Enhancing ecosystem services mapping for policy and decision making

Welcome to the final Conference

EU Horizon 2020 Coordination and Support Action

Welcome to Brussels

[slide from ESMERALDA Kick-off meeting Kiel, 05/2015]

ESMERALDA welcomes delegates from

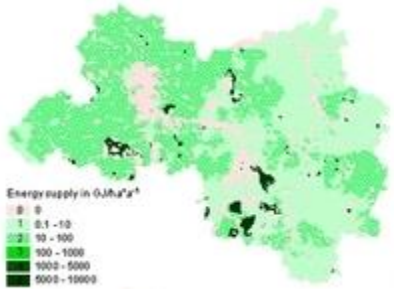
- 27 EU member states
- Switzerland, Norway and Israel
- EU candidate states (Macedonia, Serbia)
- EU outermost regions (Azores)
- European Commission DG RTD, DG ENV, DG AGRI
- European Commission Joint Research Centre (JRC)
- European Commission Executive Agency for SMEs (EASME)
- European Environment Agency (EEA)
- European Anglers Alliance (EAA)
- European Topic Centre / Biodiversity
- Eurac Research
- Institute for European Environmental Policy (IEEP)
- IUCN, IUCN Europe
- Confederation of European Forest Owners
- UNEP -WCMC
- Ecosystem Services Partnership (ESP)
- Stakeholders from the Cities of Antwerp, Blagoevgrad and Trento

What is ESMERALDA?

- An EU Horizon 2020 Coordination and Support Action

- A Pan-European network of ecosystem services specialists and stakeholders

- With special focus on enhancing ecosystem services mapping



- Dedicated to Target 2 Action 5 of the EU Biodiversity Strategy

What is ESMERALDA?

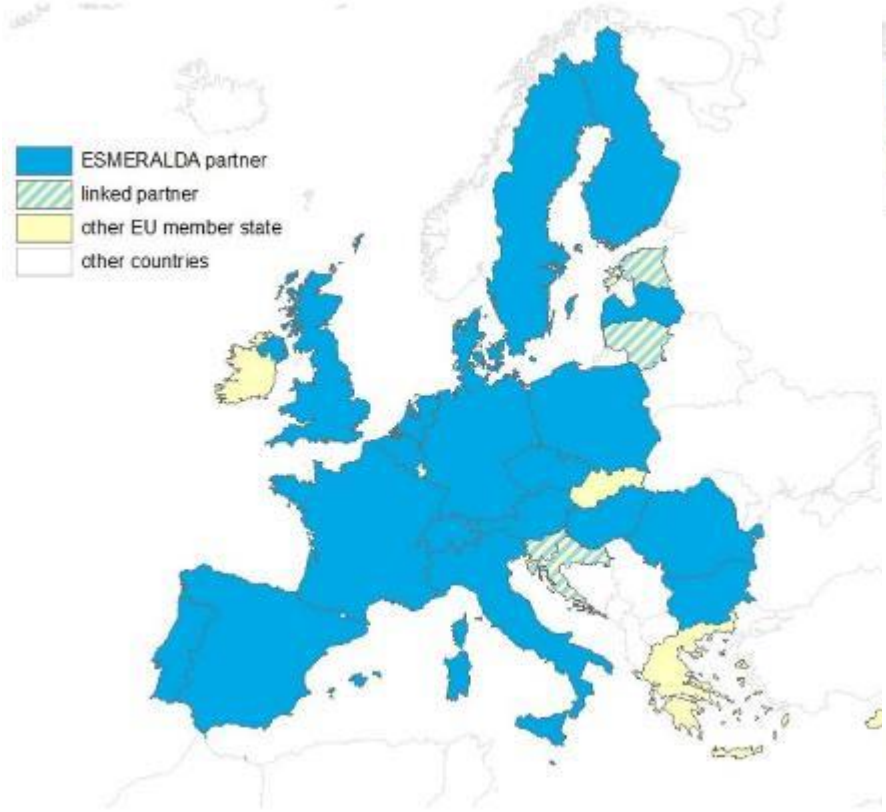
- **Target 2, Action 5**

*"to improve knowledge of ecosystems and their services in the EU (Action 5) – the member states shall **map and assess the state of ecosystems and their services** in their national territory by 2014, assess the economic value of such services, and promote the integration of these values into accounting and reporting systems at EU and national level by 2020"*

http://ec.europa.eu/environment/nature/biodiversity/comm2006/2020.htm

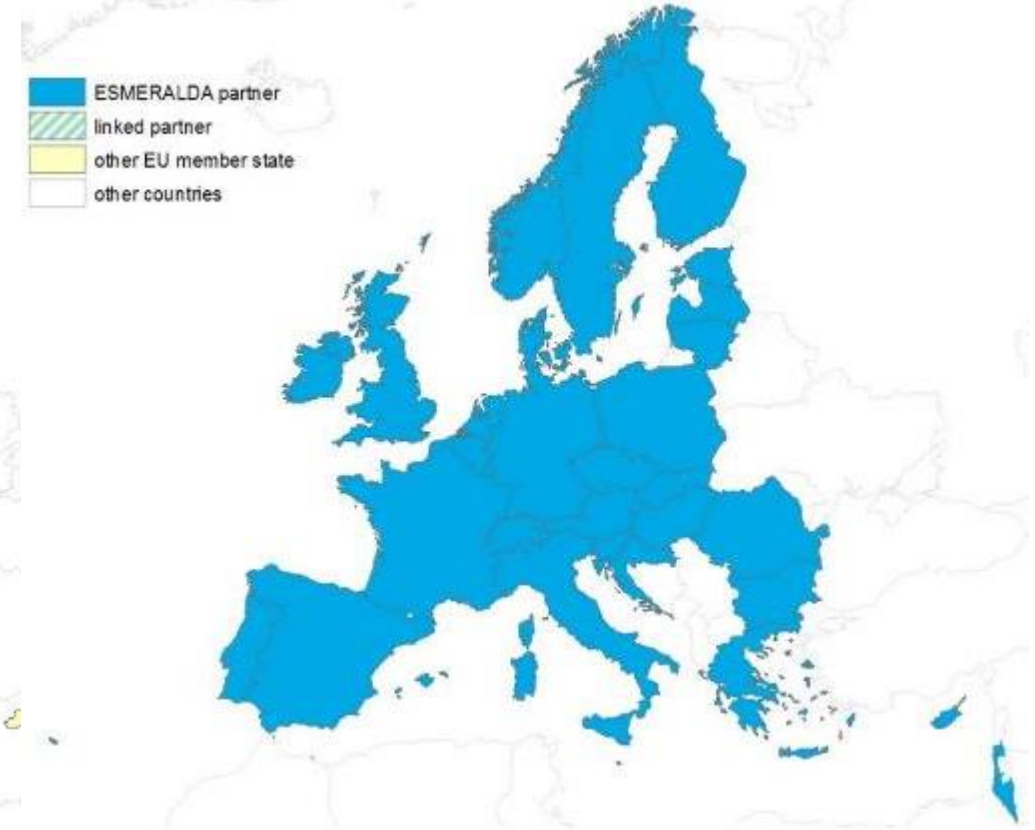
ESMERALDA network

- At the beginning of the project (2015)



- 25 partners
- from 19 EU member states
- Switzerland

- Toward the end of the project (2018)



- 37 partners
- from all 28 EU member states
- Switzerland, Norway and Israel

ESMERALDA network

- Leibniz Universität Hannover, Germany (LUH)
- Finnish Environment Institute, Finland (SYKE)
- Autonomous University of Madrid, Spain (UAM)
- Fabis Consulting, United Kingdom (FABIS)
- University of Trento, Italy (UNITN)
- Pensoft Publishers Ltd, Bulgaria (PENSOFT)
- Free University of Amsterdam, the Netherlands (VU)
- Flemish Institute for Technological Research, Belgium (VITO)
- Bulgarian Academy of Sciences, Bulgaria (NIGGG BAS)
- Global Change Research Centre, Czech Republic (CVGZ)
- Paris-Lodron University Salzburg, Austria (PLUS)
- Regional Environmental Centre, Hungary (REC)
- Christian Albrechts University Kiel, Germany (CAU)
- Instituto Superior Técnico, Portugal (IST)
- University of Bucharest, Romania (UB)
- UNEP WCMC, United Kingdom (WCMC)
- University of Poznan, Poland (UPOZ)
- Hungarian Academy of Sciences, Hungary (MTA OK)
- Institute for Environmental & Agricult. Science & Research, France (IRSTEA)
- Malta College of Arts, Science and Technology, Malta (MCAST)
- Foundation for Sustainable Develop-ment, the Netherlands (FSD)
- ETH Zürich, Switzerland (ETH Zurich)
- Joint Research Centre, European Commission (JRC)
- National Parks and Wildlife Service, Department of Arts, Heritage,Regional, Rural and Gaeltacht Affairs, Ireland (DAHRRGA)
- Tel Aviv University, Israel (TAU)
- Estonian University of Life Sciences, Estonia
- University of Patras, Greece (UPAT)
- The Research Centre of the Slovenian Academy of Sciences and Arts, Slovenia (ZRC SAZU)
- Ministry for Sustainable Development and Infrastructure, Environment Department, Luxembourg (MDDI)
- University of Copenhagen, Denmark (UCPH)
- Naturvårdsverket, Sweden (SEPA)
- Baltic Environmental Forum, Latvia (BEF)
- Nature, Biodiversity and Landscape Protection Directorate Ministry of Environment, Slovakia (MOESK)
- Norwegian Institute for Nature Research, Norway (NINA)
- Mykolas Romeris University, Lithuania (MRU)
- Cyprus Institute, Cyprus (CYI)
- Croatian Agency for the Environment and Nature, Croatia (CAEN)

★ A real pan-European network

The ESMERALDA networking approach

- Create and maintain a strong network of **ecosystem services specialists**
- Harnessing existing networks (e.g. **Ecosystem Services Partnership** ESP)
- Inputs from the ESP Thematic Working Group on Mapping Ecosystem Services
- Strong interaction with the EU Working Group on Mapping and Assessment of Ecosystems and their Services (**MAES**)
- Make use of **existing related projects** (e.g. FP7 projects OpenNESS, OPERAs, MESEU)
- Identify and involve **relevant stakeholders** from science, policy and practice at EU and national levels
- Regular **ESMERALDA Workshops** across Europe …

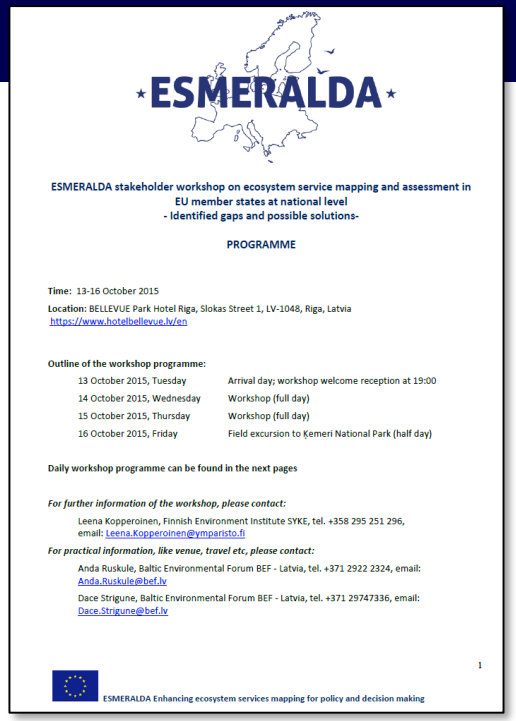
ESP
Ecosystem Services Partnership

ESMERALDA Workshops

- Project Kick-off meeting Kiel, DE, 05/2015

ESMERALDA Workshops

- Project Kick-off meeting Kiel, DE, 05/2015
- Stakeholder Workshop Riga, LV, 10/2015



ESMERALDA stakeholder workshop on ecosystem service mapping and assessment in EU member states at national level
- Identified gaps and possible solutions-

PROGRAMME

Time: 13-16 October 2015

Location: BELLEVUE Park Hotel Riga, Slokas Street 1, LV-1048, Riga, Latvia
https://www.hotelbellevue.lv/en

Outline of the workshop programme:

13 October 2015, Tuesday	Arrival day; workshop welcome reception at 19:00
14 October 2015, Wednesday	Workshop (full day)
15 October 2015, Thursday	Workshop (full day)
16 October 2015, Friday	Field excursion to Ķemeri National Park (half day)

Daily workshop programme can be found in the next pages

For further information of the workshop, please contact:

Leena Kopperoinen, Finnish Environment Institute SYKE, tel. +358 295 251 296, email: Leena.Kopperoinen@ymparisto.fi

For practical information, like venue, travel etc, please contact:

Anda Ruskule, Baltic Environmental Forum BEF - Latvia, tel. +371 2922 2324, email: Anda.Ruskule@bef.lv

Dace Strigune, Baltic Environmental Forum BEF - Latvia, tel. +371 29747336, email: Dace.Strigune@bef.lv

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ESMERALDA Enhancing ecosystem services mapping for policy and decision making

ESMERALDA Workshops

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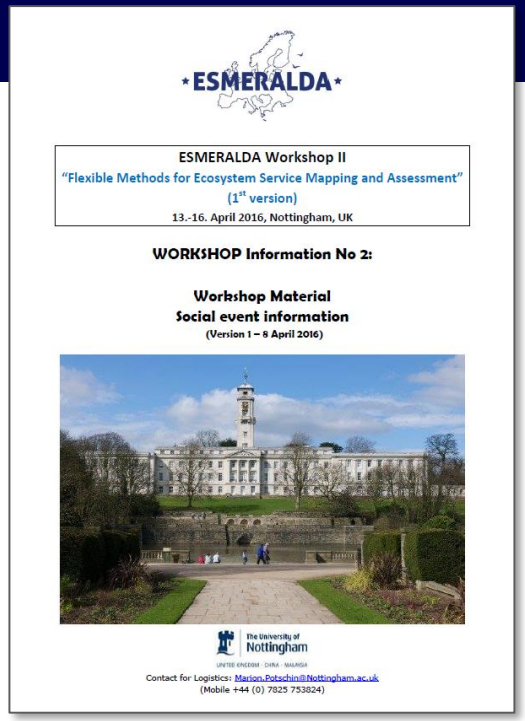
- Methods Workshop Nottingham, UK, 04/2016



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ESMERALDA Workshop II
"Flexible Methods for Ecosystem Service Mapping and Assessment"
(1st version)
13.-16. April 2016, Nottingham, UK

WORKSHOP Information No 2:

Workshop Material
Social event information
(Version 1 – 8 April 2016)

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Contact for Logistics: Marion.Potschin@Nottingham.ac.uk
(Mobile +44 (0) 7825 753824)

ESMERALDA Workshops

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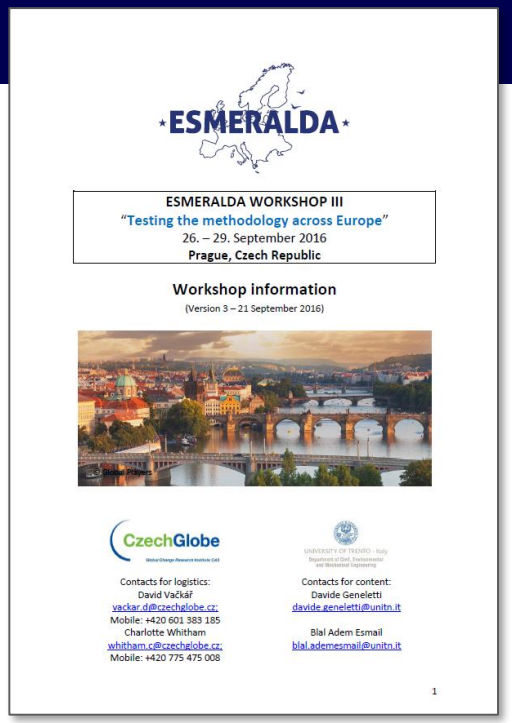
- Methods testing across Europe Workshop Prague, CZ, 09/2016



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ESMERALDA WORKSHOP III
"Testing the methodology across Europe"
26. – 29. September 2016
Prague, Czech Republic

Workshop information
(Version 3 – 21 September 2016)

CzechGlobe

Contacts for logistics:
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ESMERALDA Workshops

- Project Kick-off meeting Kiel, DE, 05/2015
- Stakeholder Workshop Riga, LV, 10/2015
- Methods Workshop Nottingham, UK, 04/2016
- Methods testing across Europe Workshop Prague, CZ, 09/2016
- Methods testing across themes Workshop Amsterdam, NL, 01/2017

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ESMERALDA WORKSHOP IV
"Testing the methodology across themes"
9. – 12. January 2017
Amsterdam, Netherlands

Workshop information
(Version 1 – December 2016)

VU VRIJE UNIVERSITEIT AMSTERDAM

SYKE Finnish Environment Institute

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Arto Viinikka
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ESMERALDA Workshops

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- Stakeholder Workshop Riga, LV, 10/2015
- Methods Workshop Nottingham, UK, 04/2016
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- Methods testing across themes Workshop Amsterdam, NL, 01/2017
- Methods testing across biomes and regions Madrid, ES, 04/2017

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ESMERALDA WORKSHOP V

"Testing the methods across biomes and regions"

4. – 7. April 2017

Madrid, Spain

Workshop information

(Version 1 – February 2017)

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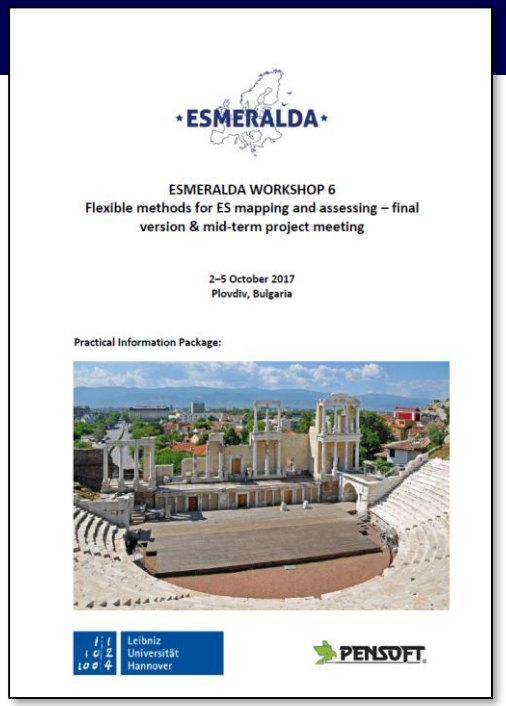
- Project Midterm Conference Plovdiv, BG, 10/2017



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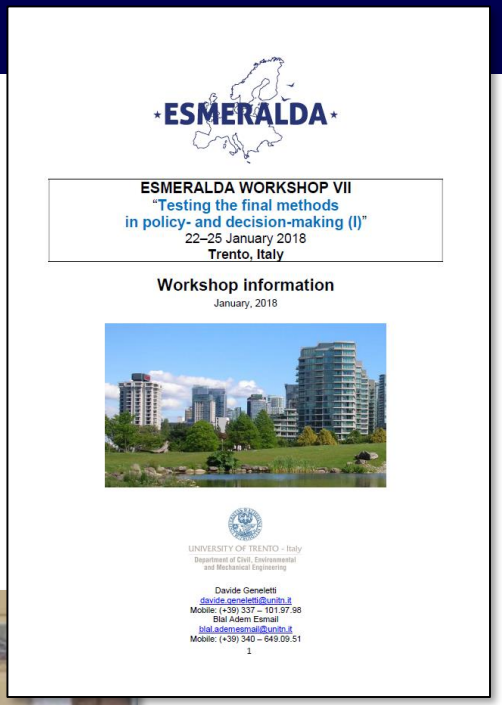
- Project Midterm Conference Plovdiv, BG, 10/2017
- Methods testing in policy and decision making I Trento, IT, 01/2018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ESMERALDA WORKSHOP VII
"Testing the final methods
in policy- and decision-making (I)"
22–25 January 2018
Trento, Italy

Workshop information
January, 2018

UNIVERSITY OF TRENTO - Italy
Department of Civil, Environmental and Mechanical Engineering

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ESMERALDA Workshops

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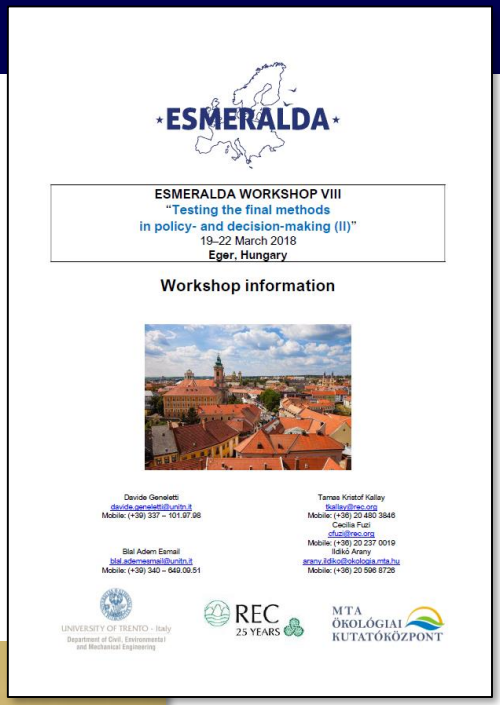
- Project Midterm Conference Plovdiv, BG, 10/2017
- Methods testing in policy and decision making I Trento, IT, 01/2018
- Methods testing in policy and decision making II Eger, HU, 03/2018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ESMERALDA WORKSHOP VIII
"Testing the final methods
in policy- and decision-making (II)"
19–22 March 2018
Eger, Hungary

Workshop information

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- Methods testing in policy and decision making II Eger, HU, 03/2018
- Final Project Conference Brussels, BE, 06/2018

ESMERALDA Workshops

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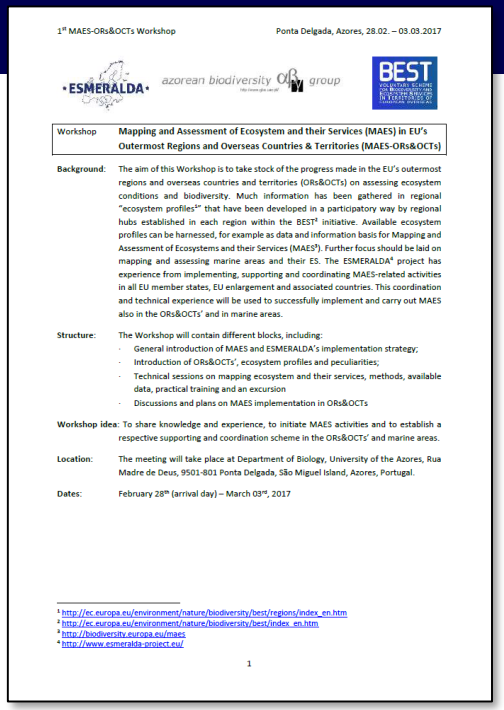
- ★ Methods testing in policy and decision making I Trento, IT, 01/2018
- ★ Methods testing in policy and decision making II Eger, HU, 03/2018
- ★ Final Project Conference Brussels, BE, 06/2018
- ★ Additional Workshop on MAES in EU outermost regions and overseas countries and territories Ponta Delgada, Azores, PT, 03/2017



1st MAES-ORs&OCTs Workshop — Ponta Delgada, Azores, 28.02. – 03.03.2017

azorean biodiversity group

Workshop	**Mapping and Assessment of Ecosystem and their Services (MAES) in EU's Outermost Regions and Overseas Countries & Territories (MAES-ORs&OCTs)**

Background: The aim of this Workshop is to take stock of the progress made in the EU's outermost regions and overseas countries and territories (ORs&OCTs) on assessing ecosystem conditions and biodiversity. Much information has been gathered in regional "ecosystem profiles"[1] that have been developed in a participatory way by regional hubs established in each region within the BEST[2] initiative. Available ecosystem profiles can be harnessed, for example as data and information basis for Mapping and Assessment of Ecosystems and their Services (MAES[3]). Further focus should be laid on mapping and assessing marine areas and their ES. The ESMERALDA[4] project has experience from implementing, supporting and coordinating MAES-related activities in all EU member states, EU enlargement and associated countries. This coordination and technical experience will be used to successfully implement and carry out MAES also in the ORs&OCTs' and in marine areas.

Structure: The Workshop will contain different blocks, including:
- General introduction of MAES and ESMERALDA's implementation strategy;
- Introduction of ORs&OCTs', ecosystem profiles and peculiarities;
- Technical sessions on mapping ecosystem and their services, methods, available data, practical training and an excursion
- Discussions and plans on MAES implementation in ORs&OCTs

Workshop idea: To share knowledge and experience, to initiate MAES activities and to establish a respective supporting and coordination scheme in the ORs&OCTs' and marine areas.

Location: The meeting will take place at Department of Biology, University of the Azores, Rua Madre de Deus, 9501-801 Ponta Delgada, São Miguel Island, Azores, Portugal.

Dates: February 28th (arrival day) – March 03rd, 2017

[1] http://ec.europa.eu/environment/nature/biodiversity/best/regions/index_en.htm
[2] http://ec.europa.eu/environment/nature/biodiversity/best/index_en.htm
[3] http://biodiversity.europa.eu/maes
[4] http://www.esmeralda-project.eu/

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ESMERALDA Workshops

- Altogether 11 Workshops across Europe were organized
- They were a very efficient mean of interaction between ESMERALDA consortium members, other scientists, stakeholders and case study people
- Main ESMERALDA outcomes were initialized/created during Workshops

- Workshops needed a lot of resources (time and budget) to be organized
- Huge inputs from case studies and other project in EU member states and involved staff, often beyond ESMERALDA budget
- High workload on ESMERALDA Executive Board members (26 meetings until now)

… but it was **definitely worth the efforts** in order to achieve ESMERALDA‘s objectives and targets

ESMERALDA objectives and targets

ES mapping & assessment strategies

for EU member states

'Flexible methodology'

for pan-European, national and regional ES mapping and assessment

Test this methodology

in case studies across European regions and themes

Mobilise relevant actors

from science, policy, practice and society involved in ES

Enable actors in EU member states

to fulfil their tasks of EU BD Strategy's Target 2 Action 5 /

All ESMERALDA tasks and related actions are closely interlinked and build upon each other!

ESMERALDA achievements

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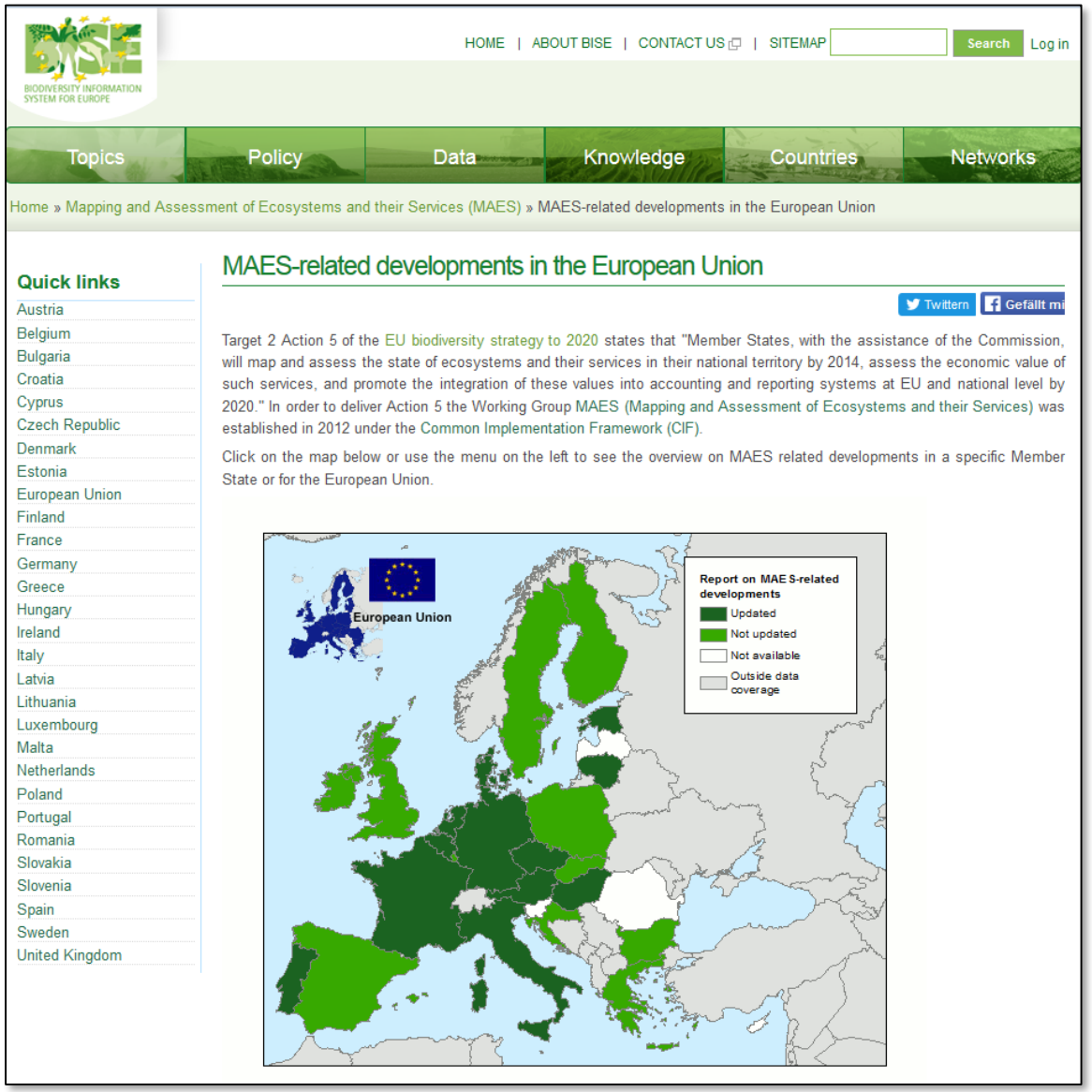
ESMERALDA achievements

Mobilise relevant actors

from science, policy, practice and society involved in ES

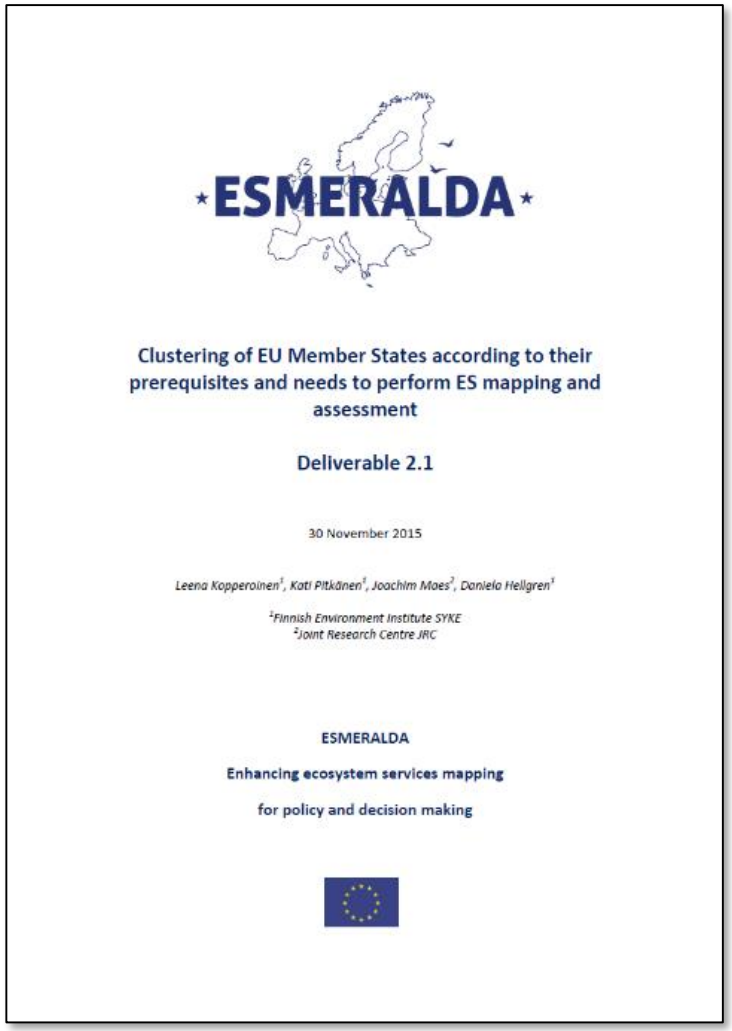
Milestone 09: EU Member State Fact sheets

Public documents, available on BISE:
http://biodiversity.europa.eu/maes/maes_countries



ES mapping & assessment strategies

for EU member states



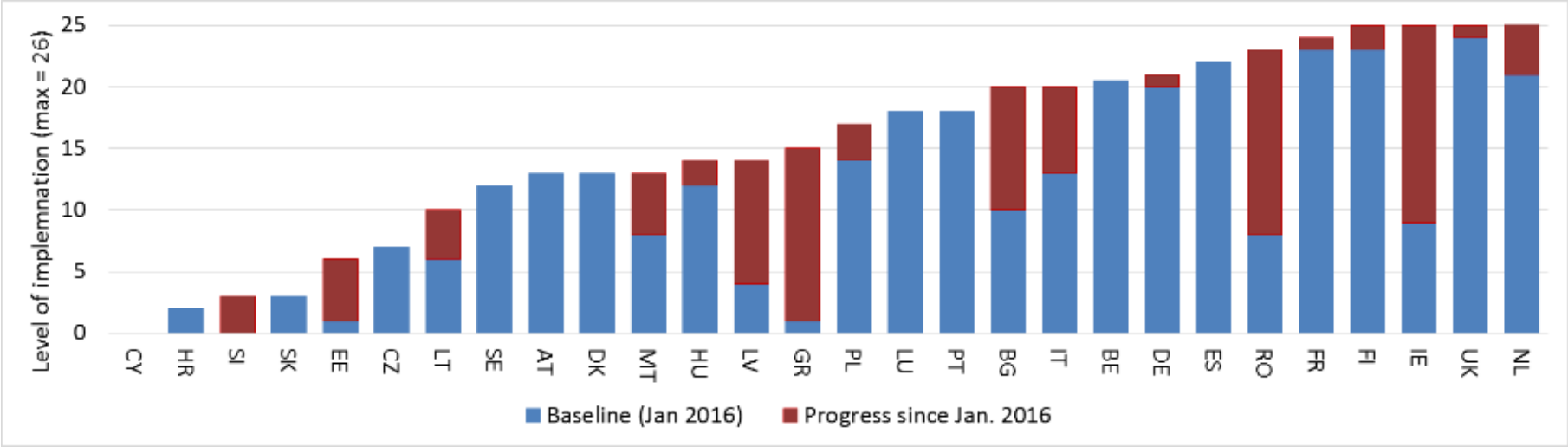
Deliverable 2.1 (Nov 2015): Clustering of EU Member States according to their prerequisites and needs to perform ES mapping and assessment.

Public report, available at:
http://esmeralda-project.eu/documents/1/

ES mapping & assessment strategies

for EU member states

ESMERALDA EU MAES barometer (03/2018)

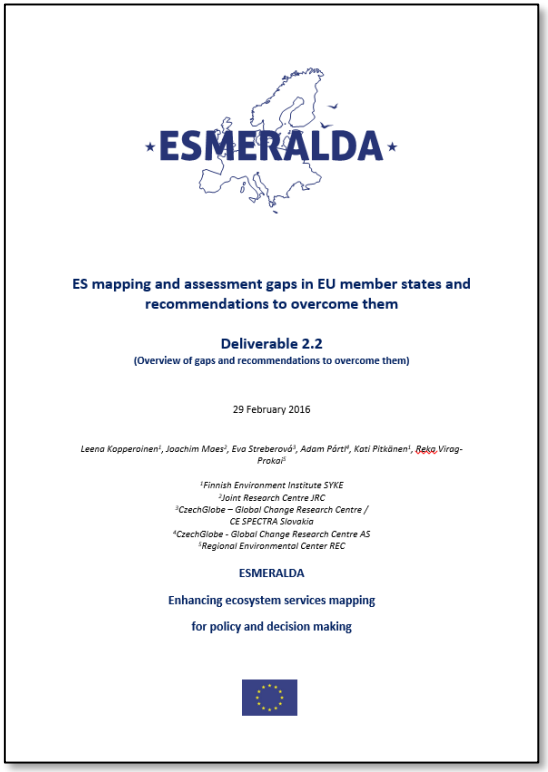


- ★ Updated twice per year together with MAES WG meetings
- ★ Now all (almost) EU Member states have implemented MAES activities

ESMERALDA achievements

Enable actors in EU member states

to fulfil their tasks of EU BD Strategy's Target 2 Action 5 /


ESMERALDA

ES mapping and assessment gaps in EU member states and recommendations to overcome them

Deliverable 2.2
(Overview of gaps and recommendations to overcome them)

29 February 2016

Leena Kopperoinen[1], Joachim Maes[2], Eva Streberová[3], Adam Pártl[4], Kati Pitkänen[1], Beka Virag-Prokai[5]

[1]Finnish Environment Institute SYKE
[2]Joint Research Centre JRC
[3]CzechGlobe – Global Change Research Centre / CE SPECTRA Slovakia
[4]CzechGlobe - Global Change Research Centre AS
[5]Regional Environmental Center REC

ESMERALDA

Enhancing ecosystem services mapping

for policy and decision making

Selected gaps for MAES implementation in EU member states identified by ESMERALDA

- ★ Lacking engagement of national authorities in the MAES process
- ★ Unsatisfying stakeholder involvement in the MAES process
- ★ Gaps in capacity and resources to carry out MAES in the country

Deliverable 2.2 (Feb 2016): ES mapping and assessment gaps in EU member states and recommendations to overcome them

Public report, available at:
http://esmeralda-project.eu/documents/1/

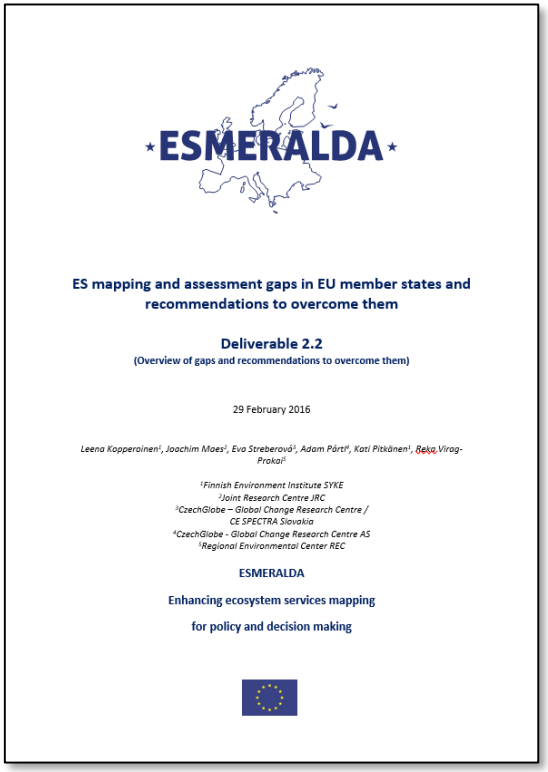
ESMERALDA achievements

Enable actors in EU member states

to fulfil their tasks of EU BD Strategy's Target 2 Action 5 /

Selected recommendations:

- ★ Justification (e.g. by good case examples)
- ★ Communication (e.g. translate complex findings for target groups)
- ★ Capacity building (e.g. education of transdisciplinary experts)
- ★ Technical support (e.g. data use; guidance for methods)
- ★ Join forces – meet and map – network!



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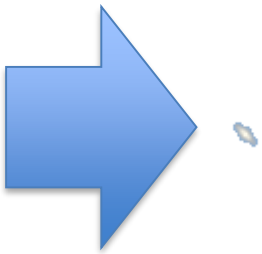
‘Flexible methodology’

for pan-European, national and regional ES mapping and assessment

- Flexible approaches for ecosystem services mapping on national scales …



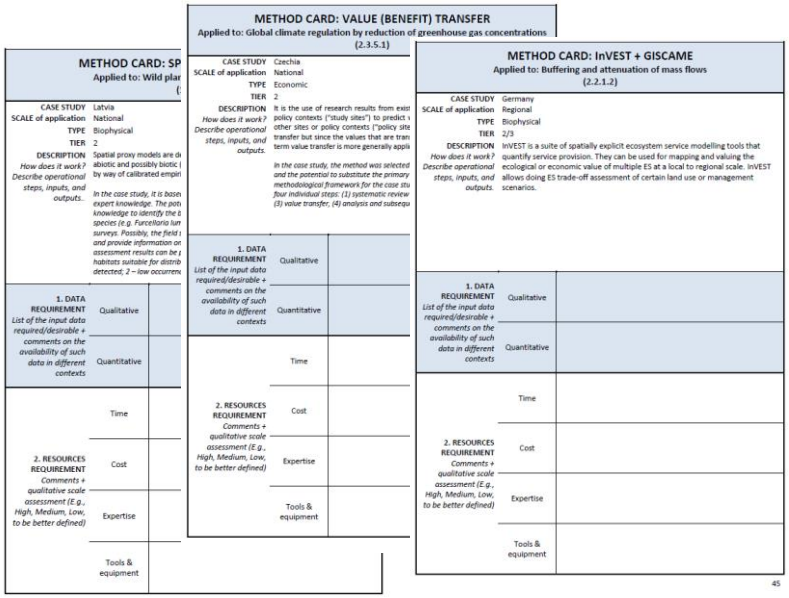
vs.

‘Flexible methodology’

for pan-European, national and regional ES mapping and assessment

- Development started with a comprehensive review of existing methods, projects and case studies

- Creation of a **methods database**
  - **Methods application cards**



METHOD CARD: VALUE (BENEFIT) TRANSFER
Applied to: Global climate regulation by reduction of greenhouse gas concentrations (2.3.5.1)

CASE STUDY	Czechia
SCALE of application	National
TYPE	Economic
TIER	2
DESCRIPTION	It is the use of research results from exist… policy contexts (“study sites”) to predict … other sites or policy contexts (“policy site … transfer but since the values that are tran… term value transfer is more generally appli…

In the case study, the method was selected … and the potential to substitute the primary … methodological framework for the case stu… four individual steps: (1) systematic review … (3) value transfer, (4) analysis and subsequ…

1. DATA REQUIREMENT — List of the input data required/desirable + comments on the availability of such data in different contexts	Qualitative	
	Quantitative	
2. RESOURCES REQUIREMENT — Comments + qualitative scale assessment (E.g., High, Medium, Low, to be better defined)	Time	
	Cost	
	Expertise	
	Tools & equipment	

METHOD CARD: InVEST + GISCAME
Applied to: Buffering and attenuation of mass flows (2.2.1.2)

CASE STUDY	Germany
SCALE of application	Regional
TYPE	Biophysical
TIER	2/3
DESCRIPTION	InVEST is a suite of spatially explicit ecosystem service modelling tools that quantify service provision. They can be used for mapping and valuing the ecological or economic value of multiple ES at a local to regional scale. InVEST allows doing ES trade-off assessment of certain land use or management scenarios.

1. DATA REQUIREMENT — List of the input data required/desirable + comments on the availability of such data in different contexts	Qualitative	
	Quantitative	
2. RESOURCES REQUIREMENT — Comments + qualitative scale assessment (E.g., High, Medium, Low, to be better defined)	Time	
	Cost	
	Expertise	
	Tools & equipment	

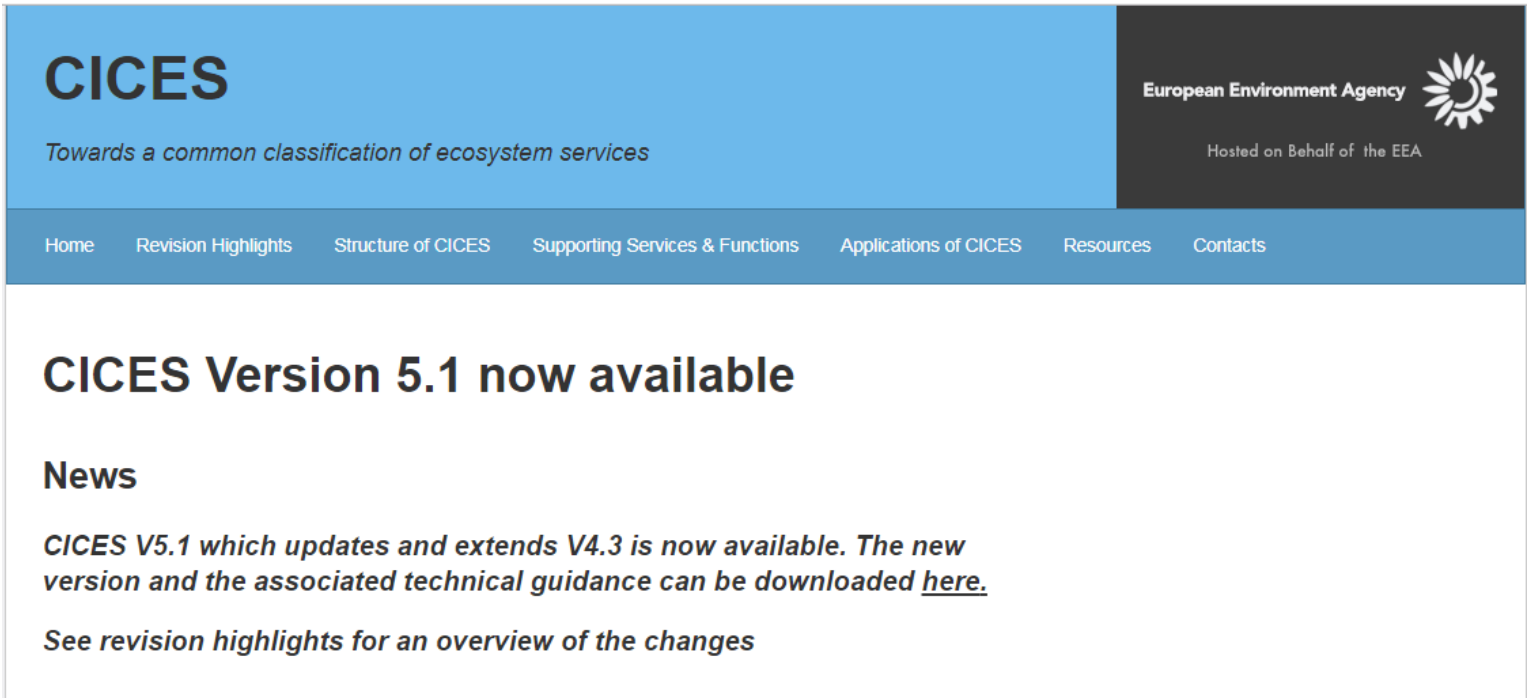
45

ESMERALDA achievements

'Flexible methodology'

for pan-European, national and regional ES mapping and assessment

- Update of **CICES** to version 5.1 (with contributions from ESMERALDA)



www.CICES.eu

Test this methodology

in case studies across European regions and themes

- Systematic selection of **13 case studies**
- Case studies from different European regions, relevant themes, specific biomes and regions and applications from businesses and the society
- Representative for variety of existing conditions across the EU, geographical regions and biomes, variety of relevant for ES and themes

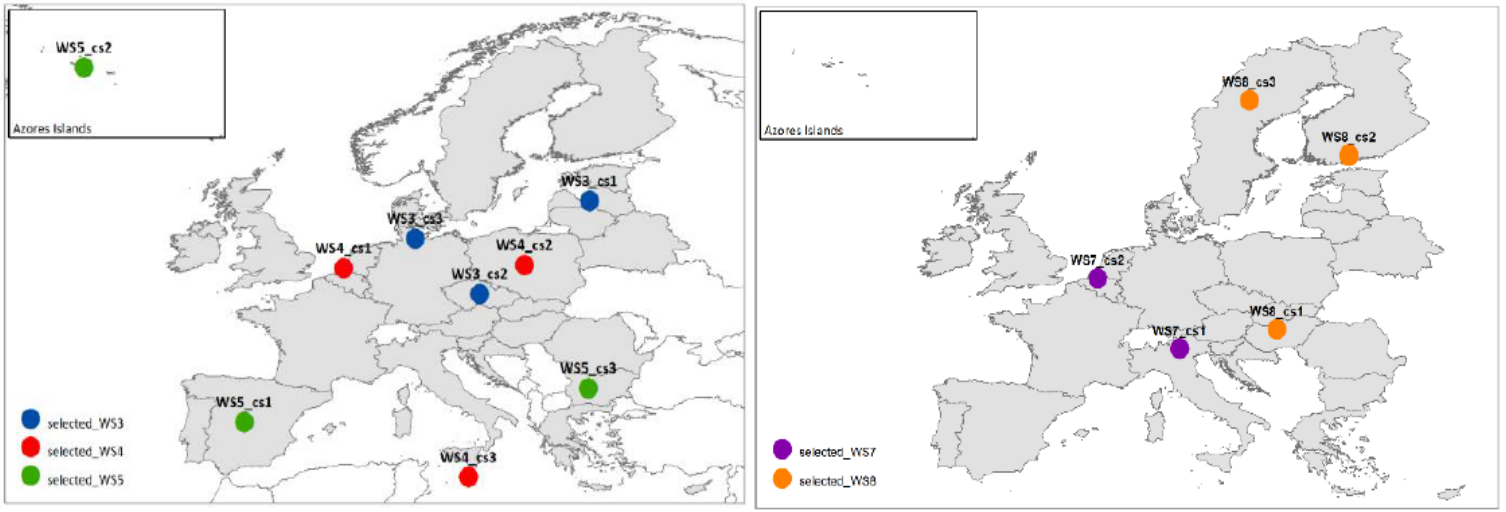


Figure 1.2: Map of the case studies selected for ESMERALDA Workshops 3, 4, and 5 (left) and 7 and 8 (right).

- Case study **booklets**
- Detailed case study work during **ESMERALDA Workshops**

ESMERALDA achievements

‘Flexible methodology’

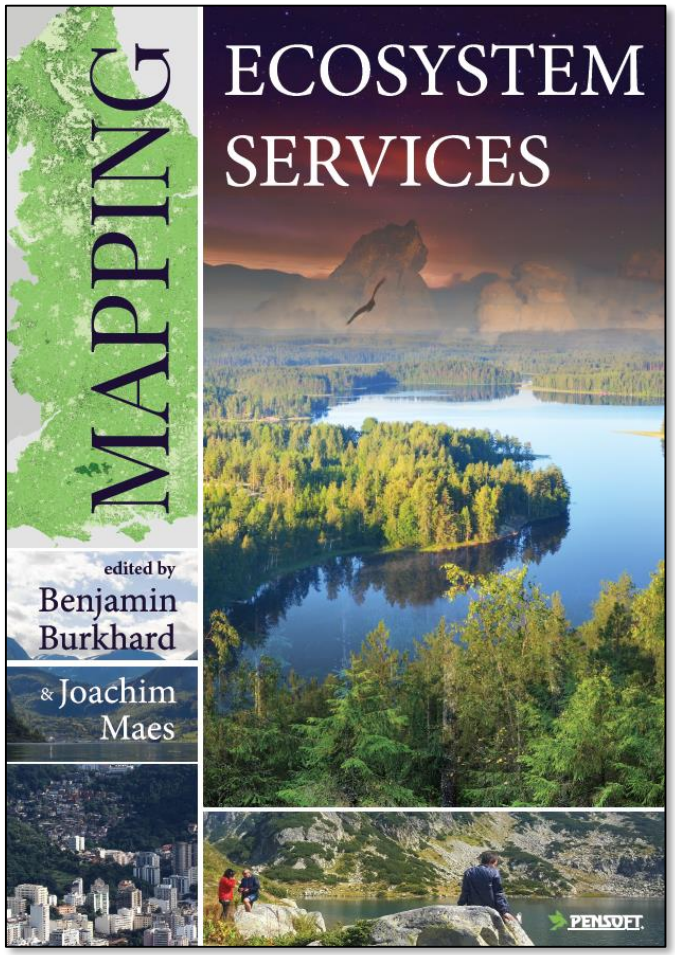
for pan-European, national and regional ES mapping and assessment

- Methods testing was used to develop **comprehensive documentations** of ecosystem services mapping and assessment methods
- Report on methods interlinkages (07/2018)

'Flexible methodology'

for pan-European, national and regional ES mapping and assessment

- Open Access textbook "Mapping Ecosystem Services"
- Was made available already after 1 year of ESMERALDA



ESMERALDA Task 2.4:

Creating content by identifying ES mapping and assessment solutions and support mechanisms

" … handbook including guidelines for ES mapping and assessment, … "

http://ab.pensoft.net/articles.php?id=12837

ESMERALDA achievements

One Ecosystem
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Research Article
One Ecosystem 3: e24490
https://doi.org/10.3897/oneeco.3.e24490

Assessing urban
through the use
preference data
island environm

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Short Communications
One Ecosystem 3: e22831
https://doi.org/10.3897/oneeco.3.e22831

An operational framework fo
Mapping and Assessment of E
Services (MAES)

Benjamin Burkhard, Fernando Santos-Martin, Stoyan Ne

Abstract

Mapping and Assessment of Ecosystems and their Se
Biodiversity Strategy to 2020.
map and assess the state of
comprehensive mapping and
integration. Therefore, an in
coordinating these activities.
European Commission's MAES
the identification of relevant
ecosystem types, ecosystem c
of results. This framework can
to guide involved scientists,
related tasks of the process.

One Ecosystem
Ecology and Sustainability Data Journal
H

Research Article
One Ecosyste
https://doi.org/

Mapping of nutrien
service supply and
Schleswig-Holstein

Sabine Bicking, Benjamin Burkhard

Abstract

This study deals with one of the re
guarantee sustainable land managem
ecosystem service. Unsustainable la
example, result in eutrophication wh
state of our water bodies. In the first step of research, the potential suppl
nutrient regulation were assessed and mapped at two different spatial scal
state of Schleswig-Holstein (regional scale) and the Bornhöved Lakes Di
assessment was undertaken for nitrogen, as an exemplary nutrient. Subseq
and demand, combined with the nitrate leaching potential and the
concentration, were incorporated into a correlation analysis. The data w
with varying pre-processing and spatial resolutions. The statistical analysis
data with low resolution leads to more uncertain results. Decreasing

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Methods
One Ecosystem 3: e25508
https://doi.org/10.3897/oneeco.3.e25508

Methodological aspects of ecosystem service valuation at the national level

David Vačkář, Ioanna Grammatikopoulou, Jan Daněk, Eliška Krkoška Lorencová

Abstract

Ecosystem service valuations focusing on the assessment of ecosystem service values in space and time have recently been receiving considerable attention. Ecosystem service valuation data are critical for developing national ecosystem accounts and for assessment of costs and benefits associated with national strategies and plans. In this article, we discuss selected methodological aspects of ecosystem service valuation at the national level for the Czech Republic. We present a classification of ecosystems based on CORINE Land Cover and Consolidated Layer of Ecosystems of the Czech Republic. The focal point of our article is a systematic review of ecosystem service values. A systematic review requires a standardised protocol for incorporation of valuation studies. To illustrate the proposed methodology, we conducted a search of ecosystem service valuation studies at the European level. While there is a significant number of ecosystem service valuation studies,

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Short Communications
One Ecosystem 3: e25470
https://doi.org/10.3897/oneeco.3.e25470

On the importance of a broad stakeholder network for developing a credible, salient and legitimate tiered approach for assessing ecosystem services

Bettina Weibel, Sven-Erik Rabe, Benjamin Burkhard, Adrienne Grêt-Regamey

Abstract

As the concept of ecosystem services is being operationalised and implemented in policies, a better guidance on the selection of suitable methods for ecosystem services mapping and assessment is needed to allow more sound, transparent and comparable processes. A vast range of assessments focusing on different sets of ecosystem services at various scales is existing and the applied methods cover different disciplines from ecology to economy and social sciences. This complicates the assessment of single or bundles of ecosystem services across spatio-temporal scales and requires a broad expertise. A tiered approach for ecosystem services assessment allows selecting
a specific question at a given scale. In
SMERALDA supported the development
ces. The iterative exchanges between
assessing ecosystem services in various

tools for ecosystem services mapping
pes or land cover types to ecosystem
apacity, supply, use, demand or other
ative ES scoring that can meet general
erent scales. Nevertheless, guidance is
o address some of the biases and limits
ose a set of guidelines to produce ES
ng literature and experience acquired
assessments carried out in France. We
atrix approach that aims to promote
duced. The aim here is to use collective
antities and not to analyse individual or
of the objectives and the preparation

questions, Societal questions, Business

ESMERALDA achievements

'Flexible methodology'

for pan-European, national and regional ES mapping and assessment

- ESMERALDA developed a 'flexible methodology' that provides guidance and **innovative building blocks** for the implementation of the EU Biodiversity Strategy's Target 2 Action 5 in all EU member states

- Methods **flexible** enough to be applied in all EU member states (including outermost regions, marine areas and specific biomes)

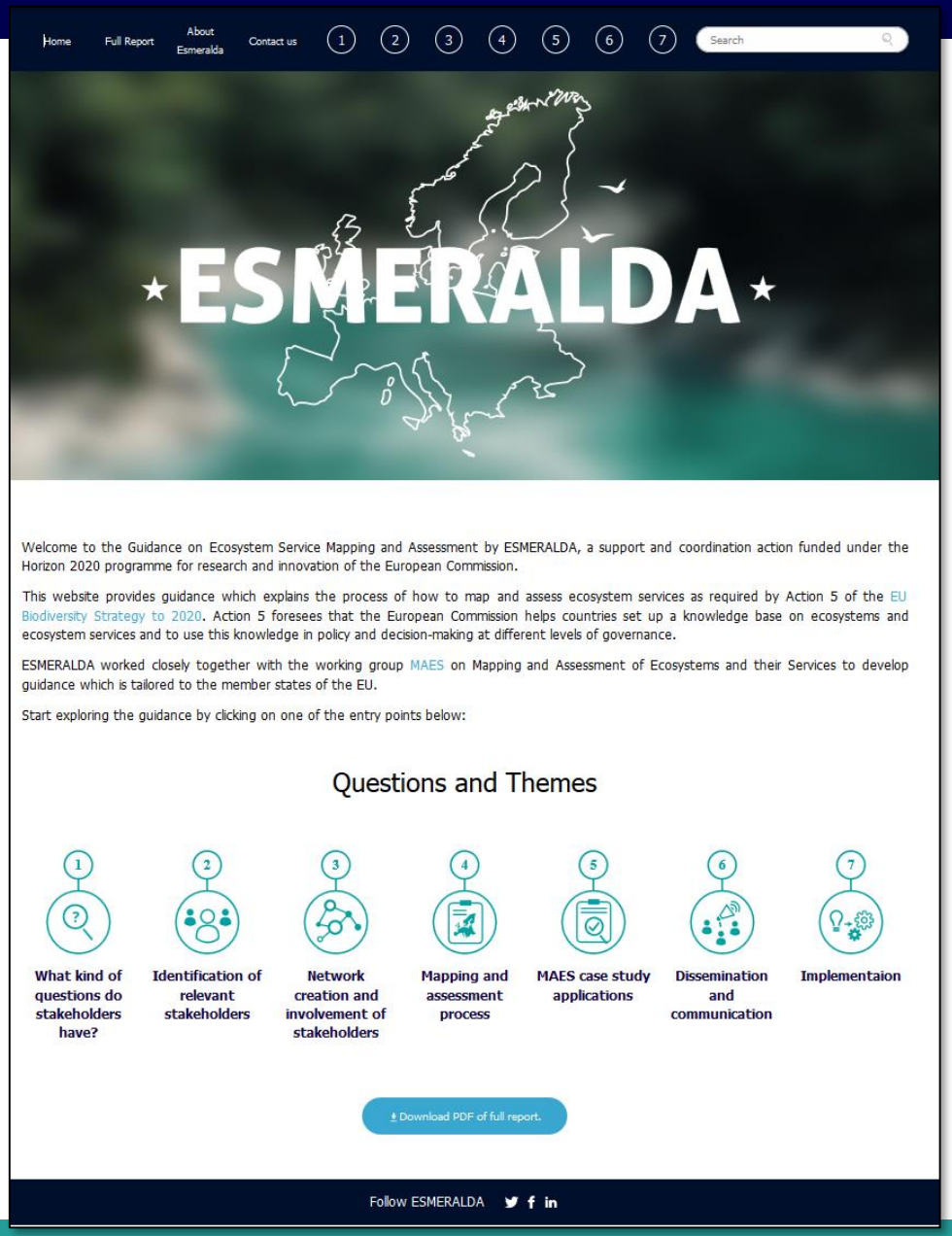
- The **multi-tiered** approach considers different methods (biophysical, social, and economic) at different levels of detail and complexity and can be applied according to specific needs, data and resources availability

ESMERALDA has been very productive, key outcomes are:

- **Deliverable reports** (i.e. those on methods, case studies and EU member states)
- **Country fact sheets**
- **Methods application cards**
- **Case study booklets**
- **Methods data base**
- Experience on EU-wide st**akeholder identification, network creation** and maintenance
- Open access **Mapping Ecosystem Services textbook**
- Open access **publications**, e.g. from ESMERALDA Special Issue in *One Ecosystem*
- **Glossary** on ecosystem service mapping-related terms

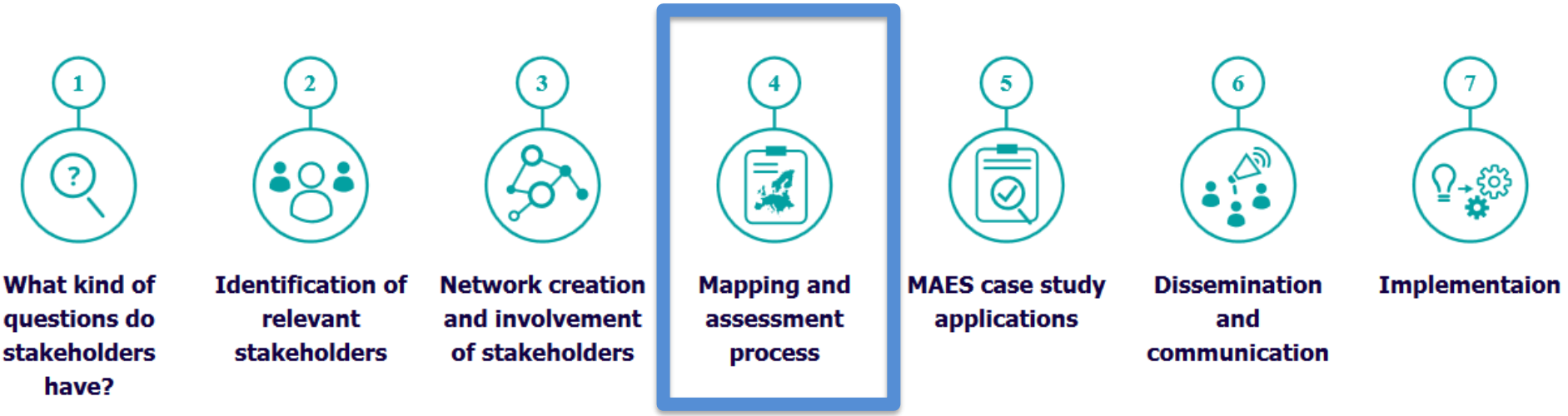
... how to integrate and link all these different outcomes and make them available open access, also in a long-term?

★ ESMERALDA MAES Explorer



http://www.maes-explorer.eu/

★ ESMERALDA MAES Explorer



★ You can browse along the whole MAES process to find what you need to implement MAES in your country, region or case study

http://www.maes-explorer.eu/

ESMERALDA MAES Explorer

Mapping and assessment process

The ecosystem services mapping and assessment process is the technical/methodological core of MAES. Mapping refers, in this context, to the spatial delineation of ecosystems as well as their condition and the services they supply through the spatial integration of a wide range of methods and data sets. Assessment includes the analysis and review of (existing) information derived from research for the purpose of helping someone in a position of responsibility to evaluate possible actions or think about a problem. In ESMERALDA, the focus was on ecosystem services mapping and assessment, less on ecosystem types, condition or accounting, the other relevant parts for MAES.

ESMERALDA developed a 'flexible methodology' for ecosystem services mapping and assessment providing the building blocks for regional, national and pan-European assessments. This methodology has been built on existing research, related projects, methods and databases. The results of the comprehensive ESMERALDA review of existing studies can be explored by the MAES methods Explorer, a searchable online database as well as the detailed Methods Documentations of biophysical, economic and social methods and possible Methods Integration. Finally, ESMERALDA is providing a useful overview of selected Methods' Applications and links to the ESP Visualisation tool, an online platform where ecosystem service maps can be shared.

MAES methods Explorer tool

Methods' documentation

Method integration

Method application

ESP Visualization tool

http://www.maes-explorer.eu/

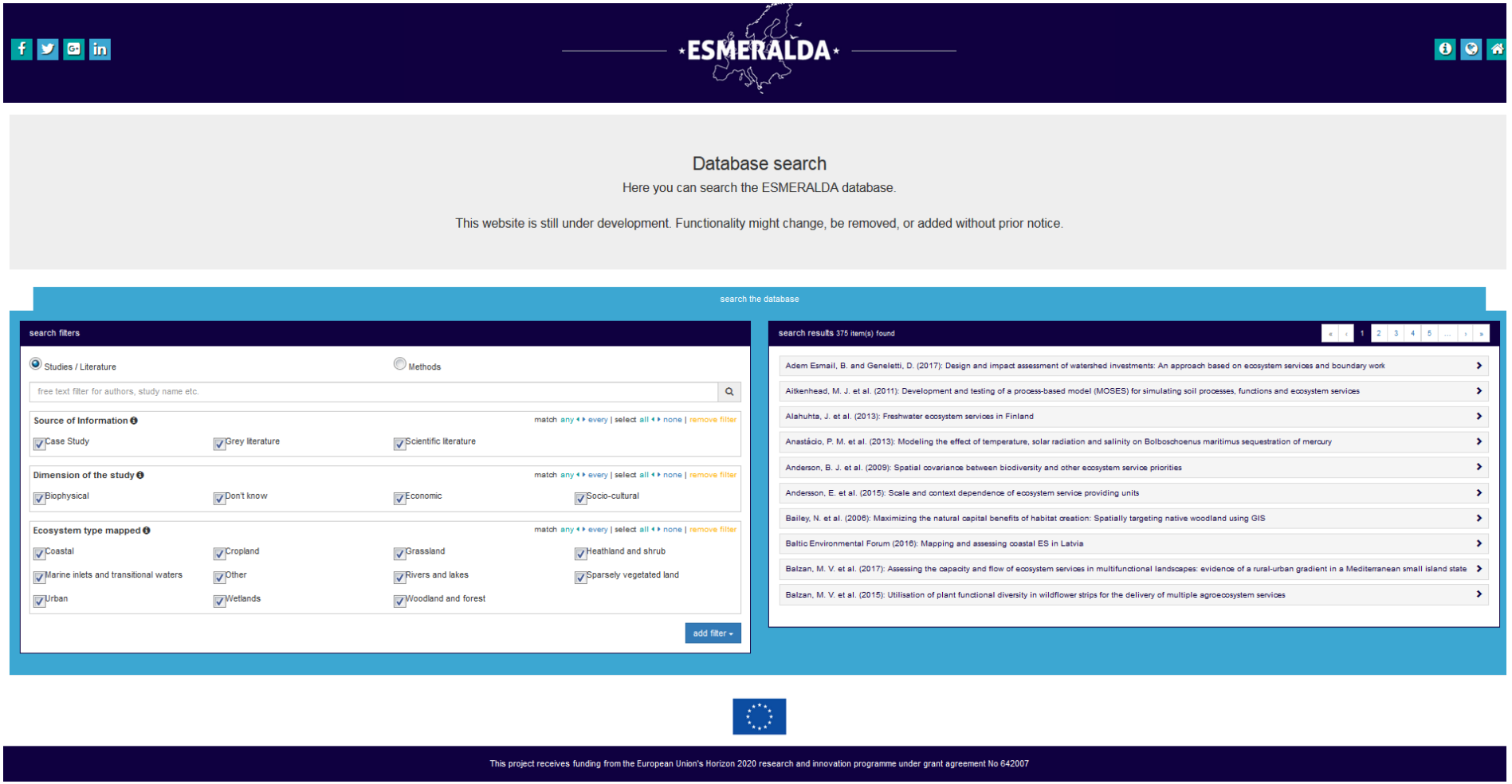
ESMERALDA MAES Methods Explorer

★ Online data base and query tool on ES mapping and assessment methods

http://www.maes-explorer.eu/

ESMERALDA MAES Methods Explorer

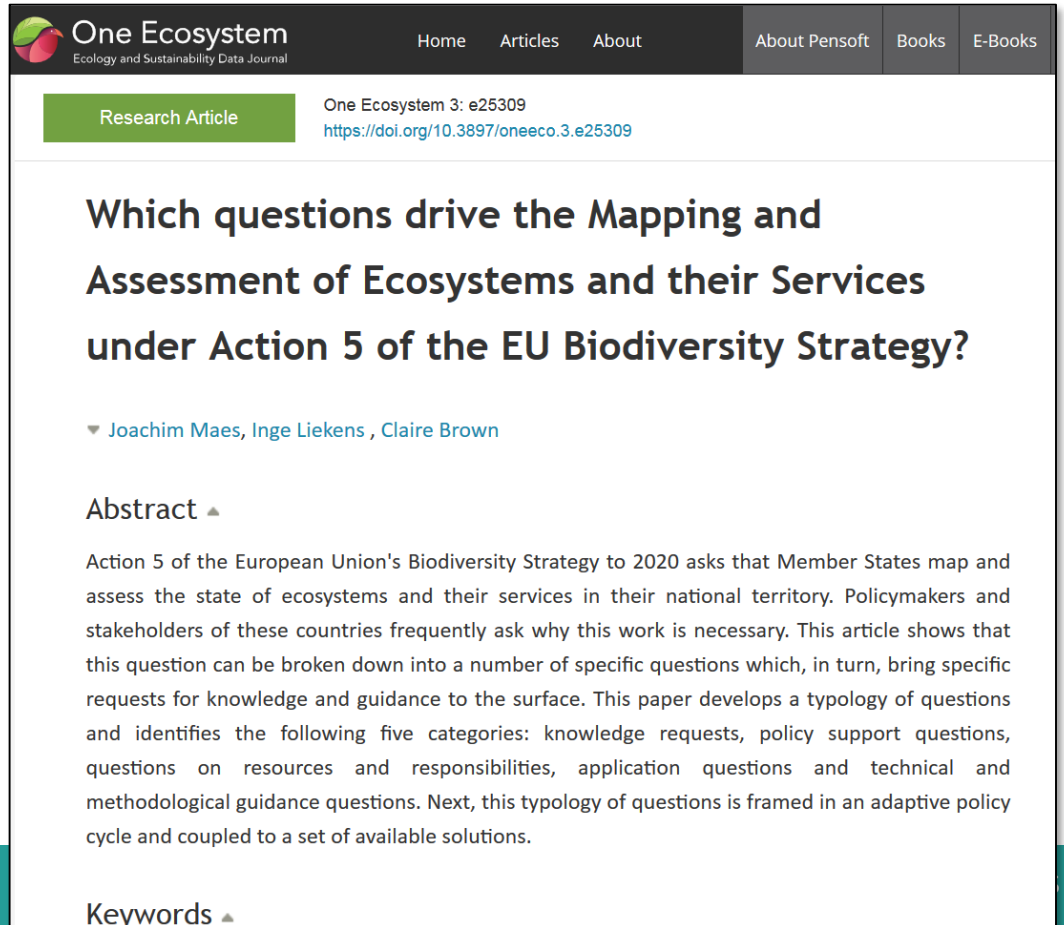
★ Online data base and query tool on ES mapping and assessment methods



http://www.maes-explorer.eu/

ESMERALDA's impact on policy and decision making

- ESMERALDA identified 82 questions from EU policy making (together with questions from business and society)
- Update of the initial 12 policy questions from the MAES WG (2012)



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Research Article

One Ecosystem 3: e25309
https://doi.org/10.3897/oneeco.3.e25309

Which questions drive the Mapping and Assessment of Ecosystems and their Services under Action 5 of the EU Biodiversity Strategy?

Joachim Maes, Inge Liekens , Claire Brown

Abstract

Action 5 of the European Union's Biodiversity Strategy to 2020 asks that Member States map and assess the state of ecosystems and their services in their national territory. Policymakers and stakeholders of these countries frequently ask why this work is necessary. This article shows that this question can be broken down into a number of specific questions which, in turn, bring specific requests for knowledge and guidance to the surface. This paper develops a typology of questions and identifies the following five categories: knowledge requests, policy support questions, questions on resources and responsibilities, application questions and technical and methodological guidance questions. Next, this typology of questions is framed in an adaptive policy cycle and coupled to a set of available solutions.

Keywords

https://oneecosystem.pensoft.net/article/25309/

ESMERALDA's impact on policy and decision making

Example questions:

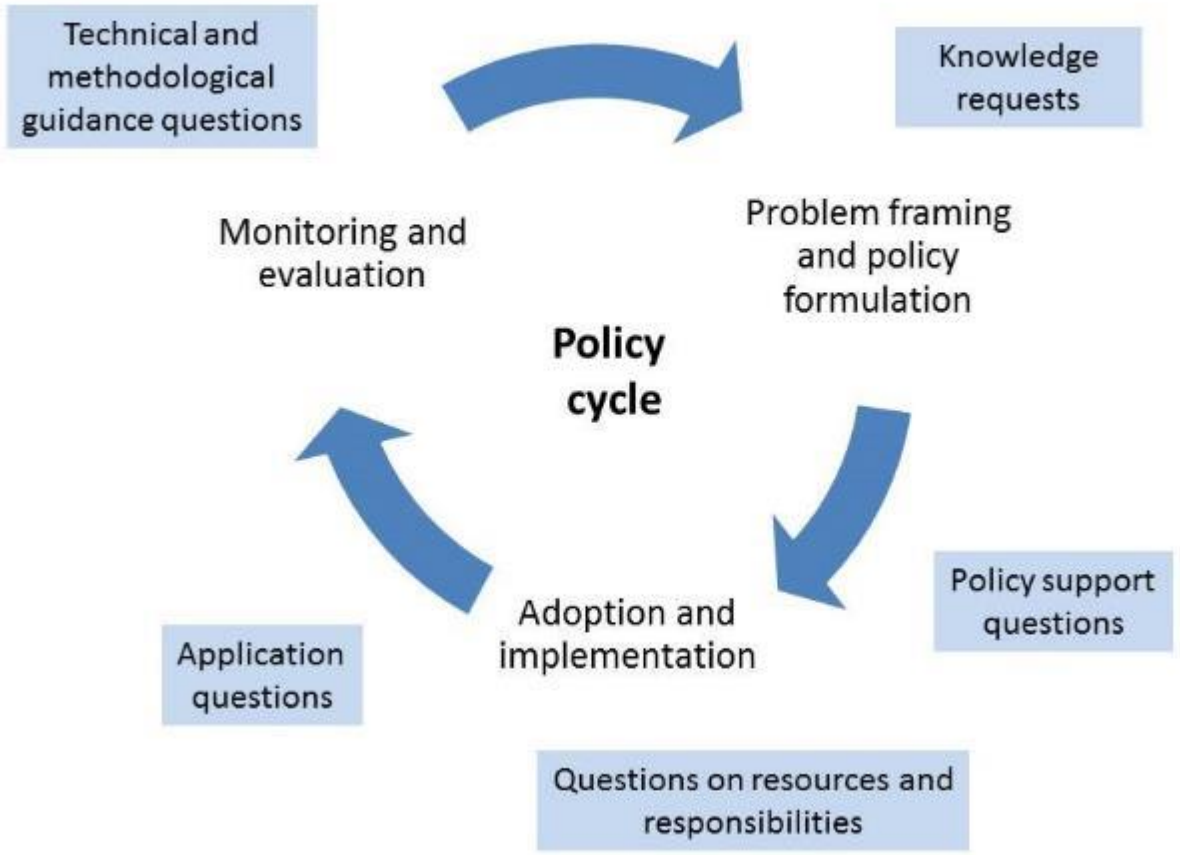
- *How can the ecosystem service concept be made relevant and find its entry into the development of the next CAP?*
- *What are ecosystem services farmers could be paid for?*
- *What is the public's current understanding of ES?*
- *Do people have preferences for heathland restoration or river restoration?*
- *How can the ES approach be integrated into planning and EIA processes?*

Questions were grouped into 5 categories:

1. Knowledge requests
2. Policy support questions
3. Questions about resources and the governance of implementation of ecosystem services based approaches
4. Applications
5. Technical and methodological guidance questions

In a next step, these questions can be linked to identified ecosystem service mapping and assessment methods.

ESMERALDA's impact on policy and decision making



ESMERALDA policy questions that drive MAES placed along a policy cycle

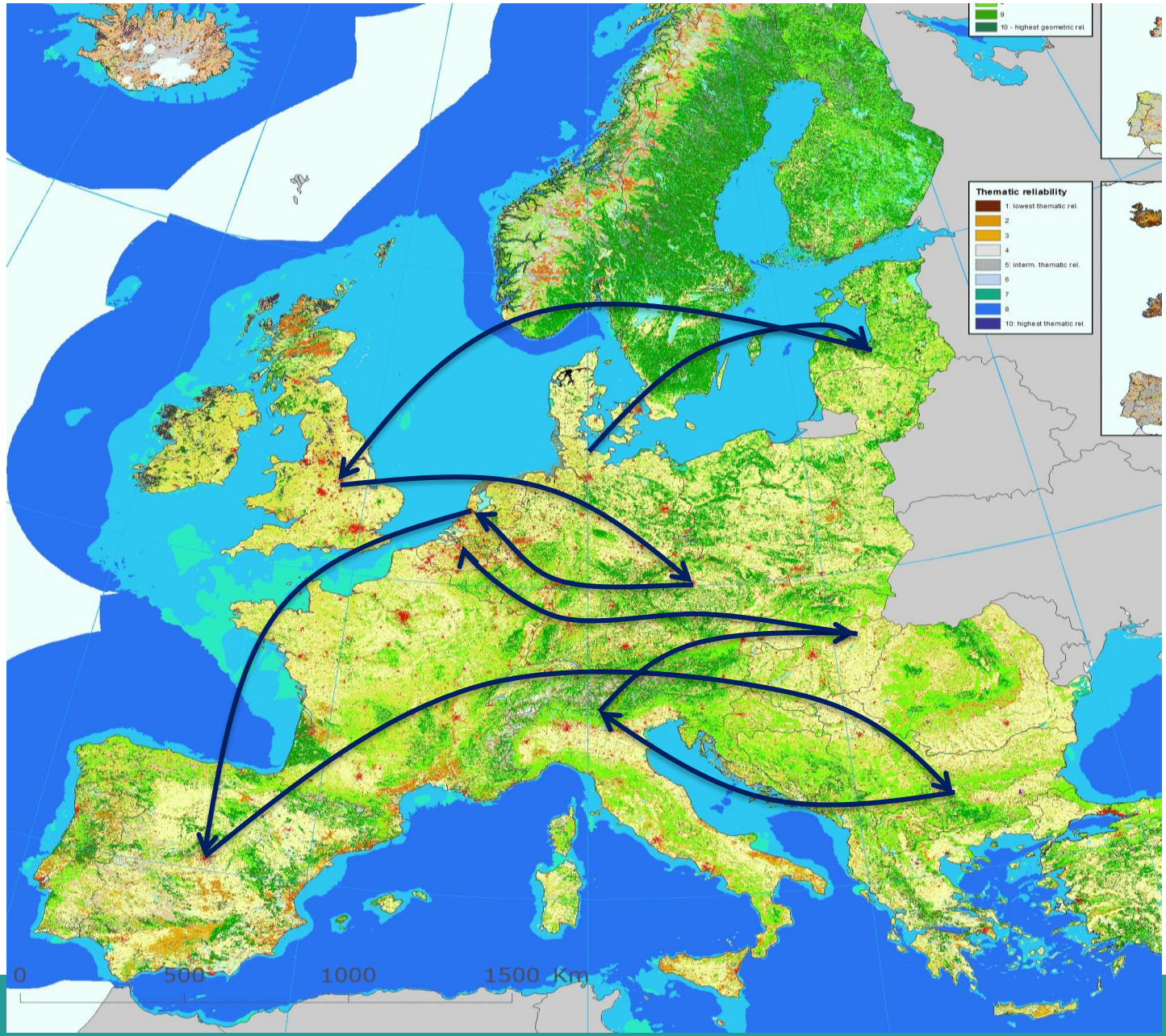
(Maes et al. (2018) – *One Ecosystem*

The ESMERALDA bottle!

- ★ Had to travel from Workshop to Workshop!
- ★ To be filled with something typical from your region/country

ESMERALDA itinerary

ESMERALDA itinerary



https://biodiversity.europa.eu/Plone/maes/mapping-ecosystems/map-of-european-ecosystem-types/map_ecosystem_types_2006_v21_75dpi.gif

What will come after ESMERALDA will end in July 2018?

ESMERALDA products' maintenance

- ESMERALDA MAES Explorer available via ESP, OPPLA and BISE
- ESMERALDA MAES Methods Explorer will be available for follow-up projects
- ESMERALDA Open access publications (e.g. textbook, One Ecosystem) will be available

ESMERALDA network maintenance

- Difficult to keep such high level of activity, support would be needed
- ESP national and regional Chapters will provide support and technical infrastructure

ESMERALDA follow-up projects

- **MOVE** (Facilitating MAES to support regional policy in OVerseas Europe: mobilizing stakeholders and pooling resources)
- **MAIA** (Mapping and Assessment for Integrated ecosystem Accounting); EU Call on Valuing nature: developing and implementing natural capital and ecosystem accounts in EU Member States and Associated Countries (SC5-18-2018)
- … hopefully further opportunities in future

Thanks for listening, for great co-operation & enjoy the Conference!

Contact: burkhard@phygeo.uni-hannover.de

http://esmeralda-project.eu/

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