

D7.9 Data management plan (version 2)

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Preface

The importance of biodiversity, natural capital and healthy ecosystems and the services they supply has increasingly been acknowledged in diverse policy initiatives (e.g., the EU nature restoration and amending Regulation from 2024, EU Biodiversity Strategies 2020 and 2030, Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), UN's Natural Capital and Ecosystem Services Accounting (SEEA EA), Intergovernmental Panel on Climate Change (IPCC) and Convention on Biological Diversity (CBD)).

The EU Horizon Research and Innovation Action "Science for Evidence-based and sustainabLe decIsions about NAtural capital" (SELINA) aims to provide robust information and guidance that can be harnessed by different stakeholder groups to support transformative change in the EU, to halt biodiversity decline, to support ecosystem restoration and to secure the sustainable supply and use of essential Ecosystem Services (ES) in the EU by 2030.

SELINA builds upon the Mapping and Assessment of Ecosystems and their Services (MAES) initiative that has provided the conceptual, methodological, data and knowledge base for comprehensive assessments on different spatial scales, including the EU-wide assessment (Maes et al. 2020) and assessments in EU member states. Knowledge and data for different ecosystem types are increasingly available.

As a research project funded under the Horizon Europe programme of the European Commission, SELINA will follow all rules on Open Science, Open Research Data and Research. When research data are well organised, well stored and accessible, their validity can be monitored at all times and the result is high-quality, efficient research and cost savings. The SELINA consortium aims to contribute to open science policy and practices by guaranteeing that research data is made findable, accessible, interoperable and reusable (FAIR). This will be achieved through a project-specific Data Management Plan (DMP), which will ensure that research data used and generated within SELINA will be managed in a resilient and transparent way.

This document builds upon the initial version of the data management outline presented in the SELINA proposal and provides further information on the datasets and data-sharing practices that will be used and generated within SELINA. Since this deliverable is submitted at an early stage of the project (M7), it answers data management questions in a matter appropriate to this project stage. Due to the fact that some data management information might not be listed in sufficient detail, the DMP is considered a living document, which will be updated (at least) twice during the SELINA implementation. In M36, D7.9 Data Management Plan (version 2) will give a finer level of granularity in describing the datasets used and generated within the project. In M60, a final version of the DMP will be submitted (D7.8 Data Management Plan (final)), which will capture all changes and updates occurred during the project.

The DMP has been developed in close collaboration with project partners who provided information on their planned usage and generation of research data, along with their institutional policies on data management. This information was provided via a questionnaire distributed in M6 of the project, carried out in the open source online statistical survey

platform LimeSurvey. The questionnaire is available as Annex 1 to this document.

As SELINA reaches its mid-point (M36), this version of the Data Management Plan provides the first update based on newly collected information and datasets shared by the consortium. The updated version reflects the evolution of data-related practices across the project's Work Packages, in alignment with the FAIR principles and Horizon Europe guidelines. Additional inputs were collected through a follow-up consultation with partners, which expanded the dataset descriptions and refined approaches to metadata, access protocols, and long-term data preservation. This update is intended to enhance transparency and usability, while ensuring that SELINA remains on track with its data management commitments.

In the current version of the Deliverable, we keep all the original texts as they were presented in D7.2. The original texts are in black. To facilitate clear differentiation between the original content from D7.2 and the updates, the **new texts are marked in green**.

Summary

The data management plan of SELINA aims to regulate data throughout the entire project lifetime and beyond by setting rules and recommendations on how data should be made available in a FAIR manner. The data management relates to both the generation of data within the research network of SELINA, as well as the acquisition and processing of primary and secondary data from outside the SELINA internal research network (e.g. use of external datasets).

In accordance with that, this DMP follows a clear structure, providing a Data summary, including the datasets that SELINA plans to use and generate, their purpose, format, origin, expected size, utility and curation (Chapter 1). The Data summary is followed by individual sections on how the project plans to make data findable, accessible, interoperable and reusable (Chapter 2). The DMP will also describe the allocation of resources for FAIR data management within the consortium during and beyond the project lifetime (Chapter 3), as well as the data security practices which guarantee that the necessary provisions are in place to preserve and curate research data (Chapter 4). Chapter 5 considers the ethical aspects of data sharing, including GDPR-compliance when personal data is concerned.

The DMP ends with concluding remarks on the data management strategy adopted by the project, and it outlines future updates and additions to the plan which are going to be presented at a later stage of the project's development.

The main implications from the data management plan are highlighted in green boxes. These will be consolidated in a Data Management Recommendations one-pager and will be shared with partners to ensure maximum uptake.

This updated version of the DMP incorporates new data contributions from SELINA partners

gathered since the initial submission. These updates provide additional detail on dataset types, data flows between work packages, and the technical approaches being adopted for data storage and sharing. The structure of the DMP remains unchanged; however, specific entries in Chapters 1–5 have been revised to reflect the current status of data management in the project. The inclusion of updated examples, platforms, and procedures ensures continued alignment with best practices and evolving project needs.

List of abbreviations

APC Article processing charges
DMP Data Management plan
DPO Data Protection Officer

EML Ecological Metadata Language

EU European Union

FAIR Findable, Accessible, Interoperable, Reusable

GDPR General Data Protection Regulation

1 Data summary

SELINA will use pre-existing and widely available data on different ecosystem types for comprehensive assessments in EU member states. SELINA will also generate datasets in relation to WPs 2-6, 8 and 9. The tables below present an overview of the datasets that partners plan to generate (Table 1. Summary of data planned to be generated within SELINA) and to use (Table 2. Summary of data planned to be used within SELINA) according to partners' responses to the DMP questionnaire carried out in Months 6 and 7 of SELINA.

An updated DMP questionnaire was conducted between M34 - M35 to capture the evolving data landscape within SELINA. The responses reflect a more complete understanding of the datasets being produced and utilised across the work packages. As a result, additional entries have been included in Tables 3 and 4, detailing new datasets, updated formats, and clearer metadata specifications. These additions provide a more comprehensive and current view of the data management practices and requirements as the project enters its second half.

Table 1. Summary of data planned to be generated within SELINA.

N	Name of dataset	Name of generator	Relevant task	Generated via	Size	Format	Type of data	Sensitive data	Personal data	Deliver y date	Utility/Users	Open Access
1	Roadside greenery services in Poznań/Poland	Damian Łowicki	T3.1, 3.2, 3.3, 3.4, 4.1, 4.2, 4.3, 6.1, 6.2, 6.3, 6.4, 8.5	modelling, data processing, literature review, policy review	n/a	shp, GeoTIFF	quantitative data; digital data; GIS data	no	no	2023	City Council of Poznań, Municipal Urban Planning Studio in Poznań, Document entitled: Tree protection standards for the City of Poznań	yes
2	Cooling capacity of green infrastructure in Poznań	Piotr Lupa, Iwona Zwierzchows ka, Damian Łowicki	T3.1, 3.2, 3.4, 4.1, 4.2, 4.3, 6.1, 6.2, 6.3, 6.4	modelling, data processing, remote sensing	up to 100 MB	GeoTIFF, xlsx, pdf	quantitative data; digital data; GIS data	no	no	n/a	Decision makers and city planners (City Council of Poznań, Municipal Urban Planning Studio in Poznań, Poznań Metropolis Association), academia (researchers & students)	yes

3	Green infrastructure distribution and social perception of its Ecosystem Services	Małgorzata Stępniewska, Iwona Zwierzchows ka	T3.1, 4.2, 4.3, 6.1, 6.2, 6.3, 6.4	data processing	n/a	pdf, shp, xlsx	analogue and qualitative data; GIS data, quantitative data, digital data	no	no (anonymi sed dataset)	2023	City Council of Poznań, Municipal Urban Planning Studio in Poznań	yes
4	Food production, resource consumption and social aspects of urban agriculture (Gorzów Wielkopolski city)	Lidia PoniŻy	T3.1, 3.2, 3.3., 4.1, 4.2, 4.3, 6.1, 6.2, 6.3,	data processing	n/a	xlsx, csv	qualitative data, quantitative data;	no	no (anonymi sed dataset)	2023	Local authorities, decision makers, urban planners, academia, NGOs	yes
5	Climate regulation service in city resident's perception	Katarzyna Fagiewicz, Piotr Lupa	T3.1, 4.1, 4.2, 4.3, 6.1, 6.2, 6.3, 6.4	data processing	up to 20 MB	shp, xlsx, docx	qualitative data, quantitative data; GIS data	no	no	2023	Local authorities, decision makers, urban planners, academia, NGOs	yes
6	ES supply aggregated from different indicators	BEF-LV	T8.2	data processing	n/a	shp	GIS data	no	no	by end of 2023	marine planners, nature conservation experts	yes
7	Recreational potential of coastal area	BEF-LV	T8.2	data processing	n/a	xlsl; shp	semi-quanti ative data; GIS data	no	no	by end of 2024	local and regional authorities, planners	yes

8	Coastal landscape qualities	BEF-LV	T8.2	field work, data processing	n/a	xlsl;.shp	semi-quanti ative data; GIS data	no	no	by end of 2024	local and regional authorities, planners	yes
9	Potential areas for marine aquaculture	BEF-LV/MoEP RD	T8.3	data processing	n/a	shp	GIS data	no	no	by end of 2023	marine planners, aquaculture companies	yes
10	Private Sector Needs Analysis	Justine Saunders	WP9	Questionnai re/interview	n/a	docx	qualitative data; semiquantit ative data	no	no	Jun 2023	SELINA consortium partners	no, person al data
11	Guidance Materials	Justine Saunders	D9.2	Literature review, Interview, Surveys	n/a	pdf	qualitative data; semiquantit ative data	no	no	Dec 2023	Private sector	yes
12	ES evidence generation and uptake	Martine van Weelden	D9.3	Field work at demonstrati on projects/Sur vey/intervie w/Literature review	n/a	pdf	qualitative data; semiquantit ative data	no	potentially	Jun 2026	Private sector	yes
13	Scalable ES solutions	Martine van Weelden	D9.4	Data processing	n/a	pdf	qualitative data;	no	potentially	Jun 2027	Private sector	yes
14	Stakeholder database for Hungary	Ildiko Arany	WP2	policy review, interview	small	xlsx	qualitative data	no	yes	Jan 2023	all involved partners	no, intervie w data

15	Systematic review under WP4	Ildiko Arany, Eszter Tanács, Ulla Mörtberg and Berit Balfors	WP3, WP4, D4.1	literature review	small	xlsx	qualitative data; semi-quanti tative data	no	no	Sept 2023	all involved partners, researchers, policy makers	yes
16	Burned area map	CIBIO	T5.1, 5.2	remote sensing	n/a	GIS file	GIS data	No	No	S1 2024	Researchers; Decision-ma kers; Land managers; General public	yes
17	Fire severity map	CIBIO	T5.1, 5.2	remote sensing	n/a	GIS file	GIS data	No	No	S1 2024	Researchers; Decision-ma kers; Land managers; General public	yes
18	Maps of fire damage on multiple ecosystem services	CIBIO	T5.1, 5.3	modelling, data processing, remote sensing	n/a	GIS file	GIS data	No	No	S1 2024	Researchers; Decision-ma kers; Land managers; General public	yes
19	Ecosystem accounts	CIBIO	T5.1, 5.3	modelling, data processing, remote sensing	n/a	GIS file, pdf	semi-quanti tative data; quantitative data; GIS data	Yes	No	S2 2024	Researchers; Decision-ma kers; Land managers; General public	yes
20	PPGIS Zagreb	Martina Kičić	Potentia I test site	PPGIS questionnai re	n/a	GIS	spatial, quality	no	yes	n/a	scientists	on demand

21	Forest management Istria	Hrvoje Marjanović	Potentia I test site	Croatian Forests Company	n/a	xls, txt	number, spatial	no	no	n/a	forest managers, scientists	on demand
22	Results from Coca-Cola demonstration projects	denkstatt	WP8	Modeling, data processing, interview	100 Mb	pdf, xlsx	quantitative , semi-quanti tative, qualitative	yes - commercial data/IP	no	througho ut the project	Coca-Cola	Restricted - commercial
23	NBT.Malta1	Martha Arámbula	WP9, D9.4	Data processing	10 GB	docx; xlsx; shp	GIS data	No	No	1 year	General Public	yes
24	ecosystem condition indicators	Isabel Thomas	T3.2	literature review	1 MB	xlsx	semi-quanti tative data	no	no	Jun 2027	Team members and institutions responsible for EU implementat ion of SEEA EA	yes
25	Carbon sequestration of forest cover	Filipe Bernardo	WP5.2	Remote sensing	<10 GB	Shapefile; Raster	GIS data	No	No	2024	Government entities; Research institutes	n/a
26	Distribution of invasive vegetation species	Filipe Bernardo	WP5.2	Remote sensing	<10 GB	Shapefile; Raster	GIS data	No	No	2024	Government entities; Research institutes	n/a
27	Social media data	Laura Costadone	T9.3	n/a	n/a	n/a	n/a	n/a	yes	n/a	n/a	n/a

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28	Policy data	Anu Lähteenmäki Uutela	T10.2	n/a	n/a	n/a	n/a	n/a	no	n/a	n/a	n/a
29	Ecosystem coverage data	Samuli Korpinen	T3.1	n/a	n/a	n/a	n/a	n/a	no	n/a	n/a	n/a
30	Monitoring data ecosystem condition	Samuli Korpinen	T3.1	n/a	n/a	n/a	n/a	n/a	no	n/a	n/a	n/a
31	Forest Biomass Map of S. Miguel island	Artur Gil	WP5	Remote Sensing	n/a	tiff; shp	GIS data	No	No	n/a	Scientific Community; Public Administrati on; Forest Companies	yes
32	Updated (ESMERALDA) Methods Database	Sabine Lange, Joana Seguin, et al.	T6.6	literature review	few MBs	xlsx, csv	qualitative, semi-qualita tive	no	no	update regular ly until proje ct endi ng	everyone working with the ES concept	yes
33	ESVD	Luke Brander et al.	T6.3, 6.6	literature review	few MBs	Xlsx;	quantitative	no	no	update regular ly until proje ct endi ng	Researchers and analysts of ES economic values;	yes
34	Systematic Review	Sabine Lange, Joana Seguin, et al.	T6.1	literature review	few MBs	csv, xlsx, doc, R	quantitative	no	no	Dec 2023	researchers in the domain of ES	yes

35	Test Site Pollination ES / Ecosystem Condition	LUH (Malte Hinsch, Grazia Zulian, Benjamin Burkhard)	WP3 (3.2-3.4), WP4 (4.1, 4.2), WP6	modelling	several GBs	shp, tiff, py/R	GIS data, quantitative	no	no	ca. 2024	researchers, practitioners in agriculture or planning	yes
36	Surface thermal map of selected parts of the city of Sofia, Bulgaria	Stelian Dimitrov/Ma rtin Iliev/Bilyana Borisova/Lidy a Semerdjieva	T9.2	UAV/UAS mapping, processed through Pix4D and ArcGIS	n/a	Geotiff	GRID	No	No	n/a	NA	yes
37	Local climate zones(LCZ) map of Sofia	Stelian Dimitrov/Ma rtin Iliev/Bilyana Borisova/Lidy a Semerdjieva	T9.2	ArcGIS	n/a	gdb	vector	No	No	n/a	NA	yes
38	Cooling capacity assessment- Sofia	Stelian Dimitrov/Ma rtin Iliev/Bilyana Borisova/Lidy a Semerdjieva	Т9.2	ArcGIS	n/a	gdb	vector/raste r	No	No	n/a	NA	yes
39	Marine aquaculture development areas	MoEPRD	T8.3	data processing	n/a	shp; gdb	GIS	no	no	within 12 month s	regional, local authorities, state institutions, scientists	yes

40	Coastal tourism development areas	MoEPRD	T8.3	data processing	n/a	shp; gdb	GIS	no	no	within 12 month s	regional, local authorities, state institutions, scientists;	yes
41	Valuable coastal landscape areas	MoEPRD	T8.3	data processing	n/a	shp; gdb	GIS	no	no	within 12 month s	regional, local authorities, state institutions, scientists	yes
42	List of stakeholders	Katažyna Bogdzevič	WP8	interviews	n/a	docx	n/a	no	yes (names, surnames, emails), represen ted organizat ion)	Mar 2023	n/a	no, person al data
43	Satellite images	Sentinel	T4.1; 4.2; 4.3; 5.1; 5.2; 5.3; 8.1; 8.2;	Remote sensing	n/a	raster	GIS data	no	no	n/a	All	yes
44	Ecosystem extent property portfolio	Zander Venter NINA	DP12	remote sensing & data processing	n/a	raster	raster GIS	no	no	2024	Storebrand. TNFD members	yes
45	Habitat map - Salzachauen	Thomas Strasser	T3.1	remote sensing based modelling	20 MB	shp	GIS data	no	no	n/a	decision makers	no

46	Ecosystem Typologies SELINA Partners	Paula Rendon/ Fernando Santos	T3.1	Surveys	n/a	xlsx	semi-quanti tative data	no	no	Dec 2023	SELINA Partners	yes
47	Crosswalk matrix of ecosystem typologies	Paula Rendon/ Fernando Santos	T3.1	Surveys and lit review	n/a	xlsx	qualitative data	no	no	Dec 2023	SELINA Partners	yes
48	Forest condition	Paula Rendon/ Fernando Santos	WP3	Data processing	n/a	CSV	quantitative data, GIS	no	no	Jun 2027	SELINA Partners	yes
49	Spanish DP - tbd	Paula Rendon/ Fernando Santos	WP8	Data processing	n/a	CSV	quantitative data, GIS data	no	no	Jun 2027	SELINA Partners, others	yes (possibly)
50	Deforestation and degradation map of Sao Miguel	SarVision	5.2	RS & data processing	27 Mb per date; 30 dates per year = 810 Mb, 3 years: 2.43 Gb	tiff	RS	No	No	2024- 2026	Selina partners, local/nation al forest service, ecosystem account users	yes
51	Carbon map of Sao Miguel	SarVision	5.2	RS & data processing & field work	27 Mb per date; 4 dates per year = 300 Mb, 3 years: 0.9 Gb	tiff	RS	No	No	2025- 2027	Selina partners, local/nation al forest service, ecosystem account users	yes

52	Deforestation and degradation map of coastal zone Peloponnesos	SarVision	5.2	RS & data processing	75 Mb per date; 30 dates per year =2 25 Gb, 3 years: 6.75 Gb	tiff	RS	No	No	2024- 2026	SELINA partners, local/nation al forest service, ecosystem account users	yes
53	carbon map of coastal zone Peloponnesos	SarVision	5.2	RS & data processing & field work	27 Mb per date; 4 dates per year = 300 Mb, 3 years: 0.9 Gb	tiff	RS	No	No	2025- 2027	SELINA partners, local/nation al forest service, ecosystem account users	yes
54	WP 3.1 international ecosystem typology database	space4enviro nment	3.1, 5.2	n/a	n/a	gdb	tabular & spatial	no	no	n/a	public	yes
55	Literature Database	Steffen Reichel	T6.6?	n/a	<1 GB	PostgreSQL	List of literature items + Extracted data (used methods etc) from those items	no	Yes, author's emails + names (are public in the paper already normally)	End of T6.6	n/a	yes

56	Floristic diversity	UPATRAS Team	3.1, 3.2, 3.3, 5.1	n/a	n/a	csv, shp	qualitative, GIS data	Yes, include locations of endagered and/or protected species	no	July 2023	Descision and policy makers, Statistical Agengy, Forest Service, Ministry of Environment and Energy	yes, aggregat ed
57	DP 03 dataset	Jarumi Kato Huerta, Davide Geneletti	8.2	modelling, data processin g	1 to 10 GB	csv, shp, tiff, gpkg	GIS data	no	no	2 years	Researchers, policy-maker s, NGOs, general public	yes
58	DP 03 qualitative dataset	Jarumi Kato Huerta, Davide Geneletti	8.2	Interviews, surveys	1 to 10 GB	docx, xml	qualitative and semi-qualita tive data	no	yes (location data)	2 years	Researchers, policy-maker s, NGOs, general public	yes
59	Stakeholder maps	Inge Liekens/part ners	2.1	survey	n/a	xlsx	qualitative data	no	yes: name, surname, email	Feb 2023	SELINA partners	no, rules of personal data
60	Seeds of change	Inge Liekens/stake holders	2.4	survey	n/a	CSV	qualitative data	no	yes: name, surname, email	Jan 2024	SELINA partners and DP	yes
61	Analysis seeds of change	Inge Liekens/part ners	2.5	interview	n/a	MIRO; cvs	qualitative data	no	no	Jun 2025	DP, SELINA and policy makers	yes

62	Country fact sheets	Inge Liekens/part ners	2.4	data processin g;	n/a;	docx; pdf	qualitative data	no	no	n/a;	all stakeholders;	yes
63	Soil subsidence map of the Dutch peatland areas	WU	5.1	Modelling, remote sensing	n/a	Geodat a	GIS data	no	no	Year 3;	Policy makers, farming organisation s, environment al organisation s, researchers	yes
64	CO2 emissions map of the Dutch peatland areas	WU	5.1	Modelling	n/a	Geodat a	GIS data	no	no	Year 3	Policy makers, farming organisation s, environment al organisation s, researchers	yes
65	Natural Capital Indicators	Stijn Schep	Task 3	modelling, data processing, remote sensing, literature review	<1 GB	xlsx, shp	quantitative	Company data	n/a	Second half of 2023	Private sector, public sector	no, commercial data

66	Land use map on Karst	Daniela Ribeiro	mapping land use on pilot area on Karst	data processing from Land use database at Ministry of agriculture, forest and food	n/a	shp	GIS	no	no	April 2023	experts, owners, researchers	yes
67	Spatial data on ecosystem condition and services	Miguel Villoslada	n/a	n/a	n/a	tif, grd, shp, etc.	GIS spatial data, remote sensing data	no	no	n/a	Public agencies, research community, general public	yes
68	Reports on data generation	Miguel Villoslada	n/a	n/a	n/a	pdf	reporting data	no	no	n/a	n/a	n/a
69		Alon Lotan	T3.3, 3.4	data processin g	n/a	xlsx; csv; shp; shx; dbf	quantitative and semi-quanti tative	no	no	Jan 2025	researchers	yes

Table 3. Summary of updated generated data within SELINA.

1	Roadside greenery services in Poznań/Poland	Damian Łowicki	T3.1, 3.2, 3.3, 3.4, 4.1, 4.2, 4.3, 6.1, 6.2, 6.3, 6.4, 8.5	modelling, data processing, literature review, policy review	n/a	shp, GeoTIFF	quantitative data; digital data; GIS data	no	no	2023	City Council of Poznań, Municipal Urban Planning Studio in Poznań, Document entitled: Tree protection standards for the City of Poznań	yes
2	Cooling capacity of green infrastructure in Poznań	Piotr Lupa, Iwona Zwierzchows ka, Damian Łowicki	T3.1, 3.2, 3.4, 4.1, 4.2, 4.3, 6.1, 6.2, 6.3, 6.4	modelling, data processing, remote sensing	up to 100 MB	GeoTIF F, xlsx, pdf	quantitative data; digital data; GIS data	no	no	n/a	Decision makers and city planners (City Council of Poznań, Municipal Urban Planning Studio in Poznań, Poznań Metropolis Association), academia (researchers & students)	yes
3	Green infrastructure distribution and social perception of its Ecosystem Services	Małgorzata Stępniewska, Iwona Zwierzchows ka	T3.1, 4.2, 4.3, 6.1, 6.2, 6.3, 6.4	data processing	n/a	pdf, shp, xlsx	analogue and qualitative data; GIS data, quantitative data, digital data	no	no (anonymi sed dataset)	2023	City Council of Poznań, Municipal Urban Planning Studio in Poznań	yes

4	Food production, resource consumption and social aspects of urban agriculture (Gorzów Wielkopolski city)	Lidia PoniŻy	T3.1, 3.2, 3.3, 4.1, 4.2, 4.3, 6.1, 6.2, 6.3,	data processing	n/a	xlsx, csv	qualitative data, quantitative data;	no	no (anonymi sed dataset)	2023	Local authorities, decision makers, urban planners, academia, NGOs	yes
5	Climate regulation service in city resident's perception	Katarzyna Fagiewicz, Piotr Lupa	T3.1, 4.1, 4.2, 4.3, 6.1, 6.2, 6.3, 6.4	data processing	up to 2s0 MB	shp, xlsx, docx	qualitative data, quantitative data; GIS data	no	no	2023	Local authorities, decision makers, urban planners, academia, NGOs	yes
6	ES supply aggregated from different indicators	BEF-LV	T8.2	data processing	n/a	shp	GIS data	no	no	by end of 2023	marine planners, nature conservation experts	yes
7	Recreational potential of coastal area	BEF-LV	T8.2	data processing	n/a	xlsl; shp	semi-quanti ative data; GIS data	no	no	by end of 2024	local and regional authorities, planners	yes
8	Coastal landscape qualities	BEF-LV	T8.2	field work, data processing	n/a	xlsl;.shp	semi-quanti ative data; GIS data	no	no	by end of 2024	local and regional authorities, planners	yes

9	Potential areas for marine aquaculture	BEF-LV/MoEP RD	T8.3	data processing	n/a	shp	GIS data	no	no	by end of 2023	marine planners, aquaculture companies	yes
10	Private Sector Needs Analysis	Justine Saunders	WP9	Questionn ai re/intervie w	n/a	docx	qualitative data; semiquantit ative data	no	no	Jun 2023	SELINA consortium partners	no, person al data
11	Guidance Materials	Justine Saunders; Martine van Weelden	D9.2	Literature review, Interview, Surveys; Shared Excel/Word doc	1.9 mb	pdf	qualitative data; semiquantit ative data	no	no	Dec 2023	Private Sector, Authors, status, year, deliverable	yes
12	ES evidence generation and uptake	Martine van Weelden	D9.3	Field work at demonstra ti on projects/S ur vey/intervi e w/Literatur e review	n/a	pdf	qualitative data; semiquantit ative data	no	potentially	Jun 2026	Private sector	yes
13	Scalable ES solutions	Martine van Weelden	D9.4	Data processing	n/a	pdf	qualitative data;	no	potentially	Jun 2027	Private sector	yes
14	Stakeholder database for Hungary	Ildiko Arany	WP2	policy review, interview	small	xlsx	qualitative data	no	yes	Jan 2023	all involved partners	no, intervie w data

15	Systematic review under WP4	Ildiko Arany, Eszter Tanács, Ulla Mörtberg and Berit Balfors	WP3, WP4, D4.1	literature review	small	xlsx	qualitative data; semi-quanti tative data	no	no	Sept 2023	all involved partners, researchers, policy makers	yes
16	Burned area map	CIBIO	T5.1, 5.2 5.3	remote sensing; data processing	n/a ~ 500 MB	GIS file; .tiff	GIS data	No	No	\$1 2024 \$2 2024	Researchers; Decision-ma kers; Land managers; General public	yes
17	Fire severity map	CIBIO	T5.1, 5.2, 5.3	remote sensing; data processing	n/a ~ 500 MB	GIS file; .tiff	GIS data	No	No	S1 2024 S2 2024	Researchers; Decision-ma kers; Land managers; General public	yes
18	Maps of fire damage on multiple ecosystem services	CIBIO	T5.1, 5.3	modelling, data processing, remote sensing	n/a	GIS file	GIS data	No	No	S1 2024	Researchers; Decision-ma kers; Land managers; General public	yes
19	Ecosystem accounts	CIBIO	T5.1, 5.3	modelling, data processing, remote sensing	n/a	GIS file, pdf	semi-quanti tative data; quantitative data; GIS data	Yes	No	S2 2024	Researchers; Decision-ma kers; Land managers; General public	yes
20	PPGIS Zagreb	Martina Kičić	Potential test site	PPGIS questionn ai re	n/a	GIS	spatial, quality	no	yes	n/a	scientists	on demand

21	Forest management Istria	Hrvoje Marjanović	Potential test site	Croatian Forests Company	n/a	xls, txt	number, spatial	no	no	n/a	forest managers, scientists	on demand
22	Results from Coca-Cola demonstration projects	denkstatt	WP8	Modeling, data processing, interview	100 Mb	pdf, xlsx	quantitative , semi-quanti tative, qualitative	yes - commercial data/IP	no	througho ut the project	Coca-Cola	Restricted - commercial
23	NBT.Malta1	Martha Arámbula	WP9, D9.4	Data processing	10 GB	docx; xlsx; shp	GIS data	No	No	1 year	General Public	yes
24	ecosystem condition indicators	Isabel Thomas	T3.2	literature review	1 MB	xlsx	semi-quanti tative data	no	no	Jun 2027	Team members and institutions responsible for EU implementat ion of SEEA EA	yes
25	Carbon sequestration of forest cover	Filipe Bernardo	WP5.2	Remote sensing	<10 GB	Shapefi le; Raster	GIS data	No	No	2024	Government entities; Research institutes	n/a
26	Distribution of invasive vegetation species	Filipe Bernardo	WP5.2	Remote sensing	<10 GB	Shapefi le; Raster	GIS data	No	No	2024	Government entities; Research institutes	n/a
27	Social media data	Laura Costadone	T9.3	n/a	n/a	n/a	n/a	n/a	yes	n/a	n/a	n/a

28	Policy data	Anu Lähteenmäki Uutela	T10.2	n/a	n/a	n/a	n/a	n/a	no	n/a	n/a	n/a
29	Ecosystem coverage data	Samuli Korpinen	T3.1	n/a	n/a	n/a	n/a	n/a	no	n/a	n/a	n/a
30	Monitoring data ecosystem condition	Samuli Korpinen	T3.1	n/a	n/a	n/a	n/a	n/a	no	n/a	n/a	n/a
31	Forest Biomass Map of S. Miguel island	Artur Gil	WP5	Remote Sensing	n/a	tiff; shp	GIS data	No	No	n/a	Scientific Community; Public Administrati on; Forest Companies	yes
32	Updated (ESMERALDA) Methods Database	Sabine Lange, Joana Seguin, et al.	T6.6	literature review	few MBs	xlsx, csv	qualitative, semi-qualita tive	no	no	update regular ly until proje ct endi ng	everyone working with the ES concept	Yes; Accessibl e in the SELINA EASE
33	ESVD	Luke Brander et al.	T6.3, 6.6 and possibly others	literature review;	few MBs	Xlsx; website , csv	quantitative	no	no	update regular ly until proje ct endi ng	Researchers and analysts of ES economic values; economic analysis, decision- makings both private and public	yes

34	Systematic Review on ecosystem condition, ecosystem services and ecosystem accounting	Sabine Lange, Joana Seguin, et al.	T6.1	literature review	few MBs	csv, xlsx, doc, R	quantitative	no	no	Dec 2023	researchers in the domain of ES	yes
35	Test Site Pollination ES / Ecosystem Condition	LUH (Malte Hinsch, Grazia Zulian, Benjamin Burkhard)	WP3 (3.2-3.4), WP4 (4.1, 4.2), WP6	modelling	several GBs	shp, tiff, py/R	GIS data, quantitative	no	no	ca. 2024	researchers, practitioners in agriculture or planning	yes
36	Surface thermal map of selected parts of the city of Sofia, Bulgaria	Stelian Dimitrov/Ma rtin Iliev/Bilyana Borisova/Lidy a Semerdjieva	Т9.2	UAV/UAS mapping, processed through Pix4D and ArcGIS	n/a	Geotiff	GRID	No	No	n/a	NA	yes
37	Local climate zones(LCZ) map of Sofia	Stelian Dimitrov/Ma rtin Iliev/Bilyana Borisova/Lidy a Semerdjieva	Т9.2	ArcGIS	n/a	gdb	vector	No	No	n/a	NA	yes
38	Cooling capacity assessment- Sofia	Stelian Dimitrov/Ma rtin Iliev/Bilyana Borisova/Lidy a Semerdjieva	T9.2	ArcGIS	n/a	gdb	vector/raste r	No	No	n/a	NA	yes

39	Marine aquaculture development areas	MoEPRD	T8.3	data processing	n/a	shp; gdb	GIS	no	no	within 12 month s	regional, local authorities, state institutions, scientists; MSP planners, investors, researchers	yes
40	Coastal tourism development areas	MoEPRD	T8.3	data processing	n/a	shp; gdb	GIS	no	no	within 12 month s	regional, local authorities, state institutions, scientists; Planners, investors, researchers	yes
41	Valuable coastal landscape areas	MoEPRD	T8.3	data processing	n/a	shp; gdb	GIS	no	no	within 12 month s	regional, local authorities, state institutions, scientists	yes
42	List of stakeholders	Katažyna Bogdzevič	WP8	interviews	n/a	docx	n/a	no	yes (names, surnames, emails), represen ted organizat ion)	Mar 2023	n/a	no, person al data
43	Satellite images	Sentinel	T4.1; 4.2; 4.3; 5.1; 5.2; 5.3; 8.1; 8.2;	Remote sensing	n/a	raster	GIS data	no	no	n/a	All	yes

44	Ecosystem extent property portfolio	Zander Venter NINA	DP12	remote sensing & data processing	n/a	raster	raster GIS	no	no	2024	Storebrand. TNFD members	yes
45	Habitat map - Salzachauen	Thomas Strasser	T3.1	remote sensing based modelling	20 MB	shp	GIS data	no	no	n/a	decision makers	no
46	Ecosystem Typologies SELINA Partners	Paula Rendon/ Fernando Santos	T3.1	Surveys	n/a	xlsx	semi-quanti tative data	no	no	Dec 2023	SELINA Partners	yes
47	Crosswalk matrix of ecosystem typologies	Paula Rendon/ Fernando Santos	T3.1	Surveys and lit review	n/a	xlsx	qualitative data	no	no	Dec 2023	SELINA Partners	yes
48	Forest condition	Paula Rendon/ Fernando Santos	WP3	Data processing	n/a	CSV	quantitative data, GIS	no	no	Jun 2027	SELINA Partners	yes
49	Spanish DP - tbd	Paula Rendon/ Fernando Santos	WP8	Data processing	n/a	CSV	quantitative data, GIS data	no	no	Jun 2027	SELINA Partners, others	yes (possibly)

50	Deforestation and degradation map of Sao Miguel	SarVision	5.2	RS & data processing	27 Mb per date; 30 dates per year = 810 Mb, 3 years: 2.43 Gb	tiff	RS	No	No	2024- 2026	Selina partners, local/nation al forest service, ecosystem account users	yes
51	Carbon map of Sao Miguel	SarVision	5.2	RS & data processing & field work	27 Mb per date; 4 dates per year = 300 Mb, 3 years: 0.9 Gb	tiff	RS	No	No	2025- 2027	Selina partners, local/nation al forest service, ecosystem account users	yes
52	Deforestation and degradation map of coastal zone Peloponnesos	SarVision	5.2	RS & data processing	75 Mb per date; 30 dates per year =2 25 Gb, 3 years: 6.75 Gb	tiff	RS	No	No	2024- 2026	SELINA partners, local/nation al forest service, ecosystem account users	yes
53	carbon map of coastal zone Peloponnesos	SarVision	5.2	RS & data processing & field work	27 Mb per date; 4 dates per year = 300 Mb, 3 years: 0.9 Gb	tiff	RS	No	No	2025- 2027	SELINA partners, local/nation al forest service, ecosystem account users	yes

54	WP 3.1 international ecosystem typology database	space4enviro nment	3.1, 5.2	n/a	n/a	gdb	tabular & spatial	no	no	n/a	public	yes
55	Literature Database	Steffen Reichel	T6.6?	n/a	<1 GB	PostgreS QL	List of literature items + Extracted data (used methods etc) from those items	no	Yes, author's emails + names (are public in the paper already normally)	End of T6.6	n/a	yes
56	Floristic diversity	UPATRAS Team	3.1, 3.2, 3.3, 5.1	n/a	n/a	csv, shp	qualitative, GIS data	Yes, include locations of endagered and/or protected species	no	July 2023	Descision and policy makers, Statistical Agengy, Forest Service, Ministry of Environment and Energy	yes, aggregat ed
57	DP 03 dataset	Jarumi Kato Huerta, Davide Geneletti	8.2	modelling, data processin g	1 to 10 GB	csv, shp, tiff, gpkg	GIS data	no	no	2 years	Researchers, policy-maker s, NGOs, general public	yes
58	DP 03 qualitative dataset	Jarumi Kato Huerta, Davide Geneletti	8.2	Interviews, surveys	1 to 10 GB	docx, xml	qualitative and semi-qualita tive data	no	yes (location data)	2 years	Researchers, policy-maker s, NGOs, general public	yes

59	Stakeholder maps	Inge Liekens/part ners	2.1	survey	n/a	xlsx	qualitative data	no	yes: name, surname, email	Feb 2023	SELINA partners	no, rules of personal data
60	Seeds of change	Inge Liekens/stake holders	2.4	Survey; meetings of Communit ies of practice	343 kb	csv; .xlsx	qualitative data; and semi- quantitative	no	yes: name, surname, email	Jan 2024	SELINA partners and DP; WP2 partners	yes
61	Analysis seeds of change	Inge Liekens/part ners	2.5	interview	n/a	MIRO; cvs	qualitative data	no	no	Jun 2025	DP, SELINA and policy makers	yes
62	Country fact sheets	Inge Liekens/part ners	2.4	data processin g; surveys	n/a ; 60 mg	docx; pdf	qualitative data	no	no	n/a ; 01/01/ 2025	all stakeholders; policy makers, reserachers, EC	yes
63	Soil subsidence map of the Dutch peatland areas	WU; Ugne Grikinyte	5.1	Modelling, remote sensing; data processing	n/a 3.4 GB	Geodat a;.tif	GIS data	no	no	Year 3; 30/04/ 2025	Policy makers, farming organisation s, environment al organisation s, researchers; science, consultants	Yes; no, intellectu al property

64	CO2 emissions map of the Dutch peatland areas	WU; Ugne Grikinyte	5.1	Modelling ; data processin g	n/a ; 3.4 GB	Geodat a; .tiff	GIS data	no	no	Year 3; 30/04/ 2025	Policy makers, farming organisation s, environment al organisation s, researchers; science, consultants	Yes; no, intellectu al property
65	Natural Capital Indicators	Stijn Schep	Task 3	modelling, data processing, remote sensing, literature review	<1 GB	xlsx, shp	quantitative	Company data	n/a	Second half of 2023	Private sector, public sector	no, commercial data
66	Land use map on Karst	Daniela Ribeiro	mapping land use on pilot area on Karst	data processing from Land use database at Ministry of agriculture, forest and food	n/a	shp	GIS	no	no	April 2023	experts, owners, researchers	yes
67	Spatial data on ecosystem condition and services	Miguel Villoslada	n/a	n/a	n/a	tif, grd, shp, etc.	GIS spatial data, remote sensing data	no	no	n/a	Public agencies, research community, general public	yes
68	Reports on data generation	Miguel Villoslada	n/a	n/a	n/a	pdf	reporting data	no	no	n/a	n/a	n/a

69		Alon Lotan	T3.3, 3.4	data processin g	n/a	xlsx; csv; shp; shx; dbf	quantitative and semi-quanti tative	no	no	Jan 2025	researchers	yes
70	Barometer	inge Liekens	2.4	surveys	60Mb	Microsof t forms, .xlsx	qualitati ve Microsof	forms, .xlsx	no	01/09/ qualitative 2025	policymakers, EC	Visualisatio n is open access
71	Black-tailed godwit breeding density on Dutch peat meadows	Ugne Grikinyte	T5.1	data processing	3.4 GB	.tif	GIS data	no	no	30/04/ 2025	science, consultants	no, intellectual property
72	Buildings damage on Dutch peat meadows	Ugne Grikinyte	T5.1	data processing	3.4 GB	.tif	GIS data	no	no	30/04/ 2025	science, consultants	available upon request
73	Carbon Sequestration for Spain	Fátima Arrogante Funes, Fernando Santos Martín, Paula Mercedes Rendón Cardona	WP8	Modelling, data processing, remote sensing, field work	Peninsular Spain and islands, 20- 30m	GeoTIFF & documen tation in PDF	GIS data	no	no	01/01/ 2026	Spain Ministry, public administration, Tragsa, Research institutions	Yes, after scientific publication
74	Datasets on 9 different agroecosystem condition indicators in Lower Saxony	Emily Bank	T3.2, T3.3, T6.2	Data processing, modelling		Geo Tiff	GIS data	no	no		Researchers on the field of agroecosystem condition	Publication under review, data will be made accessible

75	Demonstration Projects	Martine van Weelden		Shared Excel/Word doc		https://	Qualitative	no	no	Consorti um shared	Authors, status, year, deliverable	Public
76	Ecosystem services - Timber, Cork, Carbon storage, Soil retention, Nature- based tourism	CIBIO-BIOPOLIS	T5.1 & T5.3	Modelling; Data processing; Literature review	~3500 MB	TIFF; XLSX	quantitative; GIS data	No	No	S2 2024	Reserachers; Decision-makers; Land managers; General public	Open
77	Erosion Control for Spain	Fátima Arrogante Funes, Fernando Santos Martín, Paula Mercedes Rendón Cardona	WP8	Modelling, data processing, remote sensing	Peninsular Spain and islands, 20- 30m	GeoTIFF & documen tation in PDF	GIS data	No	No	Mar-26	Spain Ministry, public administration, Tragsa, Research institutions	Yes, after scientific publication
78	Framework for Integrated Ecosystem Assessment (FIAE) and internal project profiles	Lisa Heine, Sabine Lange	T6.4	Google doc	70MB	.doc .pptx .xlsx .pdf	Qualitative	No	No	V1.0 Feb 2024, intermed iate versions inbetwee n, final version ~ 2026	Capitals Coalition Selina team; Researchers & practitioners in the field of ecosystem assessments	not open access
79	Hunters' expenditures	Eva Horváthová	Т5.3	survey		xlsx	quantitative data					
80	In depth analysis SoTC	Inge Liekens, Maria Caballero Pons	T2.5	interviews	450 Mb	.docx, .xlsx	qualitative	No	name, surname	Jun-25	VITO	anonimized results will be open- access, the interviews itself will

												be not because of privacy reasons
81	Information on Demonstration Projects	Lisa Heine		Shared Excel/Word doc	680MB	.doc	Qualitative	No	emails of DP representati ves	12 months	Capitals Coalition Selina team	not open access
82	Mean lowest groundwater level on Dutch peat meadows	Ugne Grikinyte	T5.1	data processing	3.4 GB	.tif	GIS data	No	No	30/04/20 25	science, consultants	available upon request
83	Pollinator habitat suitability map	Malte hinsch, Grazia Zulian, et al.	T4.2, T6.2, T6.4	Modelling	ca. 500mb	.tiff	GIS data	No	No	Feb-24	Researchers in the domain of ecosystem condition and ecosystem services	OA publication , data available upon request
84	Pollinator Service for Spain	Fátima Arrogante Funes, Fernando Santos Martín, Paula Mercedes Rendón Cardona	WP8	Modelling, data processing, remote sensing, field work	Peninsular Spain and islands, 20- 30m	GeoTIFF & documen tation in PDF	GIS data	no	no	Dec-26	Spain Ministry, public administration, Tragsa, Research institutions	Yes, after scientific publication
85	Research area for wind park development (MSP)	Ministry of Smart Administration and Regional Development				SHP, GDB, WMS, WFS	GIS data	no	no		MSP planners, investors, researchers	Open access

86	Seeds_of_Transform ative_Change_Wody _Polskie_interview	Lidia Poniży	T2.4, T2.5, T2.6	interview	1-2 MB	*.docx	qualitative (text)	no	yes (e.g. name of interviewed person and institution)	May-25	SELINA Consortium partners and public (if anonymised)	rather no (or only in anonymise d form)
87	Super query for SELINA reviews	Sabine Lange, Joana Seguin, et al.	T3.2, T4.1, T6.1	Literature work	few mb	.xlsx	qualitative	no	no	Dec 2023, preprint Apr 2025	Researchers in the domain of ecosystem assessments	Data paper (preprint) doi: 10.3897/ar phapreprin ts.e156060 , Zenodo: doi: 10.5281/ze nodo.1519 4599
88	Value transfer data	CIBIO-BIOPOLIS	T5.3	Remote sensing; Data processing; Literature review	~10 MB	SHP; XLSX	quantitative; GIS data	no	no	S1 2025	Researchers; Decision-makers; Land managers; General public	Open
89	Water Flow Regulation for Spain	Fátima Arrogante Funes, Fernando Santos Martín, Paula Mercedes Rendón Cardona	WP8	Modelling, data processing, remote sensing	Peninsular Spain and islands, 20- 30m	GeoTIFF & documen tation in PDF	GIS data	no	no	Jun-26	Spain Ministry, public administration, Tragsa, Research institutions	Yes, after scientific publication
90	WP2 interview transcripts	Dr Silvija Krajter Ostoic	WP2 T2.5	interviews	N/A	.docx	qualitative data	no	yes	15-May- 25	WP2 leaders	No, this dataset is part of the wider T5.2 effort

Table 2. Summary of data planned to be used within SELINA.

N	Name of dataset	Relevant task	Size	Format	Sensitive data	Personal data	Open Access	Origin	Ownershi p	Licence	Reuse requireme nts
1	Database of Topographic Objects 10K (BDOT10K) for Poland	WP5	n/a	LAS and/or LAZ	no	no	no	Azorean Regional Government	Azorean Regional Governmen t	Depends on the terms defined by the Azorean Regional Government	Yes, with GIS/LIDAR software
2	Spatial Information System (SIP) of the Poznań city	WP5	n/a	tiff	no	no	yes	ESA	EU Copernicus Program	n/a	Yes, with GIS/Remote Sensing software
3	Copernicus Sentinel-2 Data of S. Miguel Island	WP5	n/a	tiff	no	no	yes	ESA	EU Copernicus Program		Yes, with GIS/Remote Sensing software
4	MAREA project modelling results of ES supply	T2.4	n/a	n/a	no	no	yes	ESMERALDA	n/a	n/a	n/a
5	Assessment & Valuation Mapping, Natural Capital Protocol	ES measure	n/a	shp	no	no	no	Trento Municipality	Trento Municipalit Y	Internal use, upon request only	n/a

6	Review of Mapping and Assessment Tools	n/a	n/a	shp	no	no	yes	Trento Municipality	Trento Municipalit Y	CC0	n/a
7	Urban-public census of trees	ES measure	n/a	shp	no	no	no	Trento Municipality	Trento Municipalit Y	Internal use, upon request only	n/a
8	Cities green plans and regulations	guidelines	n/a	pdf	no	no	yes	various Italian municipali tie s	various Italian municip alitie s	ссо	n/a
9	Urban-public brownfields	n/a	n/a	shp	no	no	no	Trento Municipality	Trento Municipalit Y	Internal use, upon request only	n/a
10	Time series data on fire characteristics	T9.2	n/a	docx; xlsx; pdf	no	no	no	n/a (depends on materials chosen for review)	n/a(dep ends on material s chosen for review)	n/a	n/a
11	Ecosystem accounts and ecosystem services models	T9.2 (In collaboratio n with WP2/3/4/10)	n/a	docx; xlsx; pdf	no	no	no	not yet known (depends on materials chosen for review)	not yet known (depen ds on materia ls chosen for review)	n/a	n/a

12	PPGIS Zagreb	WP9	1 GB	shp	no	no	restrictio ns apply	Malta	Planning Authority	Attribution NonCommer cial-NoDeriv atives 4.0 Internationa I	GIS software, R, Python
13	Input data from Coca-Cola demonstration projects	T8.2	n/a	docx; xlsx; shp; gdb	no	no	no	BIOR (Institute of Food Safety, Animal Health and Environment	BIOR	n/a	available upon request
14	Data on population (dynamic, density, employment etc.)	T8.2	n/a	docx; xlsx; shp; gdb	no	no	yes	CSB (Central Statistical Bureau)	CSB	CCO 1.0	available upon request
15	Data on seabed sediments	T8.2	n/a	shp; gdb	no	no	no	LHEI (Latvian Institute of Aquatic Ecology)	LHEI	n/a	available upon request
16	Local Councils Units and Boundaries	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
17	Land use Cover	T8.2	30.6 MB;	Shp;	no	no	yes ;	University of Tartu;	Universi ty of Tartu; BEF-LV;	n/a ;	n/a
18	Natural Park forest cover	T8.2	1.39 MB	shp	no	no	yes	Field surveys, Latvian Institute of Aquatic Ecology	Latvian Institute of Aquatic Ecology	n/a	n/a

19	Marine sediment map	T8.2	1.39 MB	shp	no	no	yes	Field surveys starting from 1965	Latvian Institute of Aquatic Ecology	n/a	n/a
20	historical data on benthic species distribution and biomass	T8.2	8.99 MB	xlsx	no	no	yes	Field surveys results from 1965-1992 stored in the archive of Latvian Environm ent, Geology and Meteorolo gy Centre	Universi ty of Tartu; BEF-LV	n/a	n/a
21	Forest policy interview data	T3.1, 3.2, 3.3, 3.4, 4.1, 4.2, 4.3, 6.1, 6.2, 6.3, 6.4, 8.5	n/a	shp	no	no	yes	Head Office of Geodesy and Cartograp hy "GUGIK", Poland	Head Office of Geodesy and Cartogr aphy, Poland	open licence	GIS Software
22	TeRRIFICA Crowdmapping Tool Dataset	T3.1, 4.1, 4.2, 4.3, 6.1, 6.2, 6.3, 6.4	up to 20 MB	xls	no	no	yes	Crowdma ppi ng data generated by the users (volunteers) within the project TeRRIFICA	TeRRIFIC A Consortium	open licence	GIS Software, spreadsheet software, e.g. MS Excel

23	Satellite images Landsat-8 retrieved during radiation weather conditions in late spring and summer in Poznań in years 2020-2023	T3.1, 3.2, 3.4, 4.1, 4.2, 4.3, 6.1, 6.2, 6.3, 6.4	up to 2 GB	GeoTIFF	no	no	yes	NASA / U.S. Geological Survey	NASA	open licence	GIS Software
24	FEWMETER v2	T3.1, 3.2, 3.3, 4.1, 4.2, 4.3, 6.1, 6.2, 6.3,	n/a	xlsx, csv	no	no	restricted to June 2023	Data collected within FEW-meter project as part of completting Gardener's diary	Lidia Poniży, participa nt of the FEW-meter project Consortium	open licence	database software, e.g. MS Excel, Airtable
25	Ecosystem services valuation database (ESVD)	T5.1	n/a	Geodata	no	no	n/a	WU	WU	n/a	n/a
26	LIDAR survey of S. Miguel Island	n/a	n/a	GIS	no	yes	on demand	CFRI	n/a	n/a	available
27	Copernicus Sentinel-1 Data of S. Miguel Island	n/a	n/a	xls	no	no	on demand	Croatian forests company	n/a	n/a	available
28	ESMERALDA Database	T6.6	1.2 MB	xlsx	no	no	yes	https://w www.maes- explor er.eu/page /1 00	ESMER ALDA Project	n/a	n/a
29	Nature 2000 network	n/a	several MP	GIS	no	no	yes	https://na tur a2000.eea. e uropa.eu/	European Commissio n	n/a	GIS Software

30	Landuse types	T3.2-T3.4	4.7 GB	shp	no	no	yes	https://gd z.b kg.bund.de /i ndex.php/ de fault/digita le - geodaten/ di gitale- landsc haftsmode lle /corine- land cover- 5-ha-st and-2018- clc 5- 2018.html	Federal Agency for Cartogra phy and Geodesy (BKG)	Data licence Germany – attribution – version 2.0	n/a
31	data on fish catch by species	denkstatt	100 Mb	pdf, xlsx	yes	no	no	Coca-Cola- fu nded projects, denkstatt work funded by Coca-Cola	Coca-Cola	restricted-co mmercial	n/a
32	European Soil Data Centre (ESDAC)	T5.1 and 5.2	n/a	GIS	no	no	yes	Remote sensing analysis of time series satellite information (Copernicus and MODIS)	Public data generate d by the CIBIO team		n/a
33	INVEKOS Österreich	T5.2	4.7 Gb per scene, 30 scenes per year, 3 years:	singular complex data (raw)	no	no	yes	Copernicus	Copernicus	n/a	n/a

			423 Gb								
34	n/a	T5.2	large	tif	no	no	yes	Copernicus	Copernicus	n/a	n/a
35	Gedi	T5.2	large	tif	yes	yes	yes	NASA	NASA	n/a	n/a
36	Nisar (from 2024 if operational)	T5.2	large	singular complex data (raw)	no	no	yes	NASA	NASA	n/a	n/a
37	Sentinel-1	T3.1	2 TB	gpkg	no	no	yes	reporting of planted crops and field location from farmers	Agrarmarkt Austria	CC-BY-AT 4.0	GIS software
38	Land Cover	T8.2	1 to 10 GB	tiff, gpkg	no	no	yes	Copernicus EU	European Union	Copernicus Trade Marks	GIS software (QGIS, ESRI, etc)
39	Soil map	T8.2	1 to 10 GB	csv, xlsx	no	no	yes	Census data from the Italian National Institute of Statistics	European Union/Italy	Creative Commons attributes version 3.0	Microsoft Office

40	Municipality of Trento spatial data	T8.2	1 to 10 GB	tiff, gpkg, shp	no	no	yes	Municipal ity of Trento (Italy)	Munici pality of Trento	General Public Licence	GIS software (QGIS, ESRI, etc)
41	Urban-public green areas	T3.1	239 MB	spatial data	no	no	yes	European Environm ent Agency	European Environ ment Agency	EEA standard re-use policy	n/a
42	Habitat type map of Greece	T9.2	n/a	vector	yes	no	yes	Sofia Municipality	Sofia Municipalit Y	n/a	n/a
43	Data on subsidence in individual points, as measured with Sentinel-1	T4.1; 4.2; 4.3; 5.1; 5.2; 5.3; 8.1; 8.2;	n/a	raster/vect or	no	no	n/a	https://esd ac .jrc.ec.euro p a.eu/	European Commissio n	Creative Commons	n/a
44	MAES Estonia database	n/a	n/a	tif, shp	no	no	n/a	Public repositories	Estonian Environ ment al Agency	n/a	n/a
45	Sentinel-derived products	n/a	n/a	tif, grd	no	no	n/a	Copernicus public repositories	n/a	n/a	n/a

Table 4. Summary of re-used data within SELINA.

			_	_		Origin	Ownershi	Licence	Reuse
	task		data	data	Access		р		requireme
									nts

1	Database of Topographic Objects 10K (BDOT10K) for Poland	WP5	n/a	LAS and/or LAZ	no	no	no	Azorean Regional Government	Azorean Regional Governmen t	Depends on the terms defined by the Azorean Regional Government	Yes, with GIS/LIDAR software
2	Spatial Information System (SIP) of the Poznań city	WP5	n/a	tiff	no	no	yes	ESA	EU Copernicus Program	n/a	Yes, with GIS/Remote Sensing software
3	Copernicus Sentinel-2 Data of S. Miguel Island	WP5	n/a	tiff	no	no	yes	ESA	EU Copernicus Program		Yes, with GIS/Remote Sensing software
4	MAREA project modelling results of ES supply	T2.4	n/a	n/a	no	no	yes	ESMERALDA	n/a	n/a	n/a
5	Assessment & Valuation Mapping, Natural Capital Protocol	ES measure	n/a	shp	no	no	no	Trento Municipality	Trento Municipalit Y	Internal use, upon request only	n/a
6	Review of Mapping and Assessment Tools	n/a	n/a	shp	no	no	yes	Trento Municipality	Trento Municipalit Y	CC0	n/a
7	Urban-public census of trees	ES measure	n/a	shp	no	no	no	Trento Municipality	Trento Municipalit Y	Internal use, upon request only	n/a

8	Cities green plans and regulations	guidelines	n/a	pdf	no	no	yes	various Italian municipali tie s	various Italian municip alitie s	CC0	n/a
9	Urban-public brownfields	n/a	n/a	shp	no	no	no	Trento Municipality	Trento Municipalit Y	Internal use, upon request only	n/a
10	Time series data on fire characteristics	T9.2	n/a	docx; xlsx; pdf	no	no	no	n/a (depends on materials chosen for review)	n/a(dep ends on material s chosen for review)	n/a	n/a
11	Ecosystem accounts and ecosystem services models	T9.2 (In collaboratio n with WP2/3/4/ 10)	n/a	docx; xlsx; pdf	no	no	no	not yet known (depends on materials chosen for review)	not yet known (depen ds on materia ls chosen for review)	n/a	n/a
12	PPGIS Zagreb	WP9	1 GB	shp	no	no	restrictio ns apply	Malta	Planning Authority	Attribution NonCommer cial-NoDeriv atives 4.0 Internationa I	GIS software, R, Python
13	Input data from Coca-Cola demonstration projects	T8.2	n/a	docx; xlsx; shp; gdb	no	no	no	BIOR (Institute of Food Safety, Animal Health and Environment	BIOR	n/a	available upon request

14	Data on population (dynamic, density, employment etc.)	T8.2	n/a	docx; xlsx; shp; gdb	no	no	yes	CSB (Central Statistical Bureau)	CSB	CCO 1.0	available upon request
15	Data on seabed sediments	T8.2	n/a	shp; gdb	no	no	no	LHEI (Latvian Institute of Aquatic Ecology)	LHEI	n/a	available upon request
16	Local Councils Units and Boundaries	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
17	Land use Cover	T8.2	30.6 MB; ~ 800 MB	Shp; .tiff	no	no	yes; https://sn ig.dgterrit orio.gov.p t/	University of Tartu; SNIG	Universi ty of Tartu; BEF-LV; Direção- Geral do Territóri O	n/a ; CC-BY-4.0	n/a
18	Natural Park forest cover	T8.2	1.39 MB	shp	no	no	yes	Field surveys, Latvian Institute of Aquatic Ecology	Latvian Institute of Aquatic Ecology	n/a	n/a
19	Marine sediment map	T8.2	1.39 MB	shp	no	no	yes	Field surveys starting from 1965	Latvian Institute of Aquatic Ecology	n/a	n/a
20	historical data on benthic species distribution and biomass	T8.2	8.99 MB	xlsx	no	no	yes	Field surveys results from 1965-1992 stored in the	Universi ty of Tartu; BEF-LV	n/a	n/a

								archive of Latvian Environm ent, Geology and Meteorolo gy Centre			
21	Forest policy interview data	T3.1, 3.2, 3.3, 3.4, 4.1, 4.2, 4.3, 6.1, 6.2, 6.3, 6.4, 8.5	n/a	shp	no	no	yes	Head Office of Geodesy and Cartograp hy "GUGIK", Poland	Head Office of Geodesy and Cartogr aphy, Poland	open licence	GIS Software
22	TeRRIFICA Crowdmapping Tool Dataset	T3.1, 4.1, 4.2, 4.3, 6.1, 6.2, 6.3, 6.4	up to 20 MB	xls	no	no	yes	Crowdma ppi ng data generated by the users (volunteers) within the project Terrillor	TeRRIFIC A Consortium	open licence	GIS Software, spreadsheet software, e.g. MS Excel
23	Satellite images Landsat-8 retrieved during radiation weather conditions in late spring and summer in Poznań in years 2020-2023	T3.1, 3.2, 3.4, 4.1, 4.2, 4.3, 6.1, 6.2, 6.3, 6.4	up to 2 GB	GeoTIFF	no	no	yes	NASA / U.S. Geological Survey	NASA	open licence	GIS Software
24	FEWMETER v2	T3.1, 3.2, 3.3, 4.1, 4.2, 4.3, 6.1, 6.2, 6.3,	n/a	xlsx, csv	no	no	restricted to June 2023	Data collected within FEW-meter project as part of completting Gardener's diary	Lidia Poniży, participa nt of the FEW-meter project Consortium	open licence	database software, e.g. MS Excel, Airtable

25	Ecosystem services valuation database (ESVD)	T5.1	n/a	Geodata	no	no	n/a	WU	WU	n/a	n/a
26	LIDAR survey of S. Miguel Island	n/a	n/a	GIS	no	yes	on demand	CFRI	n/a	n/a	available
27	Copernicus Sentinel-1 Data of S. Miguel Island	n/a	n/a	xls	no	no	on demand	Croatian forests company	n/a	n/a	available
28	ESMERALDA Database	T6.6	1.2 MB	xlsx	no	no	yes	https://w www.maes- explor er.eu/page /1 00	ESMER ALDA Project	n/a	n/a
29	Nature 2000 network	n/a	several MP	GIS	no	no	yes	https://na tur a2000.eea. e uropa.eu/	European Commissio n	n/a	GIS Software
30	Landuse types	T3.2-T3.4	4.7 GB	shp	no	no	yes	https://gd z.b kg.bund.de /i ndex.php/ de fault/digita le geodaten/ di gitale- landsc haftsmode lle /corine- land cover- 5-ha-st and-2018- clc 5- 2018.html	Federal Agency for Cartogra phy and Geodesy (BKG)	Data licence Germany – attribution – version 2.0	n/a

31	data on fish catch by species	denkstatt	100 Mb	pdf, xlsx; shp	Yes; no	no	no	Coca-Cola- fu nded projects, denkstatt work funded by Coca-Cola; Institute of Food safety, Animal Health and Environment "BIOR"	Coca-Cola ; "BIOR", MoSARD	restricted-co mmercial; Procurement contract	n/a
32	European Soil Data Centre (ESDAC)	T5.1 and 5.2	n/a	GIS	no	no	yes	Remote sensing analysis of time series satellite information (Copernicus and MODIS)	Public data generate d by the CIBIO team		n/a
33	INVEKOS Österreich	T5.2	4.7 Gb per scene, 30 scenes per year, 3 years: 423 Gb	singular complex data (raw)	no	no	yes	Copernicus	Copernicus	n/a	n/a
34	n/a	T5.2	large	tif	no	no	yes	Copernicus	Copernicus	n/a	n/a
35	Gedi	T5.2	large	tif	yes	yes	yes	NASA	NASA	n/a	n/a

36	Nisar (from 2024 if operational)	T5.2	large	singular complex data (raw)	no	no	yes	NASA	NASA	n/a	n/a
37	Sentinel-1	T3.1	2 TB	gpkg	no	no	yes	reporting of planted crops and field location from farmers	Agrarmarkt Austria	CC-BY-AT 4.0	GIS software
38	Land Cover	T8.2	1 to 10 GB	tiff, gpkg	no	no	yes	Copernicus EU	European Union	Copernicus Trade Marks	GIS software (QGIS, ESRI, etc)
39	Soil map	Т8.2	1 to 10 GB	csv, xlsx	no	no	yes	Census data from the Italian National Institute of Statistics	European Union/Italy	Creative Commons attributes version 3.0	Microsoft Office
40	Municipality of Trento spatial data	Т8.2	1 to 10 GB	tiff, gpkg, shp	no	no	yes	Municipal ity of Trento (Italy)	Munici pality of Trento	General Public Licence	GIS software (QGIS, ESRI, etc)
41	Urban-public green areas	T3.1	239 MB	spatial data	no	no	yes	European Environm ent Agency	European Environ ment Agency	EEA standard re-use policy	n/a
42	Habitat type map of Greece	Т9.2	n/a	vector	yes	no	yes	Sofia Municipality	Sofia Municipalit Y	n/a	n/a

43	Data on subsidence in individual points, as measured with Sentinel-1	T4.1; 4.2; 4.3; 5.1; 5.2; 5.3; 8.1; 8.2;	n/a	raster/vect or	no	no	n/a	https://esd ac .jrc.ec.euro p a.eu/	European Commissio n	Creative Commons	n/a
44	MAES Estonia database	n/a	n/a	tif, shp	no	no	n/a	Public repositories	Estonian Environ ment al Agency	n/a	n/a
45	Sentinel-derived products	n/a	n/a	tif, grd	no	no	n/a	Copernicus public repositories	n/a	n/a	n/a
46	Aboveground carbon (agb)	WP8: Carbon sequestration estimation for Spain	The dataset covers Spain, with spatial resolutio n according to the source data.	.tif, .csv (GeoTIFF and associated metadata)	no	no	Open access	Duncanson et al., 2019	The data is publicly available, but ownershi p is attribute d to Duncanso n et al., 2019.	Open access	Requires software like QGIS or ArcGIS to process; methodology for estimating aboveground carbon can be reused in other regions.
47	Access to the sea			SHP, GDB	no	no		SIA "NOCTICUS"	SIA "NOCTIC US", MoSARD	Procurement contract	
48	Actual evapotranspiration (aet)	WP8: Carbon sequestration estimation for Spain	The dataset covers Spain, spatial resolutio n as per Running	.tif, .csv (GeoTIFF and associated metadata)	no	no	Open access	Running et al., 2019	Publicly available, owned by Running et al., 2019	Open access	Can be used for other environmental modeling studies and water cycle analysis

			et al., 2019.								
49	Annual mean temperature	WP8: Carbon Sequestration for Spain	Covers Spain, with spatial resolutio n as per Wan et al., 2015	.tif, .csv (GeoTIFF and associated metadata)	no	no	Open access	Wan et al., 2015	Publicly available, owned by Wan et al., 2015	Open access	Can be reused for climate studies, agriculture, and carbon modeling in other regions
50	Black-tailed godwit breeding density map	T5.1		.tif	no	no	restricted access	SOVON	SOVON		GIS software
51	Changes in Soil Organic Carbon in Croplands and Grasslands between 2009 and 2018	T3.2, T3.3, T6.2		Geo Tiff	no	no	Open upon request	Field data + modelling	ESDAC	any purposes, incl. commercial gain allowed, but non redistribution	GIS Software
52	CLCplus Backbone 2021 (raster 10m), Europe, 3-yearly	T3.2, T3.3, T6.2		Geo Tiff	no	no	Open	Remote sensing product	EU Copernic us	CC-BY (?)	GIS Software
53	Climate Damage Atlas - Building damage costs	T5.1		.xls	no	no	open access	Klimaatschad eschatter.nl	Klimaatsc hadescha tter.nl		excel
54	Coastal anthropogenic pressures and visitor assessment	T5.1 & T5.3		SHP GDB	no	no		SIA "NOCTICUS"	SIA "NOCTIC US", MoSARD	Procurement contract	

55	Cover Crops across Europe	T3.2, T3.3, T6.2		Geo Tiff	no	no	Open upon request	Remote sensing + field data	ESDAC	Any purpose, including commercial gains allowed, but no redistribution	GIS Software
56	Dutch SEEA EA ES accounts maps	T5.1		.tif	no	no	restricted access	Statistics Netherlands and WUR	Statistics Netherla nds and WUR		GIS software
57	Dutch SEEA ecosystem extent maps	T5.1		.tif	no	no	restricted access	Statistics Netherlands and WUR	Statistics Netherla nds and WUR		GIS software
58	Fire/burn severity - DELTA NBR - 3 months data	T5.1 & T5.3	~ 300 MB	.tif	no	no	https://g eoportal. severus.p t/	SeverusPT	CIBIO- BIOPOLIS, IPVC	CCO	GIS software
59	High Resolution Small Woody Features	T3.2, T3.3, T6.2		Geo Tiff	no	no	Open	Remote sensing product	EEA		GIS Software
60	Landscape fragmentation Effective Mesh Density time series	T3.2, T3.3, T6.2		Geo Tiff	no	no	Open	Remote ensing product + field data	EEA	CC-BY	Gls Software
61	National Forest Inventory data	T5.1 & T5.3	~ 12 MB	.pdf	no	no	https://w ww.icnf.p t/	ICNF, I. P	Instituto da Conserva ção da Natureza e das Florestas	CC-BY-4.0	PDF software

62	National-scale crop type maps for Germany from combined time series of Sentinel-1, Sentinel-2 and Landsat data (2017 to 2021)	T3.2, T3.3, T6.2		.tif	no	no	Open access	Remote sensing product	Johann Heinrich von Thünen- Institut	Creative Commons Attribution 4.0 International	GIS Software
63	NDVI	WP8: Carbon sequestration estimation and Pollinator Service for Spain	Covers Spain, with a spatial resolutio n from Meneses- Tovar, 2011	.tif, .csv (GeoTIFF and associated metadata)	no	no	Open access	Meneses- Tovar, 2011	Publicly available, owned by Meneses- Tovar, 2011	Open access	Can be reused in studies of vegetation dynamics, carbon sequestration, and ecosystem health
64	Netherlands Soil types map	T5.1		.shp	no	no					
								WUR	WUR		GIS software
65	Population trend of bird species	T3.2, T3.3, T6.2		Geo Package	no	no	Open	Maniharina	EEA		GIS Software
66	Precipitation data	T5.1 & T5.3	~ 350 MB	.tiff	no	no	https://d evelopers .google.c om/	Monitoring Earth Engine Data Catalog	European Centre for Medium- Range Weather Forecasts (ECMWF)	CC-BY-4.0	GIS software
67	Quantity of hunted game species				no	no	closed access	Forest Management Institute and the Ministry of Agriculture of the Czech Republic	Forest Manage ment Institute and the Ministry of Agricultur	closed access	Forest Management Institute and the Ministry of Agriculture of the Czech Republic

									e of the Czech Republic		
68	SEEA EA accounts questionnaire	T2.4	208kb	.xlsx	no	no	open access	https://seea.u n.org/content /2024-global- assessment- results	UNSD		
69	Socio-economic dataset of Latvian marine activities (sectors)			.xlsx	no	no		SIA "AKTiiVS"	SIA "AKTiiVS"		
70	Soil bulk density in Europe	T3.2, T3.3, T6.2		Geo Tiff	no	no	Open upon request	Field data + modelling	ESDAC	any purposes, incl. commercial gain allowed, but non redistribution	GIS software
71	Soil microbial biomass & respiration	T3.2, T3.3, T6.2		Geo Tiff	no	no	Open upon request	Field data + spatial interpolation	ESDAC	Any purpose, including commercial gains allowed, but no redistribution	GIS Software
72	Soil moisture deficit during vegetation growing season, annual time series, 2000-2021, Aug. 2022	T3.2, T3.3, T6.2		Geo Tiff	no	no	Open access	Remote sensing	EEA		GIS Software
73	Soil properties data	T5.1 & T5.3	~2 GB	TIFF	no	no	https://es dac.jrc.ec .europa.e u/	European Soil Data Centre (ESDAC)	European Commissi on Joint Research Centre	CC-BY-4.0	GIS software

74	Topographic Objects Database BDOT10k	932 MB (Poznań	*.shp	no	no			Head Office of		
		dataset)						Geodesy		https://www.ge oportal.gov.pl/p
							https://bdot1 0k.geoportal.	Cartograp hy		l/aplikacje/wali dator-uslug-i-
						open	gov.pl	(GUGiK)	unknown	danych/

2 FAIR data

2.1 Making data findable

Metadata are standardised and structured dataset characteristics that explain the origin, purpose, time, geographic location, creator, terms of access, and terms of use of a data collection, to name a few. Metadata is commonly used to locate resources and to provide searchable information that helps users easily find existing data, and also as a bibliographic citation record. SELINA will guarantee data findability through the usage of both descriptive and structural metadata. Widely supported descriptive metadata standards have the clear advantage of being easily findable. In generating metadata, the project would aim to follow the EML (Ecological Metadata Language) unified metadata description standard.

An exemplary structure of the minimum characteristics of metadata is proposed below:

- Author(s)
- Year
- Dataset Title
- Data Repository or Archive
- Global Persistent Identifier
- Version, or Subset, and/or Access Date
- Language
- Metadata language
- Licence of use
- Date of metadata creation
- Hierarchy level
- Character encoding
- Format version
- Keywords (if possible)

The metadata generated within SELINA should be produced in an unified form for all project partners. Applying a metadata standard such as the EML - Ecological Metadata Language is recommended.

Naming documents in a standardised, logical, and intuitive way enables team members and collaborators to discover and manage project datasets when needed. SELINA supports the sharing of information consortium-wide and therefore suggests a uniform naming convention for all project-generated datasets.

Datasets processed within SELINA should follow the uniform naming convention: [SELINA_datatset.name_version_creation.date], whereby data format should be DDMMYYYY, numbering style should be 01, 02, 03.

Example: SELINA_Urban-public green areas_v.01_21102023.dbf

As the number of datasets shared by partners has increased during M19–M36 period (results are reflected in Table 3 and Table 4), SELINA reinforces the importance of a standardised, logical, and intuitive naming convention for all project-generated datasets. This facilitates discovery, enhances collaborative management, and ensures coherence in documentation across the project. The internal data inventory has been updated to include the newly submitted datasets, which are now fully integrated into the project's metadata framework.

2.2 Making data openly accessible

SELINA members will aim to ensure open access to peer-reviewed scientific publications and all underlying datasets related to the project results and funded or co-funded by the project. Both, the research paper and the underlying data, have to be made available in open access as soon as possible after the paper has been published and no later than the end of the reporting period during which the paper was published. Partners will comply with the rule to deposit a machine-readable electronic copy of the published version or final peer-reviewed manuscript accepted for publication in a trusted open access repository. However, it is recognised that some datasets cannot be made openly available due to legal, ethical, or contractual restrictions, such as the inclusion of personal information or the use of third-party data for which SELINA does not hold redistribution rights.

SELINA partners will choose between two ways of making data openly available.

- Uploading the underlying data to an open access research data repository under the Open Data Commons Attribution Licence (ODC-By)(e.g. a generic repository like Zenodo or a thematic repository such as Environmental Information Data Centre).
- Publishing the datasets as open access data papers in an academic journal, then depositing data in an open access repository.

As seen in Table 1., the majority of partners indicated that they will publish datasets in open access. In the few cases where open access will not be provided, partners have provided an explanation why this is not possible. However, when the datasets are complete, partners will check to see whether datasets can be made available through, for example, aggregation of personal data from interviews or similar measures.

During the period from M34 to M35, additional datasets have been submitted by partners and incorporated into the SELINA dataset inventory, as seen in Table 3 and Table 4. These new contributions have been reviewed for open-access compliance, and the majority adhere to the project's open data principles. For those datasets where immediate open access is currently not possible due to legal, ethical, or confidentiality constraints, partners have outlined planned mitigation measures that may enable open access at a later stage. SELINA will continue to monitor the accessibility status of all datasets and encourage the use of certified open repositories to maximise transparency and reusability.

2.3 Making data interoperable

Except for the ESMERALDA Methods Database, which will be updated and made available through a new user interface, SELINA will not produce large databases that need to be made available through Application Programming Interfaces (API). We will rather have a set of small but well curated datasets, so there is no need to adopt a database management that is interoperable with other databases. Instead, SELINA will ensure interoperability of its research data by using common file formats, readable with free open-source software, specified in the data summary (e.g. docx, xlsx, pdf, .shp). This facilitates recombination of the data with other datasets from different origins. By using flat text data files (e.g. csv) linked to machine-readable metadata (e.g. EML) and hosted in repositories that provide programmatic access (e.g. DRYAD), we ensure that they can be queried and read by any programming language, and without use of proprietary software.

These are some types of formats for long-term preservation of research data that we recommend to be used in SELINA.

It is recommended for SELINA partners to use the data formats derived from open source software, i.e. open file formats. The following is advised:

- 1) data science and data analysis scripts, e.g. .R, .py
- structured text or mark-up file containing metadata information, e.g. DDI XML file, GeoRSS, Rmarkdown
- quantitative tabular data, e.g. comma-separated values (CSV) file (.csv) tab-delimited file (.tab)
- 4) vector and raster data (essential: .shp, .shx, .dbf; optional: .prj, .sbx, .sbn); geo-referenced TIFF (.tif, .tiff, .tfw, .ddf) or CAD data (.dwg); tabular GIS attribute data

Another measure increasing interdisciplinary interoperability of data is the usage of

standardised vocabulary for ecosystem service mapping and assessment terminology as, for instance, that developed within the project ESMERALDA, <u>D1.4 Glossary for Ecosystem Service mapping and assessment terminology</u>, (Potschin-Young et al., 2018).

This glossary is revised and extended by SELINA, and as results the SELINA glossary (cf. Internal Report 01) will serve as the authoritative reference terminology for ecosystem service mapping and assessment throughout the project.

SELINA should use standardised vocabulary as per the Glossary for Ecosystem Service mapping and assessment terminology, developed within ESMERALDA.

Following the latest update of datasets during M19-M36, partners have adhered to the established guidelines on data formats and metadata standards. The newly submitted datasets largely conform to the recommended interoperable formats, such as .csv, .shp, and .xlsx. This continued attention to data format and terminology ensures that SELINA outputs remain compatible with external research infrastructures and can be integrated into broader assessments that extend beyond the projects scope.

2.4 Increasing data re-use

Data produced within SELINA will be licensed using the Open Data Commons Attribution License ODC-By. 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), authors should explicitly inform the Project Coordination.

Other open data licenses are Creative Commons CCO (also cited as "CC-Zero" or "CC-zero") and the Open Data Commons Public Domain Dedication and License (ODC-PDDL). According to the CCO 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 CCO 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 other research articles.

SELINA should use the open Data Commons Attribution License ODC-By.

To support the increase of data re-use, SELINA partners have been encouraged to apply consistent and permissive open licensing practices to the newly submitted datasets collected between M34–35. The majority of these datasets have been published or are intended to be published under ODC-By or CCO licences, in line with project policy. Where exceptions have been necessary, due to legal, ethical, or third-party data constraints, these cases have been recorded and justified. Additionally, the updated dataset inventory now includes a clear indication of licensing terms for each dataset, facilitating transparency for potential users. This effort reinforces SELINA's commitment to maximising the impact and reusability of its outputs by ensuring clarity in data rights and promoting best practices in academic attribution.

3 Allocation of resources

Managing data in a FAIR way is associated with various types of costs. They can be grouped into two main categories: 1) article processing charges (APC) for publishing data in open access journals; 2) fees for depositing data in global data repositories. While many data repositories are free of charge to authors to upload their data (e.g. Zenodo, GBIF), some more generic data repositories such as Dryad charge users for publishing their data, unless exemptions apply. SELINA has carefully distributed direct costs among partners so that each partner has an open access publication costs budget (see SELINA Grant Agreement, Figure 3.3: Overview of SELINA budget categories (direct costs)). Each SELINA partner has to use this budget responsibly and prioritise open access publications.

In addition, sufficient resources have been allocated to WP7 leaders responsible for the Data Management Plan, so that updates of the deliverable are performed at least twice within the project duration, as well as upon major changes.

During the second reporting period (M19–M36), partners have continued to make use of their allocated open access budgets in alignment with the project's guidelines. Several datasets have been successfully published in repositories with associated fees, and APCs have been applied towards peer-reviewed open-access publications. Where necessary, partners have sought cost-free repository alternatives such as Zenodo, thereby reducing the financial burden on the publication budget. A special guideline document was created, to help SELINAs partners on how and when they can publish into an open science repository. All partners have access to the document.

WP7 has maintained its coordination role in overseeing these expenditures, supporting partners in selecting appropriate publication channels, and ensuring cost-efficiency. The present DMP update reflects the planned schedule of at least two formal revisions, with this version serving as the second comprehensive update based on the increased number of datasets and ongoing project outputs.

4 Data security

Data security is of high priority in SELINA, which is why partners replied to a series of questions concerning (i) data storage location, (ii) server location, (iii) back up procedures, (iv) data protection practices, (v) data protection responsible persons in the institution.

Partners' replies (a total of 38) can be summarised in the following way.

- The majority of partners store research data on their institutional servers (73%), opposed to web hosting on e.g. Microsoft Teams, Nextcloud or OneDrive.
- The servers of 95% of all partners are located within the EU.
- 86% of all partner institutions have established back up procedures, with a frequency between once a day and once a month.
- Data protection is ensured in all partner institutions either via two-factor authentication method, password protection, local network access or folder encryption.
- 95% of all partner institutions have pointed to a data management responsible person from their institution who is also responsible for the protection of SELINA data.

Overall, data security practices within the consortium are satisfactory. To maximise data security, the following recommendations are in place:

SELINA recommends that back up procedures are performed on a daily basis.

SELINA recommends that data is stored only on servers located in the EU.

SELINA recommends that all partners enquire with full accuracy who the official data protection officer (DPO) of their institution is and obtain their contacts.

In the period covering M19–M36, data security practices have remained consistent across the consortium. New partners submitting datasets as part of the updated inventory have likewise confirmed adherence to SELINA's minimum security standards, including secure storage, encrypted transfer where applicable, and institutional oversight of data protection protocols. Minor improvements have been reported by several partners, including the implementation of more frequent back-up procedures and the adoption of institution-wide two-factor

authentication systems. These developments indicate a positive trend in strengthening institutional data governance and reducing the risk of data loss or breach.

The WP7 team continues to monitor data security practices to ensure that compliance is maintained throughout the project's duration.

5 Ethical aspects

SELINA has not identified any ethical or legal issues related to data management so far. Should issues occur, consortium members will consult the project's Ethics Advisor Dr. Vesa Arponen (consult D11.1 for more information).

As of the second reporting period (M19-M36), no new ethical or legal concerns have arisen in relation to the handling, sharing, or publication of data within the SELINA consortium. Newly submitted datasets have been reviewed for potential ethical sensitivities, particularly in cases involving interview data, personal information, or third-party content, and partners have taken appropriate steps such as anonymisation or aggregation to ensure compliance with GDPR and institutional ethical standards.

The Ethics Advisor remains available for consultation should new issues arise, and the procedures outlined in D11.1, D11.2 and D11.3, continue to serve as a framework for addressing any future challenges.

6 References

Potschin-Young, M., Burkhard, B., Czúcz, B. and F. Santos Martín (2018). Glossary for Ecosystem Service mapping and assessment terminology. Deliverable D1.4 EU Horizon 2020 ESMERALDA Project, Grant agreement No. 642007, 49 pp.



https://project-selina.eu/

7. Annex 1: Data Management Questionnaire





- 3. Please provide the following provisional information for your **generated data**:
- 1 Name of the dataset
- 2. Name of the generator: name of the person who will generate this data.
- Relevant task
- 4. Generated via: for example, field work, modelling, data processing, remote sensing, literature review, policy review, interview, surveys.
- 5. Size: a rough estimate only if you know.
- 6. Format: for example, .docx; .xlsx; .pdf; .mp4; .xml; .csv.
- 7. **Type of data**: for example, qualitative data; semi-quantitative data; quantitative data; analogue data; digital data; GIS data.
- 8. Sensitive data : Yes/no. If yes, please specify, for example, racial, political, ethical, health, and more here.
- $9. \textbf{Personal data} : Yes/no. \ If yes, please specify, for example, name, surname, address, email, IP \ address, location \ data.$
- 10. **Delivery**: a rough estimate of a timeline. If there is an embargo period, specify why and how long it will apply.
- 11. Metadata: the metadata accompanying your datasets.
- 12. Users: to whom they might be useful.
- 13. Access: will they be open access? If not, please indicate the reasons, for example, ethical, rules of personal data, intellectual property, commercial, privacy-related, security-related, contract.
- 14. Re-use: potential documents or tools needed to re-use or validate the data.
- ② This question concerns the data you will **generate**.
- Please fill in at least one answer

	Dataset 1	Dataset 2	Dataset 3	Dataset 4	Dataset 5
Name of the dataset					
Name of the generator					
Relevant task					
ienerated via					
Size					
Format					
Type of data					
Sensitive data					
Personal data					
Delivery					
Metadata					
Users					
Access					
Re-use					

*4. Would you consider anonymising your generated datasets and publishing them i If yes, please specify to which dataset(s) that would apply. If not, please explain why.	n an aggregated form so as to not disclose private information?
This question concerns the data you will generate. Choose one of the following answers	
○ Yes	Please enter your comment here:
○ No	
○ Not relevant	
	b.
Question 5 concerns the data you will obtain from elsewhere and reuse .	

- 5. Please provide the following information for the ${\bf existing} \; {\bf data} \; {\bf you} \; {\bf will} \; {\bf reuse} :$
- 1. Name of the dataset
- 2. Relevant task
- 3. **Size**
- 4. Format: for example, .docx; .xlsx; .pdf; .mp4; .xml; .csv.
- 5. **Sensitive data**: Yes/no. If yes, please specify, for example, racial, political, ethical, health, and more here.
- 6. **Personal data**: Yes/no. If yes, please specify, for example, name, surname, address, email, IP address, location data.
- 7. **Metadata**: the metadata accompanying your datasets.
- 8. Access: open/restricted/closed access.
- 9. Origin: what is the origin of the data?
- 10. Ownership: who owns the data you will reuse?
- 11. Licence: under what licence can you use the data?
- 12. **Re-use**: potential documents or tools needed to re-use or validate the data.
- **②** This question concerns the data you will obtain from elsewhere and **reuse**.
- Please fill in at least one answer

	Dataset 1	Dataset 2	Dataset 3	Dataset 4	Dataset 5
Name of the dataset					
Relevant task					
Size					
Format					
Sensitive data					
Personal data					
Metadata					
Access					
Origin					
Ownership					
Licence					
Re-use					

uestions 6-13 con	ocern your data management practices .
. Please provide	a brief summary of your institutional data management practices, specifying:
Data location: w	where and how data will be stored, for example, institutional server or web hosting.
Server location:	EU or non-EU; compliant or not-compliant with applicable data protection rules (for example, GDPR).
	ures: type of backup procedures and their frequency.
	data security is ensured, for example, password or two-factor authentication.
kesponsible: nar	me the person from your team who will bear primary responsibility for data management and serve as a contact person if questions arise.
This question cor	ncerns your institutional data management .
Data location	
Server location	
Backup	
procedures	
Protection	
Responsible	
. Do you follow a	specific naming convention?
es, please specify.	
res, please specify. This question con	
res, please specify. This question con	ncerns your data management .
res, please specify. This question cor Choose one of the	ncerns your data management. De following answers
res, please specify. This question con	ncerns your data management. De following answers
res, please specify. This question cor Choose one of the	ncerns your data management. De following answers
res, please specify. This question cor Choose one of the	ncerns your data management. De following answers
res, please specify. This question cor Choose one of the	ncerns your data management. De following answers
res, please specify. This question con Choose one of the Yes No	ncerns your data management. De following answers
res, please specify. This question con Choose one of the Yes No	ncerns your data management. Please enter your comment here: Standard metadata vocabulary, standards or methodologies when creating your datasets?
res, please specify. This question con Choose one of the Yes No Do you use any res, please specify.	ncerns your data management. Please enter your comment here: Standard metadata vocabulary, standards or methodologies when creating your datasets?
res, please specify. This question corchoose one of the Yes No Do you use any yes, please specify. This question corchists	ncerns your data management. le following answers Please enter your comment here: standard metadata vocabulary, standards or methodologies when creating your datasets?
res, please specify. This question conchoose one of the Yes No Do you use any yes, please specify. This question conchoose one of the Choose one of the	ncerns your data management. le following answers Please enter your comment here: Please enter your comment here: It standard metadata vocabulary, standards or methodologies when creating your datasets? Incerns your data management. It is following answers
res, please specify. This question con Choose one of the Yes No Do you use any res, please specify. This question con Choose one of the Yes	ncerns your data management. le following answers Please enter your comment here: standard metadata vocabulary, standards or methodologies when creating your datasets? Incerns your data management.
res, please specify. This question conchoose one of the Yes No Do you use any yes, please specify. This question conchoose one of the Choose one of the	ncerns your data management. le following answers Please enter your comment here: Please enter your comment here: It standard metadata vocabulary, standards or methodologies when creating your datasets? Incerns your data management. It is following answers

*9. Will you be using standard vocabularies for all data types present in your data set, t	to allow inter-disciplinary interoperability?
If yes, please specify.	
This question concerns your data management. Choose one of the following answers	
Yes	Please enter your comment here:
○ No	

*10. How will you licence your data? If other, please provide a justification.	
This question concerns your data management. Comment only when you choose an answer.	
Creative Commons Attribution International Public License (CC BY) (or equivalent)	
Creative Commons Public Domain Dedication (CC 0) (or equivalent)	
Other	
*11. Would you be interested in publishing your data in the form of data papers? If yes, please give an example of a suitable dataset. If not, please explain why. Orange This question concerns your data management. Choose one of the following answers	
○ Yes	Please enter your comment here:
○ Yes ○ No	Please enter your comment here:
	Please enter your comment here:
No *12. Do you have a preference for a trusted repository where to store your research da	
○ No	
*12. Do you have a preference for a trusted repository where to store your research da If yes, please specify. This question concerns your data management.	
*12. Do you have a preference for a trusted repository where to store your research da If yes, please specify. This question concerns your data management. Choose one of the following answers	ata?

*13. Can you identify potential obstacles (e.g., technical, social, polic data here.	icies) that would prevent delivering FAIR data during SELINA's lifetime and beyond? Information on FAIR
If yes, please specify.	
 This question concerns your data management. Choose one of the following answers	
○ Yes	Please enter your comment here:
○ No	
Any additional comments?	
Previous	Submit