

BALTIC 4th FORUM MSP

1-2 JUNE 2021, ONLINE

ClimeMarine

CLIMATE CHANGE AND SYMPHONY

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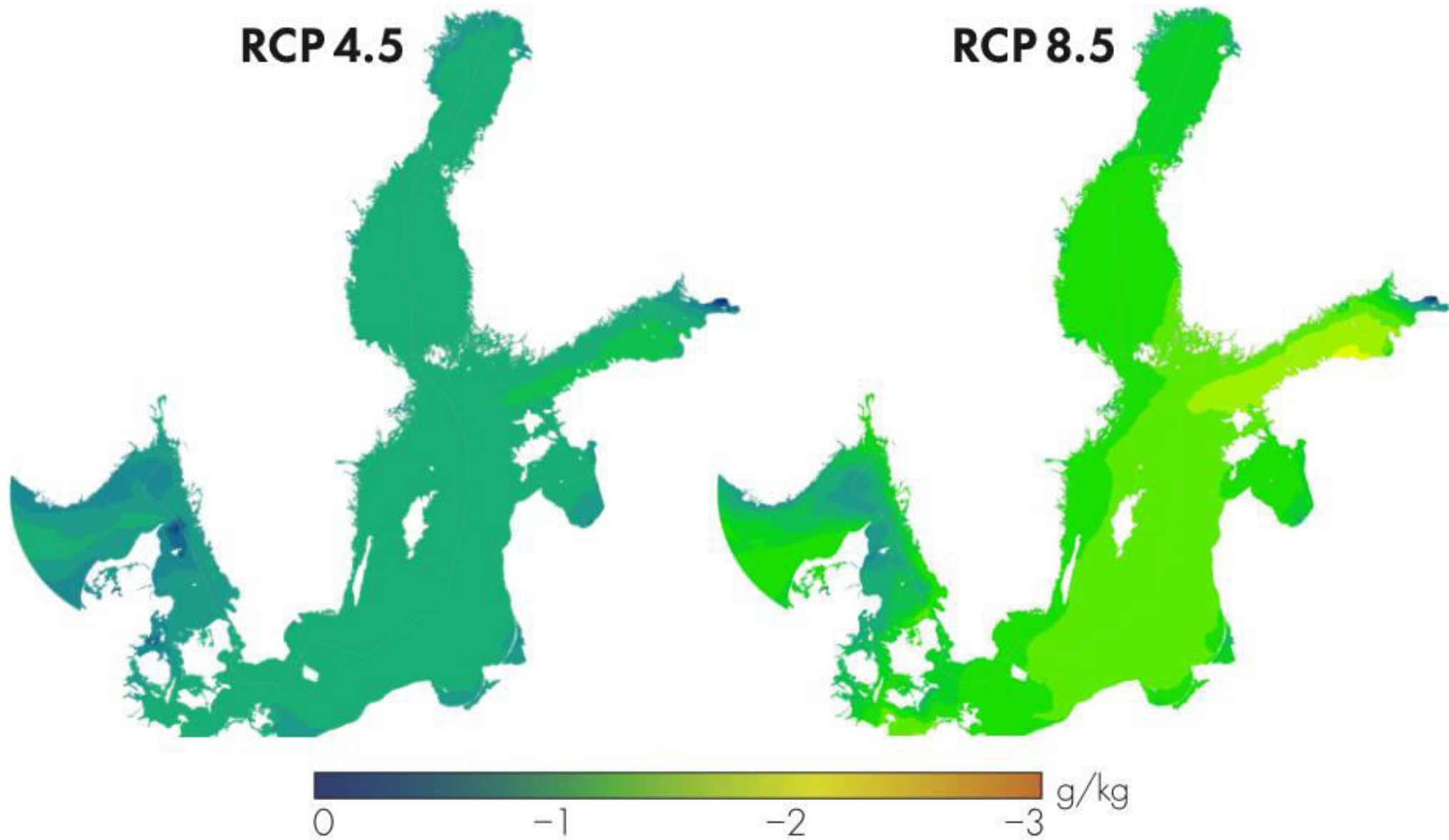


MARINE SPATIAL PLANNING IN A CHANGING CLIMATE

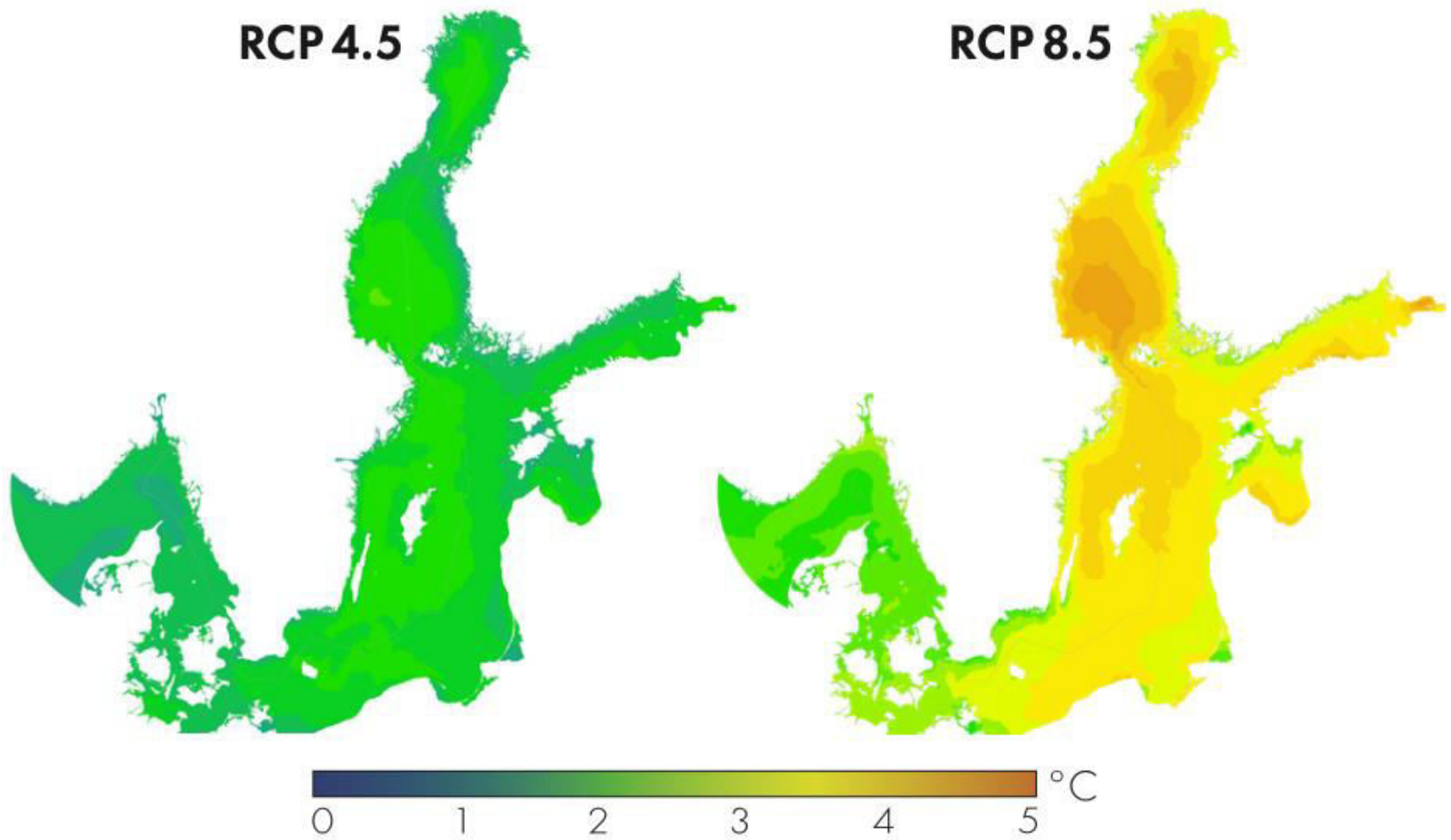
The ClimeMarine project encourages ecosystem-based management of the Swedish sea with consideration of climate change; through close contact with stakeholders and decision-makers.



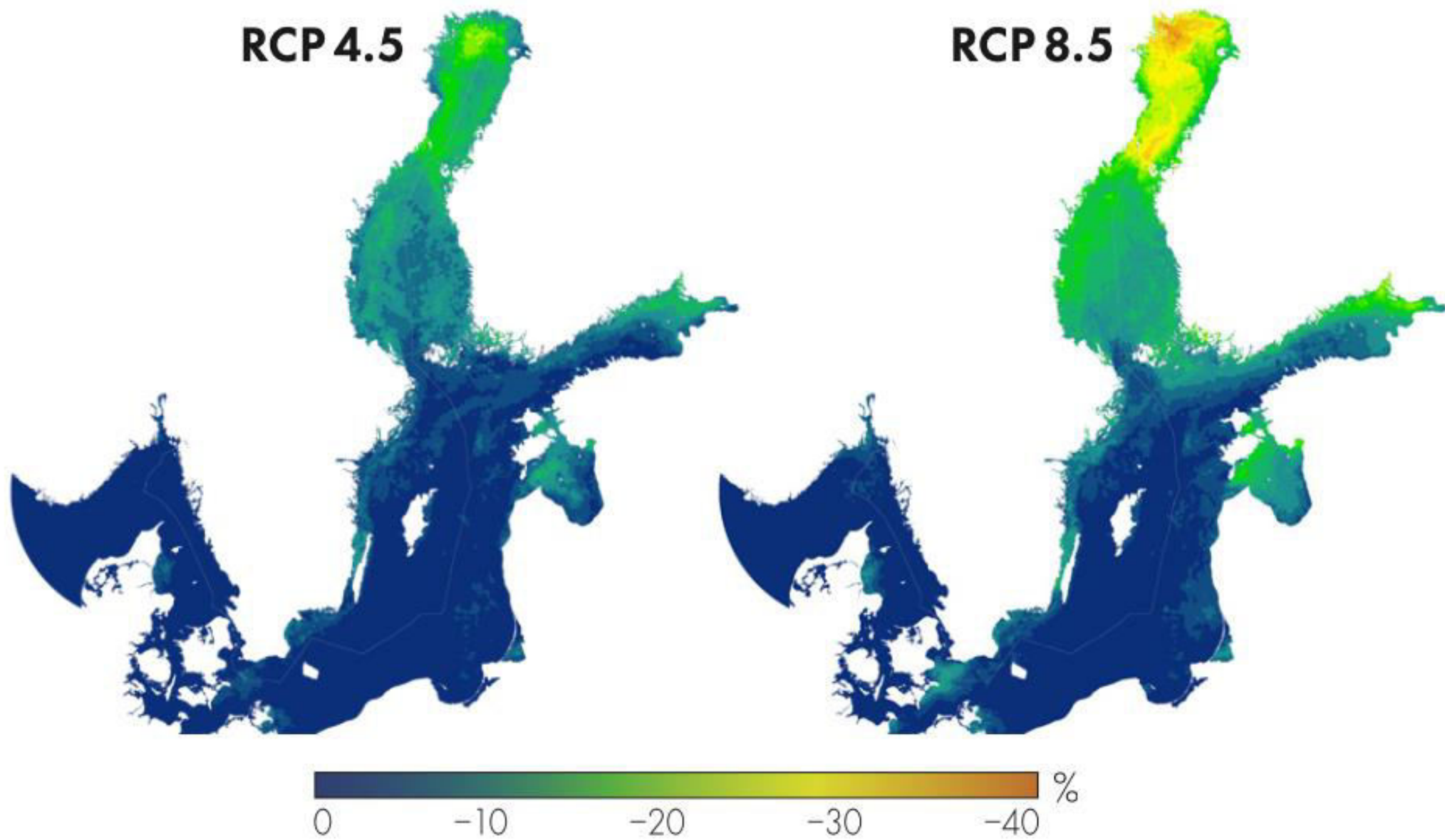
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Surface salinity decrease by the end of the century under RCP 4.5 and RCP 8.5 in the sea surrounding Sweden.



Surface water temperature increase by the end of the century under RCP 4.5 and RCP 8.5 in the sea surrounding Sweden.

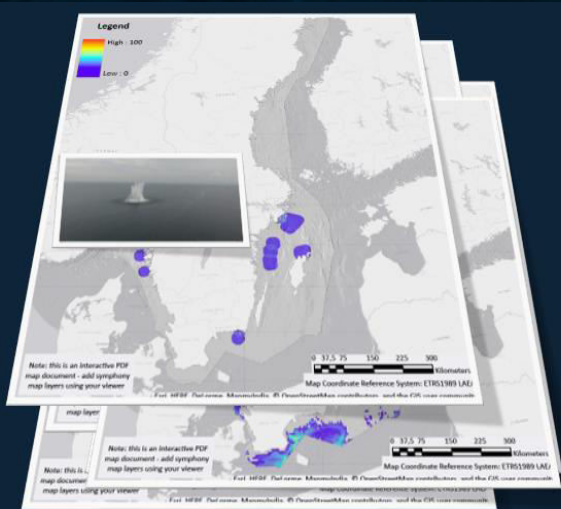


Winter sea ice cover reduction by the end of the century under RCP 4.5 and RCP 8.5 in the seas surrounding Sweden.

Symphony

Pressures

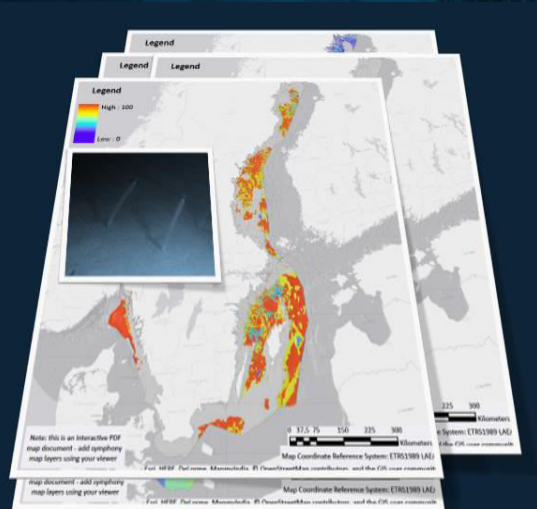
from human activities
40 maps



×

Nature values

Ecosystem components
34 maps



×

Sensitivity matrix

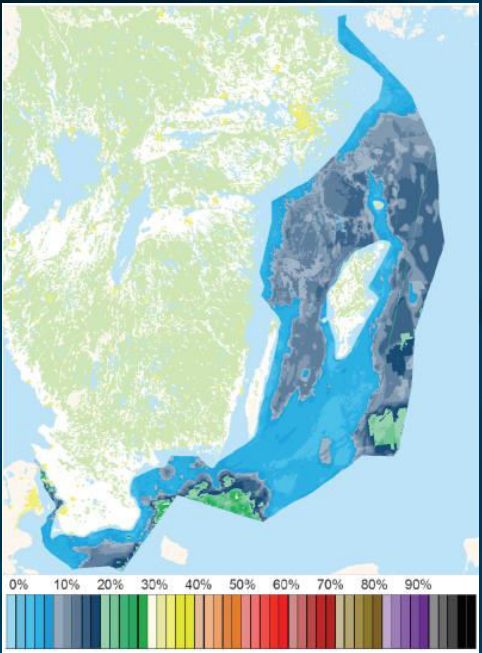
Effect of each pressure on each nature value

Pressure	Marine mammals	Marine birds	Marine fish	Marine invertebrates	Marine plants	Terrestrial mammals	Terrestrial birds	Terrestrial fish	Terrestrial invertebrates	Terrestrial plants	Marine mammals	Marine birds	Marine fish	Marine invertebrates	Marine plants	Terrestrial mammals	Terrestrial birds	Terrestrial fish	Terrestrial invertebrates	Terrestrial plants
...

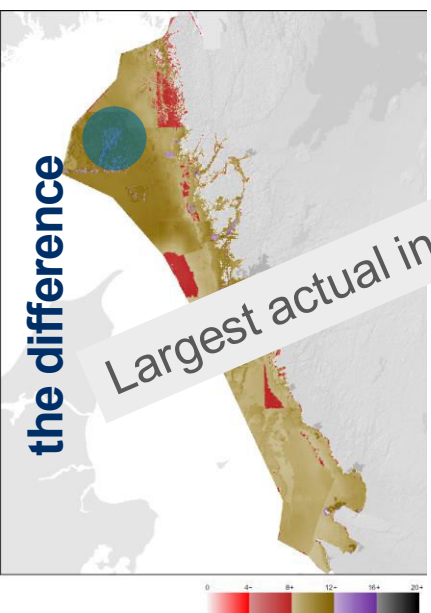
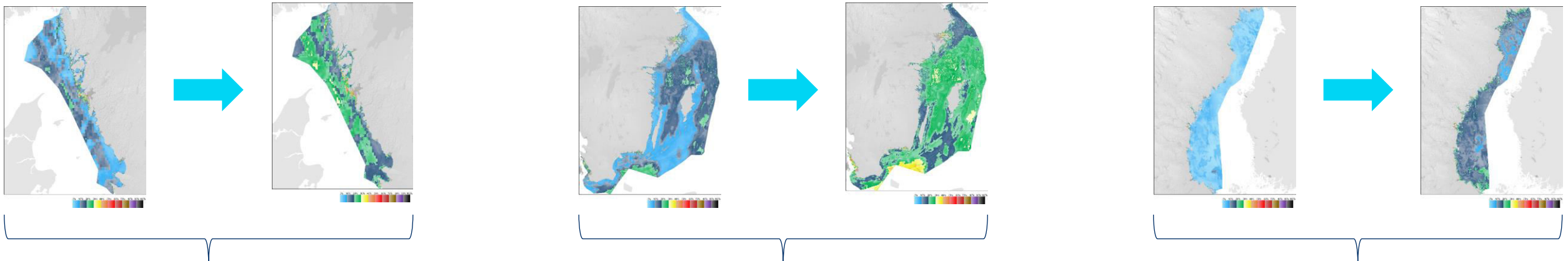
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Result

maps & tables



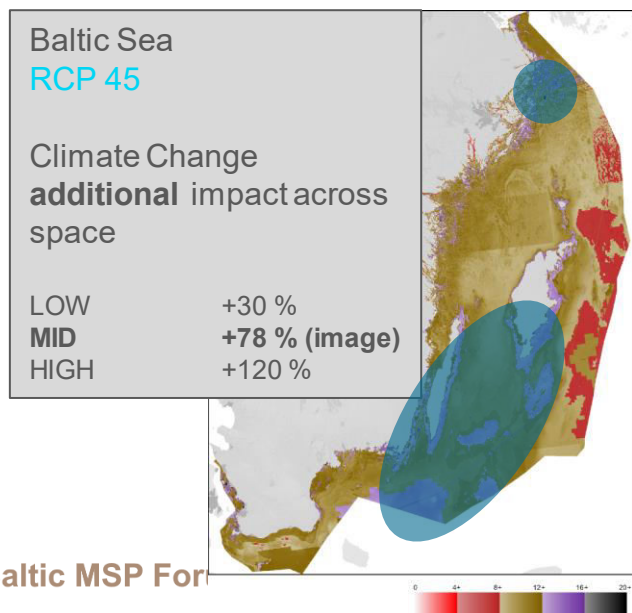
RCP 4.5 : MID model difference to current state



Western Seas
RCP 45

Climate Change
additional impact across space

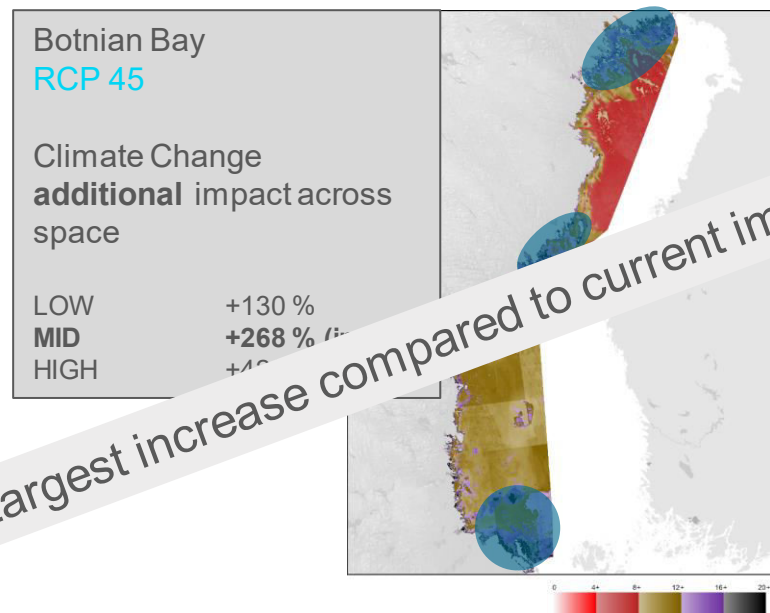
LOW	+43 %
MID	+78 % (image)
HIGH	+111 %



Baltic Sea
RCP 45

Climate Change
additional impact across space

LOW	+30 %
MID	+78 % (image)
HIGH	+120 %

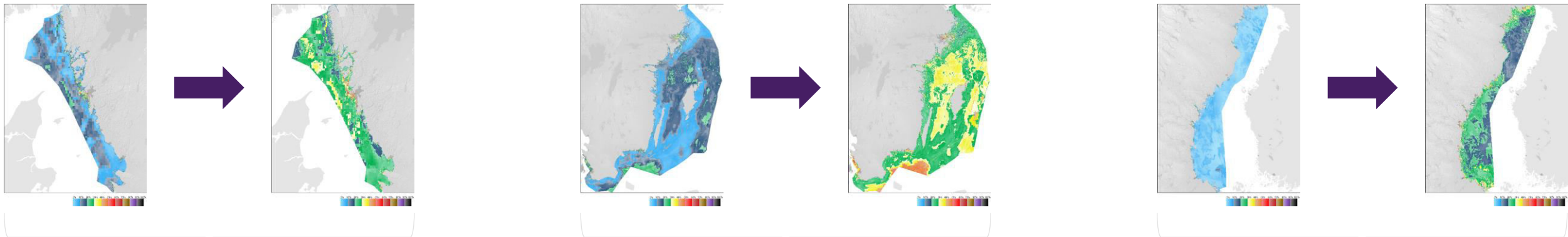


Botnian Bay
RCP 45

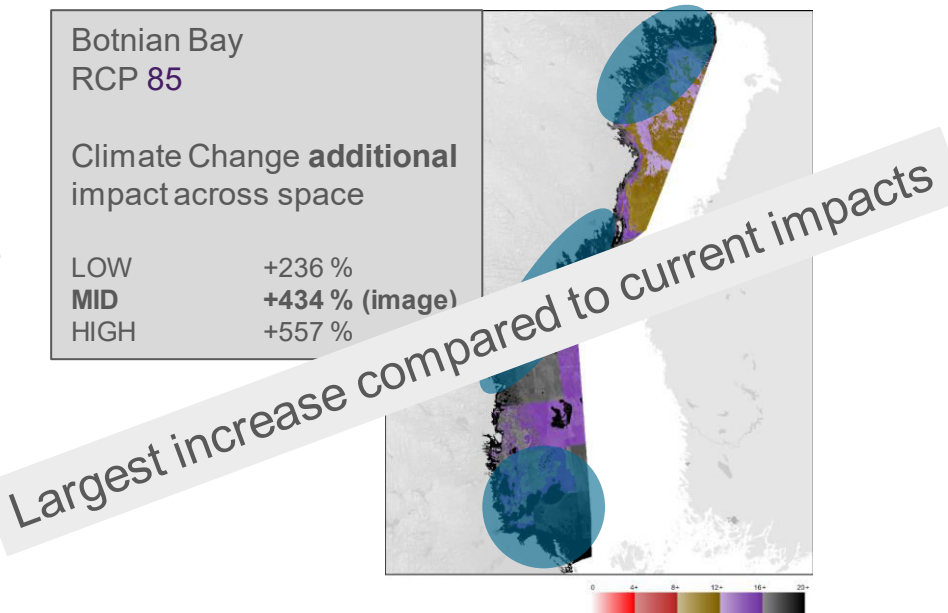
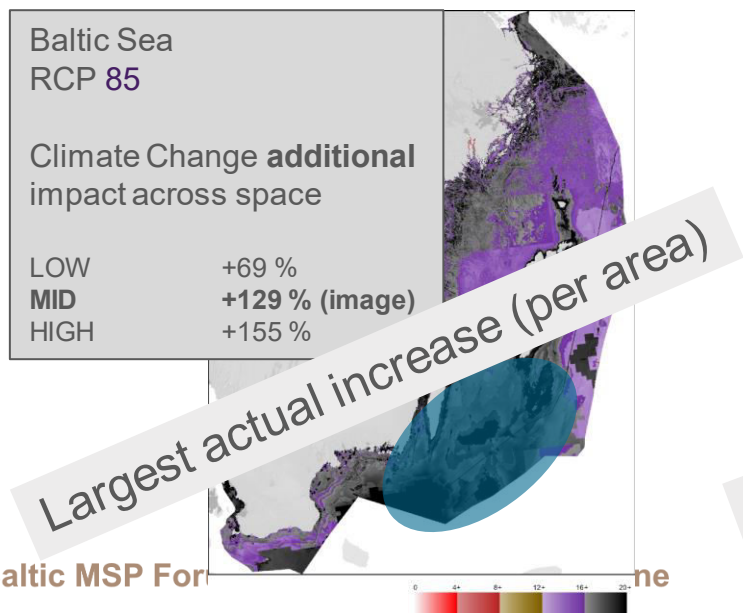
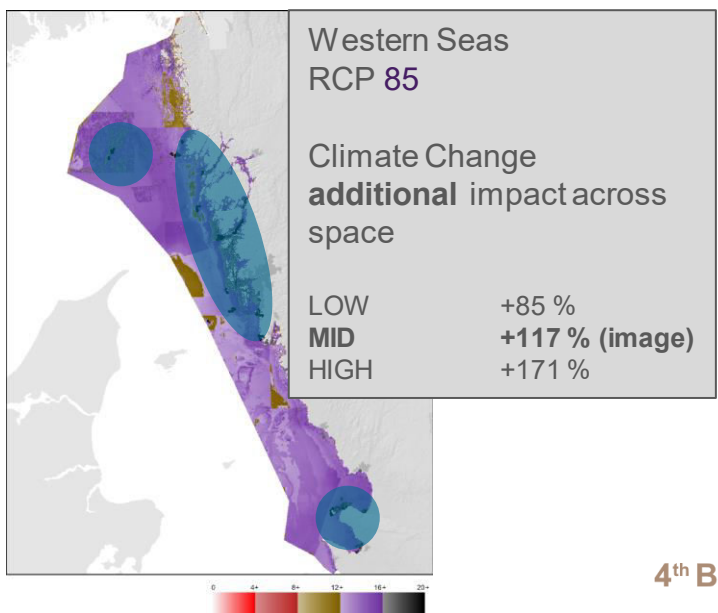
Climate Change
additional impact across space

LOW	+130 %
MID	+268 % (image)
HIGH	+400 %

RCP 8.5 : MID model difference to current state



the difference





Messages

- Climate change impacts at end of century = all other environmental pressures combined
- Many uncertainties and assumptions, but best available data
- Data will be available through SMHI, SwAM and HELCOM autumn 2021

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Delivering MSP
Interactions and Capacities
Across All Levels

Liels paldies!

