

BONN Agreement – More Than 50 Years of Spill Response Cooperation

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Abstract

In 2019, the BONN Agreement celebrated 50 years of continuous cooperation in dealing with marine pollution in Europe. This makes the Bonn Agreement the oldest regional agreement in the world established by governments for jointly dealing with and responding to pollution incidents.

The first "Agreement for Cooperation in Dealing with Pollution of the North Sea by Oil" was

signed in 1969 by the eight states bordering the North Sea: Belgium, Denmark, Germany, France, the Netherlands, Norway, Sweden and the United Kingdom. This was shortly after the oil tanker "Torrey Canyon" broke up off Cornwall in 1967 spilling 117 000 tonnes of oil in the first major pollution disaster affecting Western Europe. In 1983 the agreement was expanded to include "other harmful substances" as well as oil and the European Union became a Contracting Party. In 1989 the agreement was amended to include aerial surveillance. In 2010, Ireland was included and in 2019, at the 50th anniversary, a new enlargement of the geographical scope was approved by including the Bay of Biscay through Spain's accession and a new task related to the monitoring of air pollution from ships was incorporated. The area of the Bonn Agreement now covers the Greater North Sea and its approaches, comprising most of the heavy density traffic area and oil fields in Western Europe.

During these 50 years, the cooperation has resulted in a number of achievements on different topics. Some of these are:

- aerial surveillance and detection of marine pollution,
- harmonized pollution reporting format,
- common quantification of oil spills through the Bonn Agreement Oil Appearance Code,
- systems for reimbursement of costs when rendering assistance as the Bonn Agreement provides for mutual assistance between Contracting Parties,
- joint exercises,
- information sharing on experiences and on research & development findings,
- Bonn Agreement region-wide risk assessment through the BE-AWARE project.

In October 2019, the agreement's 50th anniversary was celebrated and a ministerial meeting

was held. This paper will give an overview of the history, the achievements and the future for the Bonn Agreement.

Introduction

Given the open and dynamic character of seas, marine pollution often tends to drift beyond borders of national jurisdiction under influence of winds and currents. Recognizing that marine pollution may threaten the marine environment and the interests of coastal States bordering the same marine region, there is a clear benefit for States to cooperate on a regional basis, as appropriate, to protect and preserve the marine environment, taking into account characteristic regional features (United Nations, 1997).

The Bonn Agreement for Co-operation in Dealing with Pollution of the North Sea by Oil and Other Harmful Substances is the mechanism by which Contracting Parties work together to help each other in combating pollution in the Greater North Sea and its approaches from maritime disasters and chronic pollution from ships and offshore installations. It conducts surveillance as an aid to detecting and combating pollution at sea. It is the oldest regional agreement established by governments for responding to pollution incidents. The Contracting Parties are Belgium, Denmark, the European Union, France, Germany, Ireland, the Netherlands, Norway, Sweden, and the United Kingdom of Great Britain and Northern Ireland. The Bonn Agreement covers the Greater North Sea and its approaches. This area of approximately 1.5 million km² includes the North Sea proper, the Skagerrak, the English Channel and its approaches and other waters comprising the Irish Sea, the Celtic Sea, the Malin Sea, the Great Minch, the Little Minch, part of the Norwegian Sea, and parts of the North East Atlantic. Once the decision on the accession of Spain enters into force, Spain will

be added as Contracting Party and the geographical scope of the Bonn Agreement will expand to include the Bay of Biscay enlarging to approximately 1.9 million km², see figure 1.



Figure 1 - Geographical area of the Bonn Agreement

Historic timeline of the Bonn Agreement

The table below gives a historic timeline of the Bonn Agreement, from its origin (the Torrey Canyon incident in 1967) up to the Bonn Agreement Contracting Parties meeting held in October 2019.

DATE	MARKER
1967	Grounding of the Torrey Canyon spilling 117 000 tonnes of oil
1969	Denmark, Belgium, France, Germany, Netherlands, Norway, Sweden and The United Kingdom sign the “Agreement for Cooperation in Dealing with Pollution of the North Sea by Oil” in Bonn, Germany establishing the “Bonn Agreement!”
1983	The new Bonn Agreement covers "other harmful substances" as well as oil.

1983	The European Union (then the EEC) becomes a Contracting Party
1994	Bonn Agreement is amended to include aerial surveillance for the detection of operational and illegal spills, and for monitoring accidental marine pollution.
2002	The North Sea Network of Prosecutors and Investigators or NSN, associated with the OSPAR Commission, is established following a series of seminars on acceptance of evidence and harmonised initiating proceedings against violators of discharge regulations.
2005	OSINet, the Bonn Agreement Oil Spill Identification Network of experts, is set up due to the difficulties encountered in identifying oil spill sources.
2007	EMSA starts the CleanSeaNet service, a European satellite based oil spill monitoring and vessel detection service.
2010	The accession of Ireland to the agreement enters into force. Dublin Ministerial Meeting leading to the Dublin Declaration.
2014	BE-AWARE I project (co-financed by the European Union) aims to quantify and identify the risk and magnitude of mineral oil spills in the Bonn Agreement area and undertakes an area-wide qualitative risk assessment for hazardous and noxious substances.
2015	BE-AWARE II project, based on the results of BE-AWARE I, models the effects of 10 risk-reducing and response scenarios through a combination of oil spill modelling and environmental and socioeconomic sensitivity analysis.
2019	The Bonn Agreement Contracting Parties adopts a Decision to enlarge the Agreement both geographically and thematically, i.e. through the accession of Spain and inclusion of the Bay of Biscay, and by expanding the agreement's scope of work with MARPOL Annex VI compliance monitoring and enforcement activities. BONN Ministerial Meeting leading to the Bonn Declaration.

How do we work?

The Bonn Agreement Rules of Procedure sets up the basis of the working and financing procedures and establishes how meetings, presidency, secretariat, voting, documents, languages and observers are managed. The Bonn Agreement Secretariat is shared with the OSPAR Commission. The Contracting Parties meet annually but extraordinary meetings can be requested. The Working Group on Operational, Technical and Scientific Questions (OTSOPA) is the subsidiary body, which also meets annually. Ad hoc working can be considered outside the framework of OTSOPA.

Meetings dealing with very relevant decisions to the Bonn Agreement have been attended by Ministers and high-level Delegates. Six North Sea Conferences were organised since 1984, one year after the original 1969 Agreement was replaced by the new Bonn Agreement (1983) covering other harmful substances as well as oil. The first Ministerial Meeting was held in Dublin (Ireland) in 2010 and the second in Bonn (Germany) in 2019, which adopted the Bonn Declaration of 11 October that renewed the vision of the agreement.

Since 2010 the Bonn Agreement has been working under action plans defined for a three-year period 2010-2013, 2013-2016 and 2016-2019. Actions plans are endorsed by high-level political level in order to create public and political awareness and to facilitate the necessary funding. The BASAP¹ 2019-2025 is the current plan in place covering a six-year period. Its drafting considered the outcome of two SWOT² workshops carried out in 2016 and 2017.

Under the strategic aims of prevention, preparedness and response of the BASAP 2019-2025, operational objectives, actions and tasks are defined.

What have we accomplished?

¹ Bonn Agreement Strategy Plan.

² Strengths, Weakness, Opportunities and Threats.

Over the years, the Bonn Agreement has adopted a number of decisions to facilitate joint operations to combat pollution or to put the Bonn Agreement into practice.

These decisions and other practical information are contained in the

<https://www.bonnagreement.org/publications> Operational discharges from shipping are one of the main sources of oil pollution in the Greater North Sea and its approaches. It was for this reason that, in 1989, the Bonn Agreement was amended to include in its remit the duty to perform aerial surveillance flights in order to detect pollution in the field and catch polluters in the act. The Aerial Surveillance Handbook provides aerial surveillance teams with detailed information on how to carry out surveillance within the Bonn Agreement area. The Bonn Agreement countries cooperate on a wide range of technical issues through the OTSOPA Working Group. Issues covered include aerial surveillance sensors, dispersants, oil recovery, risk analysis, oil spill modelling, equipment for use in rough seas, environmental advice systems, the development of decision-support tools, wildlife response, lessons learnt from past spill incidents, etc. The OTSOPA Working Group meets once a year to share best practice, to discuss pollution trends and new maritime developments, to exchange information on new projects, equipment or tools, and to agree upon and evaluate a joint programme of work. Some of the key activities coordinated via OTSOPA are further explained below.

OTSOPA Working group and activities

Aerial Surveillance

In order to prevent illegal or combat accidental pollution most Bonn Agreement Contracting Parties undertake aerial surveillance, using dedicated remote sensing aircraft, to enforce maritime pollution rules and standards or to monitor major spills and give airborne support.

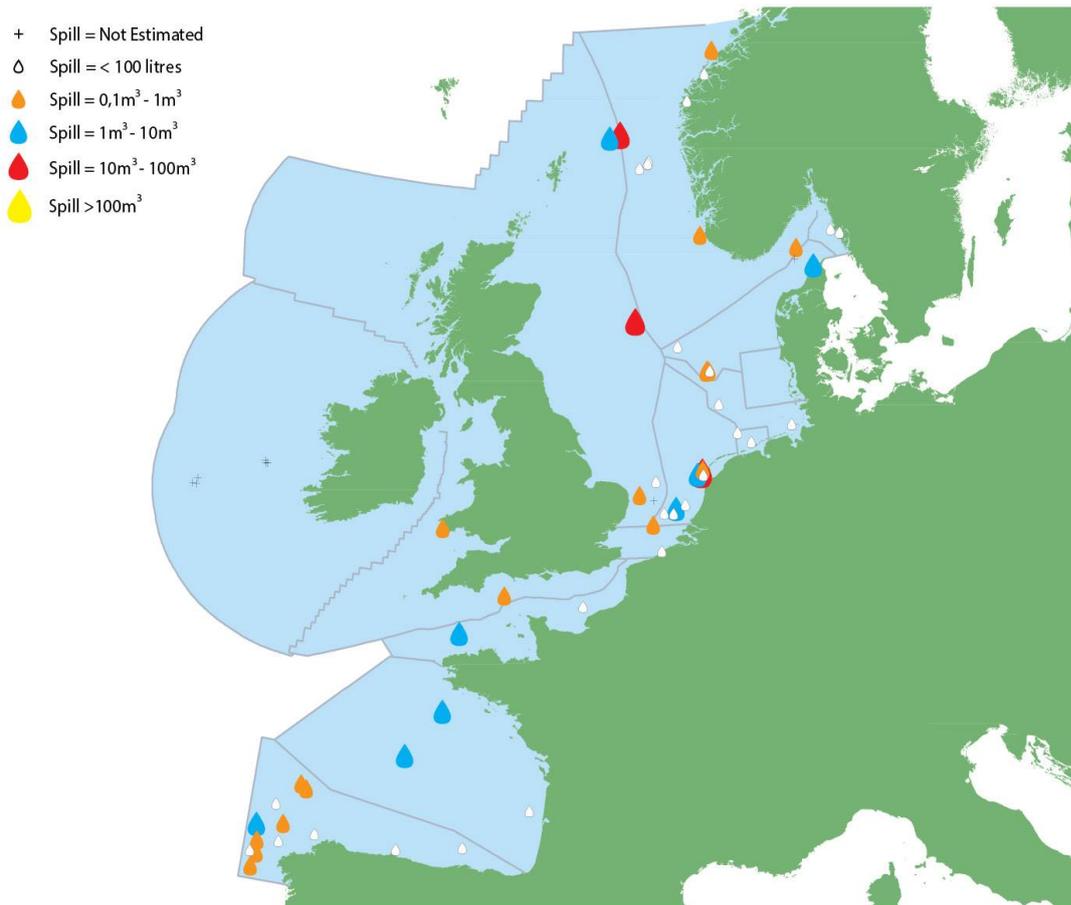
Most countries nationally operate routine counter pollution flights focused on pollution from shipping and enforcement of the International Maritime Organisation (IMO) MARPOL

Convention, which designates the North Sea as a special area under MARPOL Annex I in which special mandatory methods for the prevention of sea pollution by oil are required. Some countries however have adopted the use of satellite images, provided by the European Maritime Safety Agency, to detect first alerts for oil pollution rather than routine patrolling. Besides these national flight programmes, the Bonn Agreement also operates a coordinated regional Tour d'Horizon programme for aerial surveillance of offshore oil and gas installations in the central part of the North Sea. Co-ordinated Extended Pollution Control Operations or CEPCOs form another regional flight type, whereby aircraft from different countries jointly undertake an intensive pollution control operation in a specific high risk area (a maritime area with dense shipping traffic, for example). This coordinated exercise is performed over a period of 24 hours or more (up to a week for a Super-CEPCO). CEPCOs are also held regularly to ensure all aircrews are kept familiar with joint surveillance operations. Patrol flights by individual countries, covering predetermined routes, are coordinated during the year in order to provide maximum coverage.

All aerial operations whether they be routine national patrols or regional flight missions are undertaken in line with the [Bonn Agreement Aerial Operations Handbook](#) (AOH). The AOH contains jointly agreed operational procedures, recommendations and guidelines, both for the purpose of illegal operational discharges at sea and the aerial monitoring of accidental marine pollution, and aerial support to spill response operations. The handbook ensures aircrews follow the same procedures when planning and conducting counter-pollution flights and gathering evidence in the case of pollution incidents. The AOH also contains a section on the oil volume estimation method that was developed within the agreement, the so-called Bonn Agreement Oil Appearance Code (BAOAC), which has been recognized and used at an international level for example by the US National Oceanic and Atmospheric Administration (NOAA, 2016). The AOH is also supported by the [BAOAC Photo Atlas](#) which comprises an

array of exemplary photos of aerial observations of different types of oil slicks from accidental or illegal discharges from ships or oil rigs, including SLAR and IR/UV images, together with explanatory texts.

A common aerial reporting format harmonised with HELCOM Commission is used to collect data on spills identified during aerial surveillance operations and CEPCOs, which are recorded centrally by the Bonn Agreement and published each year in the Annual Report on Aerial Surveillance. This information allows the organisation to track trends in amounts and types of spills. In recent years the Bonn Agreement has also produced an Aerial Surveillance fact sheet to make the data more accessible. The data on the location and estimated volume of the oil spills identified in the Bonn Agreement Aerial Surveillance programme are mapped every year as shown below.



Slicks observed during Bonn Agreement aerial surveillance activities in 2019

Counter Pollution Exercises

Bonn Agreement countries need to meet international and European obligations to ensure that they are prepared to respond rapidly and effectively in the event of pollution incidents or to a threat of pollution. Contracting Parties therefore work together to ensure the knowledge, planning, training and operational testing of emergency systems are in place to ensure effective preparedness and keep each other informed on their national pollution response strategies and updated on their response organisations.

Within the Bonn Agreement there are several types of joint exercises (BONNEXes) for co-operation in combating spillages into the sea. These are outlined in detail in the [Counter Pollution Manual](#).

The BONNEX BRAVO is an Alarm Exercise aiming to test the agreed notification procedures for reporting, requesting and providing assistance through the POLREP system. This also includes the use of digital EU platforms such as SafeSeaNet and CECIS³ Marine. The exercise is held on an annual basis.

The BONNEX CHARLIE is an Equipment Exercise to test the co-operation between combating units of the Contracting Parties with respect to both communication and equipment. These sub-regional exercises are generally undertaken directly between two or more countries with bordering response zones.

The BONNEX DELTA is the main, large-scale counter pollution response exercise which is regularly undertaken by the Bonn Agreement. It involves all aspects of response to pollution including communication, coordination, surveillance and response at sea. Vessels and aircraft personnel from participating countries meet and are presented at the exercise briefing with a realistic counter pollution response scenario that evolves during the exercise. The exercise is usually run for 24 hours followed by a debriefing session.

Response to Incidents

The core activity of the Bonn Agreement is the cooperation between Contracting Parties on the occasions when one Contracting Party is facing a large-volume oil pollution accident (such as during the Ekofisk Bravo incident (1977), the Sea Empress incident (1996), the Tricolor incident (2002), or the MSC Napoli incident (2007)). Despite efforts to increase maritime safety there will always be the risk of incidents. With a combination of growing levels of maritime transportation and the expansion of other human activities at sea, such as renewable energy developments, the risks for the marine environment increase. Contracting Parties therefore continuously aim to improve their joint response to incidents, based on

³ Common Emergency Communication and Information System

region-wide risk assessments, ensuring counter-pollution activities are executed with the best available techniques and equipment.

Counter Pollution Manual

One of the Bonn Agreement's major aims is to facilitate cooperation and mutual assistance between the Contracting Parties in response to large maritime disasters and other emergencies at sea. To ensure that cooperation is effective and efficient, common understanding is needed on many issues such as command structures, communications, response strategy and organisation, and claims management. To ensure this common understanding, these issues have been outlined in the [Bonn Agreement Counter Pollution Manual](#).

Oil Pollution Combating Strategy

The overall strategy for combatting spills is outlined in the [Counter Pollution Manual](#) (CPM), including combatting oil at sea, on shore and in estuaries, and outlines the approaches to be taken. The CPM also contains detailed advice, in various chapters, on *inter alia*: a Command Structure for and communications in joint combating operations; standard pollution reporting procedures (POLREP system); organisational issues related to transnational operations such as, customs questions (so-called Host Nation Support); various chapters on dispersants, response to chemical spills, wildlife response, assessment tools; and financial aspects and claims management in line with the Polluter Pays principle. The CPM also contains a detailed overview of the national response organisation within each Contracting Party, and National Focal Points. All these aspects are key to successful joint operations to combat spills.

Joint Responsibility Zones and Sub-regional response plans

The Bonn Agreement includes several Zones of Joint Responsibility of two or more Contracting Parties. A joint responsibility zone mainly covers a cross-border high risk area where pollution incidents may occur that will most likely affect the interests of the States

bordering that same sub-region. For some of these joint zones more detailed co-operation arrangements have been agreed and sub-regional response plans drafted, such as the ‘DenGerNeth’ Plan covering Danish, German and Dutch response zones, the Mancheplan covering the Channel waters between France and the United Kingdom, and the NorBrit Plan covering the offshore zone between the United Kingdom and Norway.

European Union

The European Union actively supports the Bonn Agreement countries and activities in prevention, preparedness and response to marine pollution mainly through the Union Civil Protection Mechanism (the Union Mechanism) and the European Maritime Safety Agency (EMSA). The Union Mechanism strengthens the cooperation between the EU and the participating States and facilitates coordination, amongst others through its emergency Response Coordination Centre in order to improve the effectiveness of emergency interventions. The European Commission (DG ECHO⁴) is a driving force in stimulating further research and development, by co-funding projects related to key R&D priorities in the field of marine pollution. The European Maritime Safety Agency (EMSA) supports Bonn Agreement countries with complementary operational services such as a satellite-based oil spill monitoring and surveillance service (CleanSeaNet), a network of stand-by oil spill response vessels around Europe for at-sea oil recovery and of pollution equipment stockpiles, and a chemical (HNS) specific information service (MAR-ICE network). EMSA also provides for expert training and plays a coordinating role between the regional agreements covering Europe’s 4 marine regions, through the annual ‘Inter-Secretariat’ meetings.

⁴ Directorate-General for European Civil Protection and Humanitarian Aid Operations

International engagement

The Bonn Agreement closely cooperates with other competent international and regional organisations and bodies, in particular the International Maritime Organization (IMO), Helsinki Convention (HELCOM), Lisbon Agreement, Copenhagen Agreement, Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC), Organisation for Economic Co-operation and Development (OECD), the Arctic Council and the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention), with a view to share experience and good practices, and achieve common goals.

Some of these organisations are observers to the Bonn Agreement.

Area-wide risk assessment

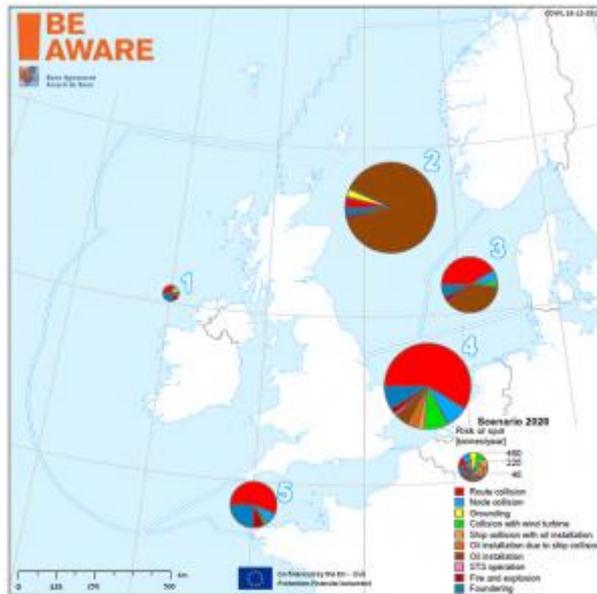
BE-AWARE I

The BE-AWARE I project was a two year initiative (2012-2013), co-financed by the European Union and Norway, and with participation and support from the Bonn Agreement Secretariat, Belgium, Denmark and the Netherlands.

The Greater North Sea and its wider approaches is one of the busiest and most highly used maritime areas in the world. With the ever-increasing competition for space comes an increased risk of accidents that could result in marine pollution. In 2012, the Bonn Agreement area had no overall quantitative risk assessment for marine pollution; risk was mapped with a variety of national risk assessments which were undertaken with differing methodologies, thus reducing comparability.

The BE-AWARE project undertook the first area-wide risk assessment of marine pollution using a common methodology that allowed the risk to be mapped and compared under different scenarios.

The project outcomes have significantly improved disaster prevention by allowing North Sea States to better focus their resources on areas of high risk.



Regional risk of spills in 2020 from BE-AWARE I

BE-AWARE II

The BE AWARE II project was a two-year initiative (2014-2015), co-financed by the European Union (DG ECHO), with participation from the Bonn Agreement Secretariat, Belgium, Denmark, France, the Netherlands, Norway, Sweden and the United Kingdom, and co-financing from Ireland and Germany.

One of the strategic aims of the Bonn Agreement Action Plan 2013-2016 was to ensure the organisation of optimum response capacities for oil pollution.

The further development of response capacities should also be based on risk assessments, gap analysis and regional and sub-regional approaches. Therefore it was found essential to assess

the alternatives to ensure that investments in future response and risk reducing technologies deliver the optimal effect at the regional and sub-regional scale.

The BE-AWARE I project laid the ground work for this analysis by assessing the risk of oil pollution both in 2011 and in 2020, as well as the likely size of any spills. However, in order to assess which methods and technologies would be most effective in reducing and responding to oil pollution further analysis was required.

BE-AWARE II therefore modelled the outflow and drift of oil from the spills predicted in BE-AWARE I for ten different response or risk reducing scenarios, taking into consideration the hydrodynamics of the North Sea region. This was combined with an analysis of the environmental and socioeconomic vulnerability of the region to calculate environmental and socioeconomic damage resulting from the predicted spills. Finally, the impact of the different scenarios was assessed by analysing the scenario-driven changes in the overall spill damage picture. Based upon these, and the cost of implementing the measures, risk management conclusions were developed for each of the five project sub-regions.

Research and Development

Bonn Agreement countries cooperate on a wide range of technical issues through the OTSOPA Working Group. To ensure that the best available technology and techniques are used for surveillance and response Bonn Agreement Contracting Parties share information and collaborate on a range of research and development programmes.

The issues covered include aerial surveillance (sensors, radar, volume estimations), dispersants, oil recovery, risk analysis, oil spill modelling, equipment for use in rough seas, understanding of and response to chemical pollution (so-called Hazardous Noxious Substances or HNS), etc. For example, Bonn Agreement Contracting Parties have been involved in projects leading to the development and scientific underpinning of an oil volume

estimation procedure (the BAOAC), looking to develop sensors to identify HNS during aerial surveillance, developing decision-making support tools, testing new ship arrestor methods for dealing with drifting vessels, or the testing of mini sniffers to detect ship emission levels from aircraft.

Collaboration on these issues is a key part of the Bonn Agreement's work and allows countries to increase the coverage of their research and development programmes.

Oil Spill Identification

OSINet was initially established as an expert working group to address issues of oil spill identification and to develop standards for oil sampling and analysis by describing sampling techniques in a Manual and by developing a common analytical method that can be accepted and used by all Bonn Agreement laboratories. These tasks have been addressed by approving a dedicated Chapter of the CPM on “Guidelines for the Exchange of Oil Samples/Results between countries and on Oil Spill Identification” and by working on the generally accepted analytical method for oil “fingerprinting” described in the published CEN Technical Report 15522-2.

Intercalibration tests

OSINet’s objective to promote quality assurance in oil spill identification is achieved by annual meetings and annual intercalibration exercises/ring-tests (“Round Robins”), organised by the Network. These tests involve different oil products/types and each time address different problems connected with spilled oil identification. Samples of oil from real or fictitious cases are sent to the laboratories for analysis with a request to return their results.

OSINet’s participants

OSINet is an informal expert group within the Bonn Agreement. Each Bonn Agreement country has assigned at least one laboratory that is responsible for the analysis of the oil spill identification samples within OSINet. However, given the fact that the issue of oil sampling and analysis is key to identifying the source of a spill and to scientifically underpin (sometimes huge) damage claims, and since OSINet has been leading the way, OSINet over the years has expanded far beyond the Bonn Agreement region to become a worldwide group of experts with currently 44 specialized laboratories participating from 25 countries inside and outside of Europe, including laboratories in Spain, Italy, Finland, Latvia, Estonia, Bulgaria, Canada, USA, Brazil, China, Korea and Australia. And the number of participating laboratories continues to increase. The importance of the group was recently expressed by one of its Canadian members: “This group is one of the premier organizations in the world” (Deib Birkholz, Director, Research and Toxicology, NA CENTER OF EXCELLENCE, Edmonton).

New tasks and geographical expansion

Despite its 50th anniversary, the Bonn Agreement is far from rusted. On the contrary, it continues to strengthen its co-operation, adapting to new trends and tackling new challenges.

In 2019, the Bonn Agreement Contracting Parties:

- Performed a BE AWARE 2030 region-wide trend analysis, with the aim to establish key trends and insights into evolution of marine accident risk in the Bonn Agreement area today and in 2030 and comparison of results with forecasts made in the BE-AWARE I project, taking into account inter alia changes in ship sizes and transported oil cargo volumes, and recent and expected future developments regarding offshore wind farms;
- Expanded the Bonn Agreement scope of work by including MARPOL Annex VI compliance monitoring and enforcement activities – hereby recognizing that one of the main and growing pressures associated with shipping is air pollution from ships, and

jointly committing to contribute to the effective enforcement of the international ship emission standards;

- Expanded its regional cooperation through the accession of Spain and the extension of the agreement's geographical area by including the Bay of Biscay.
- Agreed on operational objectives and actions included in the BASAP 2019-2025 to face new risks such as the increasing transport of HNS, high traffic densities, offshore oil and gas operations, autonomous ships, new generation fuels, etc.

In conclusion

On its 50 anniversary the Bonn Agreement renews the vision of a Greater North Sea free from accidental, avoidable and deliberate pollution from shipping, offshore oil and gas operations and other maritime activities; and relaunches the commitment to strengthen protection of coastal and marine environment from maritime pollution, in particular through the integration of an important source of pollution: air emissions from ships under MARPOL Convention Annex VI, and to keep the joint response plans to maritime incidents including across borders. By covering MARPOL Annex VI on the limitation of sulphur and nitrogen oxide emissions from ships, the Bonn Agreement reinforces its international role in face of the ongoing endeavours to reduce ozone depleting substances and the increasing acidification trend of the marine environment.

On its 50 anniversary the Bonn Agreement welcomes Spain, a new signatory and cooperating member who has been effectively contributing to the Agreement objectives since 2003 as an Observer country. By enlarging its geographical scope of action to include the Bay of Biscay, the Bonn Agreement is now covering the main route connecting the North Sea and the Mediterranean. Historically, in the Bay of Biscay large pollution incidents requiring international assistance have occurred, such as Erika 1999, Prestige in 2002, or Grande America in 2019.

On its 50 anniversary the Bonn Agreement adapts to the coming challenges and new risks.

The North Sea area has busy shipping lanes and significant offshore oil production, and although the risk of accidents is decreasing, the Bonn Agreement needs to face the new risks and establish systems for compliance monitoring of new regulations in place. The construction of large-scale offshore windfarms, new fuels, other hazardous substances, the effective use of satellite imagery, developments in ship design, the use of Remotely Piloted Aircrafts, monitoring air pollution, are some of the aspects covered by the new action plan.

The vision and strategic aims of the Bonn Agreement unfolds into many components of work such as mutual assistance, surveillance, active cooperation and operational responses, sharing research and using the best available technology. Internationally the Bonn Agreement contributes to the UN agenda SDG14 in preventing and combatting pollution and protecting the marine environment from adverse human activities. But the work of the Bonn Agreement to protect the ocean feeds into other international commitments. Thus Contracting Parties continue to closely work with competent organisations, because sharing experiences and exchanging information on good practices is essential to achieve common goals and adapt to new challenges and emerging risks.

Glossary

AOH: Bonn Agreement Aerial Operations Handbook.

BAOAC: Bonn Agreement Oil Appearance Code.

BASAP: Bonn Agreement Strategy Action Plan.

BONNEX: Bonn exercise.

CEPCO: Co-ordinated Extended Pollution Control Operations.

CPM: Bonn Agreement Counter Pollution Manual.

DG ECHO: Directorate General on Civil Protection and Humanitarian Aid Operations of the European Commission.

EMSA: European Maritime Safety Agency.

HNS: Hazardous Noxious Substances.

MARPOL: International Convention for the Prevention of Pollution from Ships.

NSN: North Sea Network of Prosecutors and Investigators.

NOAA: US National Oceanic and Atmospheric Administration.

OSINet: Oil Spill Identification Network.

OSPAR Convention: Convention for the Protection of the Marine Environment of the North-East Atlantic.

OTSOPA: Working Group on Operational, Technical and Scientific Questions.

POLREP: Pollution reporting system.

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Text of the Bonn Agreement (including Bonn Agreement Rules of Procedure): see

<https://www.bonnagreement.org/about/policies>

Bonn Declaration of 11 October 2019: see <https://www.bonnagreement.org/about/policies>

Dublin Declaration of 24 November 2010: see <https://www.bonnagreement.org/about/policies>

Bonn Agreement Strategic Action Plan 2019-2025: see

<https://www.bonnagreement.org/about/policies>