BaltCoast

12 – 15 April 2015, project kick-off meeting
Leibniz-Institute for Baltic Sea Research (IOW)
Warnemünde, Germany

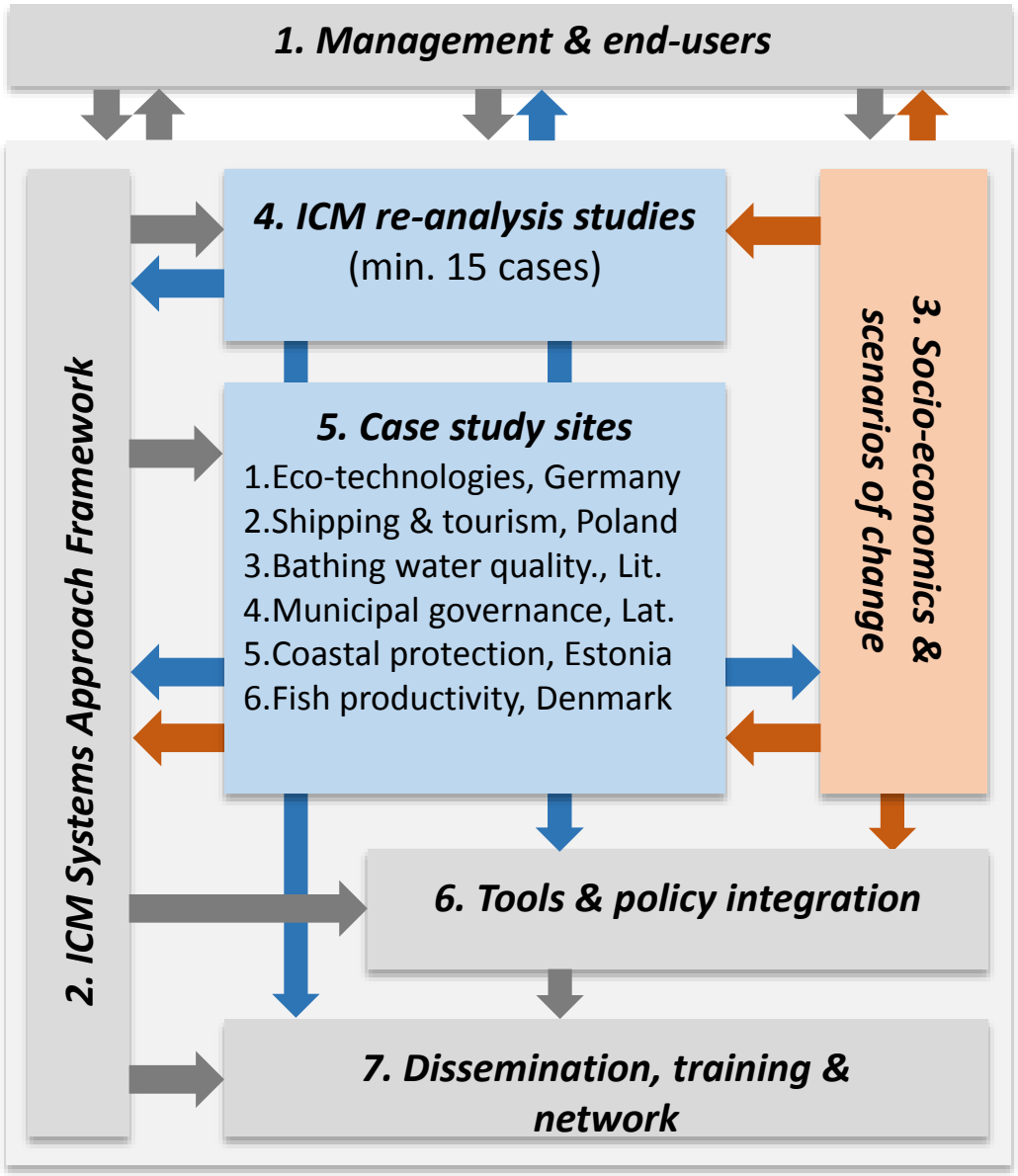
Workpackage 6

Participation, preference & Planning

Gerald Schernewski, Donalda Karnauskaite, Johanna Schumacher & Miguel Inácio

BONUS

Workpackage 6: Tools & science-policy integration



6. Tools & science-policy integration: Gerald Schernewski (IOW)

6.1 Indicator set & evaluation tool: Donalda Karnauskaite (KU, IOW)

6.2 Participation, preference & planning tool: Johanna Schumacher (IOW, KU)

6.3 Policy implementation: Ing-Marie Gren (SLU-IG)

6.4 Integration concept: Ing-Marie Gren (SLU-IG)

voluntary:

Ecosystem services assessment tool: Miguel Inacio (KU, IOW)

Task 6.1 Indicator set & evaluation tool

DEDUCE

The DEDUCE project concentrated on the application of the sustainability indicators. The indicators were applied to different spatial levels, ranging from the European to the local level.

SUSTAIN

3 year European INTERREG-IVC-Project SUSTAIN.
The project aimed at evaluating sustainability and improving management of coastal zones on a local or regional level.

QualityCoast

INTERREG project Coastal Practice Network (CoPraNet), managed by the Coastal & Marine Union (EUCC).
Indicator-based approach, consisting of a set of quantitative and qualitative indicators, is thereby used to assess tourism sustainability in the destination.

Task 6.1 Indicator set & evaluation tool

THE MAIN AIM

- To adapt an existing indicator system, based on previous FP7 projects **DEDUCE, SUSTAIN** and **QualityCoast** and further develop sets **of environmental, social economic** and **governance** indicators for measuring sustainability integrated into EU directives.

- After successful testing and further development, this system will be provided as generalized spreadsheet tool (Excel sheet) for a **Systems Approach Framework (SAF)** evaluations.

- The spreadsheet tool shall allow scientists, authorities and municipalities **map the present state of sustainability and quantify changes in past and future.**

Task 6.1 Indicator set & evaluation tool

SUSTAIN

Stakeholder consultation for the selection of optional indicators that are most suitable for the region/municipality. Data collection for core and optional indicators and scoring of indicators in the DeCyDe-for-Sustainability spreadsheet

Moderated weighting exercise in which weights for the covered pillars and issues are selected by local stakeholders

Task 6.1 Indicator set & evaluation tool

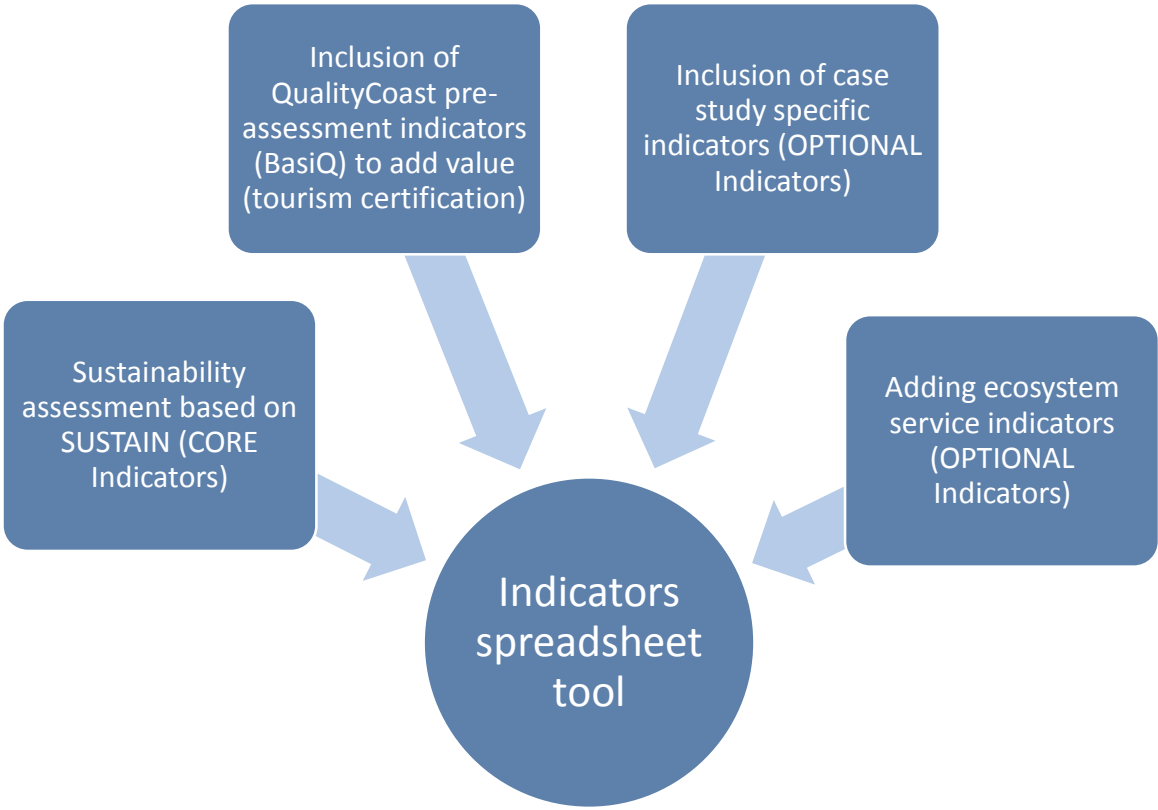


Figure 1 Comparison of SUSTAIN pillars and QualityCoast categories

6.2 Participation, preference & planning tool

- Indicator set application and data collection **supported by Master students from all participating partners.**

- Students from outside the consortium.

- BaltCoast Project partners cooperation.

Development of combined sustainability indicator tool (Excel spreadsheet) including SUSTAIN and QualityCoast	• May 2015
Introduction to indicator assessment	• BaltCoast meeting, BSSC 13-19 June 2015, Riga, Latvia
1st indicator spreadsheet tool first application in re-analysis studies	• May to August 2015 • Germany/ Lithuania
Provision of indicators in the end of CSS meetings	• September 2015
Data collection for indicators in each case study sites/ Feedback from case study sites (data for indicator evaluation and possible optional indicators?)	• September – November 2015 At BaltCoast meeting in Tallinn, Estonia
Final indicator set. This system will be provided as generalized spreadsheet tool (Excel sheet) for a Systems Approach Framework (SAF) evaluations	• May 2016

Task 6.1 Indicator set & evaluation tool

COOPERATION WITH PARTNERS

- Leibniz-Institute for Baltic Sea Research, Rostock-Warnemünde, Germany (5 PM)
- Marine Science and Technology Center at Klaipeda University, Klaipėda, Lithuania (12 PM)
- National Institute of Aquatic Resources, Charlottenlund, Denmark *(Stottrup Josianne G., Dinesen Grete E.)*
- Tallinn University, Institute of Ecology, Tallinn, Estonia (*Tõnisson Hannes, Orviku Kaarel) (2PM)*
- University of Latvia, Rīga, Latvia *(Ernsteins Raimonds, Kaulins Janis) (1PM)*
- Institute of Hydroengineering, Polish Academy of Sciences, Gdansk, Poland *(Bielecka Małgorzata) (2 PM)*
- Swedish University of Agricultural Sciences Department of Economics, *Uppsala, Sweden (Gren Ing-Marie)*

6.2 Participation, preference & planning tool

Aim

- Systematic involvement of stakeholders
- Determination of the relevant importance of local issues and pillars of sustainability by local stakeholders
- Raising awareness about sustainability issues and achieve a common perception of the state of sustainability
- Decision support and strategic planning tool
- Preference methodology based on a matrix approach

6.2 Participation, preference & planning tool

		Nature		Environment		Identity & Culture		Tourism & Business		Host Community & Safety		Governance		Weight Coef
		Score		Score		Score		Score		Score		Score		
Nature		1	0.33	1	0.33	3	0.28	5	0.28	3	0.38	5	0.25	0.31
Environment		1	0.33	1	0.33	3	0.28	5	0.28	3	0.38	5	0.25	0.31
Identity & Culture		1/3	0.11	1/3	0.11	1	0.09	3	0.17	1/3	0.04	3	0.15	0.11
Tourism & Business		1/5	0.07	1/5	0.07	1/3	0.03	1	0.06	1/3	0.04	1	0.05	0.05
Host Community & Safety		1/3	0.11	1/3	0.11	3	0.28	3	0.17	1	0.13	5	0.25	0.17
Governance		1/5	0.07	1/5	0.07	1/3	0.03	1	0.06	1/5	0.03	1	0.05	0.05
Total		3.07		3.07		10.67		18.00		7.87		20.00		1.00
Total check		1.00		1.00		1.00		1.00		1.00		1.00		

Legend for the Weighting System of the Categories

	Category Y		COMPARED TO		Category X	IS
less important ←				→ more important		
much	more	slightly	equal	slightly	more	much
1/7	1/5	1/3	1	3	5	7

Spreadsheet based on DeCyDe-for-Sustainability Tool (Loizidou & Loizides, 2012)

6.2 Participation, preference & planning tool

Objectives within BaltCoast

- Further-develop the preference tool
- Application in selected CSS → Inclusion of master students
- Inclusion of local issues and adjustment to the needs and situation in each CSS
- Integration of preference tool into the SAF-approach

6.2 Participation, preference & planning tool

Milestones & Deliverables

- 1st preference spreadsheet tool (September 2015)
- Final preference spreadsheet tool (November 2016)
- Joint publication on preference tool application & participation (September 2017)

Work plan

- **General spreadsheet provided and tested at Baltic Sea Science Congress in Riga, June 2015 (workshop with WP 5 Tasks leaders, WP6 supports and interested students)**
- **Modified tool ready for use during first stakeholder workshops in October 2015**
- Feedback from case study sites for an inclusion of local needs during BaltCoast meeting Tallinn in November 2015
- February/March 2016 revised version

6.2 Participation, preference & planning tool

Co-operation with BaltCoast Partnership

WP 6 – Support

- IOW: 8 PM (Gerald, Donalda, Johanna)
- KU: 8 PM (Donalda, Johanna)
- TU: 2 PM (Hannes)
- IBW: 1 PM (Malgorzata B.)
- UL: 1 PM (Agrita/Janis)

WP 2 and 5 – SAF and Case study sites

- Rene, Georg, Stefan, Ülo, Ivars, Grzegorz, Josianne/Grete

6.2 Participation, preference & planning tool

Tasks in 6.1	Tasks in 6.2	Deadlines
Finalize indicator set (which indicators, issues, categories and adaptation of scoring ranges)	Finalize weighting matrix based on chosen categories/issues	May 2015
Introduction to indicator assessment	**Workshop on Weighting exercise**	**Baltic Sea Science Congress, Riga, Latvia – June 14-19, 2015**
Application of indicators in re-analysis sites (supported by students) → which additional indicators are needed? Germany, Lithuania, which other partners?	Modification of spreadsheet based on workshop input and provision of 1st spreadsheet tool	May to August 2015
Provision of indicators in the end of CSS meetings	Weighting exercises during CSS meeting to assess perception of conflicts and vision for the site	By September 2015
Data collection for indicators in each case study sites		September - November
Feedback from case study sites (data for indicator evaluation and possible optional indicators?)		At BaltCoast meeting in Tallinn, November 2015

6.2 Participation, preference & planning tool

Tasks in 6.1	Tasks in 6.2	Deadlines
Indicator evaluation based on data provided by CSS	Combination of indicator results with weighting results	
Presentation of results weighting and indicators combined in Murcia		March 1 – 4, 2017
Preparation of re-analysis indicator application publication		
Final indicator set		May 2016
	Preparation of Publication on weighting/stakeholder involvement	
	Final spreadsheet tool (preference)	
Evaluation tool (indicators and weighting to be presented in Biarritz)		October 2016
Publication on indicator application results (re-analysis)		November 2016
	Preparation of Stakeholder meetings in Fall 2017	Spring 2017
	Second stakeholder meeting (weighting)	

Ecosystem Services Assessment Tool (ESAT)

In the past decade **Ecosystem Services** research have been highlighted with an increasing effort to connect ecological, economic and social fields!

now being emphasized and much effort is being done to assess ES in **the marine environment**!

Dependent on development of Indicator sets to be assessed

"(…) knowledge on the functioning of the Baltic Sea ecosystems and their connection to ecosystem services is still limited"

Ecosystem Services in the Baltic Sea (2014)

Ecosystem Services Assessment Tool (ESAT)

Aims:

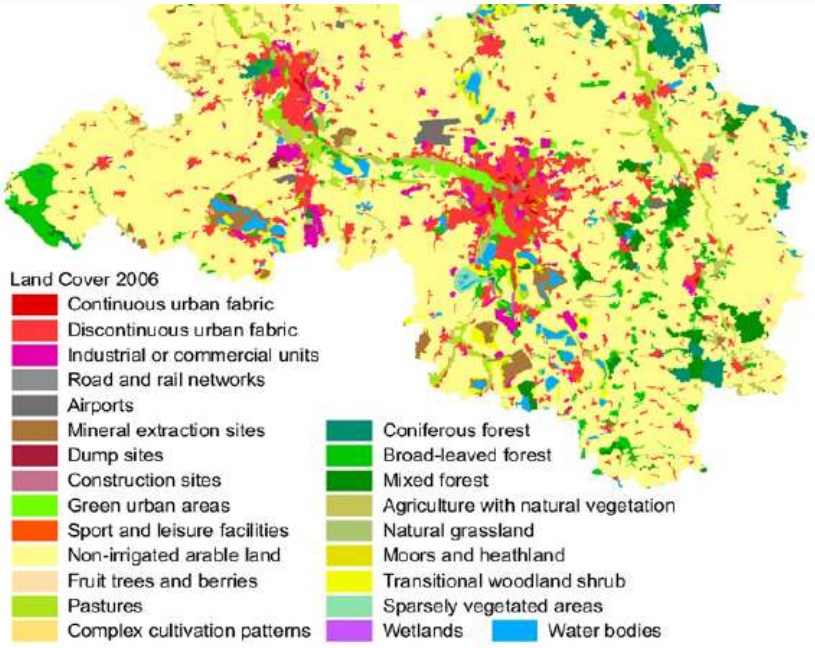
- Develop and apply a methodological classification assessment tool which would allow a spatial assessment, **based on Indicators;**

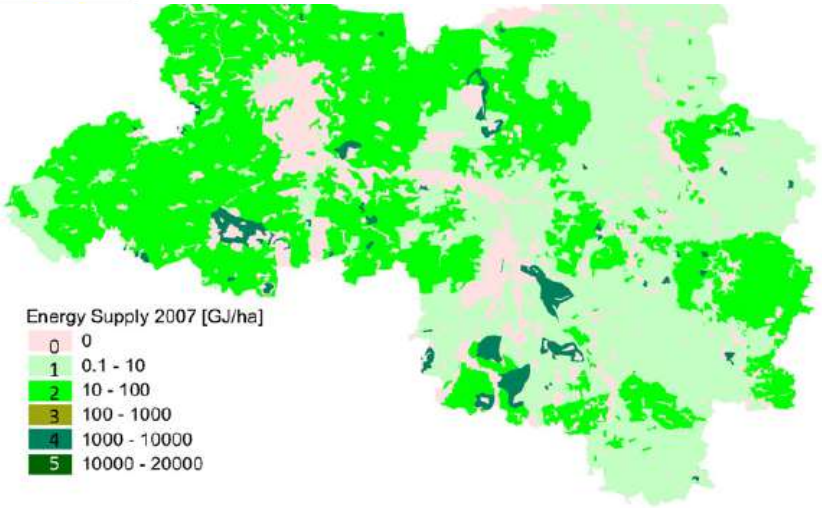
- Apply the tool, in the beginning, for two coastal lagoons (Curonian Lagoon, Lithuania; and Oder Lagoon, Germany/Poland), later exported to coastal waters;

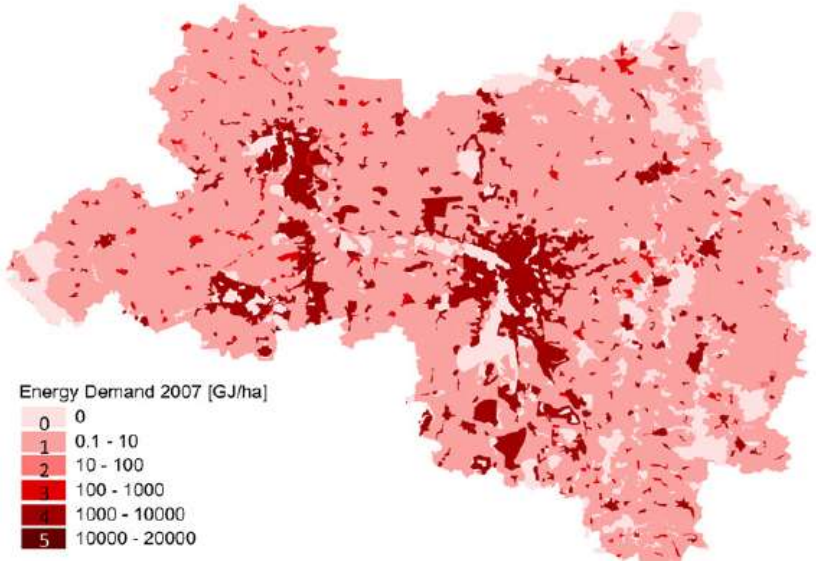
- Integrate moddeling approach in the process, allowing predictions for future and past scenarios;

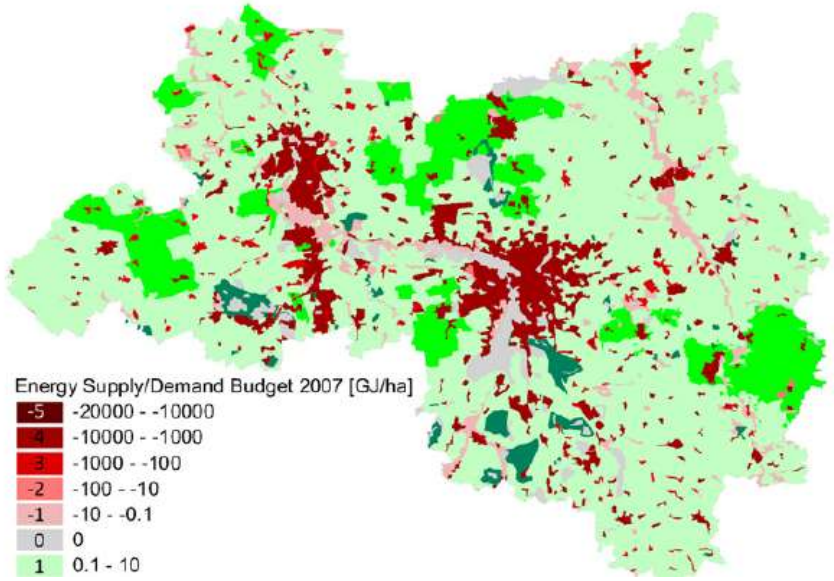
- Integration of ESAT in SAF process with the objective of maximize the sustainability of management and policy plans;

Ecosystem Services Assessment Tool (ESAT)









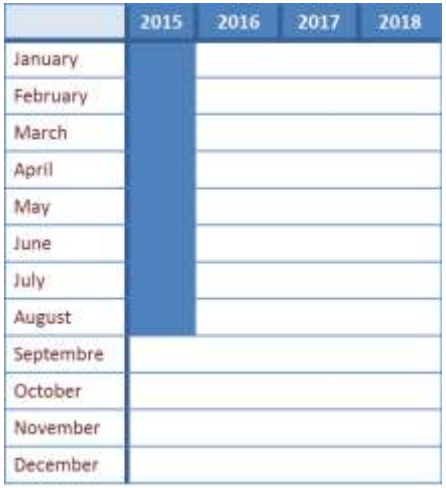
Ecosystem Services Assessment Tool (ESAT)

Steps, timetable and deliverables: Step 1

"Developing a spreadsheet classification tool for Ecosystem Services assessment (ESAT)" – Developed (June) Refined (August) 2015

- Cooperation with **6.1** and **6.2** developing/applying Indicators to assess ES
- To be applied in some BaltCoast CSS

- Deliverables:
  - ESATool application to coastal lagoons: Case Studies (December 2015);



Ecosystem Services Assessment Tool (ESAT)

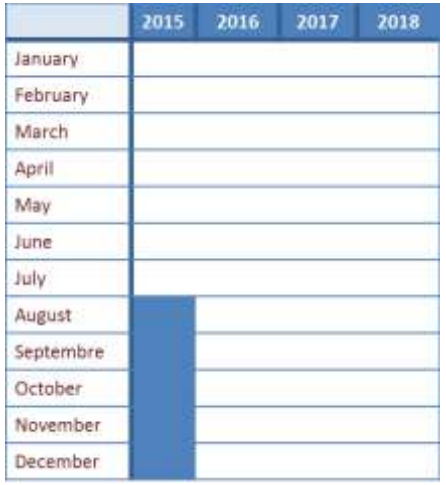
Steps, timetable and deliverables: Step 2

"Application of Classification Tool in Oder and Curonian Lagoons"

– December2015

- To be applied in some BaltCoast CSS

- Deliverables:
  - ESATool application to coastal lagoons: Case Studies (December 2015);



Ecosystem Services Assessment Tool (ESAT)

Steps, timetable and deliverables: Step 3

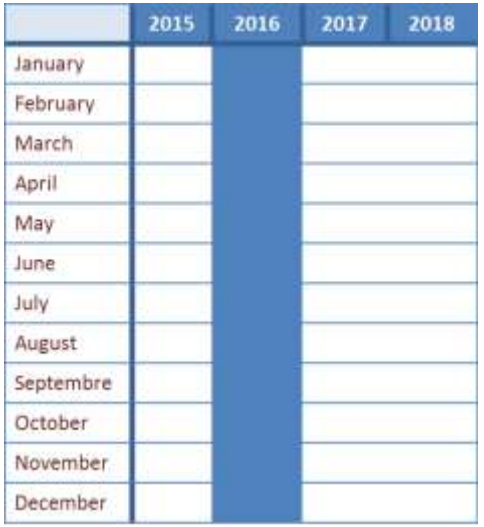
"Addressing specific major ES in depth /application to coastal waters"

– 2016

- Assessment of specific ES (water transparency/denitrification)
- Parallel application of ESAT to other CSS and coastal waters

- Deliverables:
  - ES spatial assessment for Baltic Sea:

    new assessment tool (2016/2017)



	2015	2016	2017	2018
January				
February				
March				
April				
May				
June				
July				
August				
Septembre				
October				
November				
December				

Ecosystem Services Assessment Tool (ESAT)

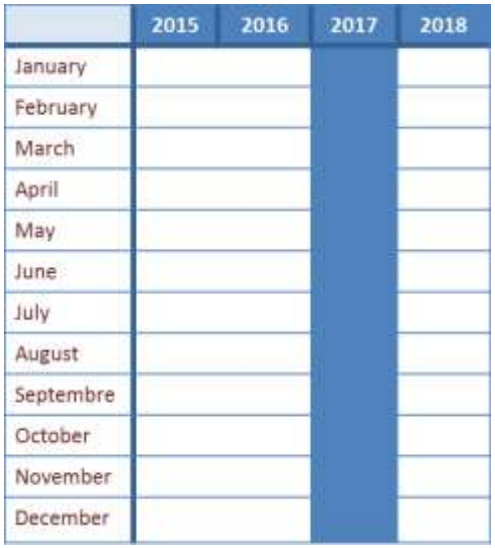
Steps, timetable and deliverables: Step 4

"The application of modeling within ES analysis /application to coastal waters"

– 2016/2017

- Using modelling in ES assessment for baseline (past) and future scenarios;
- Assessing the sustainability of ES use trough time;

- Deliverables:
  - Modeling ES in coastal waters: quantitative and qualitative approach - 2017



Ecosystem Services Assessment Tool (ESAT)

Cooperation:

BaltCoast Partners:

- Ongoing and Expected ES Projects
- Master Thesis working on with ES
- Possible MSc Thesis application of ESAT
- Application of ESAT to national or regional CS
- Provision of data for the application of ESAT
- Expertise on ES (for the application of Matrix Approach)

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WP 6.1/6.2 activities & co-operation

Responsible: Gerald, Donalda, Miguel, Johanna,

WP6 Partners: Grete, Hannes, Ivars, Malgorzata, Marija

- Contribution of information on similar or comparable activites and possible synergies (all)
- Support with respect to data, sources & contacts
- and Review of first tools (WP6 partners)
- Application of tools in case study sites and/or re-analysis studies
  - Master theses in partner institutes supported by developers
  - Application of tools by partners supported by developers
  - Applications by invited students from partner institutes at IOW
- Tests with different case study site stakeholder groups
- Joint publications (6 are planned)

Presentation, exemplary application and discussion of tools in Riga in June