

Recommendations for MSP output data harmonization and publishing

Data model

Harmonizing process

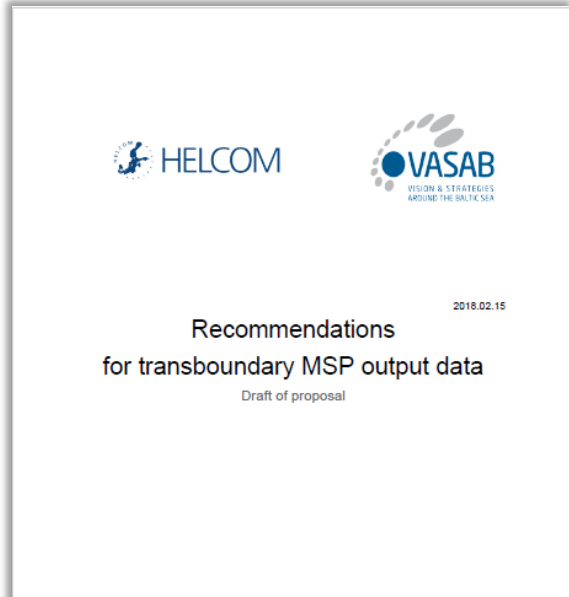
Baltic MSP web-map (BASEMAPS)

Based on:

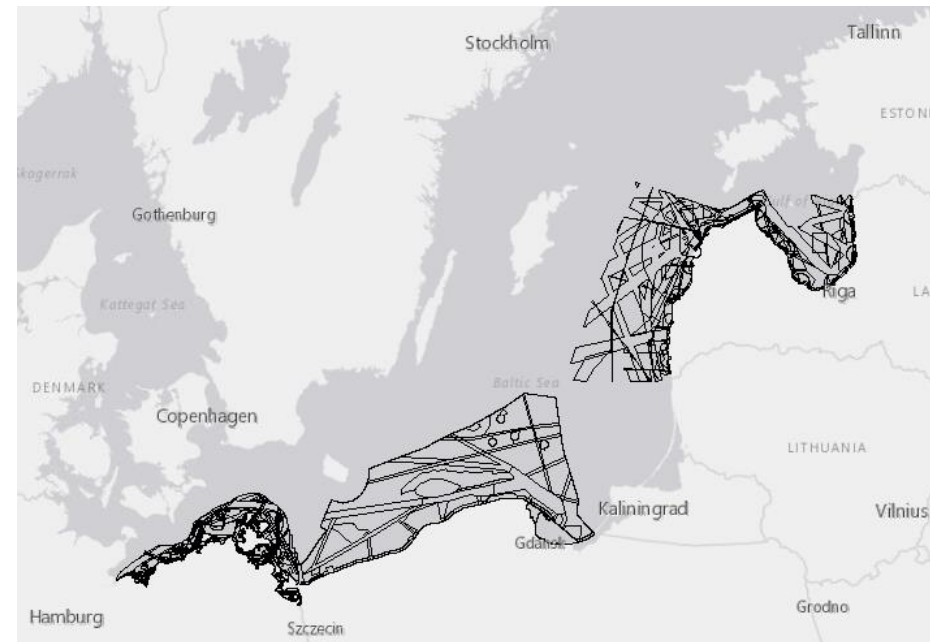
Pan Baltic SCOPE kick-off meeting (Data sharing activity workgroup meeting)

User needs and requirements

Needs for cartographic representation



Identified geometry in MSP data structure	pUse [SeaUse CodeList] [0...1]	aUse [CodeList] [multiple options possible - 0...*]	rUse [CodeList] [multiple options possible - 0...*]	fUse [CodeList] [multiple options possible - 0...*]	UseDsc [CharacterString]
xxx	Selection from seaUse code list	Selection from seaUse code list	Selection from seaUse code list	Selection from seaUse code list	Requirements & restrictions within sea use area
Examples:					
	installations-owf	Aquaculture - mussel		shipping, fishing	Areas suitable for OWP development
		fishing-bottom trawling		cables	Areas important for sea bottom trawling
				shipping	Areas prohibited for navigations



Goals:

Harmonized Baltic Sea MSP output data

Homogeneous cartographic representation

Baltic MSP web-map meeting needs and requirements

MSP output data model for Planned sea use

Sea use ID	Plan area ID	Country	Name	Code	...	Priority use	Allowed uses	Restricted uses	Forbidden uses	Geometry
1	...	Poland	...	...	...	coast	...	...	...	...
2	...	Poland	...	...	...	extraction	...	...	...	...
3	...	Latvia	...	...	...	transport	...	...	...	...
4	...	Latvia	...	...	...	coast	...	...	...	...
5	...	Germany	...	...	...	transport	...	...	...	...
6	...	Germany	...	...	...	fishing	...	...	...	...
...

Country specific MSP data

Multiple options possible

Multiple geometry types possible

Problems?

MSP output data model for Planned sea use

attribute code	sea use description	PL_data_2										
		FID	Shape	Akwen Name	F PODST	vis	Label name	Link DOC	F DOP Pr	F DOP Poz	Label Old	F Group
aquaculture	aquaculture	0	Polygon	C_1	C	0	C-1	..\.Karty Synergii i Konfliktow\CIC-1.do	O, R, S	T, B, I, D, N, Kp, W	OB-1	C
aquaculture-fish	fish	1	Polygon	C_2	C	0	C-2	..\.Karty Synergii i Konfliktow\CIC-2.do	O, R, S	T, B, I, D, N, Kp, W	OB-2	C
aquaculture-mussel	mussel	2	Polygon	C_3	C	0	C-3	..\.Karty Synergii i Konfliktow\CIC-3.do	O, R, S	T, B, I, D, N, Kp, W	OB-3	C
aquaculture-plant	plant	3	Polygon	C_4	C	0	C-4	..\.Karty Synergii i Konfliktow\CIC-4.do	O, R, S	T, B, I, D, N, Kp, W	OB-3A	C
coast	coast protection	4	Polygon	C_5	C	0	C-5	..\.Karty Synergii i Konfliktow\CIC-5.do	O, R, S	T, Ip, B, I, D, N, Kp	OB-4	C
coast-deposit	reserved areas for coast protection or prospective sand deposit area)	5	Polygon	C_6	C	0	C-6	..\.Karty Synergii i Konfliktow\CIC-6.do	O, R, S	T, B, I, D, N, Kp, W	OB-5	C
extraction	raw material extraction areas	6	Polygon	C_7	C	0	C-7	..\.Karty Synergii i Konfliktow\CIC-7.do	B, O, R	S, T, Ip, I, D, N, Kp, W	OB-5A	C
extraction-co2	CO2	7	Polygon	C_8	C	4	C-8	..\.Karty Synergii i Konfliktow\CIC-8.do	B, R, S	O, T, B, D, N, Kp, W	OB-6	C
extraction-gas	gas	8	Polygon	C_9	C	0	C-9	..\.Karty Synergii i Konfliktow\CIC-9.do	Ip, R, S	O, T, D, N, Kp, W	OB-8	C
extraction-oil	oil	9	Polygon	P_26	P	0	P-26	..\.Karty Synergii i Konfliktow\PIP-26.do	B, R, K	T, O, I, D, N, S	PR-13A	P
extraction-sand	sand and gravel	10	Polygon	P_25	P	0	P-25	..\.Karty Synergii i Konfliktow\PIP-25.do	B, R, K	T, I, N, D, S, O	PR-13	P
fishing	fishing	11	Polygon	P_23	P	0	P-23	..\.Karty Synergii i Konfliktow\PIP-23.do	B, R, K	T, I, N, D, S, O	PR-14A	P
fishing-industrial	industrial fishing	12	Polygon	P_22	P	0	P-22	..\.Karty Synergii i Konfliktow\PIP-22.do	B, R, K	T, I, N, D, S, O	PR-14	P
fishing-recreational	recreational fishing	13	Polygon	P_24	P	0	P-24	..\.Karty Synergii i Konfliktow\PIP-24.do	T, O	R, I, B, N, S, Kp, D	PR-8	P
fishing-small-boat	small boat fishing	14	Polygon	P_19	P	0	P-19	..\.Karty Synergii i Konfliktow\PIP-19.do	B, R, K	T, I, N, D, S, O	PR-15A	P
general	future reservation for undefined act general use	15	Polygon	P_21	P	0	P-21	..\.Karty Synergii i Konfliktow\PIP-21.do	B, R, O	T, I, D, N, S, Kp	PR-7B	P
heritage	underwater cultural heritage	16	Polygon	P_18	P	0	P-18	..\.Karty Synergii i Konfliktow\PIP-18.do	B, R, K	T, I, N, D, S, O	PR-15	P
heritage-landscape	landscape protection	17	Polygon	P_17	P	0	P-17	..\.Karty Synergii i Konfliktow\PIP-17.do	B, R, O	T, I, D, N, S, Kp	PR-9	P
heritage-wreck	wreck	18	Polygon	P_20	P	0	P-20	..\.Karty Synergii i Konfliktow\PIP-20.do	R, O, T	I, B, N, S, Kp, D	PR-7A	P
installations	installations and infrastructures	19	Polygon	P_13	P	0	P-13	..\.Karty Synergii i Konfliktow\PIP-13.do	B, R, O	T, I, D, N, S, Kp	PR-16A	P
installations-owf	offshore wind farm	20	Polygon	P_15	P	0	P-15	..\.Karty Synergii i Konfliktow\PIP-15.do	B, R, O	T, I, D, N, S, Kp	PR-4	P
installations-platform	platform	21	Polygon	P_12	P	0	P-12	..\.Karty Synergii i Konfliktow\PIP-12.do	B, R, O	T, I, N, D, S, Kp	PR-16	P
installations-wave	wave energy	22	Polygon	P_14	P	0	P-14	..\.Karty Synergii i Konfliktow\PIP-14.do	B, R, O	T, I, D, N, S, Kp	PR-17	P
line	submarine cable and pipeline routes	23	Polygon	P_16	P	0	P-16	..\.Karty Synergii i Konfliktow\PIP-16.do	R, T, I	B, O, S, N, D, Kp	PR-10	P
line-electricity	electricity cable	24	Polygon	P_5	P	0	P-5	..\.Karty Synergii i Konfliktow\PIP-5.doc	B, O, R	T, I, N, D, S, C, Kp	PR-12	P
line-pipeline	pipeline	25	Polygon	P_4	P	4	P-4	..\.Karty Synergii i Konfliktow\PIP-4.doc	R, O, T	C, S, B, D, N, Kp	PR-11	P
line-telecom	telecommunication cable	26	Polygon	P_8	P	0	P-8	..\.Karty Synergii i Konfliktow\PIP-8.doc	B, R, O	T, I, D, N, S, Kp	PR-18	P
military	military areas	27	Polygon	P_3	P	0	P-3	..\.Karty Synergii i Konfliktow\PIP-3.doc	B, R, O	T, I, D, N, S, C, K	PR-6	P
military-training	military training areas	28	Polygon	M_1	M	0	M-1	..\.Karty Synergii i Konfliktow\MM-1.do	T, Ip, C, S, R	O, Kp, B, I, A, D, N, W	WRG-1	M
nature	nature and species conservation	29	Polygon	P_11	P	0	P-11	..\.Karty Synergii i Konfliktow\PIP-11.do	B, R, O	T, I, D, N, S, Kp	PR-5	P
nature-biodiversity	biodiversity	30	Polygon	P_9	P	0	P-9	..\.Karty Synergii i Konfliktow\PIP-9.doc	O, R, T	I, B, C, N, S, Kp, D, Ip	PR-1	P
		31	Polygon	P_2	P	0	P-2	..\.Karty Synergii i Konfliktow\PIP-2.doc	B, R, O	T, I, D, N, S, C, Kp	PR-2B	P
		32	Polygon	P_10	P	0	P-10	..\.Karty Synergii i Konfliktow\PIP-10.do	O, R, T	I, B, C, N, S, Kp, D	PR-3	P
		33	Polygon	P_1	P	0	P-1	..\.Karty Synergii i Konfliktow\PIP-1.doc	B, R, O	T, I, D, N, S, C, Kp, Ip	PR-2A	P
		34	Polygon	In_2	In	0	In-2	..\.Karty Synergii i Konfliktow\In-2.doc	T, C, O	R, S, R, I, D, N, Kp, W	IP-2	I
				träningsområden			sotilasharjoitusalueet			зоны военных учений		
				skyddade områden			luonnon- ja lajiensuojelu			защита видов и охрана природы		
				biodiversitet			luonnon monimuotoisuus			биоразнообразие		



SECURITY

Data model 1 overview:

Relational database, can be easily implemented with any ORDBMS (e.g. PostgreSQL)

Complicated to edit data in GIS desktop software, because of many relations (including N:M relation „Uses”)

Complicated to publish OGC web services

MSP output data model for Planned sea use

Planned sea uses

ID
Name
Code
...
MULTIPOLYGON
MSP area
Priority use
Use description
aquaculture
aquaculture-fish
aquaculture-mussel
aquaculture-plant
coast
coast-deposit
extraction
extraction-co2
... (56 attributes more)

Relational database proposal 2

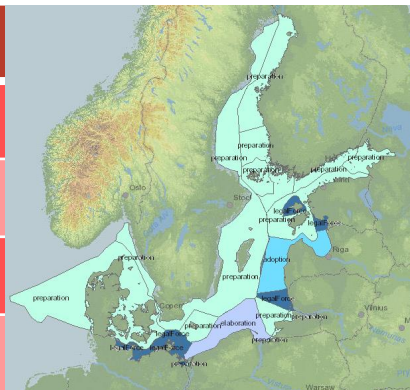
ID	Shore	Akwenn	Item	F	POST	vs	Label name	Link DOC	F	POP	Pr	F	POP	Pos	Label OK	F	Group			
0	Polysyn	C	1	C	1	C	1	Warty Systemi Kontiteav	CC-1	0	S	T	B	I	D	N	Kg	W	0B-1	C
1	Polysyn	C	2	C	1	C	1	Warty Systemi Kontiteav	CC-2	0	S	T	B	I	D	N	Kg	W	0B-2	C
2	Polysyn	C	3	C	1	C	1	Warty Systemi Kontiteav	CC-3	0	S	T	B	I	D	N	Kg	W	0B-3	C
3	Polysyn	C	4	C	1	C	1	Warty Systemi Kontiteav	CC-4	0	S	T	B	I	D	N	Kg	W	0B-4	C
4	Polysyn	C	5	C	1	C	1	Warty Systemi Kontiteav	CC-5	0	S	T	B	I	D	N	Kg	W	0B-5	C
5	Polysyn	C	6	C	1	C	1	Warty Systemi Kontiteav	CC-6	0	S	T	B	I	D	N	Kg	W	0B-6	C
6	Polysyn	C	7	C	1	C	1	Warty Systemi Kontiteav	CC-7	0	S	T	B	I	D	N	Kg	W	0B-7	C
7	Polysyn	C	8	C	1	C	1	Warty Systemi Kontiteav	CC-8	0	S	T	B	I	D	N	Kg	W	0B-8	C
8	Polysyn	C	9	C	1	C	1	Warty Systemi Kontiteav	CC-9	0	S	T	B	I	D	N	Kg	W	0B-9	C
9	Polysyn	C	10	C	1	C	1	Warty Systemi Kontiteav	CC-10	0	S	T	B	I	D	N	Kg	W	0B-10	C
10	Polysyn	P	25	P	1	P	25	Warty Systemi Kontiteav	PP-25	0	S	T	B	I	D	N	Kg	W	0B-11	P
11	Polysyn	P	26	P	1	P	26	Warty Systemi Kontiteav	PP-26	0	S	T	B	I	D	N	Kg	W	0B-12	P
12	Polysyn	P	27	P	1	P	27	Warty Systemi Kontiteav	PP-27	0	S	T	B	I	D	N	Kg	W	0B-13	P
13	Polysyn	P	28	P	1	P	28	Warty Systemi Kontiteav	PP-28	0	S	T	B	I	D	N	Kg	W	0B-14	P
14	Polysyn	P	29	P	1	P	29	Warty Systemi Kontiteav	PP-29	0	S	T	B	I	D	N	Kg	W	0B-15	P
15	Polysyn	P	30	P	1	P	30	Warty Systemi Kontiteav	PP-30	0	S	T	B	I	D	N	Kg	W	0B-16	P
16	Polysyn	P	31	P	1	P	31	Warty Systemi Kontiteav	PP-31	0	S	T	B	I	D	N	Kg	W	0B-17	P
17	Polysyn	P	32	P	1	P	32	Warty Systemi Kontiteav	PP-32	0	S	T	B	I	D	N	Kg	W	0B-18	P
18	Polysyn	P	33	P	1	P	33	Warty Systemi Kontiteav	PP-33	0	S	T	B	I	D	N	Kg	W	0B-19	P
19	Polysyn	P	34	P	1	P	34	Warty Systemi Kontiteav	PP-34	0	S	T	B	I	D	N	Kg	W	0B-20	P
20	Polysyn	P	35	P	1	P	35	Warty Systemi Kontiteav	PP-35	0	S	T	B	I	D	N	Kg	W	0B-21	P
21	Polysyn	P	36	P	1	P	36	Warty Systemi Kontiteav	PP-36	0	S	T	B	I	D	N	Kg	W	0B-22	P
22	Polysyn	P	37	P	1	P	37	Warty Systemi Kontiteav	PP-37	0	S	T	B	I	D	N	Kg	W	0B-23	P
23	Polysyn	P	38	P	1	P	38	Warty Systemi Kontiteav	PP-38	0	S	T	B	I	D	N	Kg	W	0B-24	P
24	Polysyn	P	39	P	1	P	39	Warty Systemi Kontiteav	PP-39	0	S	T	B	I	D	N	Kg	W	0B-25	P
25	Polysyn	P	40	P	1	P	40	Warty Systemi Kontiteav	PP-40	0	S	T	B	I	D	N	Kg	W	0B-26	P
26	Polysyn	P	41	P	1	P	41	Warty Systemi Kontiteav	PP-41	0	S	T	B	I	D	N	Kg	W	0B-27	P
27	Polysyn	P	42	P	1	P	42	Warty Systemi Kontiteav	PP-42	0	S	T	B	I	D	N	Kg	W	0B-28	P
28	Polysyn	P	43	P	1	P	43	Warty Systemi Kontiteav	PP-43	0	S	T	B	I	D	N	Kg	W	0B-29	P
29	Polysyn	P	44	P	1	P	44	Warty Systemi Kontiteav	PP-44	0	S	T	B	I	D	N	Kg	W	0B-30	P
30	Polysyn	P	45	P	1	P	45	Warty Systemi Kontiteav	PP-45	0	S	T	B	I	D	N	Kg	W	0B-31	P
31	Polysyn	P	46	P	1	P	46	Warty Systemi Kontiteav	PP-46	0	S	T	B	I	D	N	Kg	W	0B-32	P
32	Polysyn	P	47	P	1	P	47	Warty Systemi Kontiteav	PP-47	0	S	T	B	I	D	N	Kg	W	0B-33	P
33	Polysyn	P	48	P	1	P	48	Warty Systemi Kontiteav	PP-48	0	S	T	B	I	D	N	Kg	W	0B-34	P
34	Polysyn	P	49	P	1	P	49	Warty Systemi Kontiteav	PP-49	0	S	T	B	I	D	N	Kg	W	0B-35	P
35	Polysyn	P	50	P	1	P	50	Warty Systemi Kontiteav	PP-50	0	S	T	B	I	D	N	Kg	W	0B-36	P

Sea uses

ID
Code
Description
Danish
Estonian
Finnish
...

attribute code	sea use description	swedish description	finnish description	russian description
aquaculture	aquaculture	akvakuultuur	vesiviljelus	аквакультура
aquaculture-fish	fish	fish	kala	рыболовство
aquaculture-mussel	mussel	mussel	stimpukka	марикультура-стриж
aquaculture-plant	plant	plant	kasvi	марикультура-водоросль
coast	coast	coast	merenranta	береговая линия
coast-deposit	reserved areas for coast protection (e.g. reserved for prospective sand disposal areas)	sanddisponeringsområden		резервные участки берега
extraction	raw material extraction areas	materialutvinning	rakka-aineen ottoluuet	зачерпываемые полезные ископаемые
extraction-co2	CO2	CO2	hiilidioksiidi	CO2
extraction-oil	oil	oil	õli	нефть
extraction-sand	sand and gravel	sand and gravel	hiekka ja sorja	песок и щебень
extraction-fishing	fishing	fishing	kalastus	рыболовство
extraction-industrial	industrial fishing	industrial fishing	teollisuuskalastus	промышленное рыболовство
extraction-recreational	recreational fishing	recreational fishing	harrastuskalastus	любительское рыболовство
extraction-small boat	small boat fishing	small boat fishing	pienoisaluskalastus	рыбная ловля
general	future reservation for undefined activities or general use	planeerida omadused	tulevaisuuden varaus	перспективное резервирование
harbour	unseawater cultural harbour	kuhukalvemet	võdekalvemet	культурное водохранилище
harbour-landscape	landscape protection	luonnonmuutos	luonnonmuutos	охрана ландшафта и биоразнообразия
harbour-works	works	work	työ	строительные работы
installations	installations and infrastructures	installations	rakennukset ja infrastruktuuri	сооружения и инфраструктура
installations-off	offshore wind farm	offshore wind farm	tuulivoimala	ветряная электростанция
installations-offshore	offshore	offshore	merellä	в открытом море
installations-onshore	onshore	onshore	rannalla	на берегу
line	telecommunication cable and pipeline routes	viikot ja putket	viikot ja putket	линии связи и трубопроводы
line-electricity	electricity cable	elektrilise joht	elektrilise joht	электрокабель
line-pipeline	oil and gas pipeline	õli- ja gaasijuhud	õli- ja gaasijuhud	нефтегазоводопровод
line-telecom	telecommunication cable	telekommunikatsioonijuhud	telekommunikatsioonijuhud	телекоммуникационный кабель
military	military areas	militaari alad	militaari alad	военные объекты
military-training	military training areas	militaari harjutusala	militaari harjutusala	военные учебные полигоны
nature	nature and species conservation	luonnon ja laajennus	luonnon ja laajennus	охрана природы и биоразнообразия
nature-biodiversity	biodiversity	bioluonnonmuutos	bioluonnonmuutos	биоразнообразие

MSP areas
ID
planId
officialTitle
levelOfSpatial Plan
processStep
...
Geometry



The same National MSP table model for line and point plans

MSP output data model for Planned sea use

National MSP table with added attributes (from proposal 2)

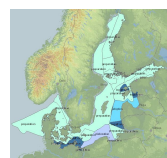
ID	Name	Code	...	Geom	MSP area	Priority use	Use description	aquaculture	aquaculture-fish	aquaculture-mussel	aquaculture-plant	coast	coast-deposit	extraction	extraction-co2	...
1	12	44	...	a	a	a	a			f	f	...
2	8	60	...					a				...
3	20	25	...					r	r	a	a	...
4	5	17	...	f	f	f	f	r	r			...
...

National MSP attributes

PL_data_2	FID	Shape	Access	Name	F_POOST	via	Label	name	Link	DOC	F_DOP	Pr	F_DOP	Box	Label	Ord	F_Groups
1	0	Polygon	C	1	C	0	C1	...	...	...	...	...	...	...	...	...	...

Links to MSP area and Sea use tables

Area	Sea use	Table
...
...
...



Text desc. of sea use

Allowed, restricted, forbidden uses attributes

Area	Sea use	Table
...
...
...

Data model 2 overview:

Relational database, can be easily implemented with any ORDBMS (e.g. PostgreSQL)

Easier to edit in GIS Desktop software (only 2 relations 1:1)

Many attributes in the main table

Easier publish OGC web services

Benefits:

National MSP datasets can preserve country specific attributes

Planned sea use objects can be symbolized using Priority use attribute value and Sea use type (priority, allowed, restricted, forbidden)

Planned sea uses can be filtered for display and download by Priority use attribute value and Sea use type

How to harmonize Planned sea use datasets?

Step 4: Implement a web-based form to fill in Planned sea use attribute information.

Step 5: Fill in Planned sea use attribute information. (Using web-based form or, if data model 2, using GIS desktop software).

Step 6: If filled in using web-based form, then export to GIS format.

Step 7: Publish OGC services.

Web-based form to fill in Planned sea use attribute information

Harmonize national MSP dataset

Upload MSP dataset

Upload

PL_data_2										
FID	Shape	Akwen Name	F PODST	vis	Label name	Link DOC	F DOP Pr	F DOP Poz	Label Old	F Group
0	Polygon	C_1	C	0	C-1	..A.Karty Synergii i Konfliktow\CIC-1.do	O, R, S	T, B, I, D, N, Kp, W	OB-1	C
1	Polygon	C_2	C	0	C-2	..A.Karty Synergii i Konfliktow\CIC-2.do	O, R, S	T, B, I, D, N, Kp, W	OB-2	C
2	Polygon	C_3	C	0	C-3	..A.Karty Synergii i Konfliktow\CIC-3.do	O, R, S	T, B, I, D, N, Kp, W	OB-3	C
3	Polygon	C_4	C	0	C-4	..A.Karty Synergii i Konfliktow\CIC-4.do	O, R, S	T, B, I, D, N, Kp, W	OB-3A	C
4	Polygon	C_5	C	0	C-5	..A.Karty Synergii i Konfliktow\CIC-5.do	O, R, S	T, Ip, B, I, D, N, Kp	OB-4	C
5	Polygon	C_6	C	0	C-6	..A.Karty Synergii i Konfliktow\CIC-6.do	O, R, S	T, B, I, D, N, Kp, W	OB-5	C
6	Polygon	C_7	C	0	C-7	..A.Karty Synergii i Konfliktow\CIC-7.do	B, O, R	S, T, Ip, I, D, N, Kp, W	OB-5A	C
7	Polygon	C_8	C	4	C-8	..A.Karty Synergii i Konfliktow\CIC-8.do	B, R, S	O, T, B, D, N, Kp, W	OB-6	C
8	Polygon	C_9	C	0	C-9	..A.Karty Synergii i Konfliktow\CIC-9.do	Ip, R, S	O, T, D, N, Kp, W	OB-8	C
9	Polygon	P_26	P	0	P-26	..A.Karty Synergii i Konfliktow\PIP-26.do	B, R, K	T, O, I, D, N, S	PR-13A	P
10	Polygon	P_25	P	0	P-25	..A.Karty Synergii i Konfliktow\PIP-25.do	B, R, K	T, I, N, D, S, O	PR-13	P
11	Polygon	P_23	P	0	P-23	..A.Karty Synergii i Konfliktow\PIP-23.do	B, R, K	T, I, N, D, S, O	PR-14A	P
12	Polygon	P_22	P	0	P-22	..A.Karty Synergii i Konfliktow\PIP-22.do	B, R, K	T, I, N, D, S, O	PR-14	P
13	Polygon	P_24	P	0	P-24	..A.Karty Synergii i Konfliktow\PIP-24.do	T, O	R, I, B, N, S, Kp, D	PR-8	P
14	Polygon	P_19	P	0	P-19	..A.Karty Synergii i Konfliktow\PIP-19.do	B, R, K	T, I, N, D, S, O	PR-15A	P
15	Polygon	P_21	P	0	P-21	..A.Karty Synergii i Konfliktow\PIP-21.do	B, R, O	T, I, D, N, S, Kp	PR-7B	P
16	Polygon	P_18	P	0	P-18	..A.Karty Synergii i Konfliktow\PIP-18.do	B, R, K	T, I, N, D, S, O	PR-15	P
17	Polygon	P_17	P	0	P-17	..A.Karty Synergii i Konfliktow\PIP-17.do	B, R, O	T, I, D, N, S, Kp	PR-9	P
18	Polygon	P_20	P	0	P-20	..A.Karty Synergii i Konfliktow\PIP-20.do	R, O, T	I, B, N, S, Kp, D	PR-7A	P
19	Polygon	P_13	P	0	P-13	..A.Karty Synergii i Konfliktow\PIP-13.do	B, R, O	T, I, D, N, S, Kp	PR-16A	P
20	Polygon	P_15	P	0	P-15	..A.Karty Synergii i Konfliktow\PIP-15.do	B, R, O	T, I, D, N, S, Kp	PR-4	P
21	Polygon	P_12	P	0	P-12	..A.Karty Synergii i Konfliktow\PIP-12.do	B, R, O	T, I, N, D, S, Kp	PR-16	P
22	Polygon	P_14	P	0	P-14	..A.Karty Synergii i Konfliktow\PIP-14.do	B, R, O	T, I, D, N, S, Kp	PR-17	P
23	Polygon	P_16	P	0	P-16	..A.Karty Synergii i Konfliktow\PIP-16.do	R, T, I	B, O, S, N, D, Kp	PR-10	P
24	Polygon	P_5	P	0	P-5	..A.Karty Synergii i Konfliktow\PIP-5.doc	B, O, R	T, I, N, D, S, C, Kp	PR-12	P
25	Polygon	P_4	P	4	P-4	..A.Karty Synergii i Konfliktow\PIP-4.doc	R, O, T	C, S, B, D, N, Kp	PR-11	P
26	Polygon	P_8	P	0	P-8	..A.Karty Synergii i Konfliktow\PIP-8.doc	B, R, O	T, I, D, N, S, Kp	PR-18	P
27	Polygon	P_3	P	0	P-3	..A.Karty Synergii i Konfliktow\PIP-3.doc	B, R, O	T, I, D, N, S, C, K	PR-6	P
28	Polygon	M_1	M	0	M-1	..A.Karty Synergii i Konfliktow\MM-1.do	T, Ip, C, S, R	O, Kp, B, I, A, D, N, W	WRG-1	M
29	Polygon	P_11	P	0	P-11	..A.Karty Synergii i Konfliktow\PIP-11.do	B, R, O	T, I, D, N, S, Kp	PR-5	P
30	Polygon	P_9	P	0	P-9	..A.Karty Synergii i Konfliktow\PIP-9.doc	O, R, T	I, B, C, N, S, Kp, D, Ip	PR-1	P
31	Polygon	P_2	P	0	P-2	..A.Karty Synergii i Konfliktow\PIP-2.doc	B, R, O	T, I, D, N, S, C, Kp	PR-2B	P
32	Polygon	P_10	P	0	P-10	..A.Karty Synergii i Konfliktow\PIP-10.do	O, R, T	I, B, C, N, S, Kp, D	PR-3	P
33	Polygon	P_1	P	0	P-1	..A.Karty Synergii i Konfliktow\PIP-1.doc	B, R, O	T, I, D, N, S, C, Kp, Ip	PR-2A	P
34	Polygon	In_2	In	0	In-2	..A.Karty Synergii i Konfliktow\In-2.doc	T, C, O	R, S, B, I, D, N, Kp, W	IP-2	I

Select all

Unselect all

Save

Choose a priority use

▼

- aquaculture
- aquaculture-fish
- aquaculture-mussel
- aquaculture-plant
- coast
- ...

Enter use description

Choose allowed uses

- aquaculture
- aquaculture-fish
- aquaculture-mussel
- aquaculture-plant
- coast
- ...

Choose restricted uses

- aquaculture
- aquaculture-fish
- aquaculture-mussel
- aquaculture-plant
- coast
- ...

Choose forbidden uses

- aquaculture
- aquaculture-fish
- aquaculture-mussel
- aquaculture-plant
- coast
- ...

Export planned sea use dataset

Publishing Planned sea use datasets?

- Step 1: Prepare map document (e.g. MXD in ArcMap) with Planned sea uses layers (one for each: polygon, line and point if needed).
- Step 2: Define cartographic representation for each layer based on Priority use attribute.
- Step 3: Publish map document with Planned sea use layers (polygon, line, point) as one OGC WMS service.
- Step 4: Publish Planned sea uses datasets (polygon, line, point) as one OGC WFS service.
- Step 5: Publish static MSP areas dataset as OGC WFS service and Sea use table.

Baltic MSP web-map (BASEMAPS)

BASEMAPS Baltic LINES

Search...

- Administrative borders
- Maritime transport
- Installations and Infrastructures
- Nature
- Extraction areas
- Cables and pipelines
- Underwater cultural heritage
- Military training areas
- MSP national plans

[Collapse layer list](#) [Hide all layers](#)

Country

- Denmark
- Estonia
- Finland
- Germany
- Latvia
- Lithuania
- Poland
- Russia
- Sweden

Use type

- Priority use
- Allowed use
- Restricted use
- Forbidden use

Sea use

- ...
- heritage
- heritage-landscape
- heritage-wreck
- installations
- installations-owf
- installations-platform
- installations-wave
- line
- ...

Show MSP plans

Show

GetFeature
request sent to
WFS servise

Baltic MSP web-map (BASEMAPS)

The screenshot displays the BASEMAPS web-map interface for the Baltic Sea region. The interface includes a search bar at the top left, a layer list on the left side, and a map area on the right. The layer list contains the following items:

- Administrative borders
- Maritime transport
- Installations and Infrastructures
- Nature
- Extraction areas
- Cables and pipelines
- Underwater cultural heritage
- Military training areas
- MSP national plans

Below the layer list, there are links for [Collapse layer list](#) and [Hide all layers](#). The map area shows the Baltic Sea with various features. A search bar at the top left contains the text "Search...". A "Show MSP plans" button is located in the top right corner. A legend box on the right side of the map displays the following information:

Countries:
Latvia
Poland

Sea use type:
Priority use

Sea use:
installations-owf

Two orange boxes highlight specific areas on the map, with orange arrows pointing from a text box on the right to these areas. The text box contains the following text:

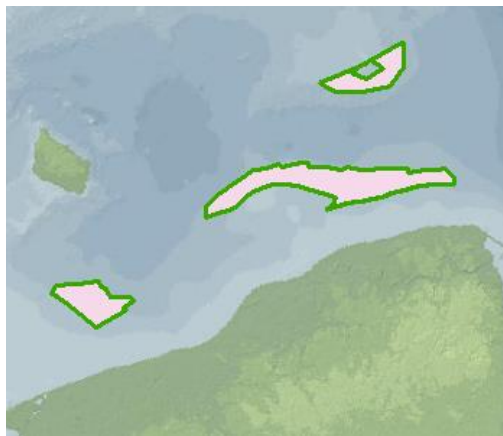
WFS features rendered using predefined homogenous symbology

Suggestions for cartographic representation (for WFS)

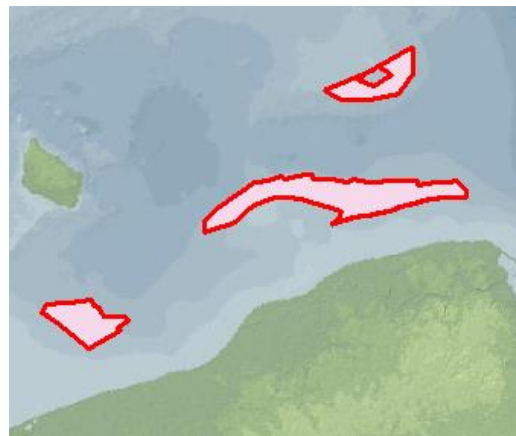
Homogenous symbology for all Sea uses.
Applied in BASEMAPS on run-time rendering.

For polygon data only fill symbol (solid color, transparency, pattern, gradient). No contour line.

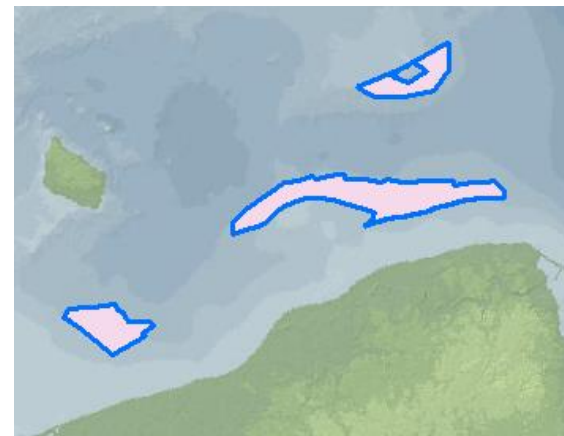
Homogenous symbology for Sea use type – a contour line.
E.g: Priority use – rgb(56, 168, 0). Forbidden use – rgb(255, 0, 0).



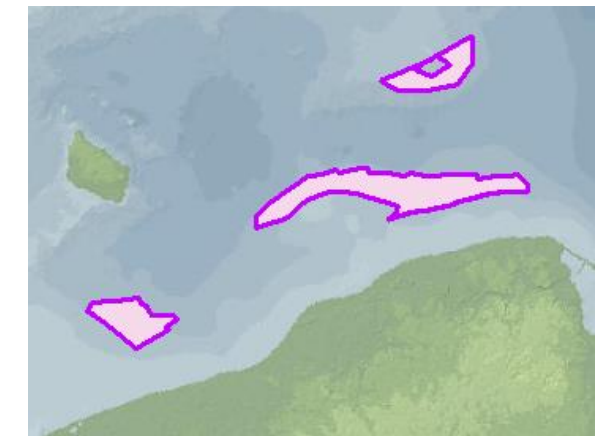
Priority use



Forbidden use



Allowed use



Restricted use

Baltic MSP web-map (BASEMAPS)

National plans overview (WMS)

Include MSP plans in BASEMAPS

Display national MSP plan WMS layer (for whole area overview)

Show WMS layer info and metadata

The screenshot displays the BASEMAPS web-map interface for the Baltic region. The interface includes a search bar at the top left, a list of layers on the left side, and a main map area on the right. The map shows the Baltic Sea and surrounding landmasses, with various colored and patterned areas representing different maritime spatial planning (MSP) plans. A red button labeled "Show MSP plans" is located in the top right corner of the map area. An inset map in the bottom left corner provides a detailed view of a specific area, showing a complex network of blue lines and colored polygons. The layer list on the left is organized by country, with "MSP national plans" highlighted in blue. Under "Latvia", the "Planned sea use (polygon)" layer is checked. Under "Poland", the "Planned sea use (polygon)" layer is also checked. At the bottom of the layer list, there are links for "Collapse layer list" and "Hide all layers".

BASEMAPS Baltic LINes

Search...

- Administrative borders
- Maritime transport
- Installations and Infrastructures
- Nature
- Extraction areas
- Cables and pipelines
- Underwater cultural heritage
- Military training areas
- MSP national plans**
 - Denmark
 - Estonia
 - Finland
 - Germany
 - Latvia**
 - Planned sea use (polygon)
 - Planned sea use (line)
 - Planned sea use (point)
 - Lithuania
 - Poland**
 - Planned sea use (polygon)
 - Planned sea use (line)
 - Planned sea use (point)
 - Russia
 - Sweden

Collapse layer list Hide all layers

Show MSP plans

Suggestions for cartographic representation (for WMS)

Symbology for all Sea uses defined and published with the WMS services.

Homogenous Sea uses symbology (same as used for WFS) if possible.

Thank you.