Nature Based Solutions and Mitigation Measures
IBZ: Integrated BufferZones
RW: Riparian Wetlands
CW: Constructed Wetlands
BS: Buffer Strips

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Deliverable title: Initial project meeting (kick-off)
Deliverable number: D7.1
Work Package number: WP7
Due date: 31. October 2022
Dissemination level: Public
Lead beneficiary: Aarhus University (AU)
Beneficiaries: All partners in NORDBALT-ECOSAFE

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Appendix 2

Kickoff meeting NORDBALT-ECOSAFE

Date: 17th to 19th October 2022

SWAT+ course: 20th and 21st October

Programme Kickoff meeting

Arrival Monday morning or Sunday evening

Monday 17th October:

12:00-13:00 Lunch

13.00-14.30 Official kickoff of the EU-project NORDBALT-ECOSAFE.

- Welcome (coordinator and Blanca Saez Lacave, EU who is managing NORDBALT-ECOSAFE
- Main project objectives
- EU sister projects (PO)
- Short presentation of WPs by WP leads

14:30-15:00 Coffee break

15:00-16:00 1st round of individual WP-meetings for planning of work (WP1).

16:00-16:30 Presentation from HELCOM

16:30-17:30 2nd round of individual WP-meetings for planning of work (WP2).

18:30 Dinner

Tuesday 18th October

08:00-09:00 Breakfast

09:00-09:20 Inputs from the EU OPTAIN project of relevance for our project.

09:20-10:20 3rd round of individual WP-meetings for planning of work (WP3).

10:20-10:50 Coffee break

10.50-11.50 4th round of individual WP-meetings for planning of work (WP4) incl. coffee

12.00-13.00 Lunch

13.00-14.00 5th round of individual WP-meetings for planning of work (WP5)

14:00-15:00 6th round of individual WP-meetings for planning of work (WP6)

15:00-15:30 Coffee break

15:30-17:30 Planning of 1st regional meetings in Month 5 – sites, dates, content, WP-surveys, etc. wp7

18:30 Kickoff dinner

Wednesday 19th October:

08:00-09:00 Breakfast

09:00-10:00 Administrative issues for the project – Economy, Data Management Plan, Deliverables.

10:00-10:30 Coffee break

10.30-12.00 Cross WP discussions including – needs for data sharing and data management, etc.

12:00-13:00 Lunch

13:00-14:30 Presentation of our draft Project Portal, next all partner meeting and other business

14:30 Coffee break and departure from Sandbjerg

Venue: Sandbjerg Manor, Southern Jutland. Denmark (https://www.sandbjerg.dk/)

20th – 21st October

SWAT+ course – flyer and programme is attached for the course

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Appendix 2

Participants in NORDBALT-ECOSAFE			
Institut	Country	Given name	Surname
UOULU	Finland	Hannu	Marttila
UOULU	Finland	Joy	Bhattacharjee
SYKE	Finland	Katri	Rankinen
SYKE	Finland	Seppo	Helsten
SYKE	Finland	Pasi	Valkama
SYKE	Finland	Jukka	Aroviita
SYKE	Finland	Anu	Lähteenmäki-Uutela
SYKE	Finland	Ahti	Lepistö
AU	Denmark	Katrin	Bieger
AU	Denmark	Brian	Kronvang
AU	Denmark	Joachim	Audet
AU	Denmark	Sofie	van't Veen
AU	Denmark	Mette	V. Carstensen
SLU	Sweden	Jens	Fölster
SLU	Sweden	Katarina	Kyllmar
SLU	Sweden	Kristina	Mårtensson
SLU	Sweden	Martyn	Futter
SLU	Sweden	Emma	Lannergård
SLU	Sweden	Sara	Sandström
SGGW	Poland	Magdalena	Jarecka
SGGW	Poland	Marek	Giełczewski
SGGW	Poland	Ignacy	Kardel
SGGW	Poland	Svajunas	Plunge
SGGW	Poland	Mikolaj	Piniewski
NIBIO	Norway	Eva	Skarbøvik
NIBIO	Norway	Csilla	Farkas
NIBIO	Norway	Dominika	Krzeminska
NIBIO	Norway	Anne-Grete	Buseth Blankenberg
NIVA	Norway	Jan-Erik	Thrane
NIVA	Norway	Anne	Lyche-Solheim
NIVA	Norway	Øyvind	Kaste
LLU	Latvia	Ainis	Lagzdiņš
LLU	Latvia	Arturs	Veinbergs
LLU	Latvia	Leva	Siksnane

Nitrogen and phosphorus load reduction approach within safe ecological boundaries for the Nordic-Baltic region: NORDBALT-ECOSAFE
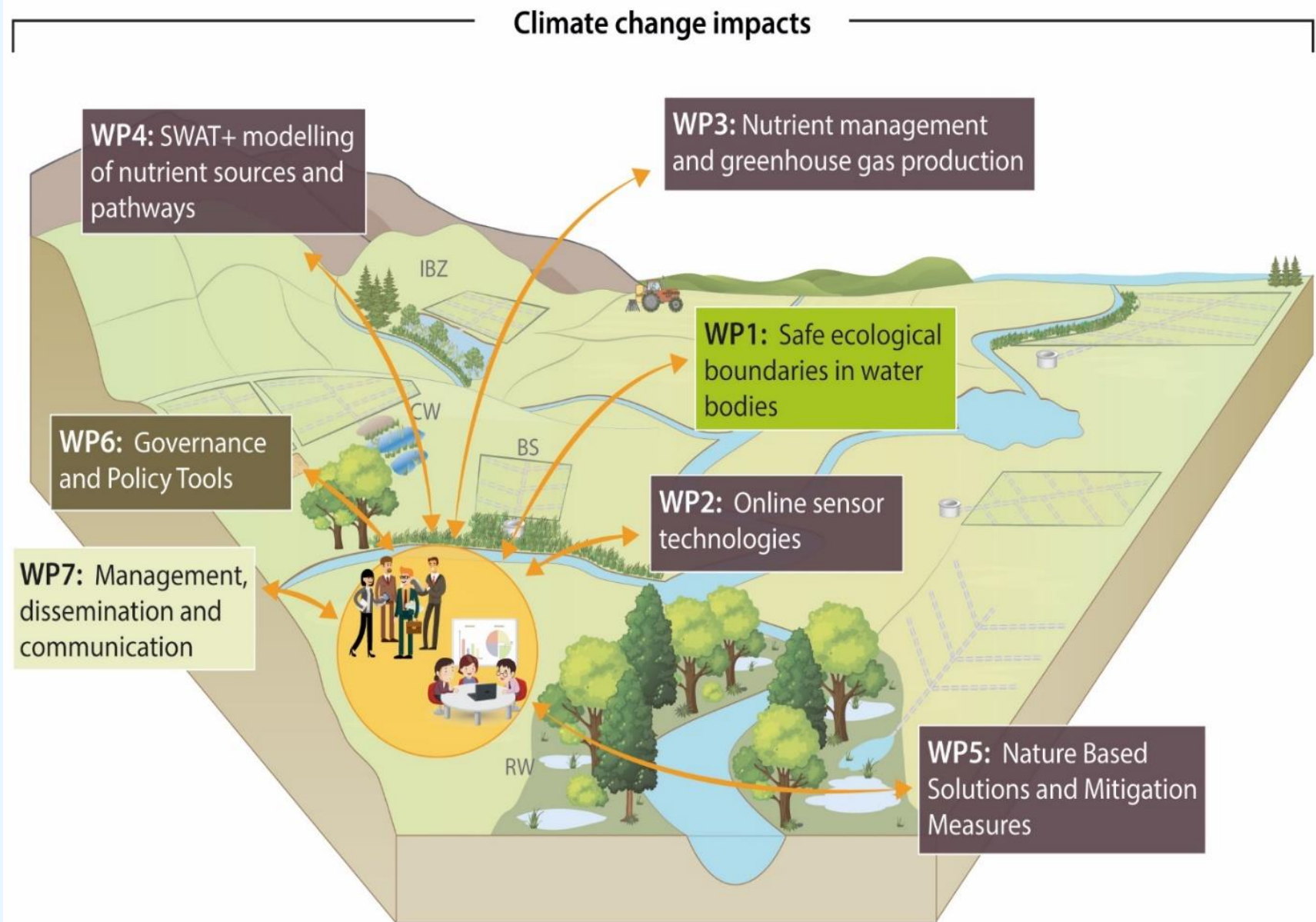
Kick-off meeting 17-19th October 2022
SWAT+ course 20-21st October 2022

CSA: Coordination and Support Action under HORIZON-CL6-2021-ZEROPOLLUTION

Kickoff meeting

We are a total of 30 participants from our 8 institutes covering 6 countries in the region

NORDBALT-ECOSAFE will focus on six river basins selected to represent the variability in environmental, economic, and social conditions within the Nordic-Baltic Region, including a north-south gradient in climate, population density, and land use intensity (agriculture vs. forestry).

River Odense, Denmark

Catchment area (km²)	1050
Average precip. (mm/yr)	825
Mean temperature (°C)	8.4
Mean streamflow (mm)	313
Agriculture (%)	68
Forest (%)	10

River Hobølelva, Norway

Catchment area (km²)	337
Average precip. (mm/yr)	992
Mean temperature (°C)	7.2
Mean streamflow (mm)	496
Agriculture (%)	20
Forest (%)	70

River Örsundaån, Sweden

Catchment area (km²)	900
Average precip. (mm/yr)	607
Mean temperature (°C)	6.2
Mean streamflow (mm)	219
Agriculture (%)	35
Forest (%)	41
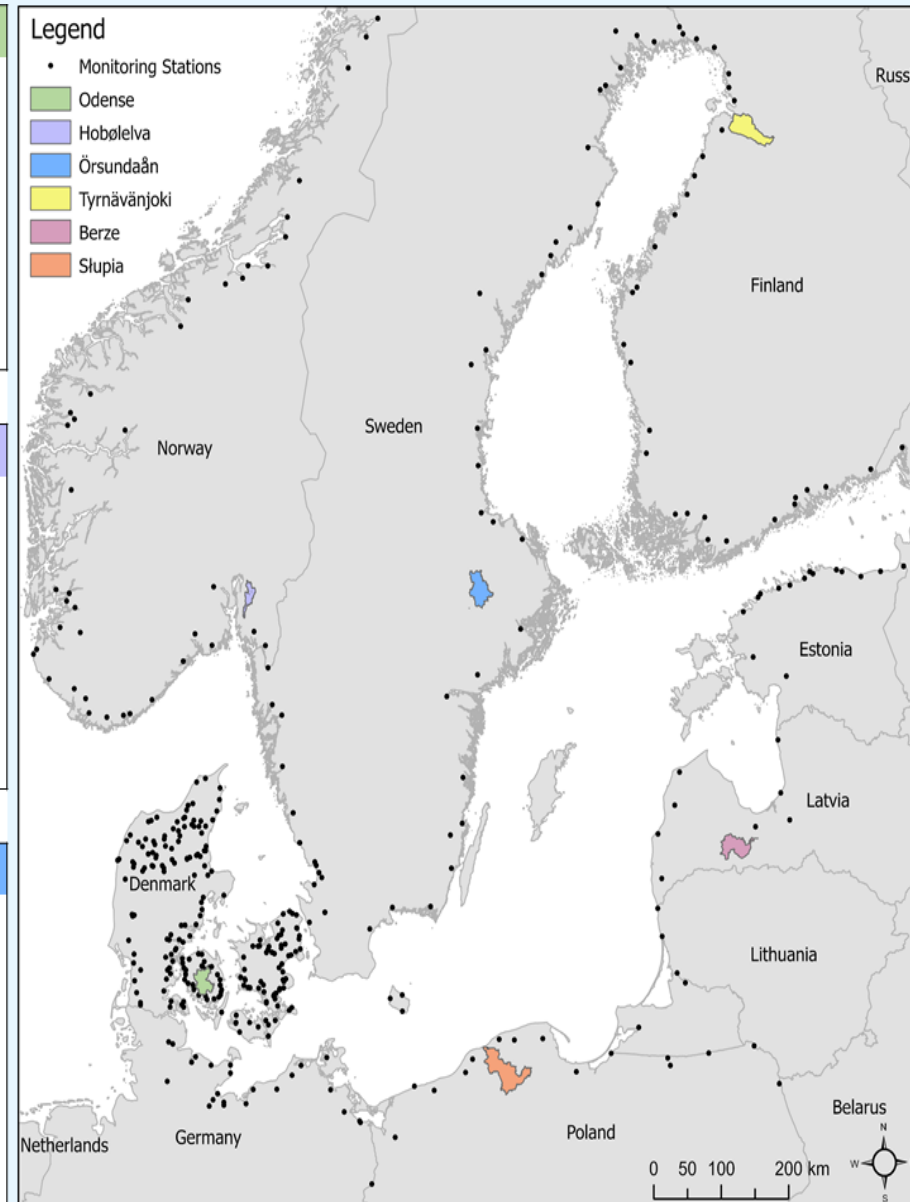
River Tyrnävänjoki, Finland

Catchment area (km²)	1181
Average precip. (mm/yr)	477
Mean temperature (°C)	2.6
Mean streamflow (mm)	231
Agriculture (%)	15
Forest (%)	82

River Berze, Latvia

Catchment area (km²)	872
Average precip. (mm/yr)	573
Mean temperature (°C)	7.6
Mean streamflow (mm)	195
Agriculture (%)	56
Forest (%)	39

River Słupia, Poland

Catchment area (km²)	1623
Average precip. (mm/yr)	850
Mean temperature (°C)	7.0
Mean streamflow (mm)	330
Agriculture (%)	49
Forest (%)	44

Legend
- Monitoring Stations
- Odense
- Hobølelva
- Örsundaån
- Tyrnävänjoki
- Berze
- Słupia

AARHUS UNIVERSITY

NORDBALT ECOSAFE

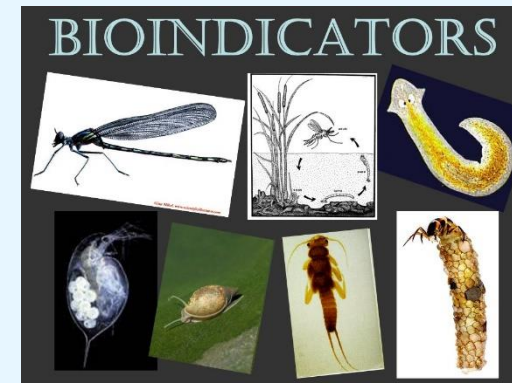# *WP1: Safe ecological boundaries in water bodies*

Lead: Anne Lyche Solheim, NIVA

Task 1.1: Develop a common method to set harmonised reference/benchmark values for nutrients for different types of waterbodies in the Nordic-Baltic region.

Task 1.2: Estimate safe ecological boundaries for nutrients that safeguard good status for sensitive biological quality elements

Task 1.3: Evaluate the need to tighten the nutrient boundaries to counteract negative impacts of climate change on algal blooms and benthic flora and fauna

Task 1.4: Test the proposed safe ecological boundaries using regional datasets covering the entire Nordic-Baltic region

BIOINDICATORS

NORDBALT
ECOSAFE

WP2: Online sensor technologies

(Lead: Eva Skarbøvik, NIBIO)

Tasks:

Task 2.1: Investigate stakeholders' needs for data when assessing safe ecological boundaries in different types of water bodies.

Task 2.2: Identify 'living labs' for demonstration of sensor stations, including real-time data transfer, to enhance citizen awareness and further develop and explore the use of early warning systems

Task 2.3: Evaluate the impact of sensor use in future regular monitoring programmes for reaching safe ecological boundaries in freshwater.

Sensor monitoring in a
small stream in Denmark
Photo: Sofie Van't Veen, AU

Photo: Roger Roseth, NIBIO

Conductivity

Turbidity

pH

Fykocyanin

Chlorofyll A

Water level

WP3: Nutrient management and greenhouse gas production

Lead: Martyn Futter, SLU

Tasks:

Task 3.1 Quantify tradeoffs between nutrient retention and climate impacts

Task 3.2 Operationalising safe operating spaces based on element stoichiometry
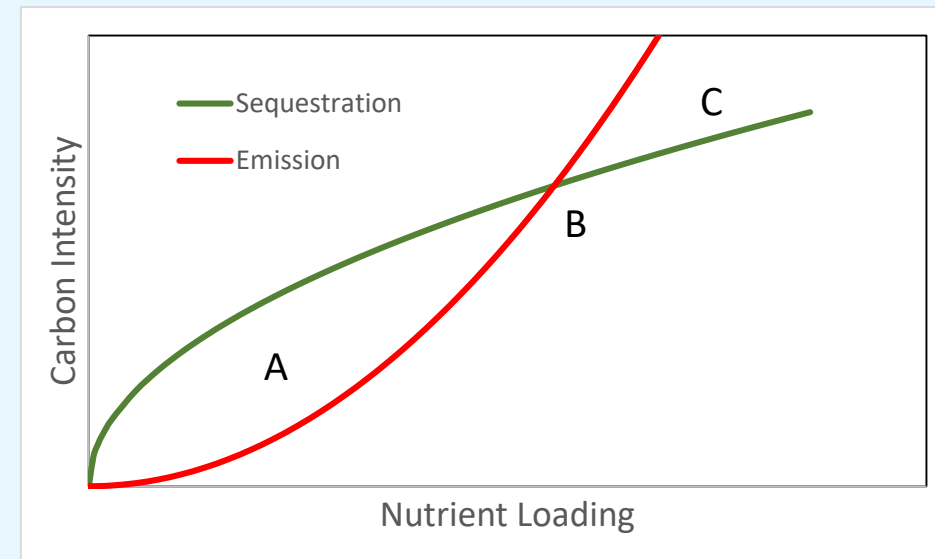
# *WP4:* SWAT+ modelling of nutrient sources and pathways

Lead: Hannu Marttila, UOULU

Tasks:

Task 4.1: Setup, calibration, and validation of SWAT+ models in demonstration river basins

Task 4.2: Comparison of SWAT+ to existing regional/national models

Task 4.3 Identification of N and P reduction targets to bring nutrients within safe ecological boundaries under current and future climate conditions
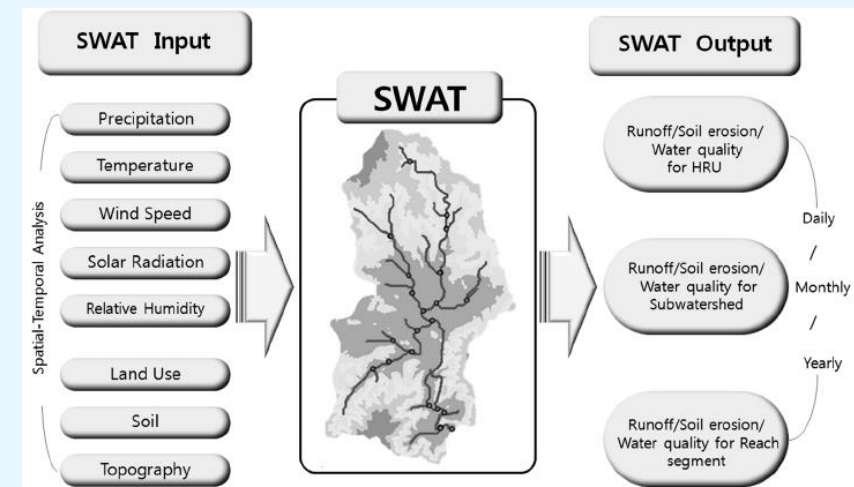
WP5: Nature Based Solutions and Mitigation Measures

Lead: Katrin Bieger, AU

Tasks:

Task 5.1: Compile a portfolio of NBSs and MMs suitable for the Nordic-Baltic region.

Task 5.2: Develop a classification framework for the selected NBSs and MMs

Task 5.3: Develop a novel methodology to identify site-specific opportunities for implementation of NBSs and MMs

Task 5.4: Establish an online River Basin Management Support System for each of the six demonstration river basins

Table 1: Examples for commonly used Nordic-Baltic Nature Based Solutions (NBSs) and Mitigation Measures (MMs) to be included in the Measure Classification Framework

NBSs & MMs	Solution	NBS or MM?	Category of solution*
Source control			
I	Catch crops	MM	a
II	Liming of soils (structural/gypsum)	MM	a, b
III	Soil cultivation strategies	MM	b
IV	Manure application strategies	MM	a, b
V	Crop cover/distribution	MM/NBS	a, b, c, d
VI	Adapted buffer zones (grassed waterways on field)	MM	b
Transport control			
VII	Controlled drainage	MM	b, c
VIII	Riparian buffer strips	NBS	a, b, c, d
IX	Constructed wetlands	MM	b, c, d
X	Bioreactors	MM	b
XI	Integrated and saturated buffer zones	MM	b, c, d
XII	Restored riparian wetlands	NBS	a, b, c, d
XIII	Sedimentation ponds	MM	b
XIV	Two-stage ditches	MM/NBS	a, b

*) Categories of solutions: a) nutrient source; b) nutrient transport; c) climate measure; d) biodiversity measure.
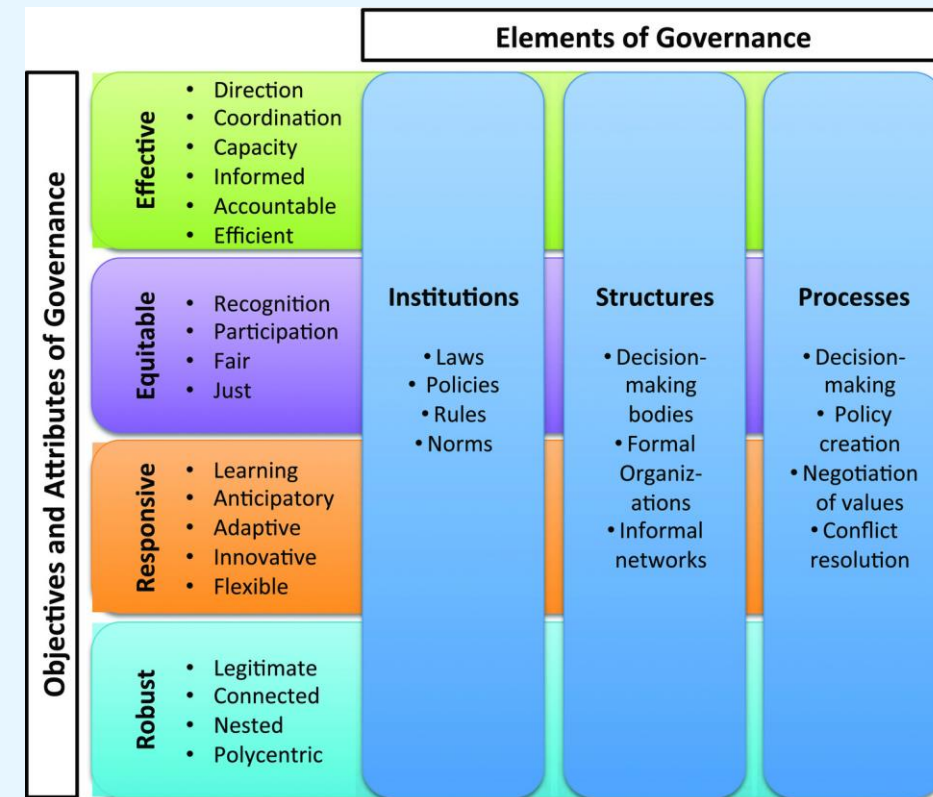
WP6: Governance models and policy tools

Lead: Anu Lahteenmaki-Uutela, SYKE

Tasks:

Task 6.1. National governance models for NBSs and MMs.

Task 6.2. Review of European policy tools and their impacts

WP7: Project management, dissemination, and communication

Lead: Brian Kronvang, AU

Tasks:

Task 7.1: Overall project management

Task 7.2 Annual project meetings and regional meetings

Task 7.3 Project reporting and audit management

Task 7.4 Online Networking Platform and communication

Task 7.5 Project legacy and contacts to other projects in the EU