

BETTER PREPAREDNESS

THE BRISK AND BRISK-RU PROJECTS cover all maritime areas of the Baltic Sea and focus on major spills, i.e. spills which require assistance from several neighbouring countries. The sub-regional approach is cost-efficient as countries can share their resources to build a common pool of response vessels and equipment sufficient for a given sub-region.

The projects are conducted within the framework of the HELCOM Response Group to implement the national commitments under the HELCOM Baltic Sea Action Plan.

CAREFUL ASSESSMENT AS A SOLID BASE

For the first time ever an overall risk assessment was carried out based on the common methodology to cover pollution caused by shipping accidents throughout the Baltic Sea. The modelling has been done by COWI A/S, based on the information and data provided by the Baltic Sea countries.

The risk assessment has mapped:

- ship traffic based on HELCOM Automatic Identification System
- risks of accidents and spills
- sensitivity of the environment towards oil
- pollution impact
- environmental damage from spills.

NEW MEASURES FOR SUB-REGIONAL RISK REDUCTION

Further, the projects have identified possible measures to effectively reduce the risks of spills, their impact and damage to the environment. The measures are specific to each sub-region of the Baltic. The measures include upgrading equipment for containing oil and recovering it from the sea surface, including in bad visibility and from ice, and tools to reduce the risks, such as establishment of new vessel traffic services (VTS).

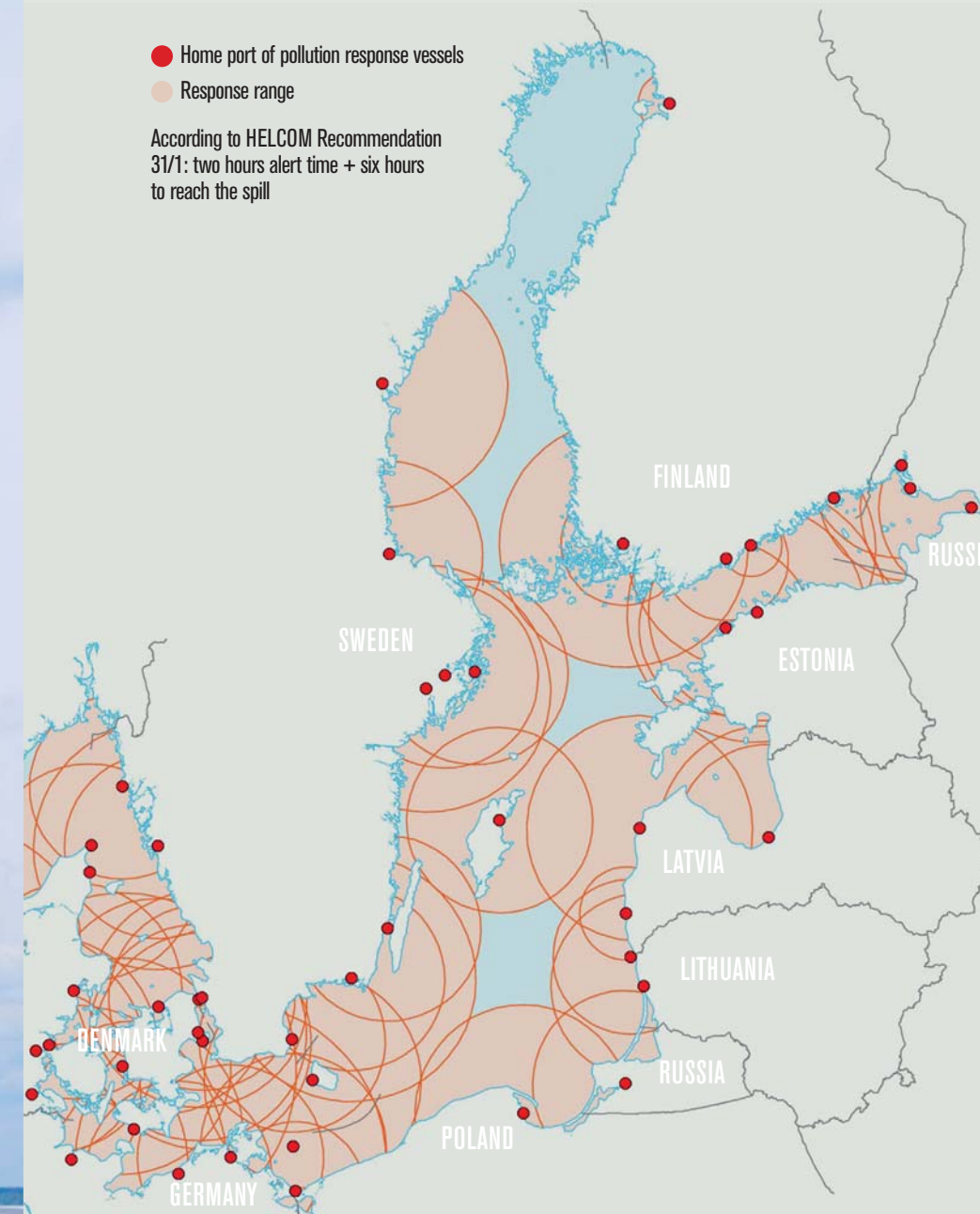
Also, new transnational agreements for mutual response operations have been signed, covering important gaps in the existing agreements.

THE BRISK/BRISK-RU OBJECTIVES:

- To provide the first overall risk assessment, based on a common methodology, to cover pollution caused by shipping activities throughout the Baltic Sea
- To identify gaps in the resources needed to effectively tackle major spills of oil and hazardous substances
- To plan joint investments to improve response capacities
- To speed up the development of transnational agreements for joint response operations in areas where such agreements do not exist

BRISK FAST FACTS:

- Three-year lifespan 2009–2012
- Led by the Admiral Danish Fleet (BRISK) and the Nordic Council of Ministers in Kaliningrad (BRISK-RU)
- Implements the provisions of the HELCOM Baltic Sea Action Plan
- BRISK is a EU Flagship Project
- Co-financed by EU's Baltic Sea Region Programme and the Nordic Council of Ministers
- Total budget ca 3,3 million euros



RESPONSE VESSEL COVERAGE OF HELCOM FLEET

The Baltic Sea countries co-operate within HELCOM to constantly improve response capabilities to tackle major spills of oil or hazardous substances. Many pollution combatting vessels have been put in place and are ready to assist each other in case of large scale emergencies. Detailed information on response resources in the Baltic Sea countries is available from the HELCOM GIS Map and Data Service (www.helcom.fi).

BRISK PARTNERS

- DENMARK**
- Admiral Danish Fleet Headquarters (lead partner)
- ESTONIA**
- Estonian Board of Border Guard
- FINLAND**
- Finnish Environment Institute
- GERMANY**
- Central Command for Maritime Emergencies
- LATVIA**
- Marine and Inland Waters Administration of the Ministry of Environment
- LITHUANIA**
- Coastal Research and Planning Institute, Klaipeda University
- POLAND**
- Maritime Institute in Gdansk
 - Maritime Office in Gdynia
- SWEDEN**
- Swedish Coast Guard Headquarters
- HELSINKI COMMISSION**
- TECHNICAL ADVISOR**
- COWI A/S, Denmark

BRISK-RU PARTNERS

- The Central Marine Research & Design Institute Ltd., St. Petersburg (lead partner)
- Information Office of the Nordic Council of Ministers in Kaliningrad (coordinator of the project)



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HELCOM BRISK NEWS

SUB-REGIONAL RISK OF SPILL OF OIL AND HAZARDOUS SUBSTANCES IN THE BALTIC SEA | JANUARY 2012



The BRISK and BRISK-RU projects work to increase the preparedness of all Baltic Sea countries to respond to major spills of oil and hazardous substances from shipping and enhance sub-regional co-operation.

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RISK OF ENVIRONMENTAL DAMAGE FROM ACCIDENTAL SPILLS

RISK OF OIL SPILLS

BRISK and BRISK-RU provide information on spatial distribution of risks of pollution from ships in the six sub-regions of the Baltic Sea, according to different types of accidents and spill sizes.

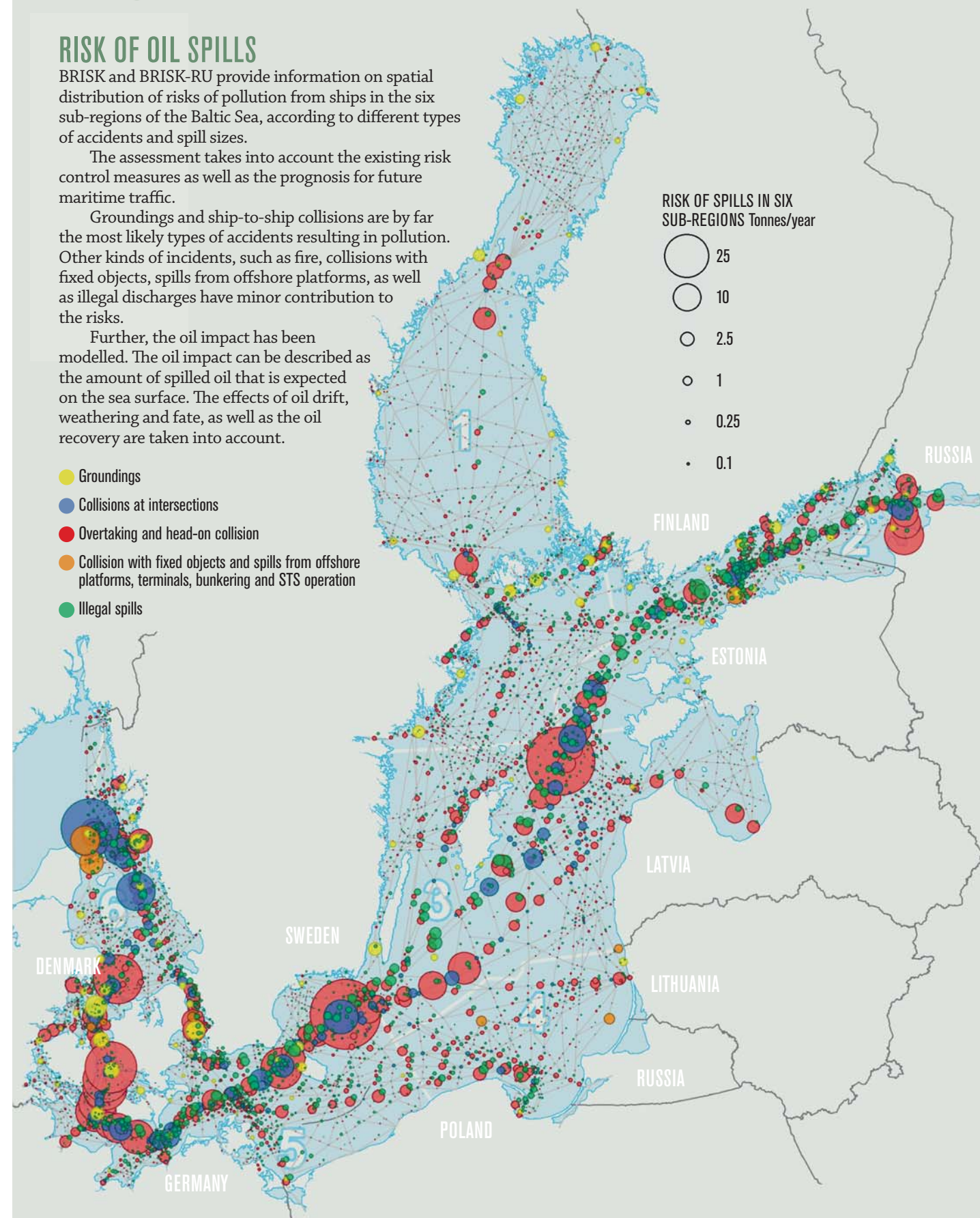
The assessment takes into account the existing risk control measures as well as the prognosis for future maritime traffic.

Groundings and ship-to-ship collisions are by far the most likely types of accidents resulting in pollution. Other kinds of incidents, such as fire, collisions with fixed objects, spills from offshore platforms, as well as illegal discharges have minor contribution to the risks.

Further, the oil impact has been modelled. The oil impact can be described as the amount of spilled oil that is expected on the sea surface. The effects of oil drift, weathering and fate, as well as the oil recovery are taken into account.

- Groundings
- Collisions at intersections
- Overtaking and head-on collision
- Collision with fixed objects and spills from offshore platforms, terminals, bunkering and STS operation
- Illegal spills

RISK OF SPILLS IN SIX SUB-REGIONS Tonnes/year

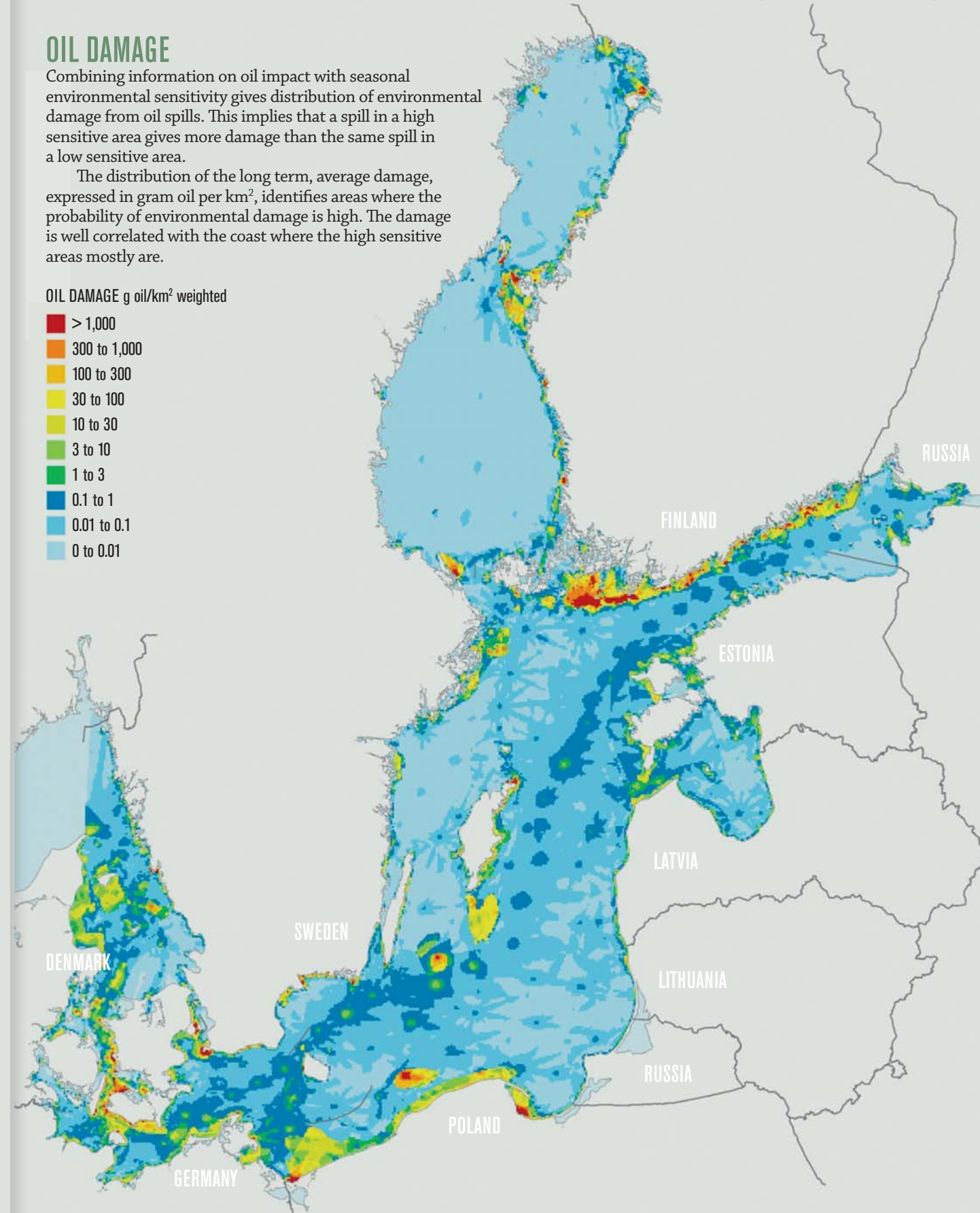


OIL DAMAGE

Combining information on oil impact with seasonal environmental sensitivity gives distribution of environmental damage from oil spills. This implies that a spill in a high sensitive area gives more damage than the same spill in a low sensitive area.

The distribution of the long term, average damage, expressed in gram oil per km², identifies areas where the probability of environmental damage is high. The damage is well correlated with the coast where the high sensitive areas mostly are.

OIL DAMAGE g oil/km² weighted



FOUR SEASONS – DIFFERENT VULNERABILITIES

Certain parameters have been used to map the environmental sensitivity to oil (see the list below) and each has been weighted for four seasons based on expert judgment. Two alternative sensitivity weighting matrices were also prepared in order to evaluate and validate the results.

The sensitivity maps have been combined with the data on oil impact to model environmental damage, and to quantitatively compare the relative effect of the proposed new measures to reduce the risk, impact and damage of oil.

KEY ENVIRONMENTAL PARAMETERS:

1. Rocky shores and stone reefs
2. Estuaries
3. Coastal lagoons
4. Shallow inlets and bays
5. Underwater sand banks (on shallow water <10m)
6. Sandy beaches general
7. Seagrass meadows
8. Spawning area on shallow water for fish with demersal eggs
9. Nursery areas for fish on shallow water (<10m)
10. Offshore spawning areas for fish with pelagic eggs (i.e. cod and sprat)
11. Wintering areas for sea and shore birds
12. Staging areas for migrating sea and shore birds
13. Breeding areas for sea and shore birds
14. Moulting areas for sea birds
15. Marine mammals (breeding and haul out site for seals)
16. Protected areas
17. Aquaculture

ENVIRONMENTAL VULNERABILITY TO OIL, WINTER

