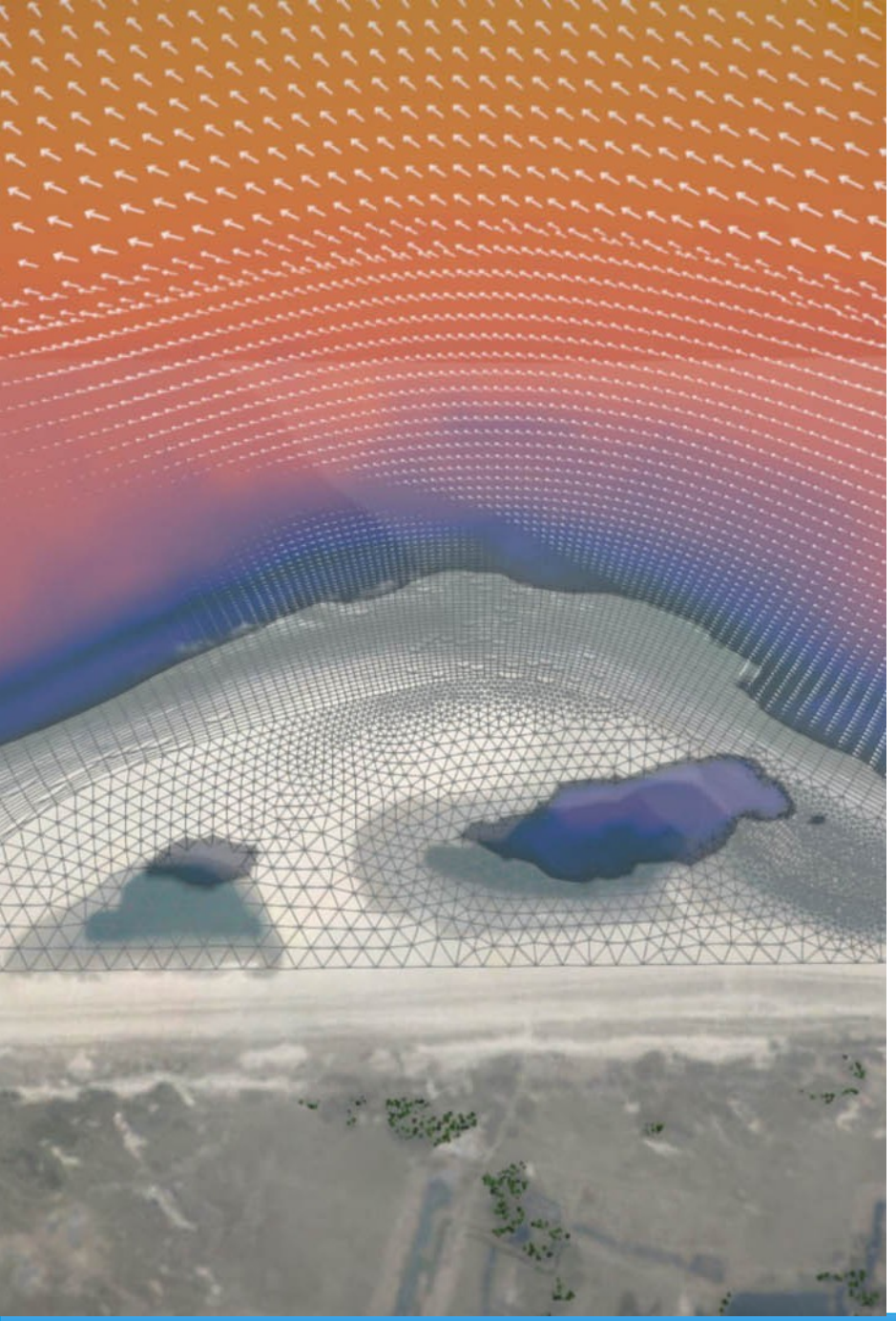


DigiShape

NSEC in DigiTwin
Maps scenario study
part 1 (developments 2030)

Rob Gerits RWS-ZD

What is NSEC?

NSEC=North Seas energy Cooperation

- Cooperating on a voluntary base on offshore renewable energy development,
- To facilitate the further cost-effective deployment of offshore renewable energy, in particular wind, with the aim of ensuring a sustainable, secure and affordable energy supply in the North Seas countries.
- Cooperation supported on a policy level by ministers of Energy.

Involved are:

Ireland, France, UK(), Belgium, The Netherlands, Luxembourg, Germany, Denmark, Sweden, Norway and the EC.

MSP and ecology in the NSEC

Work programme 2020-2023

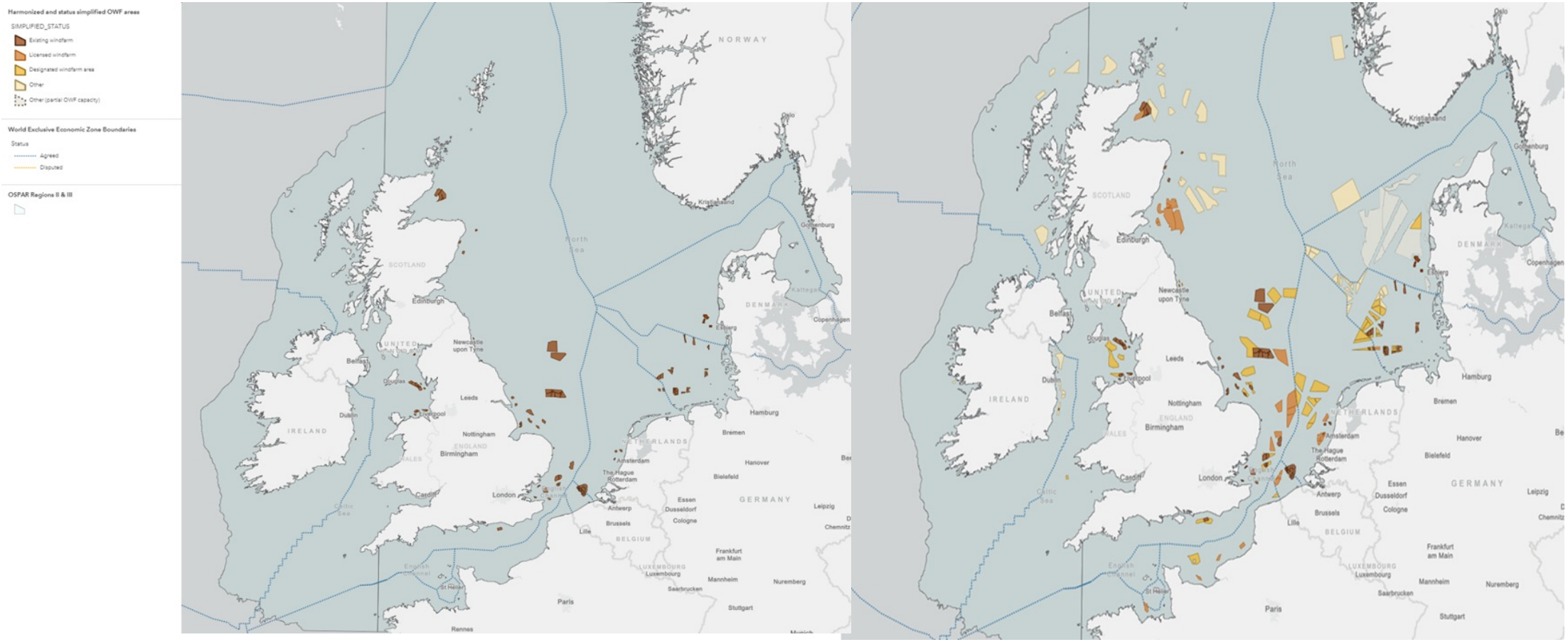
Recognizing that space in the North Seas is finite, there is a need to better understand the possible ecological limits of large scale wind development in the North Seas and the spatial implications related to other uses.

- Develop concepts for coordinated planning and development of offshore wind and grid planning
- Develop scenarios for designating further areas for offshore wind
- Develop further tools for cumulative impacts from offshore renewable energy, as a support tool for MSP

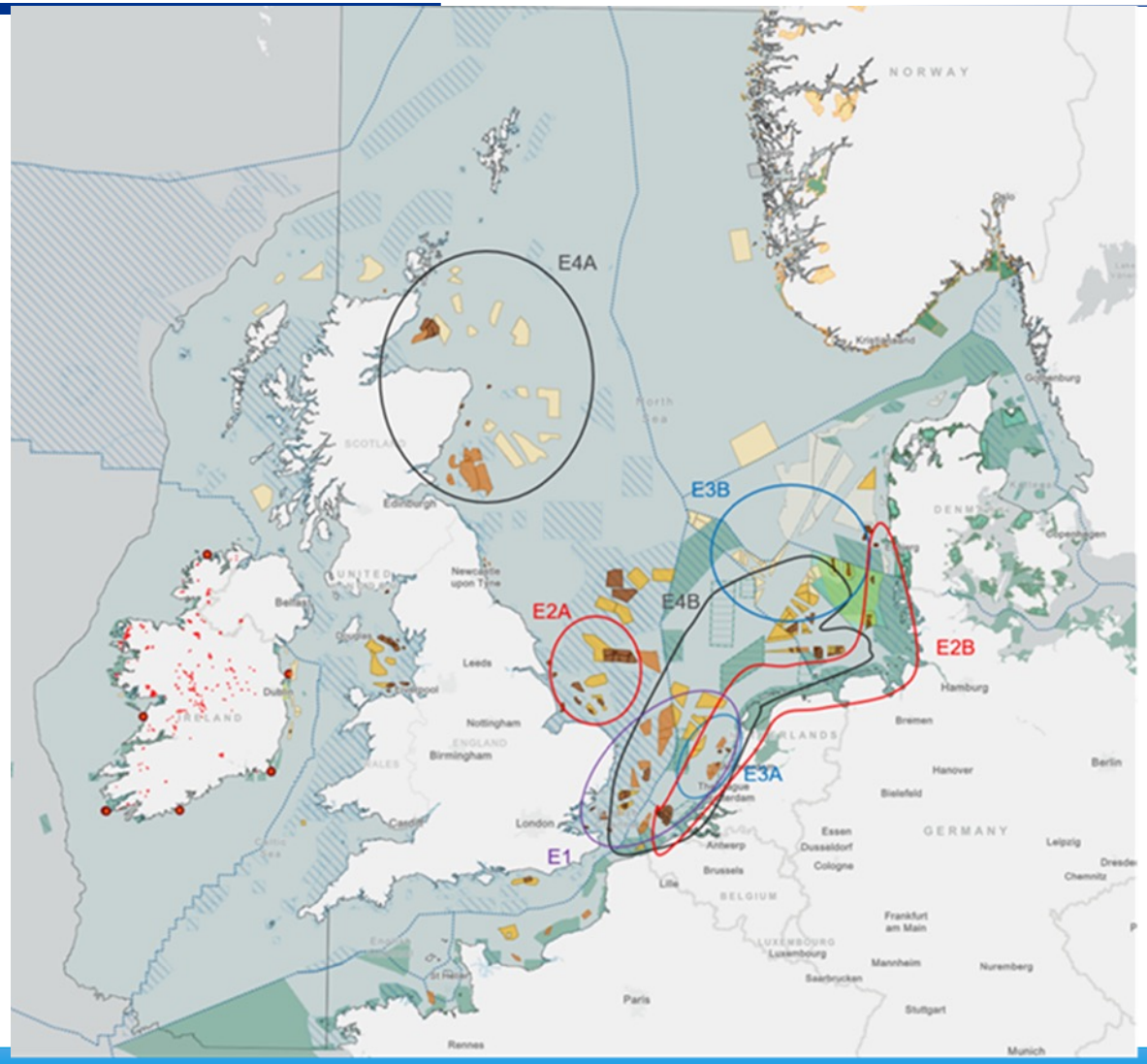
Dublin Joint Declaration September 2022

- Explore options for better integration of spatial planning and regional strategies within a 2050 scenario study

Scenario study part 1
Effects of developments OWF 2030



Hotspots potential spatial conflicts: Ecology



OSPAR MPA 2021 (ODIMS)

Natura 2000 - Habitats and Birds Directive Sites

Ecology

Ireland (MarinePlan.ie)

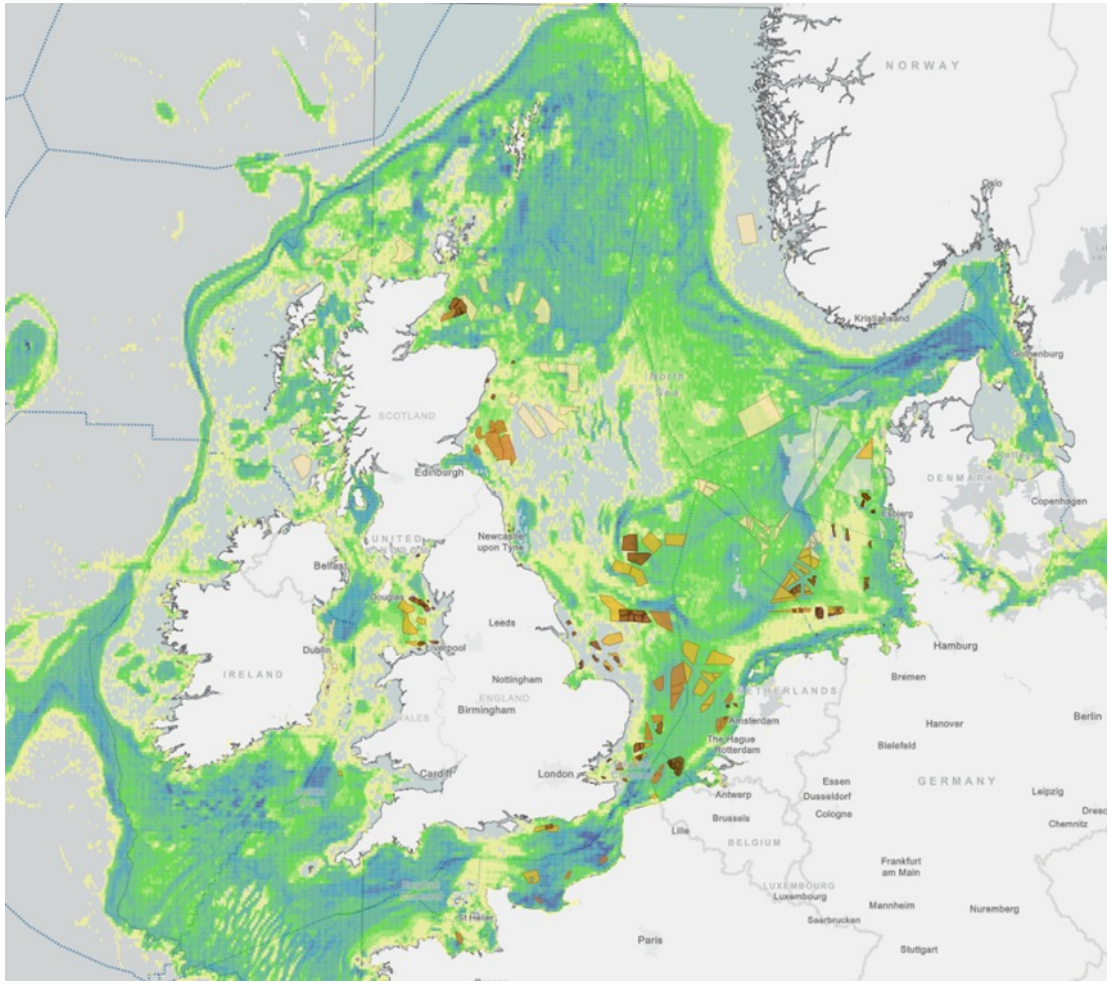
NMPF 5 1 2 Protected Marine Sites - Natural Heritage Area

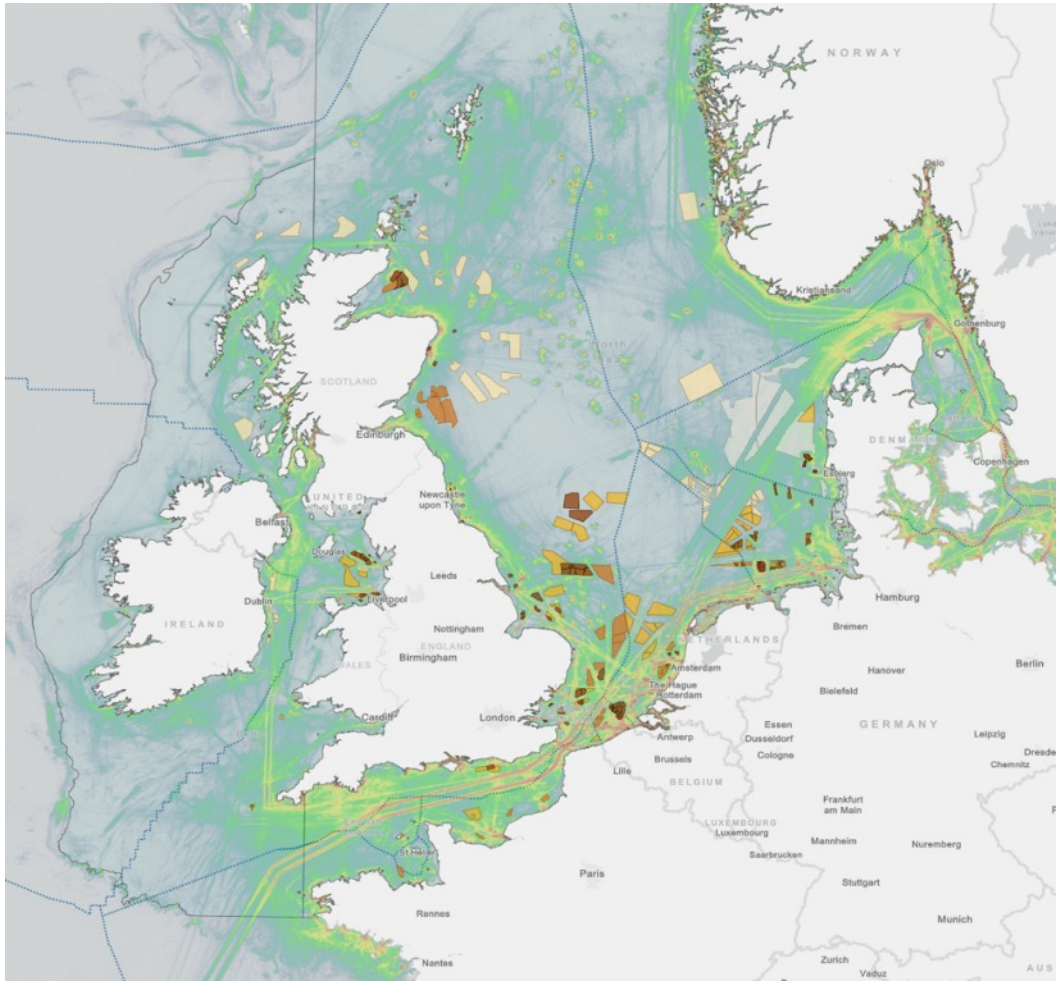
NMPF 5 1 2 Protected Marine Sites - Refuges For Local Fauna

Remaining color indications:
ecology areas

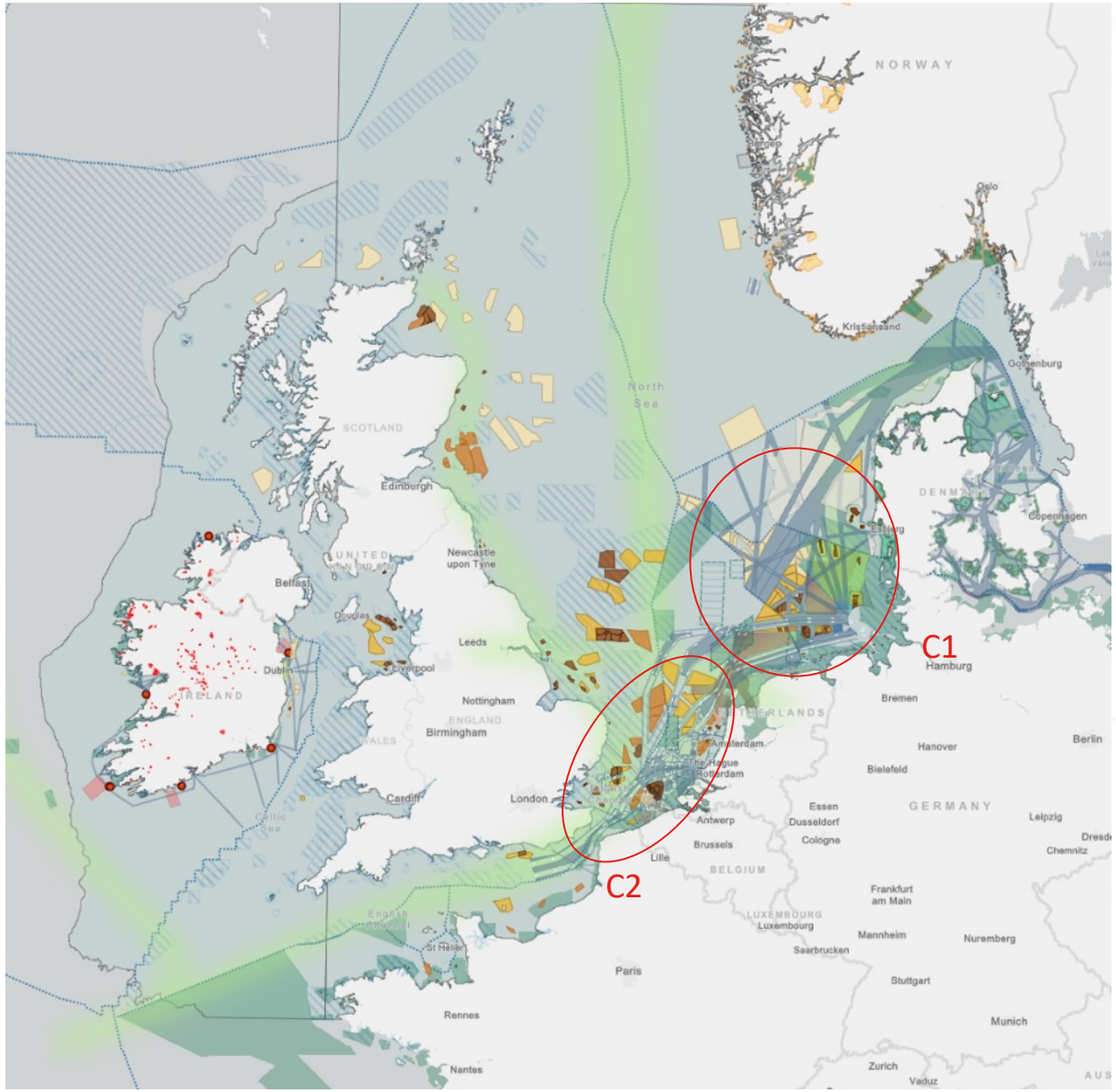
E1	barrier for migrating birds
E2	Ecological valuable areas that might be affected by landfall cables
E3	Areas with potential stratification issues
E4	Areas with potential conflicts for seabirds (concern for breeding colonies)

Potential spatial conflicts: fisheries & shipping





General conclusions and recommendations – North Seas 2030



Status OWF areas

SIMPLIFIED_STATUS

- Existing windfarm
- Licensed windfarm
- Designated windfarm area
- Other
- Other (partial OWF capacity)

Military (BE/DE/IE/NL)

Activity_Simplified_Codes

- Military activities - Flight areas
- Military activities - Submarine training areas
- Military activities - Others

OSPAR MPA 2021 (ODIMS)

Natura 2000 - Habitats and Birds Directive Sites

Potential spatial conflict for birds and marine mammals (sketch)

World Exclusive Economic Zone Boundaries

Status

- Agreed
- Disputed

OSPAR Regions II & III

Shipping

Shipping lane

Ecology

Ireland (MarinePlan.ie)

NMPF 5 1 2 Protected Marine Sites - Natural Heritage Area

NMPF 5 1 2 Protected Marine Sites - Refuges For Local Fauna

Remaining color indications: ecology areas

Hotspot C1 and C2 are both areas with substantial constraints for marine uses.

Royal HaskoningDHV

DigiTwin

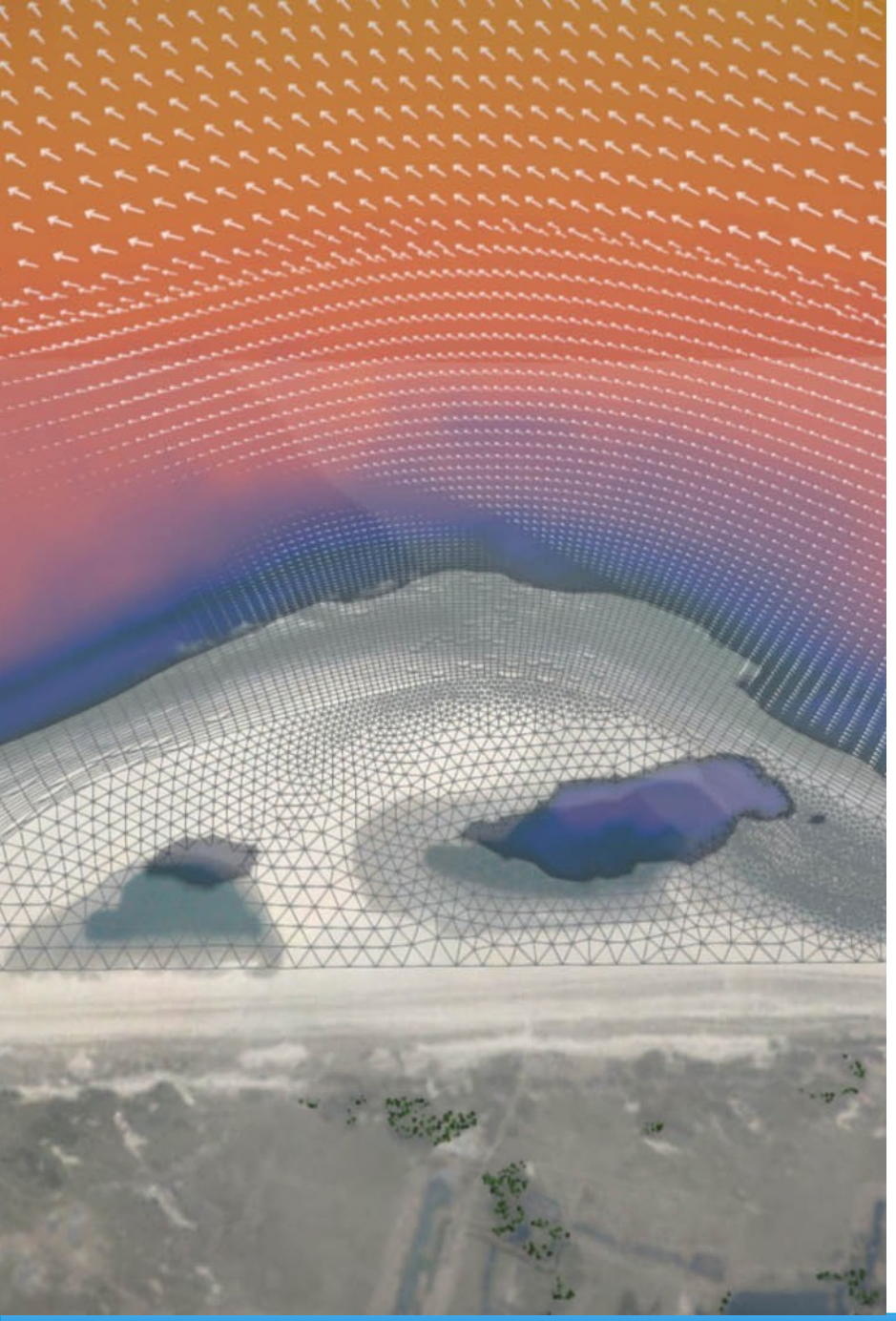
The making of:

- Information collection by consultancy
- From layers to maps
- Transport to DigiTwin of layers

All very straight forward?!

NOT

Layers: https://nsec-digitwin.maris.nl/



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DATASCIENCE
FOR
DELTAS

Bedankt

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