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Supplement of

Sea Level Rise in Europe: Knowledge gaps identified through a participatory approach

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S1. Statistics of responses to closed-ended survey questions using a Likert scale

Table S1. Statistics of responses to closed-ended survey questions using a Likert scale for "SLR-information"

Statement	Group	Mean	SD	Median	Mode	N	Scale
1	Gov	2.7	1.1	3.0	2.0	73	(a)
	Res	2.8	1.0	3.0	2.0	127	
2	Gov	4.4	0.8	5.0	5.0	73	(a)
	Res	4.3	0.9	4.0	5.0	131	
3	Gov	4.4	0.8	5.0	5.0	73	(a)
	Res	4.2	0.8	4.0	4.0	131	

SD: standard deviation
(a) 1: strongly disagree, 2: disagree, 3: neutral, 4: agree, 5: strongly agree

Statement 1: "For my work crucial information and data on SLR is missing and/or not accessible"

Statement 2: "Regular updates on SLR projections are needed for the successful implementation of a coastal management planning/strategy".

Statement 3: "It is necessary to know in depth the uncertainty in SLR projections for coastal management."

Table S2. Statistics of responses to closed-ended survey questions using a Likert scale for "SLR-induced hazards and impacts"

Statement	Group	Mean	SD	Median	Mode	N	Scale
1	Gov	4.6	0.7	5.0	5.0	72	(a)
	Res	4.6	0.6	5.0	5.0	132	
2	Gov	3.2	1.0	3.0	2.0	73	(b)
	Res	2.9	1.1	3.0	2.0	131	

SD: standard deviation
(a) 1: not important, 2: secondary, 3: neutral, 4: important, 5: very important
(b) 1: strongly disagree, 2: disagree, 3: neutral, 4: agree, 5: strongly agree

Statement 1: "How important do you think it is to use SLR-impact assessments in making decisions on planning?"

Statement 2: "High quality and up-to-date assessments of SLR-induced impacts are available for making decisions on planning."

Table S3. Statistics of responses to closed-ended survey questions using a Likert scale for "policy decisions/adaptation strategies".

Statement	Group	Mean	SD	Median	Mode	N	Scale
1	Gov	2.9	0.9	3.0	2.0	72	(a)
	Res	2.5	0.9	2.0	2.0	129	
2	Gov	3.4	1.0	3.0	3.0	70	(b)
	Res	3.0	1.1	3.0	3.0	130	
3	Gov	4.0	0.9	4.0	4.0	70	(c)
	Res	3.8	1.1	4.0	4.0	127	
4	Gov	4.4	0.7	5.0	5.0	72	(b)
	Res	4.4	0.7	4.0	5.0	130	

SD: standard deviation

(a) 1: inexistent, 2: insufficient, 3: neutral, 4: effective, 5: very effective

(b) 1: no plans, 2: strongly disagree, 3: disagree, 4: agree, 5: strongly agree

(c) 1: don´t know what NBS are, 2: hardly applicable in my country/region, 3: secondary option alongside traditional measures, 4: appropriate in selected sites, 5: core for adaptation

(d) 1: strongly disagree, 2: disagree, 3: neutral, 4: agree, 5: strongly agree

Statement 1: "How effective do you consider the present adaptation strategy to SLR in your country/region?"

Statement 2: "Existing adaptation strategies/plans are flexible enough to adapt to future updates in SLR-induced impacts, or to cope with the inherent uncertainty in their assessment."

Statement 3: "Nature-based solutions (NBS) are appropriate as adaptation measures to SLR in your country/region."

Statement 4: "The IPCC Assessment Reports are useful for my work."

S2. KH-SLR survey "Profiling SLR needs & knowledge gaps"

General information

Name
Surname
Email address

What best describes the institute/organization you work for?
[*Check all that apply*]
- ☐ Central Government
- ☐ Regional Government
- ☐ International organization
- ☐ University / research institute
- ☐ Private company
- ☐ Non-governmental organization
- ☐ Other (*please, specify below*)

What is the name of your organisation?

In which country do you reside (and for which you are reporting here)?

Which Sea basin(s) better reflect(s) your area of work?
[*Check all that apply*]
- ☐ Artic Ocean
- ☐ Baltic Sea
- ☐ Black Sea
- ☐ Mediterranean Sea
- ☐ Eastern Atlantic
- ☐ North Sea
- ☐ Other (*please, specify below*)

What is the focus of most of your work?

On Sea Level Rise (SLR) information

Please rate the following statement:
For my work crucial information and data on SLR **is missing** and/or **not accessible.**
- ○ Strongly disagree
- ○ Disagree
- ○ Neutral (*please, comment below if needed*)
- ○ Agree
- ○ Strongly agree

What type of SLR data and/or information do you **have access** to?
[*Check all that apply*]
- ☐ None
- ☐ Projections from tidal records
- ☐ Global (e.g. IPCC) mean sea level projections
- ☐ Regional mean sea level projections
- ☐ Other (*please, specify below*)

What type of SLR data and/or information do you **use**?
[*Check all that apply*]

- ☐ None
- ☐ Projections from tidal records
- ☐ Fixed mean sea level (e.g. 1 m)
- ☐ Global (e.g. IPCC) mean sea level projections
- ☐ Regional mean sea level projections
- ☐ Other (*please, specify below*)

Please rate the following statement:
Regular updates on SLR projections are needed for the successful implementation of a coastal management planning/strategy.

- ○ Strongly disagree
- ○ Disagree
- ○ Neutral - depends on the scale of the project (*please, comment below if needed*)
- ○ Agree
- ○ Strongly agree

Please rate the following statement:
It is necessary to know in depth the **uncertainty** in SLR projections for coastal management.

- ○ Strongly disagree
- ○ Disagree
- ○ Neutral - depends on the scale of the project (*please, comment below if needed*)
- ○ Agree
- ○ Strongly agree

From the perspective of your work, what are the largest **knowledge gaps** in SLR?

On SLR-induced hazards & impacts

Which SLR-induced **impacts** are relevant for your country/region?
[*Check all that apply*]

- ☐ None
- ☐ Permanently flooded areas
- ☐ Beach/coastal erosion
- ☐ Salinization/salt water intrusion
- ☐ Ecosystem changes - habitat loss
- ☐ Increasing storm impacts
- ☐ Private property damage or loss
- ☐ Public infrastructure damage or loss
- ☐ Others (*please, specify below if needed*)

How important do you think it is to use SLR-impact **assessments** in making decisions on planning?

- ○ Not important
- ○ Secondary
- ○ Neutral - depends on the scale (*please, specify below if needed*)
- ○ Important
- ○ Very important

Please rate the following statement:
High quality and up-to-date assessments of SLR-induced impacts are **available** for making decisions on planning.

- Strongly disagree
- Disagree
- Neutral (*please, comment below if needed*)
- Agree
- Strongly agree

On policy decisions / adaptation strategies

What are the key policy decisions for which you **currently use SLR** (and coastal risk) information?

Are there other decisions/purposes for which you currently **don't consider SLR**, but for which you think it would be important to do so?

How **effective** do you consider the present adaptation strategy to SLR in your country/region?

- Inexistent
- Insufficient
- Neutral (*please, comment below if needed*)
- Effective
- Very effective

Please rate the following statement:
Existing adaptation strategies/plans are **flexible** enough to adapt to future updates in SLR-induced impacts, or to cope with the inherent uncertainty in their assessment.

- There are no plans
- Strongly disagree (this possibility is not considered)
- Disagree
- Agree
- Strongly agree (they include the need to be reviewed/evaluated from time to time).
- Other / Unsure (*please, comment below if needed*)

Please rate the following statement:
Nature-based solutions (NBS) are **appropriate** as adaptation measures to SLR in your country/region.

- I don't know what NBS are (*please, comment below if needed)*
- They are hardly applicable in my country/region (*please, comment below if needed*)
- They would be a secondary option alongside traditional adaptation measures (*please, comment below if needed*)
- They are appropriate but in selected sites (*please, comment below if needed*)
- They must be the core for adaptation (*please, comment below if needed*)

Please rate the following statement:
The IPCC Assessment Reports are **useful** for my work.

- Strongly disagree
- Disagree
- Neutral (*please, comment below if needed*)
- Agree
- Strongly agree

S3. KH-SLR scoping workshop: North Sea & Arctic Seas basins

Day 1: 21st March 2022

- **Welcome & Intro**. *Background on the Knowledge Hub on Sea Level Rise*
- **KH SLR survey results** for the *North Sea and Arctic Seas basins*
- **Panel discussion:** *SLR adaptation and policies around the North Sea and Arctic Seas basins*
    - Daphné Thoon (BE)
    - Caroline Sutton (UK)
    - Andreas Wurpts (DE)
    - Saskia van Gool (NL)
    - Cathrine Andersen (NO)
- **Plenary session:** *SLR adaptation, policies and science – what can a basin -specific assessment report for you?*
- **Interactive Breakout Sessions.** Informing content of the Assessment Report for the Mediterranean and Black seas basins (three parallel rotating sessions: SLR information + SLR impacts + SLR adaptation)
- **Feedback from the breakout sessions**
- **Wrap-up of the day & outlook day 2**

Day 2: 22nd March 2022

- **Welcome & Recap of Day 1**
- **Keynote Speech**: *Sea Level Rise – physical science*. Helene Hewitt
- **Questions & Answers**
- **Keynote Speech**: *SLR impacts and adaptation*. Marjolijn Haasnoot
- **Questions & Answers**
- **Interactive Breakout Sessions.** Informing content of the Assessment Report for the North Sea and Arctic Seas basins (three parallel rotating sessions: SLR information + SLR impacts + SLR adaptation)
- **Feedback from the breakout sessions**
- **Wrap-up of the workshop.**

S4. KH-SLR scoping workshop: Eastern Atlantic basin

Day 1: 28th April 2022

- **Welcome & Intro**. *Background on the Knowledge Hub on Sea Level Rise*
- **KH SLR survey results** for the *Eastern Atlantic basin*
- **Keynote Speech**: *Sea Level Rise in the East Atlantic – latest projections, vulnerability and adaptation*. Matt Palmer (*sea level projections*), Gonéri Le Cozannet (*vulnerability and adaptation)*
- **Questions & Answers**
- **Panel discussion:** *SLR science and impacts in the Eastern Atlantic*
    - William Llovel (FR)
    - Gaël Durand (FR)
    - João Dias (PT)
    - Dewi le Bars (NL)
    - Robert Slomp (NL)
    - Amelie Roche (FR)
- **Plenary session:** *what would you like to see included in the regional assessment report?*
- **Wrap-up of the day & outlook day 2**

Day 2: 29th April 2022

- **Welcome & Recap of Day 1**
- **Keynote Speech**: *Adapting cities to SLR in Europe – the Sea'ties Initiative*. Lisa Devignol
- **Panel discussion:** *SLR adaptation and policies around the East Atlantic*
    - Ivan Haigh (UK)
    - Jean Prou (FR)
    - Anne-Sophie Leclere (FR)
    - Garry O'Connel (IE)
    - Robert Slomp (NL)
- **Q &A on Panel presentations**
- **Interactive Breakout Sessions.** Informing content of the Assessment Report for the East Atlantic basin
- **Feedback from the breakout sessions**
- **Wrap-up of the workshop.**

S5. KH-SLR scoping workshop: Mediterranean & Black Sea basins

Day 1: 5th May 2022

- **Welcome & Intro**. *Background on the Knowledge Hub on Sea Level Rise*
- **KH SLR survey results** for the *Mediterranean Sea and Black Sea basins*
- **Keynote Speech**: *Sea Level Rise in the Mediterranean and Black Seas*. Begoña Perez (*sea level observations*), Marta Marcos (*SLR projections*)
- **Questions & Answers**
- **Keynote Speech**: *SLR impacts, vulnerability and adaptation*. Gonéri Le Cozannet (*SLR impacts*) & R.Montanari/Valentini (*adaptation plans*)
- **Questions & Answers**
- **Interactive Breakout Sessions.** Informing content of the Assessment Report for the Mediterranean and Black seas basins (three parallel rotating sessions: SLR information + SLR impacts + SLR adaptation)
- **Feedback from the breakout sessions**
- **Wrap-up of the day & outlook day 2**

Day 2: 6th May 2022

- **Welcome & Recap of Day 1**
- **Panel discussion:** *SLR needs and contribution to adaptation policies from different administration/stakeholders' typologies*
    - UNEP_MAP/PAP-RAC (supranational level-int organization, Med Sea)
    - Black Sea Convention (supranational level-int organization, Black Sea)
    - Barcelona municipality (municipal level, ES)
    - Conference of Maritime Regions (regional level, FR)
    - Croatia central government representative (central government level, HR)
- **Q &A on Panel presentations**
- **Interactive Breakout Sessions.** Informing content of the Assessment Report for the Mediterranean and Black seas basins (three parallel rotating sessions: SLR information + SLR impacts + SLR adaptation)
- **Feedback from the breakout sessions**
- **Wrap-up of the workshop.**

S6. KH-SLR scoping workshop: Baltic Sea basin

Day 1: 9th May 2022

- **Welcome & Intro**. *Background on the Knowledge Hub on Sea Level Rise*
- **Summary of existing knowledge based upon the Baltic Earth Assessment reports and KH SLR survey results** for the *Baltic Sea basin*
- **Keynote Speech**: *EuroCORDEX results on atmospheric changes*. Ole Bøssing Christensen
- **Keynote Speech**: *Results of the latest future sea level projections and sea level extremes*. Hagen Radtke
- **Keynote Speech**: *Modelled and projected sea level extremes at the coasts of the eastern Baltic Sea*. Tarmo Soomere
- **Keynote Speech**: *Sea level rise, extreme sea levels and how to combine them: views from a country with large spatial gradients in sea level change*. Magnus Hieronymus
- **Keynote Speech**: *Coastal risk management along the Baltic Sea coast of Schleswig-Holstein,Germany, under accelerated sea level rise*. Jacobus Hofstede
- **Interactive Breakout Sessions.** Informing content of the Assessment Report for the Mediterranean and Black seas basins (three parallel rotating sessions: SLR information + SLR impacts + SLR adaptation)
- **Feedback from the breakout sessions**

Day 2: 10th May 2022

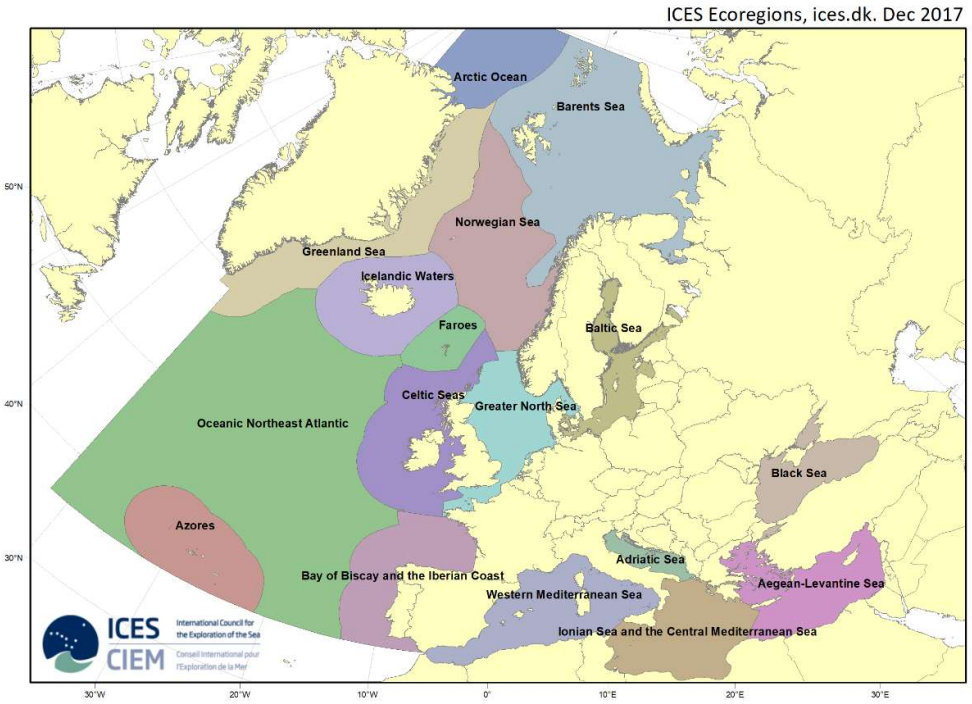
- **Welcome & Recap of Day 1**
- **Keynote Speech**: *Operating Kiel Canal under climate change*. Jürgen Holfort
- **Keynote Speech**: *The impact of sea level rise on the coast of Mecklenburg Western Pommerania,Germany.* Arne Arns
- **Keynote Speech**: *The Danish Climate Atlas's perspective on sea level rise adaptation*. Jian Su
- **Keynote Speech**: *Imperatives for the management of sea level rise on the Baltic Sea coast.* Kevin Parnell
- **Keynote Speech**: *Lithuanian coastal risk management: sea level rise impact on compound coastal-river flood risk.* Inga Dailidiene
- **Interactive Breakout Sessions.** Informing content of the Assessment Report for the
- **Discussion and summary of the workshop, next steps and outlook final conference**

S7. Methodology to derive data on coastal archetypes in Table 1 of the manuscript

To derive coastal archetypes, we used the following datasets:

Provider	Description	Source
ICES	ICES_ecoregions	https://www.ices.dk/Pages/default.aspx
EEA	Coastal zones Land use classification (10 km inland)	https://www.eea.europa.eu/en/datahub/datahubitem-view/46fccbdc-d848-47a7-a58d-2aabc21c07cf
UNEP	Global Estuary Database	https://data.unep-wcmc.org/datasets/23
Global Delta	Global Delta database	https://www.globaldeltarisk.net/data.html

Figure S1. ICES ecoregions.



We attribute the following ICES ecoregions to the basins as we use them in the Knowledge Hub on Sea Level Rise:

KH Sea Level Rise Basin	ICES Ecoregion
Arctic	Arctic Ocean
Arctic	Barents Sea
Arctic	Faroes
Arctic	Greenland Sea
Arctic	Icelandic Waters
Arctic	Norwegian Sea
Eastern Atlantic	Bay of Biscay and the Iberian Coast
Eastern Atlantic	Celtic Seas
Eastern Atlantic	Azores

Eastern Atlantic	Oceanic Northeast Atlantic
Baltic Sea	Baltic Sea
Black Sea	Black Sea
North Sea	Greater North Sea
Mediterranean	Adriatic Sea
Mediterranean	Aegean-Levantine Sea
Mediterranean	Ionian Sea and the Central Mediterranean Sea
Mediterranean	Western Mediterranean Sea

Based on the Coastal zones Land use classification, the Global Estuary Database and the Global Delta database, we developed the following classification for coastal zones. We omit coastal zone polygons, that we cannot describe with these datasets.

Coastal Archetype (CA) ID	**Description**	**Delta or Estuary**	**Delta and Estuary**
1	Urban		
2	Rural		
3	Urban	Delta	
4	Rural	Delta	
5	Urban	Estuary	
6	Rural	Estuary	
7	Urban	Delta	Estuary
8	Rural	Delta	Estuary
20 (7)	Cliff		
22	Cliff	Delta	
24	Cliff	Estuary	
26	Cliff	Delta	Estuary
30 (9)	Nature		
32	Nature	Delta	
34	Nature	Estuary	
36	Nature	Delta	Estuary

The coastal zone land use data is part of the Copernicus Land Monitoring Service (CLMS) Local Component. It covers a buffer zone of the coastline 10km inland and divides the European coastline into land use polygons. The class definitions follow the pre-defined nomenclature on the basis of Mapping and Assessment of Ecosystems and their Services (MAES) typology of ecosystems (Level 1 to Level 4) and CORINE Land Cover adapted to the specific characteristics of coastal zones. The classification provides 71 distinct thematic classes with a Minimum Mapping Unit (MMU) of 0.5 ha and a Minimum Mapping Width (MMW) of 10 m. For further information on the CLMS Local Component please refer to https://land.copernicus.eu/local.

Step 1: We reclassified the 71 coastal zones land uses classes to match our classification of coastal archetypes:

Final class ID	***Land use ID***	***Description***
1	11110	Continuous urban fabric (IMD =>80%)
1	11120	Dense urban fabric (IMD =>30-80%)

1	11130	Low density fabric (IMD <30%)
1	11210	Industrial, commercial, public and military units (other)
1	11220	Nuclear energy plants and associated land
1	12100	Road networks and associated land
1	12200	Railways and associated land
1	12310	Cargo port
1	12320	Passenger port
1	12330	Fishing port
1	12340	Naval port
1	12350	Marinas
1	12360	Local multi-functional harbours
1	12370	Shipyards
1	12400	Airports and associated land
2	13110	Mineral extraction sites
2	13120	Dump sites
2	13130	Construction sites
2	13200	Land without current use
2	14000	Green urban, sports and leisure facilities
2	21100	Arable irrigated and non-irrigated land
2	21200	Greenhouses
2	22100	Vineyards, fruit trees and berry plantations
2	22200	Olive groves
2	23100	Annual crops associated with permanent crops
2	23200	Complex cultivation patterns
2	23300	Land principally occupied by agriculture with significant areas of natural vegetation
2	23400	Agro-forestry
9	31100	Natural & semi-natural broadleaved forest
9	31200	Highly artificial broadleaved plantations
9	32100	Natural & semi-natural coniferous forest
9	32200	Highly artificial coniferous plantations
9	33100	Natural & semi-natural mixed forest
9	33200	Highly artificial mixed plantations
9	34000	Transitional woodland and scrub
9	35000	Lines of trees and scrub
9	36000	Damaged forest
2	41000	Managed grassland
2	42100	Semi-natural grassland
9	42200	Alpine and sub-alpine natural grassland
9	51000	Heathland and moorland
9	52000	Alpine scrub land
9	53000	Sclerophyllous scrubs
9	61100	Sparse vegetation on sands
9	61200	Sparse vegetation on rocks
9	62111	Sandy beaches

9	62112	Shingle beaches
9	62120	Dunes
9	62200	River banks
7	63110	Bare rocks and outcrops
7	63120	Coastal cliffs
9	63200	Burnt areas (except burnt forest)
9	63300	Glaciers and perpetual snow
9	71100	Inland marshes
9	71210	Exploited peat bogs
9	71220	Unexploited peat bogs
9	72100	Salt marshes
9	72200	Salines
9	72300	Intertidal flats
9	81100	Natural & semi-natural water courses
9	81200	Highly modified water courses and canals
9	81300	Seasonally connected water courses (oxbows)
9	82100	Natural lakes
9	82200	Reservoirs
9	82300	Aquaculture ponds
9	82400	Standing water bodies of extractive industrial sites
9	83100	Lagoons
9	83200	Estuaries
9999*	83300	Marine inlets and fjords
9999*	84100	Open sea
9999*	84200	Coastal waters

*9999 values have been omitted in the analysis.

Step 2: We attribute the coastal zone land use coastline segments to the ICES basins. Further, all coastal zone segments that intersect with a delta polygon (from Global Delta data) and/or an estuary polygon (based on UNEP data) are classified delta and/or estuary.

Step 3: We calculate the percentage of polygons that are assigned to each coastal archetype of the sum of coastal zone land use polygons in each basin. Note that the Atlantic basin mainly consists of the Atlantic coasts of Spain, Portugal, France, Ireland, United Kingdom, Greenland, Iceland and Norway and is not completely covered by land use data. Note that the European dataset on coastal land use does not contain data on the Russian, Georgian and Turkish coastlines of the Black Sea and neither on the non-European parts of the Mediterranean coast.

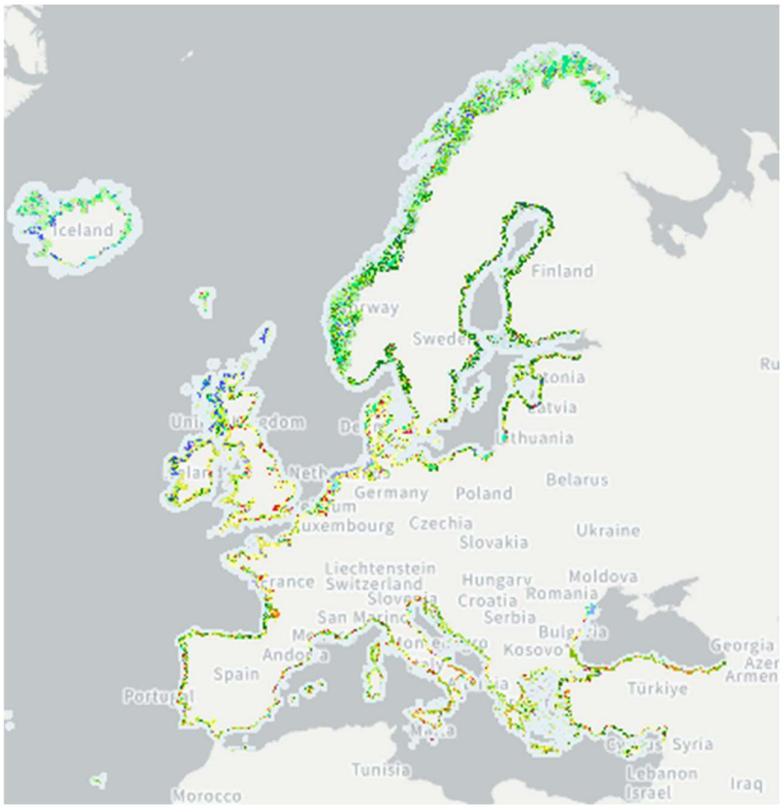
The product of this analysis is the following classification:

Basin ID	Basin	Final class ID	Description	Area (km^2)	Percentage
1	Eastern Atlantic	1	Urban	10844.403	4.290
1	Eastern Atlantic	2	Rural	55402.549	21.917
1	Eastern Atlantic	5	Urban,Estuary	1121.471	0.444
1	Eastern Atlantic	6	Rural,Estuary	1749.912	0.692
1	Eastern Atlantic	20	Cliff	12535.390	4.959
1	Eastern Atlantic	24	Cliff,Estuary	33.072	0.013
1	Eastern Atlantic	30	Nature	157931.123	62.476

1	Eastern Atlantic	34	Nature,Estuary	13166.986	5.209
2	Baltic Sea	1	Urban	6988.267	6.260
2	Baltic Sea	2	Rural	28394.390	25.436
2	Baltic Sea	3	Urban,Delta	124.946	0.112
2	Baltic Sea	4	Rural,Delta	543.750	0.487
2	Baltic Sea	5	Urban,Estuary	1151.892	1.032
2	Baltic Sea	6	Rural,Estuary	1974.607	1.769
2	Baltic Sea	7	Urban,Delta,Estuary	13.236	0.012
2	Baltic Sea	8	Rural,Delta,Estuary	4.467	0.004
2	Baltic Sea	20	Cliff	198.636	0.178
2	Baltic Sea	22	Cliff,Delta	0.009	0.000
2	Baltic Sea	24	Cliff,Estuary	6.258	0.006
2	Baltic Sea	30	Nature	57661.587	51.653
2	Baltic Sea	32	Nature,Delta	190.245	0.170
2	Baltic Sea	34	Nature,Estuary	13871.783	12.426
2	Baltic Sea	36	Nature,Delta,Estuary	507.688	0.455
3	Black Sea	1	Urban	2389.236	7.448
3	Black Sea	2	Rural	12182.700	37.977
3	Black Sea	3	Urban,Delta	8.624	0.027
3	Black Sea	4	Rural,Delta	104.672	0.326
3	Black Sea	5	Urban,Estuary	288.184	0.898
3	Black Sea	6	Rural,Estuary	175.896	0.548
3	Black Sea	7	Urban,Delta,Estuary	5.109	0.016
3	Black Sea	8	Rural,Delta,Estuary	177.195	0.552
3	Black Sea	20	Cliff	16.616	0.052
3	Black Sea	24	Cliff,Estuary	0.160	0.000
3	Black Sea	30	Nature	13022.411	40.594
3	Black Sea	32	Nature,Delta	570.618	1.779
3	Black Sea	34	Nature,Estuary	320.431	0.999
3	Black Sea	36	Nature,Delta,Estuary	2817.405	8.783
4	North Sea	1	Urban	10685.184	6.436
4	North Sea	2	Rural	47396.495	28.546
4	North Sea	3	Urban,Delta	805.156	0.485
4	North Sea	4	Rural,Delta	2733.931	1.647
4	North Sea	5	Urban,Estuary	1197.972	0.722
4	North Sea	6	Rural,Estuary	3604.033	2.171
4	North Sea	7	Urban,Delta,Estuary	684.394	0.412
4	North Sea	8	Rural,Delta,Estuary	239.334	0.144
4	North Sea	20	Cliff	1435.843	0.865
4	North Sea	24	Cliff,Estuary	3.847	0.002
4	North Sea	30	Nature	56575.008	34.074
4	North Sea	32	Nature,Delta	1796.976	1.082
4	North Sea	34	Nature,Estuary	36089.380	21.736
4	North Sea	36	Nature,Delta,Estuary	2787.463	1.679

5	Mediterranean	1	Urban	13844.798	6.553
5	Mediterranean	2	Rural	70713.643	33.471
5	Mediterranean	3	Urban,Delta	139.100	0.066
5	Mediterranean	4	Rural,Delta	1486.370	0.704
5	Mediterranean	5	Urban,Estuary	801.773	0.380
5	Mediterranean	6	Rural,Estuary	1367.908	0.647
5	Mediterranean	7	Urban,Delta,Estuary	107.872	0.051
5	Mediterranean	8	Rural,Delta,Estuary	214.449	0.102
5	Mediterranean	20	Cliff	1136.007	0.538
5	Mediterranean	22	Cliff,Delta	0.088	0.000
5	Mediterranean	24	Cliff,Estuary	7.601	0.004
5	Mediterranean	26	Cliff,Delta,Estuary	0.047	0.000
5	Mediterranean	30	Nature	84555.174	40.023
5	Mediterranean	32	Nature,Delta	625.976	0.296
5	Mediterranean	34	Nature,Estuary	35211.373	16.667
5	Mediterranean	36	Nature,Delta,Estuary	1054.005	0.499

Figure S2. Delineation of coastal archetypes across European Sea basins.



S8. Methodology to derive data on population in the LECZ in Table 1 of the manuscript

To derive population in the Low Elevated Coastal Zone (LECZ), we used the following datasets:

Provider	Description	Source
ICES	ICES_ecoregions	https://www.ices.dk/Pages/default.aspx
World Pop	World population raster data	https://hub.worldpop.org/project/categories?id=3
Copernicus	European Digital Elevation Model (DEM)	https://spacedata.copernicus.eu/en/web/guest/collections/copernicus-digital-elevation-model

The Low Elevated Coastal Zone is defined in this context as the area of land within 10m above mean sea level. For land elevation we used the European DEM. The LECZ has been overlaid with world population data to identify population in the LECZ in those areas indicated in Figure S2. Finally, these data have been assigned to the European basins:

Basin	Total population within 10 m above MSL
Eastern Atlantic and Arctic Seas	9.02 M
Baltic Sea	6.90 M
Black Sea	1.31 M
Greater North Sea	24.88 M
Mediterranean Sea	12.38 M