Bonn Agreement, HNS-MS, Brussels

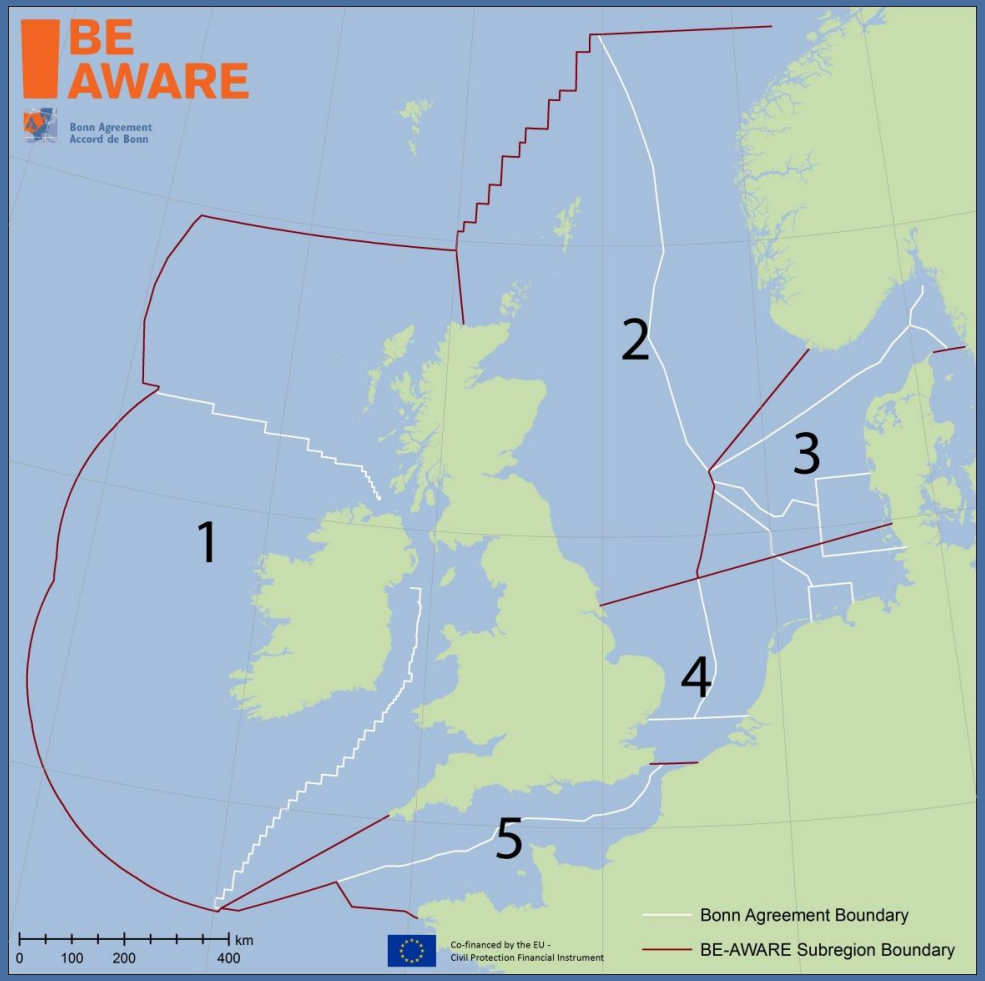
BE-AWARE I+II Projects

Assessing the Most Effective Future Oil Pollution Risk Reduction and Response Measures

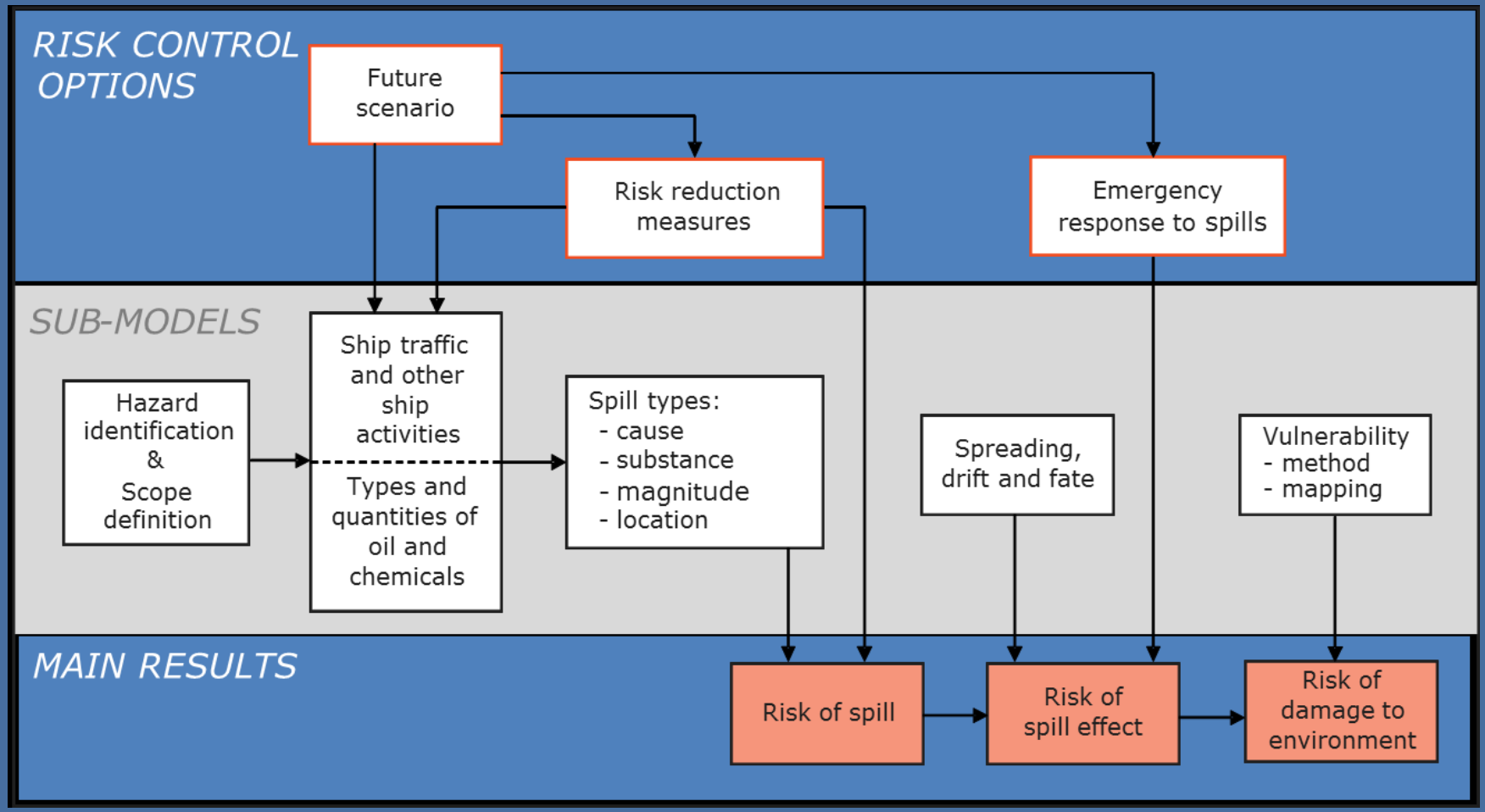
Co-financed by the EU – Civil Protection Financial Instrument

BE-AWARE Aims

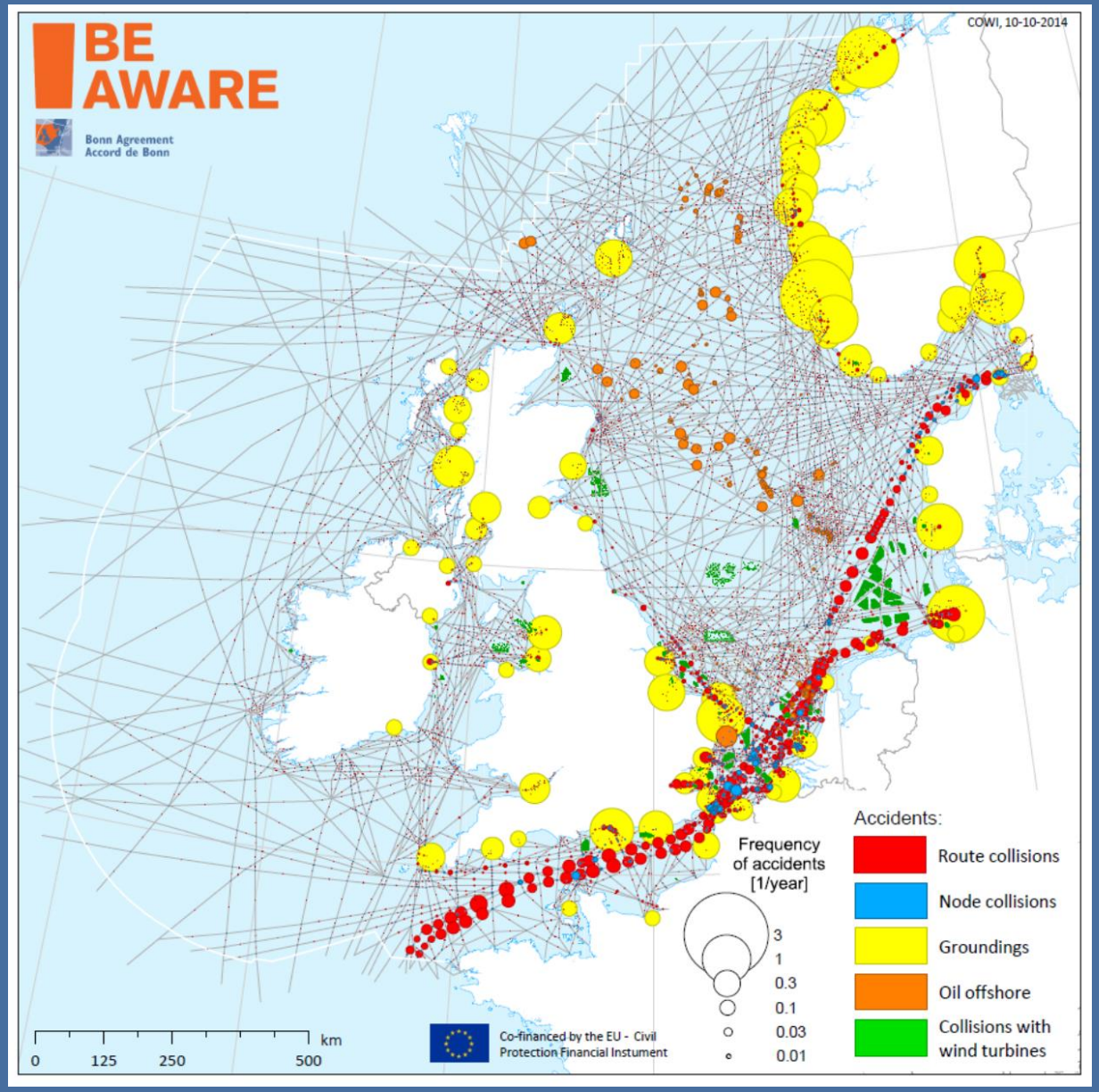
The aim of BE-AWARE is to clearly understand the (sub) regional risk of marine pollution and to identify the most effective future risk reduction and response measures for oil pollution in each sub region.



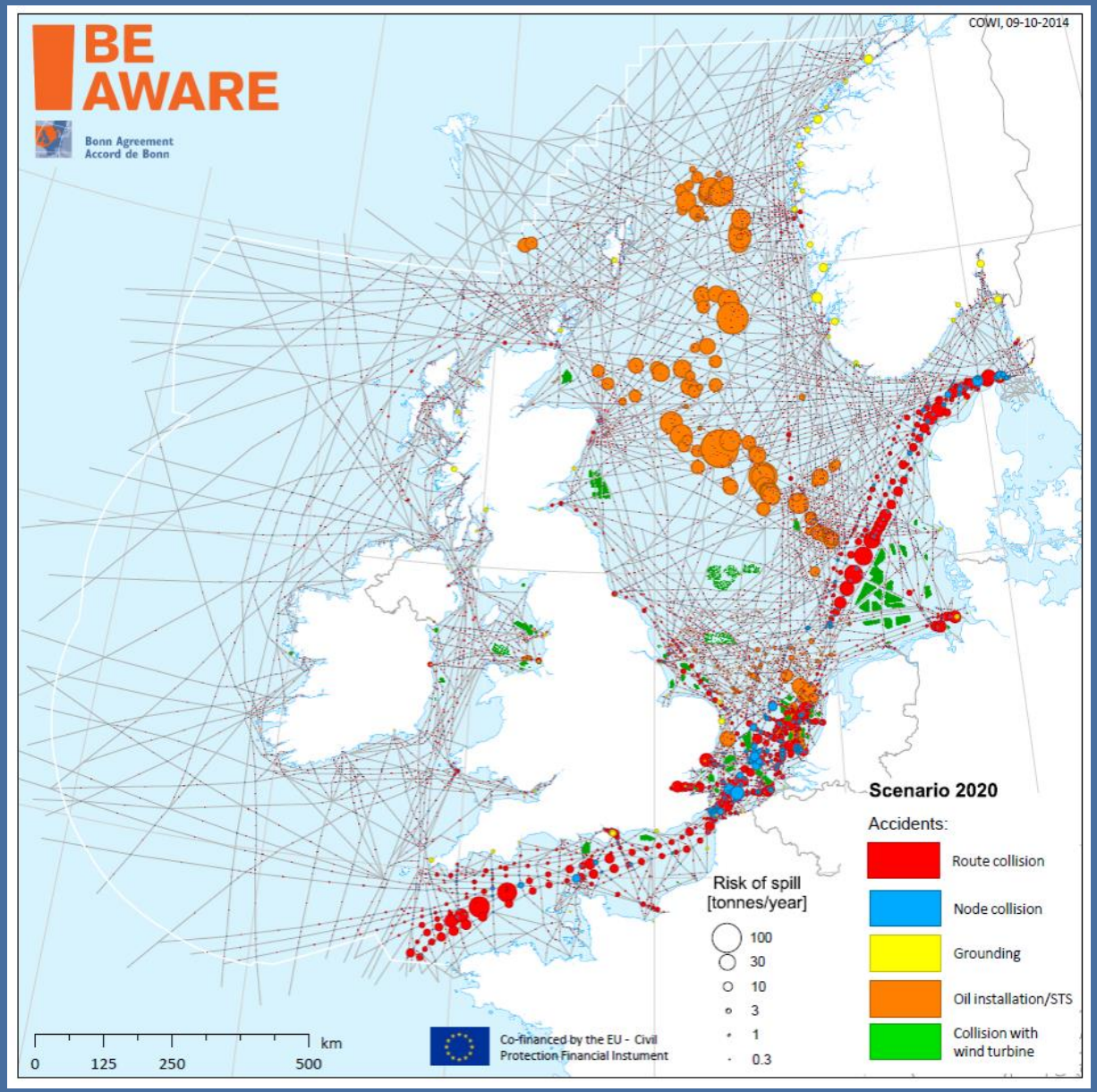
BE-AWARE: A project in two halves



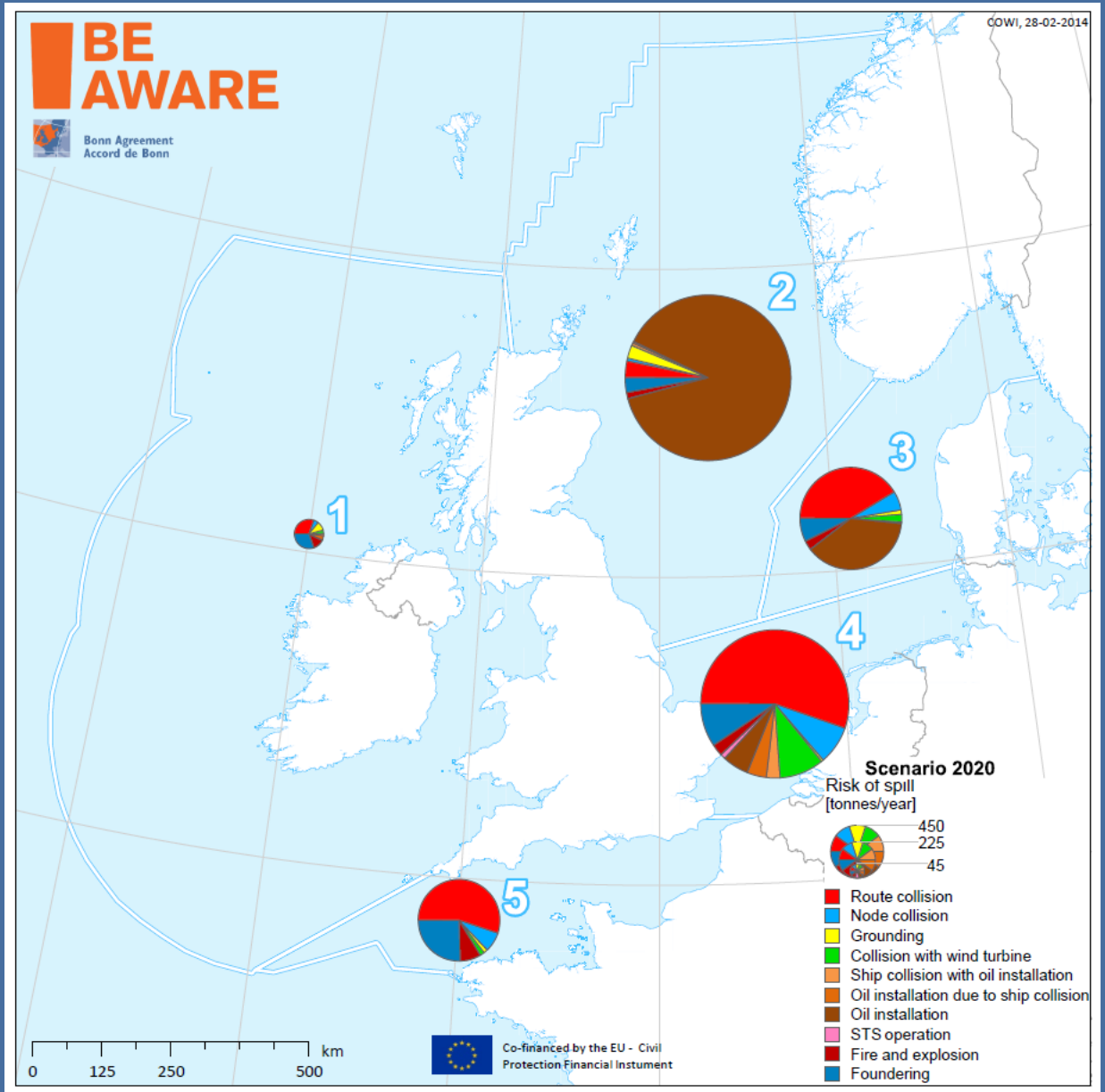
2020 Results: Frequency of Accidents



2020 Results: Risk of Spill, Tonnes per year



2020 Results: by Region



Qualitative analysis of the likelihood of HNS spills

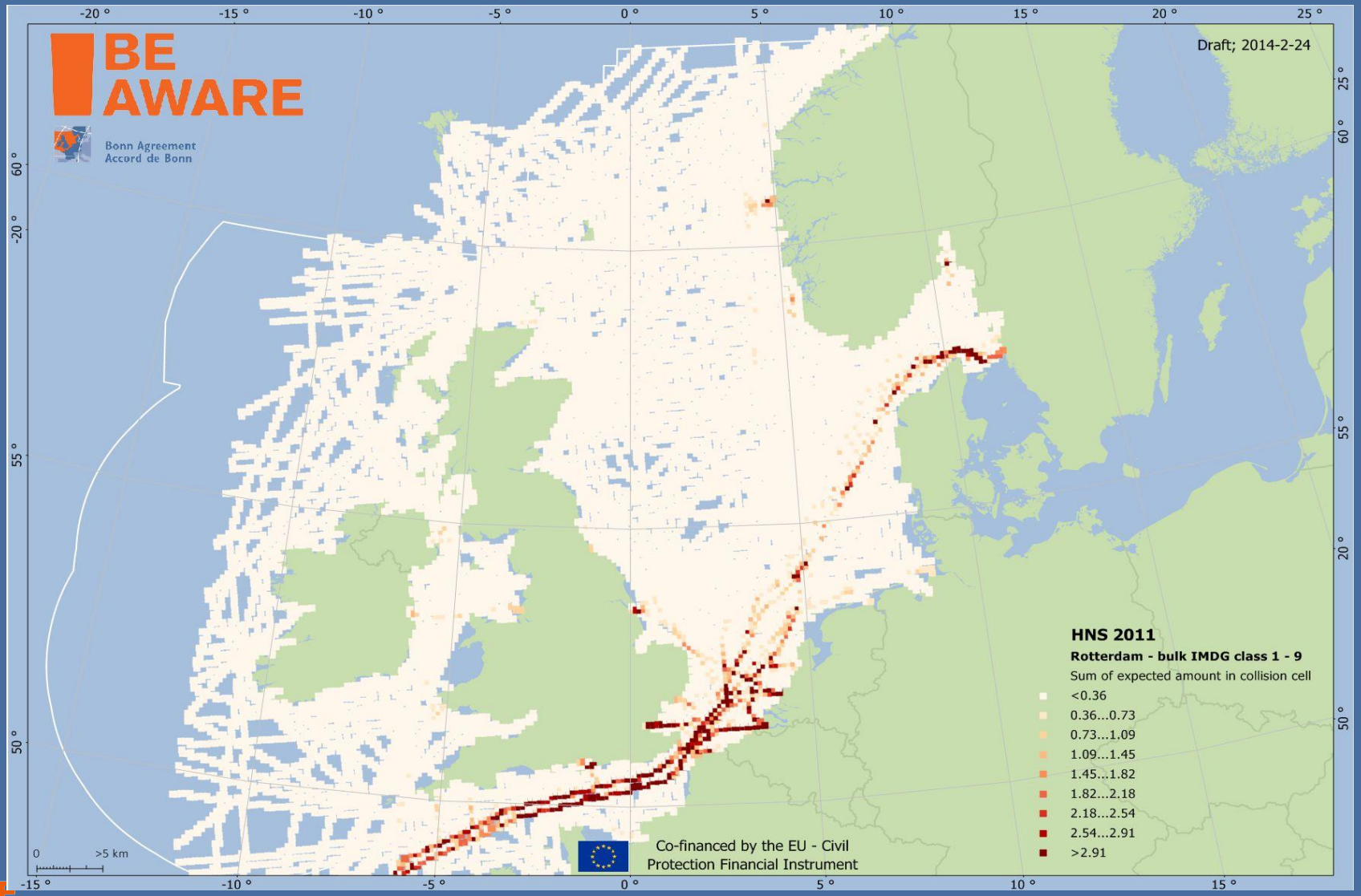
Data Collection and Analysis

- Rotterdam (Bulk)
- Antwerp (Bulk & Packed goods)

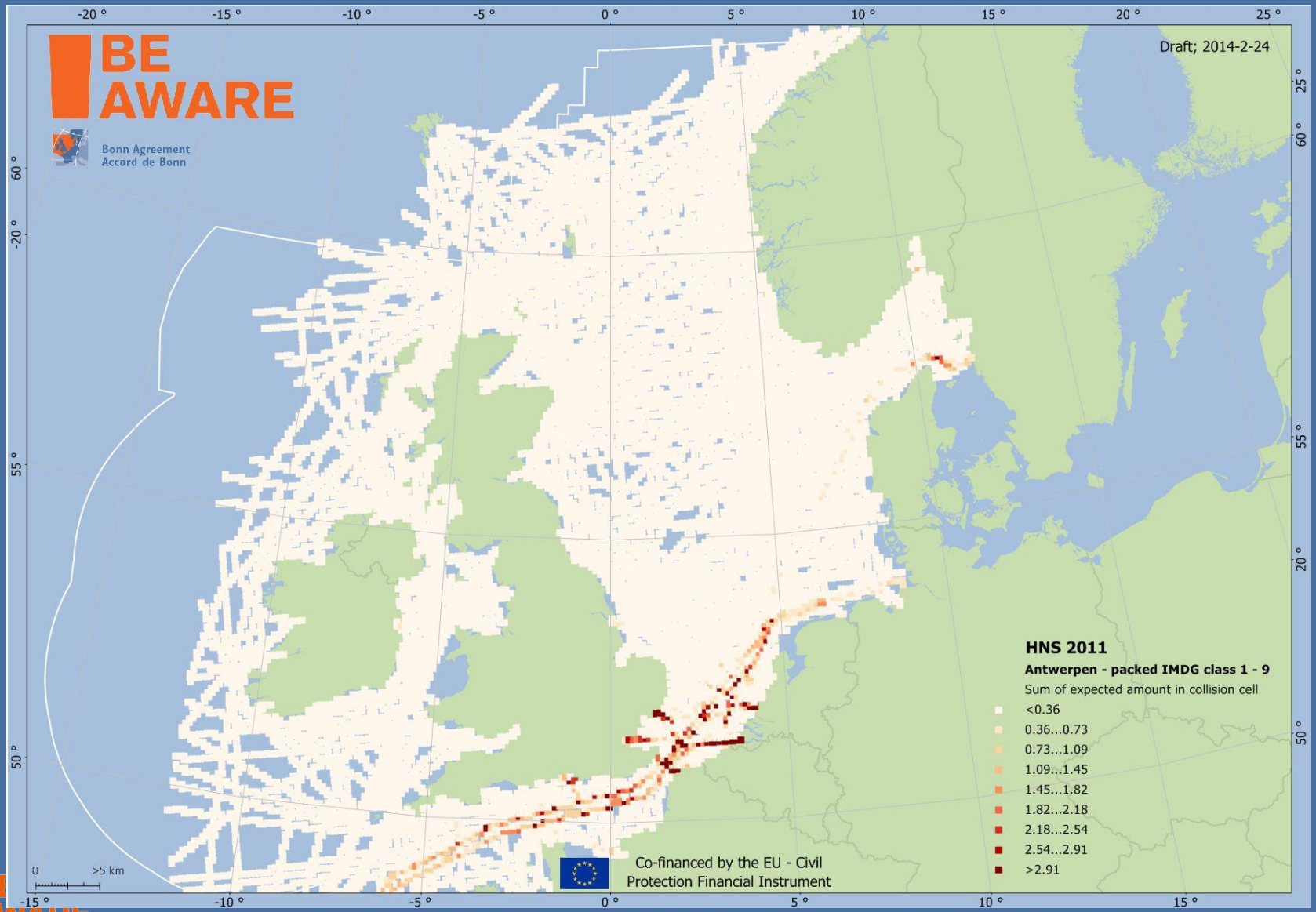
Qualitative analysis of the likelihood of HNS spills

- Top 100 most transported goods (bulk and packed)
- Each dataset divided into IMDG, GESAMP and ACROPOL
- MARIN SAMSON accident database used to estimate accidents of HNS shipments or vessels per cell

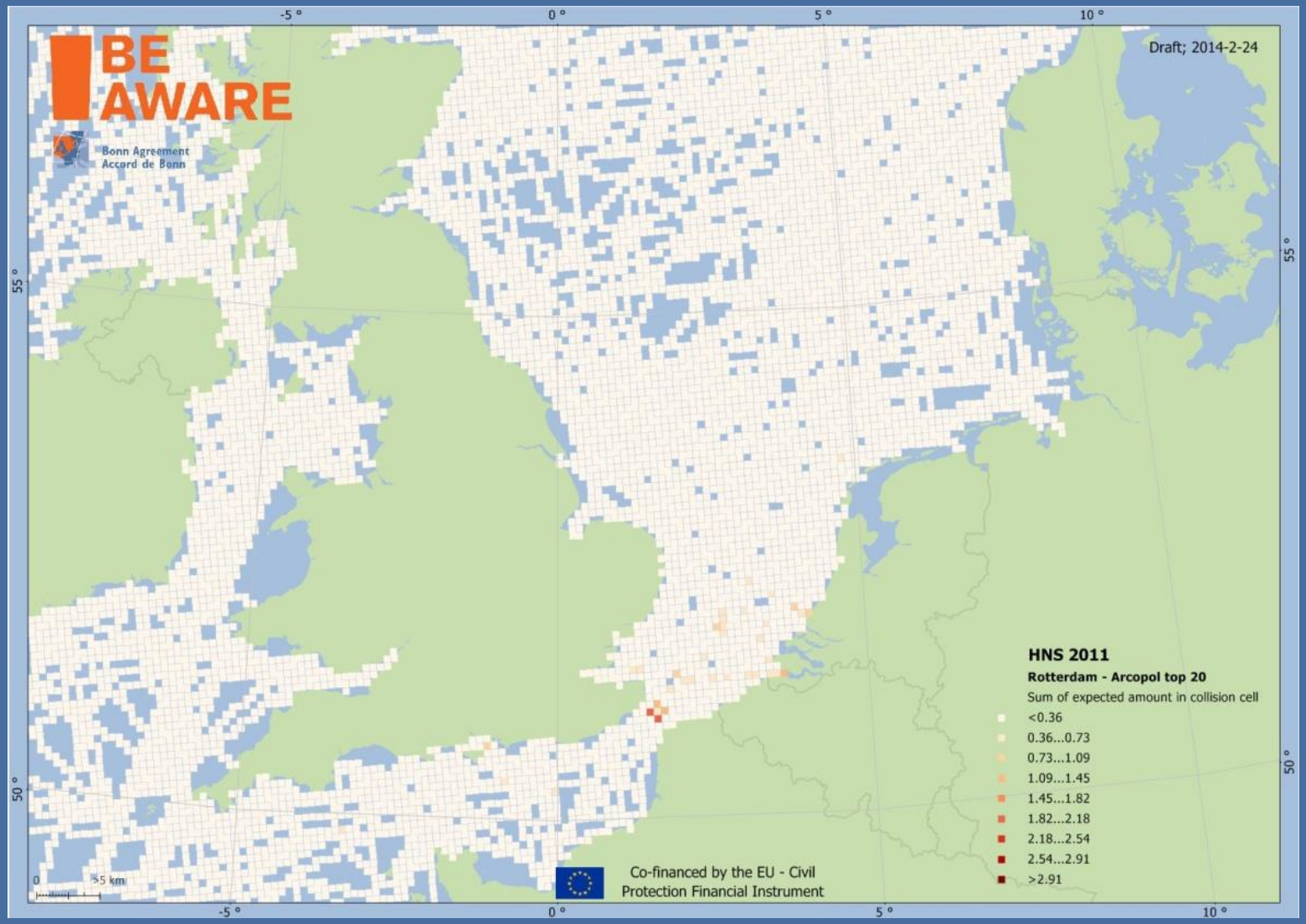
Geographical Distribution: Bulk IMDG 1-9



Packed goods IMDG 1-9 Antwerp



Packed Goods: ARCOPOL Top 20



How do we best manage the risk of spills?

Future scenarios

Reference Scenarios:

- Present Situation
- 2020 Situation

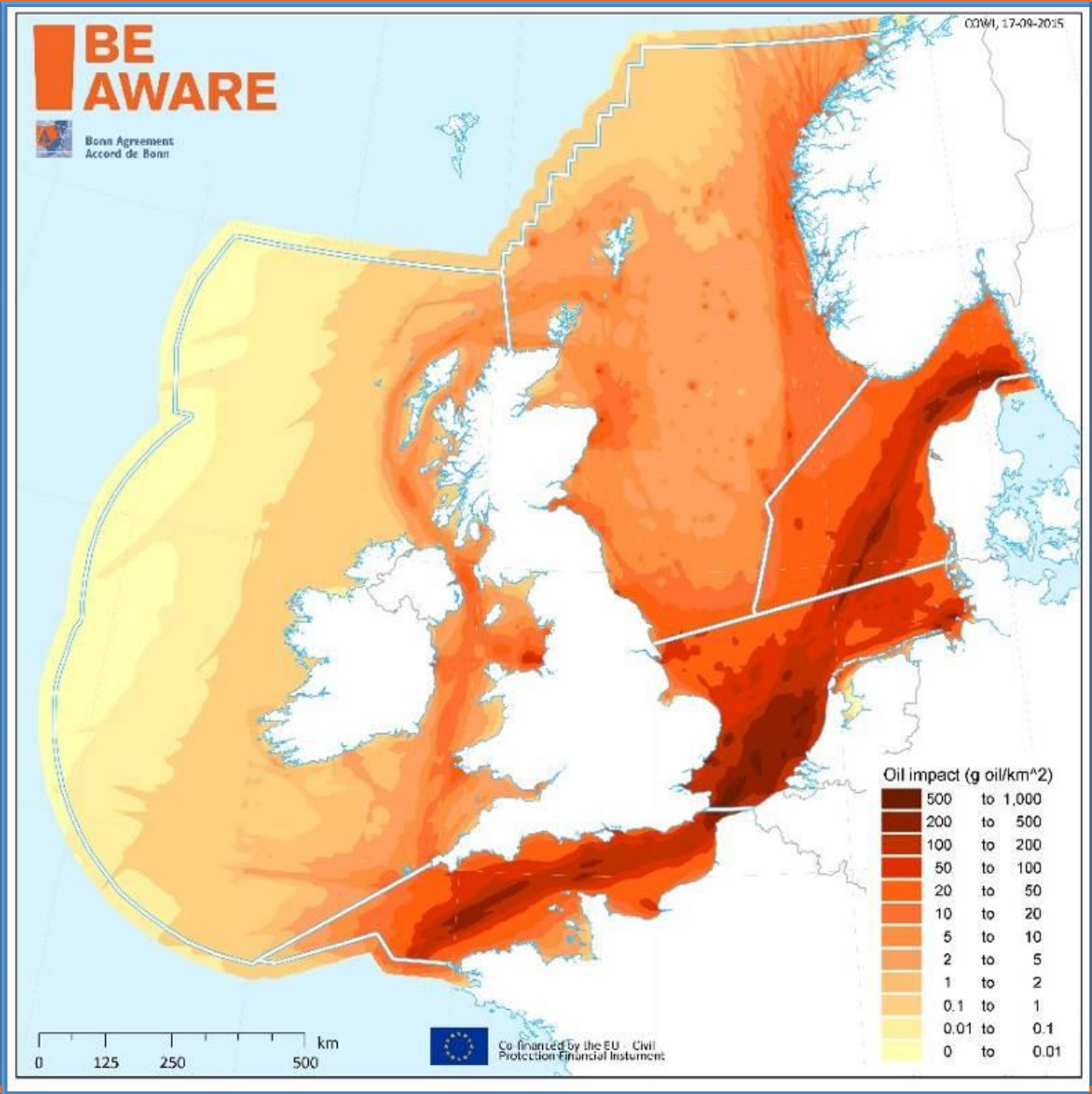
Response Scenarios:

- Improved night detection
- Dispersant use
- 50% more equipment

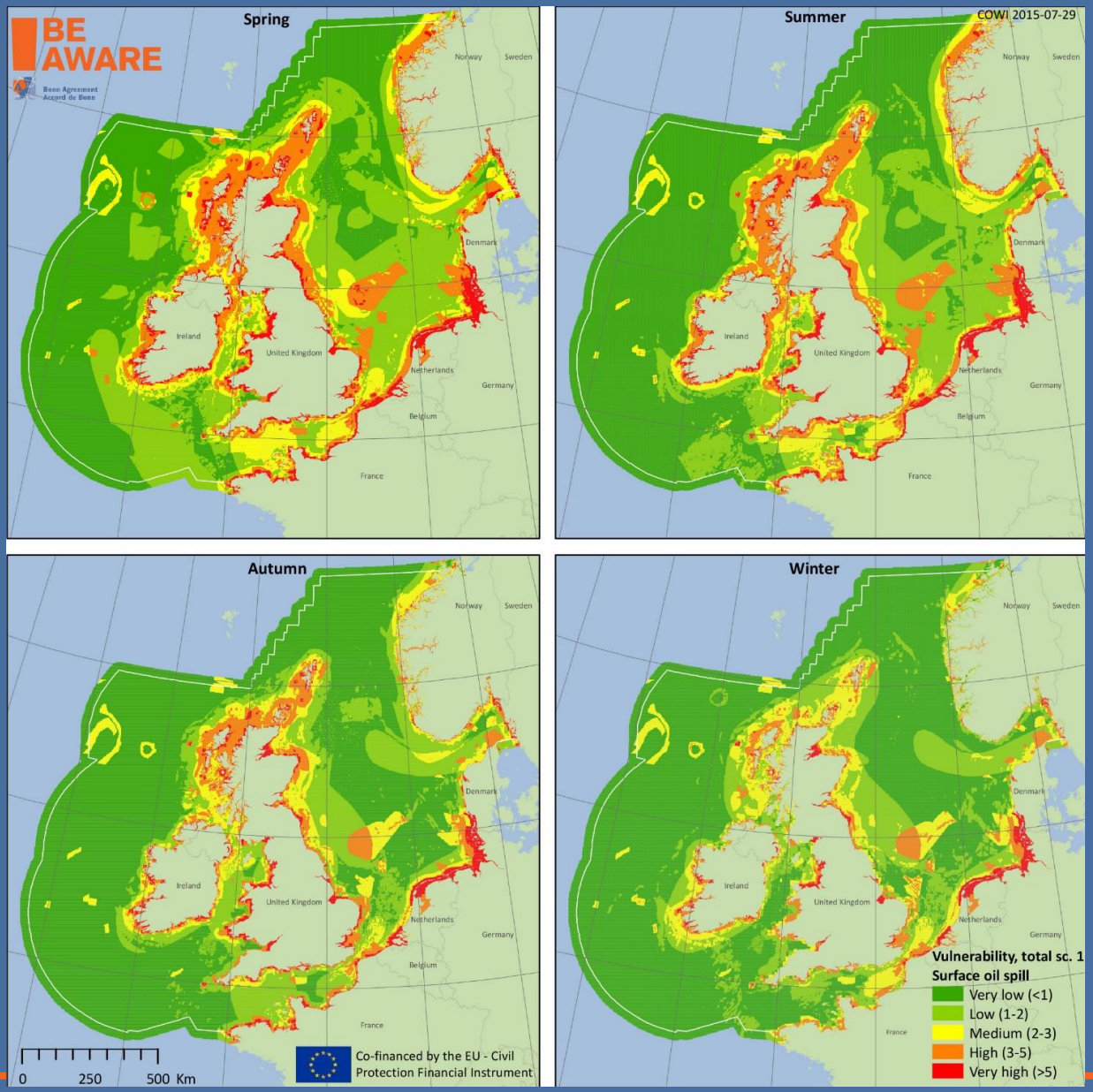
Risk Reducing Scenarios:

- Vessel Traffic Services
- Traffic Separation Schemes
- AIS alarms
- E-navigation
- New Emergency Towing Vessels

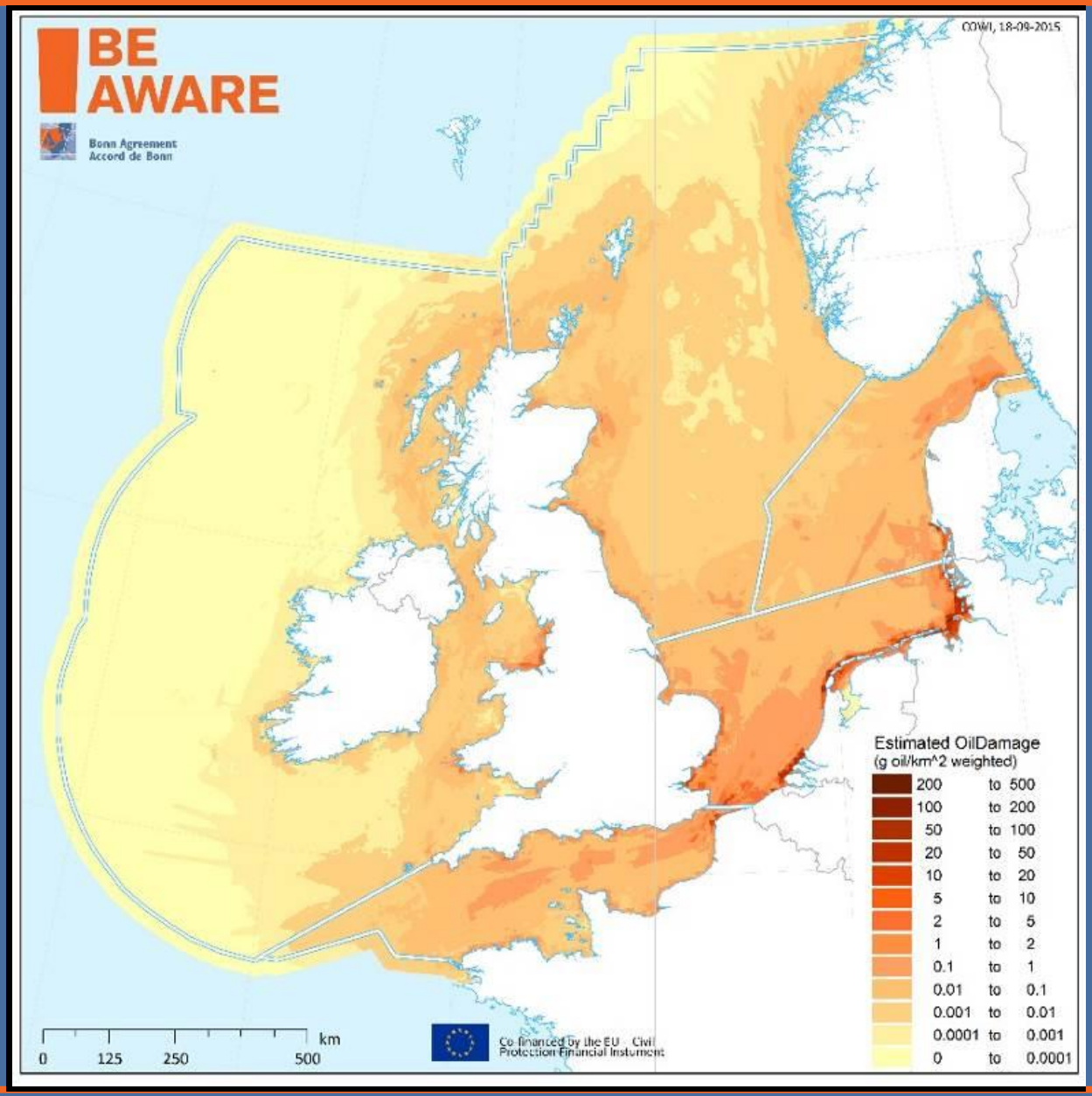
Oil Impact Base Case 2020: All spills



Combined vulnerability per season



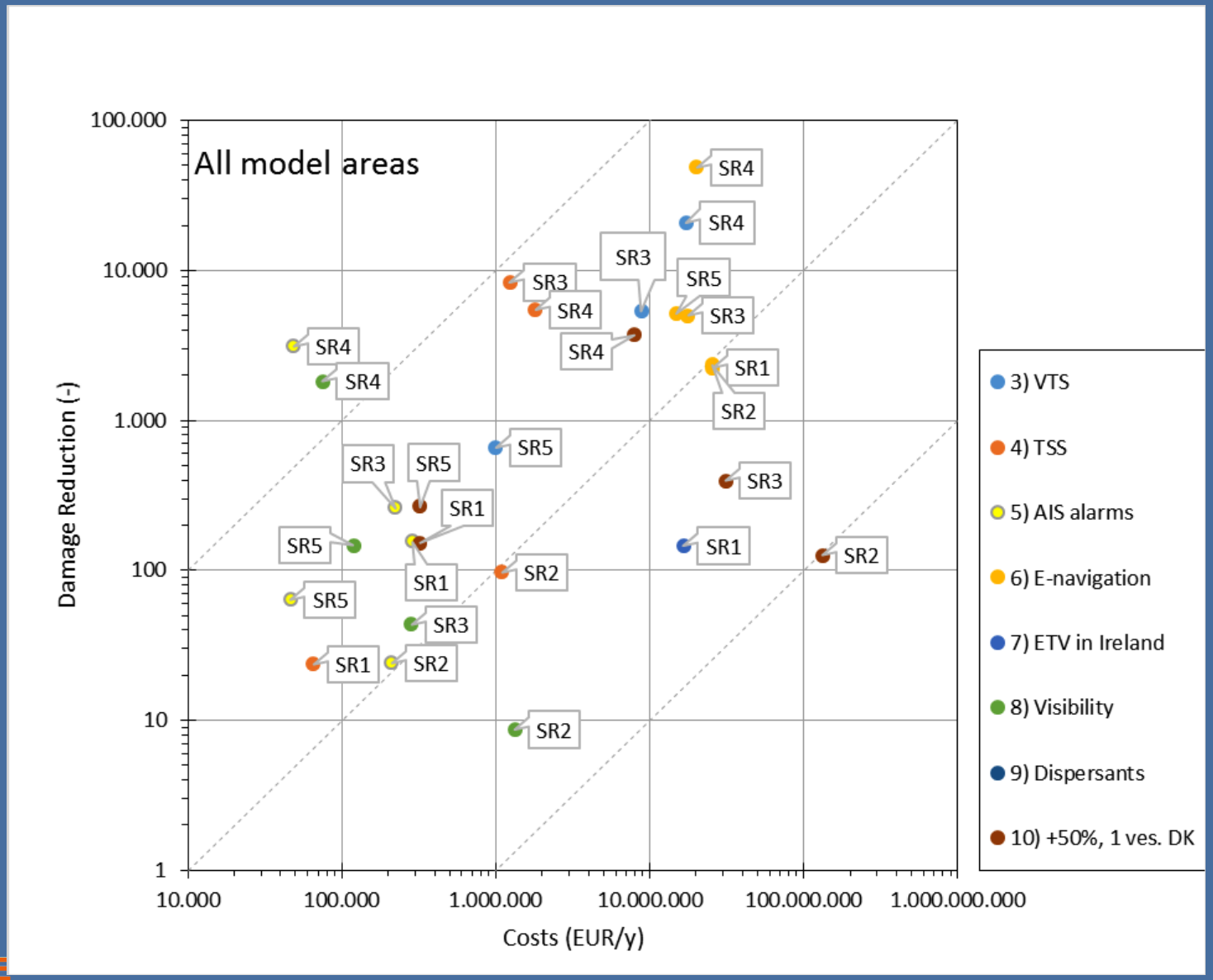
Oil Damage Base Case 2020



Oil Damage per region

Damage effect					
Scenario	Sub-region 1	Sub-region 2	Sub-region 3	Sub-region 4	Sub-region 5
VTS	-0.2%	-1.3%	-27%	-11%	-3.2%
TSS	-0.3%	-1.0%	-42%	-2.8%	-0.0%
AIS Alarm	-1.7%	-0.3%	-1.3%	-1.6%	-0.3%
E-navigation	-25%	-25%	-25%	-25%	-25%
ETV in Ireland	-1.6%	0.0%	0.0%	0.0%	-0.0%
Night vision	-1.3%	-0.1%	-0.2%	-0.9%	-0.7%
Dispersants	1.5%	3.1%	33%	15%	27%
+50% resp.	-1.7%	-1.3%	-2.0%	-1.9%	-1.3%

Effectiveness and Efficiency



BE-AWARE Implementation Plan

- Sub regional Implementation of priority Scenarios
- Reviewed at Ministerial meeting in 2019

	3) VTS	4) TSS	5) AIS alarms	6) E-navigation	7) Additional ETV's	8) Enhanced night vision	9) Dispersants	10) +50%, 1 ves. DK
Sub-region 1		2	1					3
Sub-region 2		1	3			4	5	2
Sub-region 3	2	1	3					
Sub-region 4		1	2	4		3		
Sub-region 5	3		1	4		2		

Next Steps

- New Bonn Agreement Action Plan 2016-2019
- Area wide risk assessment of HNS
- How to build on HNS-MS results?

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Questions?

Thank you

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