoverable through catalogues and search engines?

The data is interoperable.

2.4. Making data interoperable

2.4.1. Are the data produced in the project interoperable?

The data is interoperable.

2.4.2. Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability

The data use standard vocabularies.

2.5. Increase data re-use

2.5.1. Is the data safely stored in certified repositories for long term preservation and curation?

It's planned to deploy local repository (certification is under consideration at the moment).

2.5.2. How will the data be licensed to permit the widest re-use possible?

Dataset usage will require citation of the dataset source.

2.5.3. When will the data be made available for re-use?

It will be available as soon as possible.

2.5.4. Will data include provenance metadata to ensure full traceability of the product chain?

Yes.

2.5.5. Are data quality assurance processes described?

Yes.

2.5.6. Will be data full documented including all elements necessary to access, use, understand, and process, preferably via formal structured metadata?

Yes, metadata will be structured and understandable.

2.5.7. Will data be accessible via online services?

Only view, downloadable per request.

2.5.8. Is the complete dataset available for download?

Only view, downloadable per request.

2.6. Allocation of resources

2.6.1. What are the costs for making data FAIR in your project?

Not defined.

2.6.2. Who will be responsible for data management and preservation?

Not defined.

2.6.3. Are the resources for long term preservation discussed?

Not yet.

3. EVs

3.1. Data Summary

This data is useful for indicators of SDG (15.1.1, 15.3.1, 2.4.1) monitoring calculation.

3.1.1. *Data set reference and name*

GEOEssential_EV_[any other specification of the product].csv

3.1.2. Data set description

This data is useful for indicators of SDG (15.1.1, 15.3.1, 2.4.1) monitoring calculation.

3.1.3. Nature and scale

Not defined.

3.1.4. To whom might it be useful ('data utility')?

GEO Global Agricultural Monitoring (GEOGLAM), UN-SPIDER, TEP Food Security.

3.2. Making data findable, including provisions for metadata

3.2.1. Are the data produced and/or used in the project discoverable with metadata?

It will be csv file with metadata that contains EVs (Food, Water and Energy) from Weather Generator and WOFOST models for each day from the interested period of time.

3.2.2. Are data identifiable and locatable by means of a standard identification mechanism?

No.

3.3. Making data openly accessible

3.3.1. Are datasets openly accessible?

Openly accessible for the project participants.

3.3.2. Is datasets access requiring some specific software tools?

No, it could be opened by any text redactor.

3.3.3. Where will the data and associated metadata, documentation and code be deposited

It's planned to deploy local repository according to WDS recommendations.

3.3.4. Will data and all associated metadata be discoverable through catalogues and search engines?

The data is interoperable.

3.4. Making data interoperable

3.4.1. Are the data produced in the project interoperable?

The data is interoperable.

3.4.2. Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability

The data use standard vocabularies.

3.5. Increase data re-use

3.5.1. Is the data safely stored in certified repositories for long term preservation and curation?

Yes.

3.5.2. How will the data be licensed to permit the widest re-use possible?

Dataset usage will require citation of the dataset source.

3.5.3. When will the data be made available for re-use?

Already available.

3.5.4. Will data include provenance metadata to ensure full traceability of the product chain?

Yes.

3.5.5. Are data quality assurance processes described?

No.

3.5.6. Will be data full documented including all elements necessary to access, use, understand, and process, preferably via formal structured metadata?

Yes, metadata will be structured and understandable.

3.5.7. Will data be accessible via online services?

Yes.

3.5.8. Is the complete dataset available for download?

Yes.

3.6. Allocation of resources

3.6.1. What are the costs for making data FAIR in your project?

Not defined.

3.6.2. Who will be responsible for data management and preservation?

Not defined.

3.6.3. Are the resources for long term preservation discussed?

Not yet.

4. NASA-Power Agro-climatology Data

4.1. Data Summary

This data is useful for use in biophysical models for climate and crop state modelling.

4.1.1. *Data set reference and name*

GEOEssential_NASA-PowerAgroClimatologyData_[any other specification of the product].csv

4.1.2. Data set description

This data is useful for use in biophysical models for climate and crop state modelling.

4.1.3. Name of person/organization responsible

Space Research Institute (Ukraine).

4.1.4. Nature and scale

4.1.5. To whom might it be useful ('data utility')?

GEO Global Agricultural Monitoring (GEOGLAM), TEP Food Security.

4.2. Making data findable, including provisions for metadata

4.2.1. Are the data produced and/or used in the project discoverable with metadata?

It will be csv file with meteorological variables for every day from NASA-POWER resource.

4.2.2. Are data identifiable and locatable by means of a standard identification mechanism?

No.

4.3. Making data openly accessible

4.3.1. Are datasets openly accessible?

Openly accessible.

4.3.2. Is datasets access requiring some specific software tools?

No.

4.3.3. Where will the data and associated metadata, documentation and code be deposited

It's planned to deploy local repository according to WDS recommendations.

4.3.4. Will data and all associated metadata be discoverable through catalogues and search engines?

The data is interoperable.

4.4. Making data interoperable

4.4.1. Are the data produced in the project interoperable?

The data is interoperable.

4.4.2. Will you be using standard vocabularies for all data types present in your dataset, to allow inter-disciplinary interoperability

The data use standard vocabularies.

4.5. Increase data re-use

4.5.1. Is the data safely stored in certified repositories for long term preservation and curation?

Yes.

4.5.2. How will the data be licensed to permit the widest re-use possible?

Dataset usage will require citation of the dataset source.

4.5.3. When will the data be made available for re-use?

Already available.

4.5.4. Will data include provenance metadata to ensure full traceability of the product chain?

No.

4.5.5. Are data quality assurance processes described?

Yes.

4.5.6. Will be data full documented including all elements necessary to access, use, understand, and process, preferably via formal structured metadata?

Yes, metadata will be structured and understandable.

4.5.7. Will data be accessible via online services?

Yes.

4.5.8. Is the complete dataset available for download?

Yes.

4.6. Allocation of resources

4.6.1. What are the costs for making data FAIR in your project?

Not defined.

4.6.2. Who will be responsible for data management and preservation?

Not defined.

4.6.3. Are the resources for long term preservation discussed?

Not defined.

5. Crop type in-situ data

5.1. Data Summary

This data set is vital for land use and land cover maps providing.

5.1.1. *Data set reference and name*

GEOEssential_CropTypeInSituData_[any other specification of the product].shp

5.1.2. Data set description

This data set is vital for land use and land cover maps providing.

5.1.3. Name of person/organization responsible

Space Research Institute (Ukraine).

5.1.4. Nature and scale

Not defined.

5.1.5. To whom might it be useful ('data utility')?

GEO Global Agricultural Monitoring (GEOGLAM), TEP Food Security.

5.2. Making data findable, including provisions for metadata

5.2.1. Are the data produced and/or used in the project discoverable with metadata?

It will be provided Shape file with necessary attributes (crop type).

5.2.2. Are data identifiable and locatable by means of a standard identification mechanism?

No.

5.3. Making data openly accessible

5.3.1. Are datasets openly accessible?

Openly accessible for the project participants.

5.3.2. Is datasets access requiring some specific software tools?

No, it could be opened by any GIS software (QGIS, ArcGis).

5.3.3. Where will the data and associated metadata, documentation and code be deposited

It's planned to deploy local repository according to WDS recommendations.

5.3.4. Will data and all associated metadata be discoverable through catalogues and search engines?

The data is interoperable.

5.4. Making data interoperable

5.4.1. Are the data produced in the project interoperable?

The data is interoperable.

5.4.2. Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability

The data use standard vocabularies.

5.5. Increase data re-use

5.5.1. Is the data safely stored in certified repositories for long term preservation and curation?

Yes.

5.5.2. How will the data be licensed to permit the widest re-use possible?

Dataset usage will require citation of the dataset source.

5.5.3. When will the data be made available for re-use?

It will be available as soon as possible.

5.5.4. Will data include provenance metadata to ensure full traceability of the product chain?

No.

5.5.5. Are data quality assurance processes described?

Yes.

5.5.6. Will be data full documented including all elements necessary to access, use, understand, and process, preferably via formal structured metadata?

Yes, metadata will be structured and understandable.

5.5.7. Will data be accessible via online services?

Only view, downloadable per request.

5.5.8. Is the complete dataset available for download?

Only view, downloadable per request.

5.6. Allocation of resources

5.6.1. What are the costs for making data FAIR in your project?

Not defined.

5.6.2. Who will be responsible for data management and preservation?

Not defined.

5.6.3. Are the resources for long term preservation discussed?

Not yet.

6. Leaf Area in-situ datasets

6.1. Data Summary

Leaf Area in-situ datasets are used to derive Essential Variable.

6.1.1. *Data set reference and name*

GEOEssential_LeafAreaInSitu_[any other specification of the product].shp

6.1.2. Data set description

Not defined.

6.1.3. Name of person/organization responsible

Space Research Institute (Ukraine).

6.1.4. Nature and scale

Not defined.

6.1.5. To whom might it be useful ('data utility')?

Any institution that need data for validation.

6.2. Making data findable, including provisions for metadata

6.2.1. Are the data produced and/or used in the project discoverable with metadata?

It will be provided Shape file with necessary attributes (LAI level for several main crops.

6.2.2. Are data identifiable and locatable by means of a standard identification mechanism?

No.

6.3. Making data openly accessible

6.3.1. Are datasets openly accessible?

Openly accessible for the project participants.

6.3.2. Is datasets access requiring some specific software tools?

No, it could be opened by any GIS software (QGIS, ArcGis).

6.3.3. Where will the data and associated metadata, documentation and code be deposited

It's planned to deploy local repository according to WDS recommendations.

6.3.4. Will data and all associated metadata be discoverable through catalogues and search engines?

The data is interoperable.

6.4. Making data interoperable

6.4.1. Are the data produced in the project interoperable?

The data is interoperable.

6.4.2. Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability

The data use standard vocabularies.

6.5. Increase data re-use

6.5.1. Is the data safely stored in certified repositories for long term preservation and curation?

It's planned to deploy local repository (certification is under consideration at the moment).

6.5.2. How will the data be licensed to permit the widest re-use possible?

Dataset usage will require citation of the dataset source.

6.5.3. When will the data be made available for re-use?

It will be available as soon as possible.

6.5.4. Will data include provenance metadata to ensure full traceability of the product chain?

No.

6.5.5. Are data quality assurance processes described?

Yes.

6.5.6. Will be data full documented including all elements necessary to access, use, understand, and process, preferably via formal structured metadata?

Yes, metadata will be structured and understandable.

6.5.7. Will data be accessible via online services?

Only view, downloadable per request.

6.5.8. Is the complete dataset available for download?

Only view, downloadable per request.

6.6. Allocation of resources

6.6.1. What are the costs for making data FAIR in your project?

Not defined.

6.6.2. Who will be responsible for data management and preservation?

Not defined.

6.6.3. Are the resources for long term preservation discussed?

Not defined.

7. Productivity Map

7.1. Data Summary

This data is useful for use in land cover classification.

7.1.1. *Data set reference and name*

GEOEssential_ProductivityMap_[any other specification of the product].tiff

7.1.2. Data set description

This data is useful for use in land cover classification.

7.1.3. Name of person/organization responsible

Space Research Institute (Ukraine).

7.1.4. Nature and scale

Not defined.

7.1.5. To whom might it be useful ('data utility')?

GEO Global Agricultural Monitoring (GEOGLAM), UN-SPIDER, TEP Food Security.

7.2. Making data findable, including provisions for metadata

7.2.1. Are the data produced and/or used in the project discoverable with metadata?

It will be provided a geotiff file with legend and confusion matrices with accuracies.

7.2.2. Are data identifiable and locatable by means of a standard identification mechanism?

No.

7.3. Making data openly accessible

7.3.1. Are datasets openly accessible?

Openly accessible for the project participants.

7.3.2. Is datasets access requiring some specific software tools?

No, it could be opened by any GIS software (QGIS, ArcGis).

7.3.3. Where will the data and associated metadata, documentation and code be deposited

It's planned to deploy local repository according to WDS recommendations.

7.3.4. Will data and all associated metadata be discoverable through catalogues and search engines?

The data is interoperable.

7.4. Making data interoperable

7.4.1. Are the data produced in the project interoperable?

The data is interoperable.

7.4.2. Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability

The data use standard vocabularies.

7.5. Increase data re-use

7.5.1. Is the data safely stored in certified repositories for long term preservation and curation?

Yes.

7.5.2. How will the data be licensed to permit the widest re-use possible?

Dataset usage will require citation of the dataset source.

7.5.3. When will the data be made available for re-use?

It will be available as soon as possible.

7.5.4. Will data include provenance metadata to ensure full traceability of the product chain?

No.

7.5.5. Are data quality assurance processes described?

Yes.

7.5.6. Will be data full documented including all elements necessary to access, use, understand, and process, preferably via formal structured metadata?

Yes, metadata will be structured and understandable.

7.5.7. Will data be accessible via online services?

Only view, downloadable per request.

7.5.8. Is the complete dataset available for download?

Only view, downloadable per request.

7.6. Allocation of resources

7.6.1. What are the costs for making data FAIR in your project?

Not defined.

7.6.2. Who will be responsible for data management and preservation?

Not defined.

7.6.3. Are the resources for long term preservation discussed?

Not defined.

8. Sown areas, crop yield level on NUTS-2 level

8.1. Data Summary

Crop yield forecasting, crop production estimation, crop type maps validation.

8.1.1. *Data set reference and name*

GEOEssential_SownAreasCropYieldLevelNUTS-2_[any other specification of the product].csv

8.1.2. Data set description

Crop yield forecasting, crop production estimation, crop type maps validation.

8.1.3. Name of person/organization responsible

Space Research Institute (Ukraine).

8.1.4. Nature and scale

Not defined.

8.1.5. To whom might it be useful ('data utility')?

UNCCD, FAO, local state and governmental users.

8.2. Making data findable, including provisions for metadata

8.2.1. Are the data produced and/or used in the project discoverable with metadata?

Dataset will be provided table/csv format.

8.2.2. Are data identifiable and locatable by means of a standard identification mechanism?

No.

8.3. Making data openly accessible

8.3.1. Are datasets openly accessible?

Openly accessible.

8.3.2. Is datasets access requiring some specific software tools?

No.

8.3.3. Where will the data and associated metadata, documentation and code be deposited

It's planned to deploy local repository according to WDS recommendations.

8.3.4. Will data and all associated metadata be discoverable through catalogues and search engines?

The data is interoperable.

8.4. Making data interoperable

8.4.1. Are the data produced in the project interoperable?

The data is interoperable.

8.4.2. Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability

The data use standard vocabularies.

8.5. Increase data re-use

8.5.1. Is the data safely stored in certified repositories for long term preservation and curation?

It's planned to deploy local repository (certification is under consideration at the moment).

8.5.2. How will the data be licensed to permit the widest re-use possible?

Dataset usage will require citation of the dataset source.

8.5.3. When will the data be made available for re-use?

It will be available as soon as possible.

8.5.4. Will data include provenance metadata to ensure full traceability of the product chain?

No.

8.5.5. Are data quality assurance processes described?

Yes.

8.5.6. Will be data full documented including all elements necessary to access, use, understand, and process, preferably via formal structured metadata?

Yes, metadata will be structured and understandable.

8.5.7. Will data be accessible via online services?

Yes.

8.5.8. Is the complete dataset available for download?

Yes.

8.6. Allocation of resources

8.6.1. What are the costs for making data FAIR in your project?

Not defined.

8.6.2. Who will be responsible for data management and preservation?

Not defined.

8.6.3. Are the resources for long term preservation discussed?

Not defined.

9. Mining concessions

9.1. Data Summary

Industrial mining concessions in DR Congo.

9.1.1. *Data set reference and name*

GEOEssential_MiningConcessions_[any other specification of the product].shp

9.1.2. Data set description

Industrial mining concessions in DR Congo.

9.1.3. Name of person/organization responsible

University of Geneva.

9.1.4. Nature and scale

Not defined.

9.1.5. To whom might it be useful ('data utility')?

GEO CA-06: EO data in Mineral Resources.

9.2. Making data findable, including provisions for metadata

9.2.1. Are the data produced and/or used in the project discoverable with metadata?

Metadata are available from: https://app.mapx.org?views=MX-NAXHL-ZRS68-RNVJA&country=COD.

9.2.2. Are data identifiable and locatable by means of a standard identification mechanism?

No.

9.3. Making data openly accessible

9.3.1. Are datasets openly accessible?

Yes (but requires contacting data provider for downloading data from other years).

9.3.2. Is datasets access requiring some specific software tools?

Shapefile => no specific tool.

9.3.3. Where will the data and associated metadata, documentation and code be deposited

Metadata are available from: https://app.mapx.org?views=MX-NAXHL-ZRS68-RNVJA&country=COD.

9.3.4. Will data and all associated metadata be discoverable through catalogues and search engines?

The data is interoperable.

9.4. Making data interoperable

9.4.1. Are the data produced in the project interoperable?

The data is interoperable.

9.4.2. Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability

The data use standard vocabularies

9.5. Increase data re-use

9.5.1. Is the data safely stored in certified repositories for long term preservation and curation?

Not defined.

9.5.2. How will the data be licensed to permit the widest re-use possible?

Dataset usage will require citation of the dataset source.

9.5.3. When will the data be made available for re-use?

The data is already available.

9.5.4. Will data include provenance metadata to ensure full traceability of the product chain?

No.

9.5.5. Are data quality assurance processes described?

Yes: from mapx.org

9.5.6. Will be data full documented including all elements necessary to access, use, understand, and process, preferably via formal structured metadata?

Yes, metadata will be structured and understandable.

9.5.7. Will data be accessible via online services?

Yes.

9.5.8. Is the complete dataset available for download?

Yes.

9.6. Allocation of resources

9.6.1. What are the costs for making data FAIR in your project?

Not defined.

9.6.2. Who will be responsible for data management and preservation?

Ministry of Mines of DR Congo.

9.6.3. Are the resources for long term preservation discussed?

Not defined.

10. Forest cover

10.1. Data Summary

Forest cover 2000 25mx25m.

10.1.1. *Data set reference and name*

GEOEssentialForestCover_[any other specification of the product].tiff

10.1.2. Data set description

Forest cover 2000 25mx25m.

10.1.3. Name of person/organization responsible

University of Geneva.

10.1.4. Nature and scale

Not defined.

10.1.5. To whom might it be useful ('data utility')?

Any institution that needs to monitor forest extent/loss/gain.

10.2. Making data findable, including provisions for metadata

10.2.1. Are the data produced and/or used in the project discoverable with metadata?

Dataset will be provided in TIFF format with proper attributes.

10.2.2. Are data identifiable and locatable by means of a standard identification mechanism?

No.

10.3. Making data openly accessible

10.3.1. Are datasets openly accessible?

Yes.

10.3.2. Is datasets access requiring some specific software tools?

No (it is downloadable in TIFF format).

10.3.3. Where will the data and associated metadata, documentation and code be deposited

See Hansen et al (2013) in Science 342.

10.3.4. Will data and all associated metadata be discoverable through catalogues and search engines?

The data is interoperable.

10.4. Making data interoperable

10.4.1. Are the data produced in the project interoperable?

The data is interoperable.

10.4.2. Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability

The data use standard vocabularies.

10.5. Increase data re-use

10.5.1. Is the data safely stored in certified repositories for long term preservation and curation?

It is available from http://commondatastorage.googleapis.com/earthenginepartners-hansen.

10.5.2. How will the data be licensed to permit the widest re-use possible?

Dataset usage will require citation of the dataset source.

10.5.3. When will the data be made available for re-use?

The data is already available.

10.5.4. Will data include provenance metadata to ensure full traceability of the product chain?

See Hansen et al (2013) in Science 342.

10.5.5. Are data quality assurance processes described?

See Hansen et al (2013) in Science 342.

10.5.6. Will be data full documented including all elements necessary to access, use, understand, and process, preferably via formal structured metadata?

Not defined.

10.5.7. Will data be accessible via online services?

Yes (by tile).

10.5.8. Is the complete dataset available for download?

Yes (by tile).

10.6. Allocation of resources

10.6.1. What are the costs for making data FAIR in your project?

Not defined.

10.6.2. Who will be responsible for data management and preservation?

Not defined.

10.6.3. Are the resources for long term preservation discussed?

Not defined.

11. ENEON Observations Inventory

11.1. Data Summary

GEOEssential will use, maintain and update ConnectinGEO's ENEON observations inventory on European EO (including in-situ).

11.1.1. *Data set reference and name*

GEOEssentialENEON_[any other specification of the product].json
GEOEssentialENEON_[any other specification of the product].csv

11.1.2. Data set description

See section 12.1.

11.1.3. Name of person/organization responsible

CREAF.

11.1.4. Nature and scale

European.

11.1.5. To whom might it be useful ('data utility')?

To anyone working on EO observations.

11.2. Making data findable, including provisions for metadata

11.2.1. Are the data produced and/or used in the project discoverable with metadata?

Metadata from each observation, when available, will be collected.

11.2.2. Are data identifiable and locatable by means of a standard identification mechanism?

When possible, depending on the observation.

11.3. Making data openly accessible

11.3.1. Are datasets openly accessible?

The information on the Observations Inventory, always. Each dataset collected will depend on their accessibility policies.

11.3.2. Is datasets access requiring some specific software tools?

No, it will be available through a json file, or csv file, and through a dynamic graph: http://www.eneon.net/graph/index.htm .

11.3.3. Where will the data and associated metadata, documentation and code be deposited

Yes, on the json file.

11.3.4. Will data and all associated metadata be discoverable through catalogues and search engines?

The information on the ENEON Observations Inventory, always. Each dataset collected will depend on their accessibility policies.

11.4. Making data interoperable

11.4.1. Are the data produced in the project interoperable?

The information on the ENEON Observations Inventory, always. Each dataset collected will depend on their accessibility policies.

11.4.2. Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability

The information on the ENEON Observations Inventory, always. Each dataset collected will depend on their accessibility policies.

11.5. Increase data re-use

11.5.1. Is the data safely stored in certified repositories for long term preservation and curation?

The information on the ENEON Observations Inventory, always. Each dataset collected will depend on their accessibility policies.

11.5.2. How will the data be licensed to permit the widest re-use possible?

Dataset usage will require citation of the dataset source.

11.5.3. When will the data be made available for re-use?

The information on the ENEON Observations Inventory, always. Each dataset collected will depend on their accessibility policies.

11.5.4. Will data include provenance metadata to ensure full traceability of the product chain?

When possible.

11.5.5. Are data quality assurance processes described?

When possible.

11.5.6. Will be data full documented including all elements necessary to access, use, understand, and process, preferably via formal structured metadata?

Yes.

11.5.7. Will data be accessible via online services?

The information on the ENEON Observations Inventory, always. Each dataset collected will depend on their accessibility policies.

11.5.8. Is the complete dataset available for download?

The information on the ENEON Observations Inventory, always. Each dataset collected will depend on their accessibility policies.

11.6. Allocation of resources

11.6.1. What are the costs for making data FAIR in your project?

Not defined.

11.6.2. Who will be responsible for data management and preservation?

CREAF.

11.6.3. Are the resources for long term preservation discussed?

Not defined.

C. CURRENT STATUS OF COMPLIANCE WITH ERA-PLANET DATA MANAGEMENT PRINCIPLES AND CONSTRAINTS

This section summarizes the current status of compliance with the ERA-PLANET Data Management Principles and constraints. Plans for future compliance can be provided in the comment sections.

a. Compliance with H2020 Open Research Data Pilot

Data generated in the project are available in a repository with proper metadata:

✓ Yes

Partially: _% of datasets are available in a repository with proper metadata

No

Comment/Justification: Data will be on repositories from the partners. The consortium will consider to put them on a common repository.

Data generated in the project are available free-of-charge:

✓ Yes

Partially: __% of datasets are available free-of-charge

No

Comment/Justification: In some cases, downloading the data will be under request, but free-of-charge. Visualization and consultation will be always free.

Scientific results (e.g. publications) of the project are reproducible (data are available free-of-charge, information on required tools and instruments are provided):

✓ Yes, they will be

Partially: __% of scientific results are reproducible

No

Comment/Justification: Since we are at the beginning of the project, GEOEssential has not generated results yet. It is expected to be reproducible all of them, especially the ones coming from the workflows.

b. Contribution to GEOSS

Are data of interest for GEO stakeholders (e.g. scientists, policy-makers) discoverable and accessible through GEOSS?

✓ Yes, they will be accessible through GEOSS or through a repository registered in the GEO Yellow Pages

Partially: _% of required datasets are accessible through GEOSS or through a repository registered in the GEO Yellow Pages

No

Comment/Justification: Since we are at the beginning of the project, GEOEssential has not generated significant data yet. It is expected to be discoverable and accessible through GEOSS all of it.

Data accessible through GEOSS are available as GEOSS DATA-Core?

✓ Yes, this will be a must for the project

Partially: __% of datasets available through GEOSS are GEOSS DATA-Core

No

Comment/Justification: Since we are at the beginning of the project, GEOEssential has not generated significant data yet, but this should be an important objective by the end of the project.

Data and all associated metadata are discoverable through catalogues and search engines, and data access and use conditions, including licenses, are clearly indicated

✓ Yes

Partially: _% of datasets

No

Comment/Justification: Data will be on repositories/catalogues from the partners. The consortium will consider to put them on a common repository/catalogue.

Data are accessible via online services, including, at minimum, direct download but preferably user-customizable services for visualization and computation:

Yes

✓ Partially: 55%.

No

Comment/Justification: 6/11 of datasets will be fully accessible through map services and dashboards. Up to 5 of 11 will be available for visualization and consultation, but downloading will be free under request.

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

✓ Yes

Partially: _% of datasets

No

Comment/Justification:

Data are 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 are also described in peer-reviewed publications referenced in the metadata record.

✓ Yes

Partially: _% of datasets

No

Comment/Justification: At the beginning of the project, most datasets are not completely prepared for distribution and publication.

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

✓ Yes, it will be an important goal in the project

Partially:_% of datasets

No

Comment/Justification: At the beginning of the project, most datasets are not completely prepared for distribution and publication.

Data are 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.

Yes

✓ Partially: _% of datasets

No

Comment/Justification: At the beginning of the project, most datasets are not completely prepared for distribution and publication (the exact % is still unknown).

Data are protected from loss and preserved for future use; preservation planning will be for the long term and include guidelines for loss prevention, retention schedules, and disposal or transfer procedures:

✓ Yes

Partially: __% of datasets

No

Comment/Justification: The long term preservation strategy needs to be defined yet, but it will be an important goal of the project.

Data and associated metadata held in data management systems are periodically verified to ensure integrity, authenticity and readability:

Yes

✓ Partially: __% of datasets

No

Comment/Justification: This issue has to be still analysed among the consortium. The best solution will be adopted accordingly.

Data are managed to perform corrections and updates in accordance with reviews, and to enable reprocessing as appropriate; where applicable this follows established and agreed procedures:

Yes

✓ Partially: __% of datasets

No

Comment/Justification: This issue has to be still analysed among the consortium. The best solution will be adopted accordingly.

Data are assigned appropriate persistent, resolvable identifiers to enable documents to cite the data on which they are based and to enable data providers to receive acknowledgement of use of their data:

Yes

✓ Partially: __% of datasets

No

Comment/Justification: This issue has to be still analysed among the consortium. The best solution will be adopted accordingly.