MARINE POLLUTION INCIDENTS & THE ROLE OF ITOPF

Richard H. Johnson Technical Director

Steamship P&I - Southampton – 6th July 2023

ITOPF

Promoting Effective Spill Response

Funded by Global Shipping Industry

ITOPF

ITOPF
BACKGROUND

1970-1980

1990-2000

50 Years 1968 - 2018

1968: The **International Tanker Owners Pollution Federation** is founded to administer the **TOVALOP**

ITOPF develops its **technical services** through attendance of numerous **large tanker incidents**

ITOPF's services formally extended to **other types of ships**

Main Function

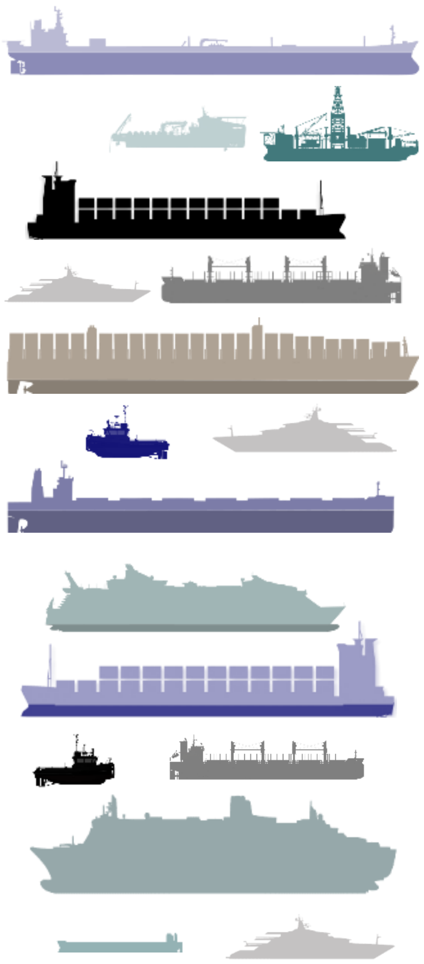
Today ITOPF's members and associates represent **90% of all ocean going tonnage**

Technical advice on effective response to spills of **oil, chemicals and other substances** in the marine environment.

Primarily funded by the **global shipping industry** (annual fee), operating on a **non-for profit** basis.

ITOPF
BACKGROUND

ITOPF'S SHIPOWNER MEMBERS & ASSOCIATES



FUNDING

TECHNICAL ADVICE

SPILL RESPONSE COMMUNITY & STAKEHOLDERS

CHINA MSA
IOPC FUNDS
UNEP
Oil Spill Response
Nō te rere moana Aotearoa MARITIME NEW ZEALAND
MPA SINGAPORE
NOAA
IBAMA MMA
IMO
IGP&I
Transport Canada
MARINHA DO BRASIL
environment, forestry & fisheries
Department: Environment, Forestry and Fisheries REPUBLIC OF SOUTH AFRICA
PREFECTURA NAVAL ARGENTINA
Maritime & Coastguard Agency
ACP
SANCCOB

ITOPF

ITOPF 2023 BOARD DIRECTORS

- Chairman: Erik Hånell (Stena Bulk AB)
- Bahri, Saudi Arabia
- BW Maritime Pte Ltd, Singapore
- BP Shipping Ltd, UK
- Chevron Shipping Company LLC, USA
- China Shipping Tanker Co. Ltd., China
- Eneos Ocean Ltd, Japan
- Euronav NV, Belgium
- ExxonMobil SeaRiver Maritime Inc., USA
- F Laeisz Schiffahrtsgesellschaft GmbH, Germany
- Gard/Skuld P&I, Norway
- International Seaways Inc., USA
- Japan Ship Owners Mutual P&I Assoc., Japan
- Keystone Shipping Corp., USA
- Maersk Tankers AS, Denmark
- NYK Line, Japan
- Petrobras Transporte SA - Transpetro, Brazil
- Seven Islands Shipping, India
- Shell International Trading & Shipping Co Ltd, UK
- Steamship Insurance Management Services, UK
- Stolt Tankers B.V., Netherlands
- Teekay Shipping , Canada
- Tsakos Energy Navigation, Greece
- West of England / Chairman (IGP&I PSC)

ITOPF

BACKGROUND

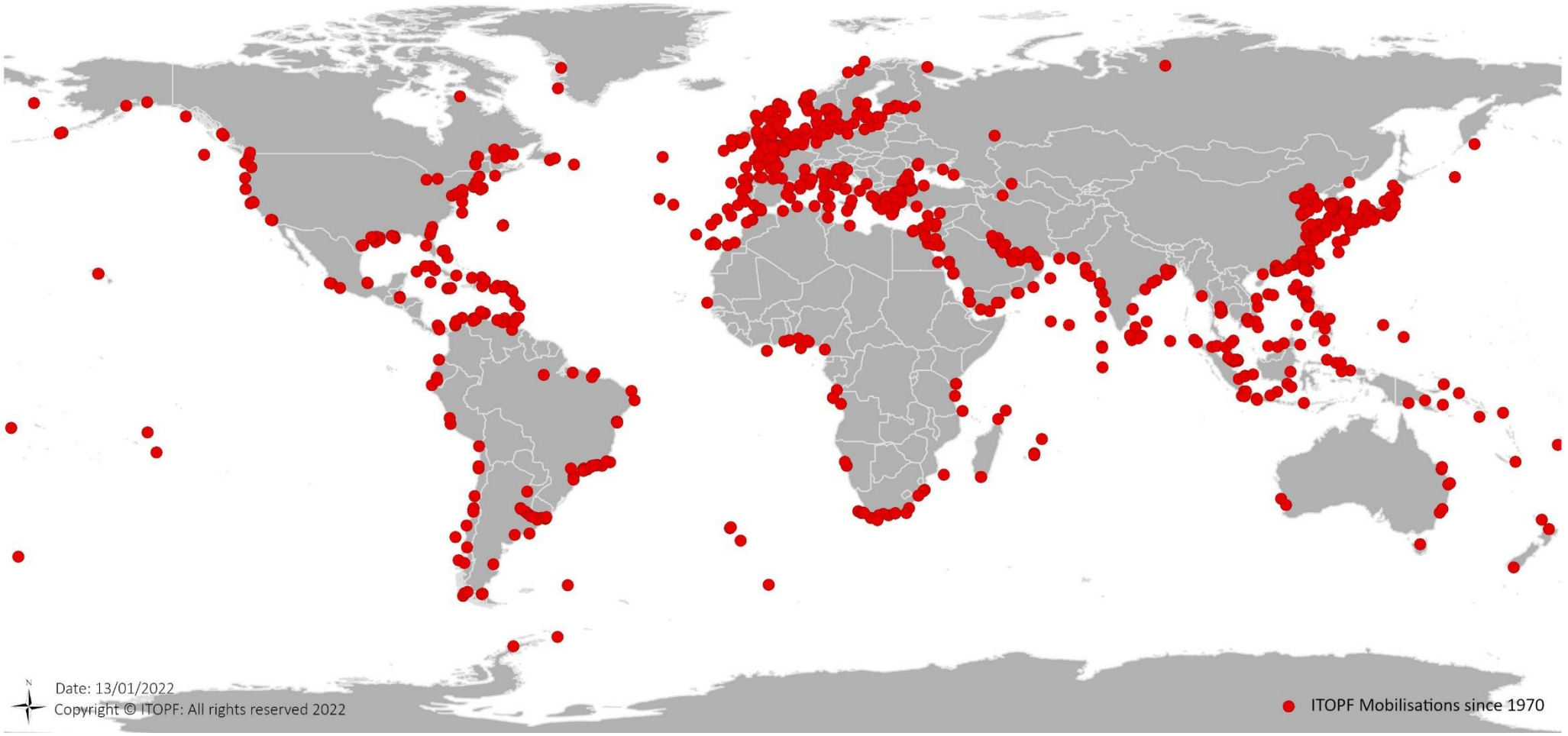
ITOPF STATISTICS

Attended Spills 1970 - 2022

>830 incidents

in 100 countries

Avg. 20 spills/yr

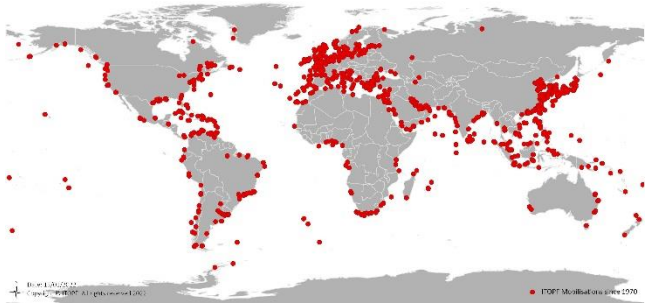


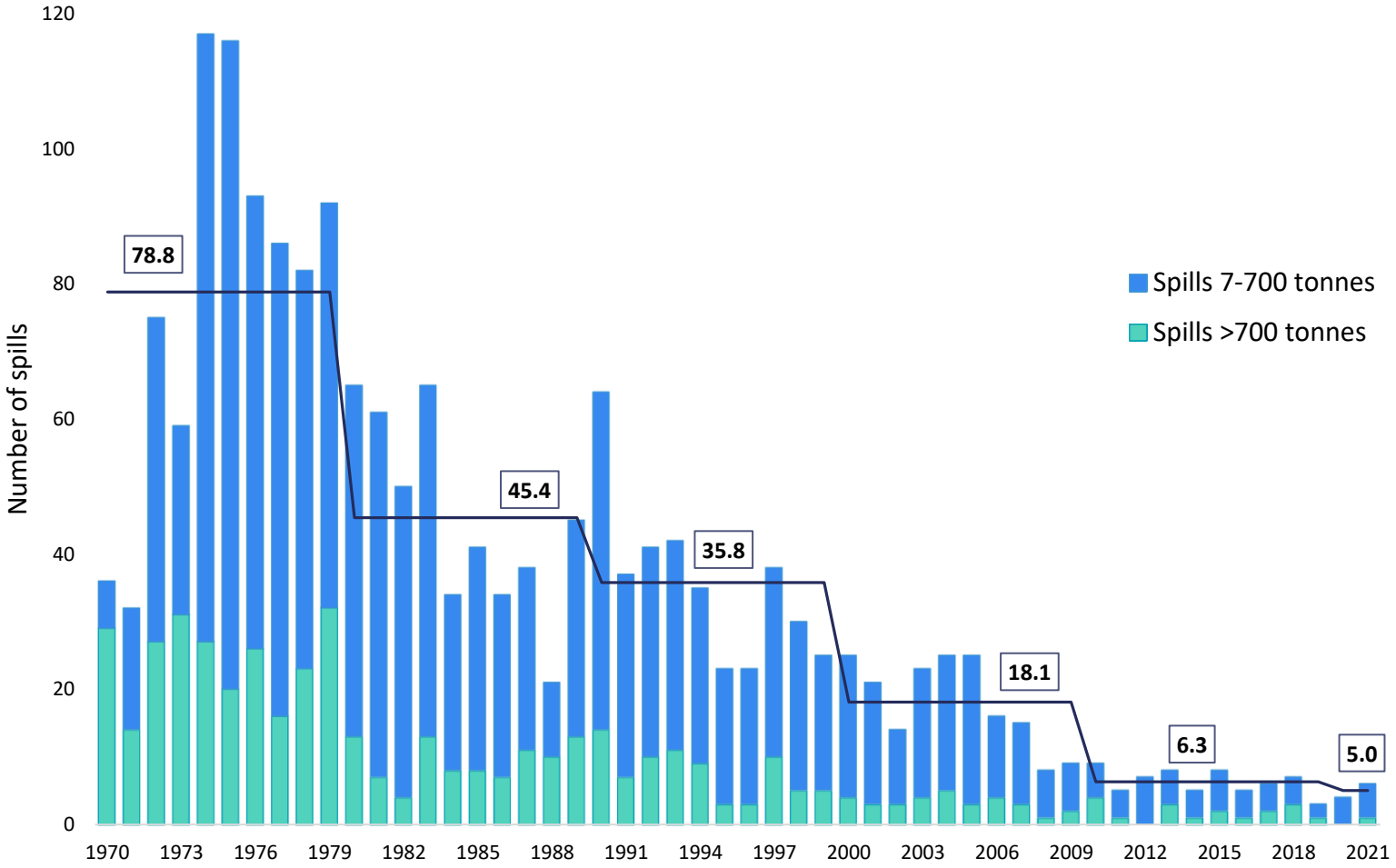
ITOPF'S AIM:


ITOPF
PROMOTING EFFECTIVE
SPILL RESPONSE
TECHNICAL
5
SERVICES

ITOPF STATISTICS

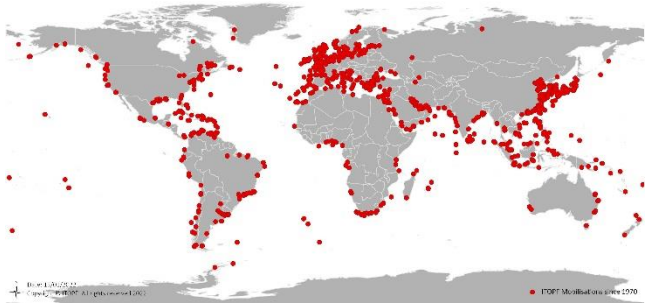
Number of Tanker Spills

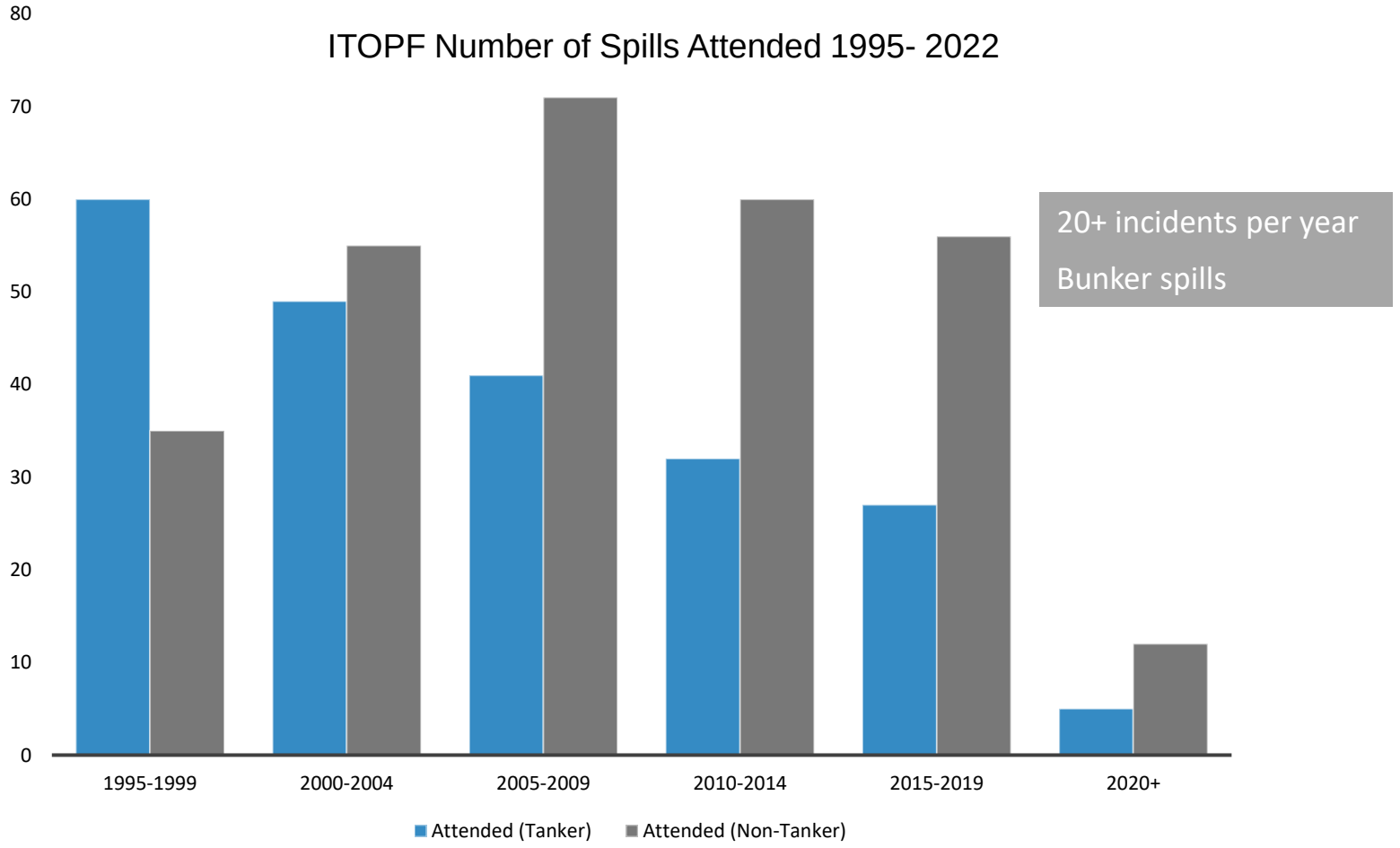




ITOPF
STATISTICS

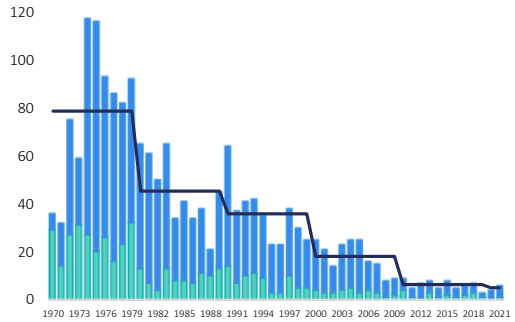
No. of Attended Spills 1995 - 2022





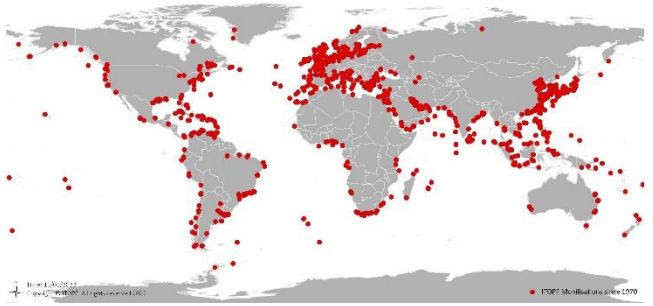
20+ incidents per year

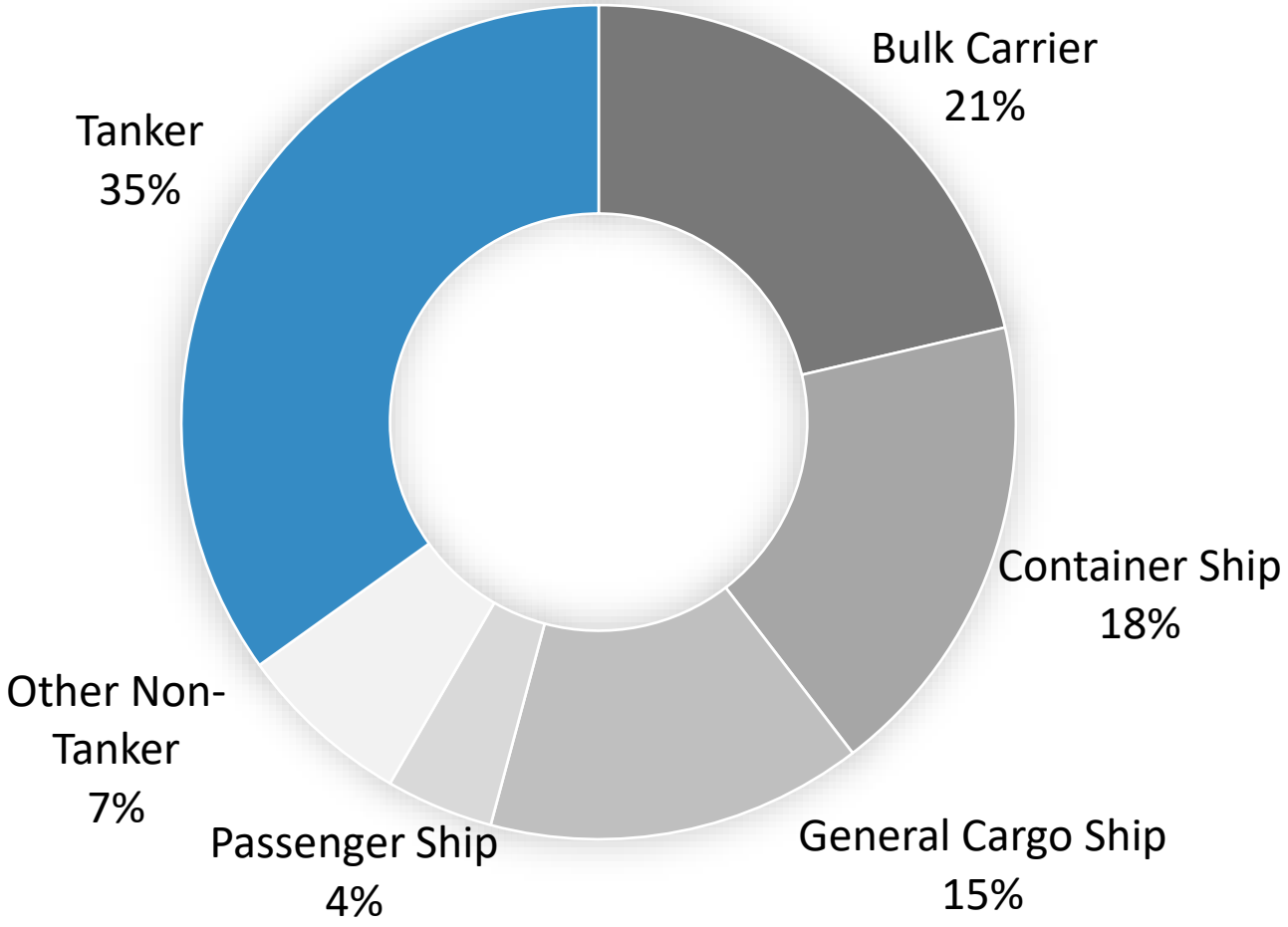
Bunker spills

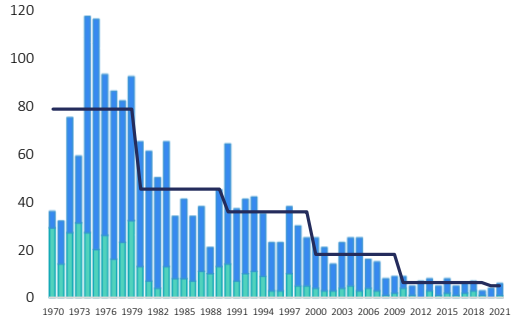


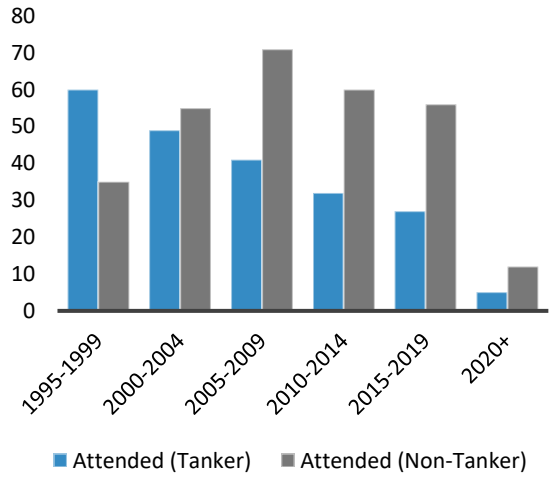
ITOPF STATISTICS

Attended Spills 2010 - 2022



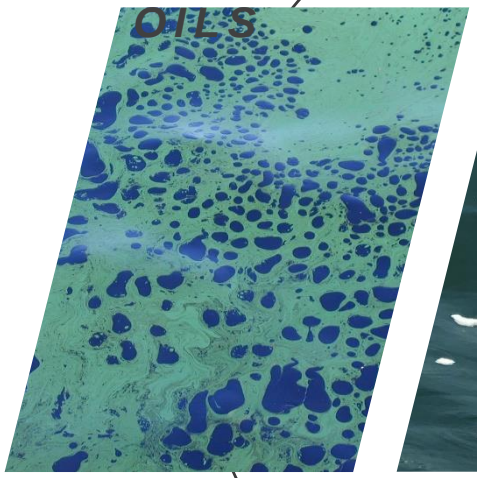


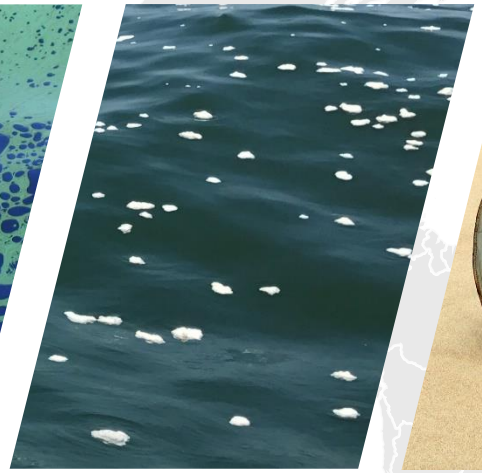




ITOPF'S REMIT:

MINERAL & VEGETABLE OILS





CHEMICALS

OTHER SUBSTANCES CARRIED BY SHIPS

ITOPF'S REMIT:

OTHER SUBSTANCES CARRIED BY SHIPS

Coal

Grain

Timber

Nurdles

Waste water

Livestock

ITOPF'S REMIT:

CORAL REEF GROUNDINGS

ITOPF STATISTICS

ITOPF Steamship P&I Attended Spills

60 incidents

ITOPF

RESPONSE ACTIVITES

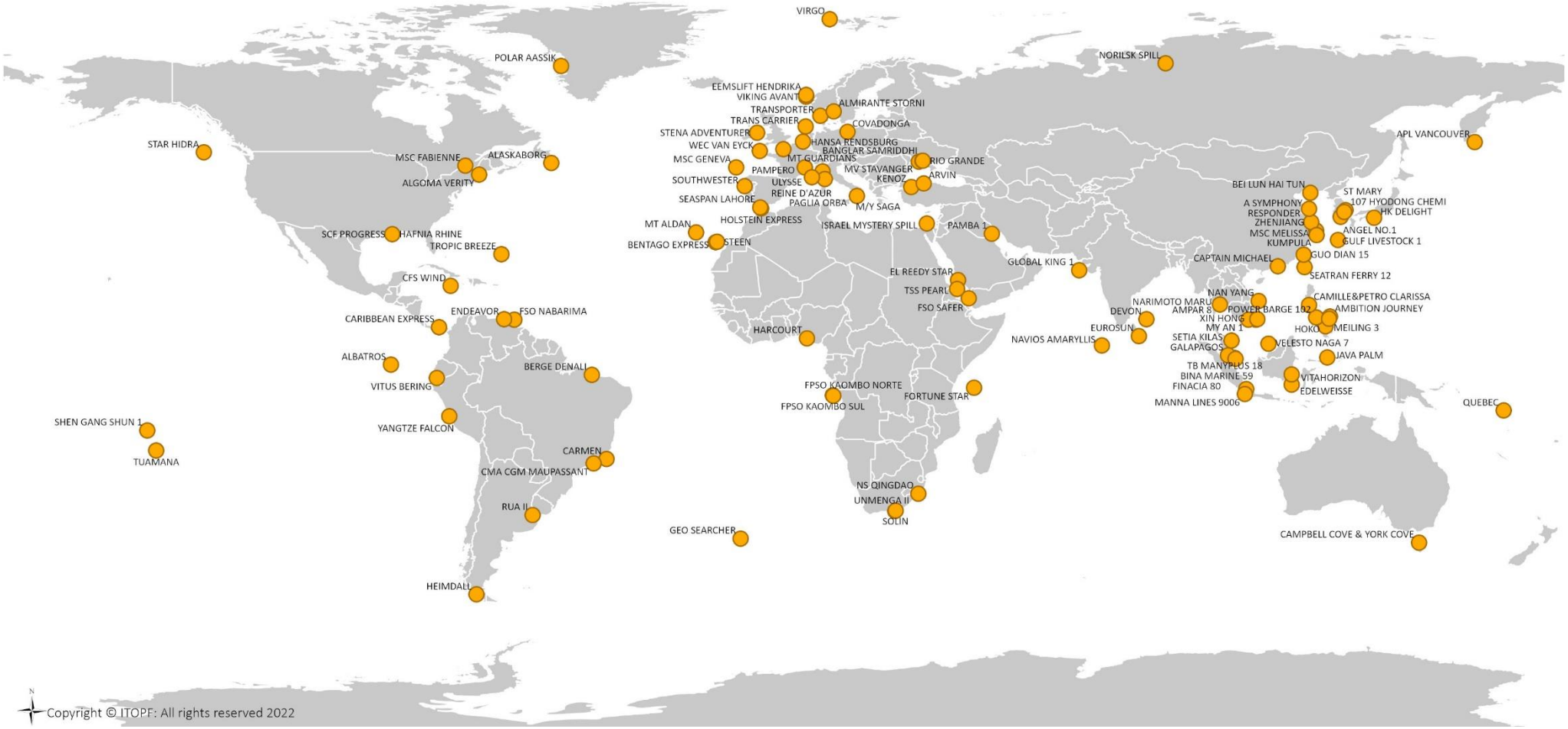
The COVID-19 years

ITOPF
RESPONSE ACTIVITES

The COVID-19 years – Remote Advice

100 incidents

in **56** countries



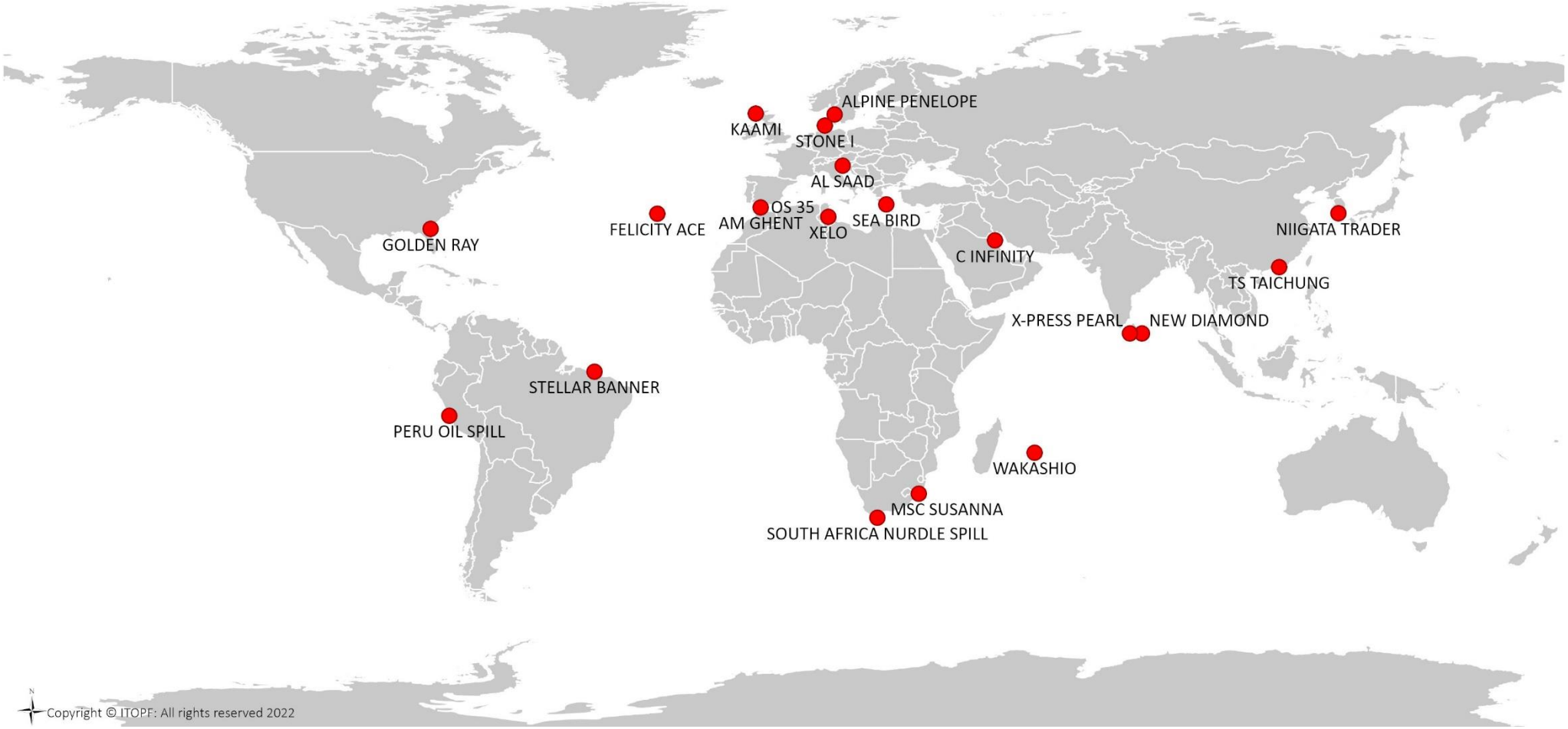
ITOPF
RESPONSE ACTIVITES

The COVID-19 years – Attended spills

19 incidents

in **16** countries

Extended rotations, quarantines, restrictions



ITOPF
RESPONSE ACTIVITES

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Extended rotations, quarantines, restrictions

RISK
ASSESSMENT

OILS ROB: 255 M^3 VLSFO & 50 M^3 MGO

RISK
ASSESSMENT

OILS ROB: 255 M^3 VLSFO & 50 M^3 MGO

DG	Non-DG
Nitric acid	Machinery
Sodium hydroxide	Household goods
Methanol	Food
	Nurdles

Source: Getty Images

KEY FOCUS

Shoreline Clean-up

- Mitigating pollution damage
- Recommending techniques








SPILL RESPONSE

ITOPF's Initial Actions

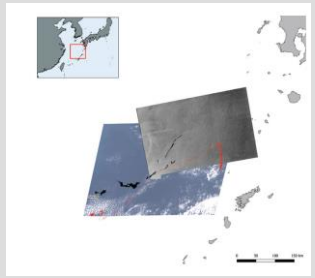
Notification

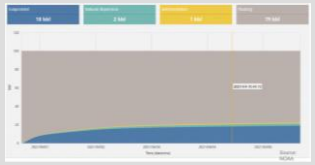
Typically via the vessel's P&I insurers, but can be through correspondents, surveyors, OSROs or national authorities.

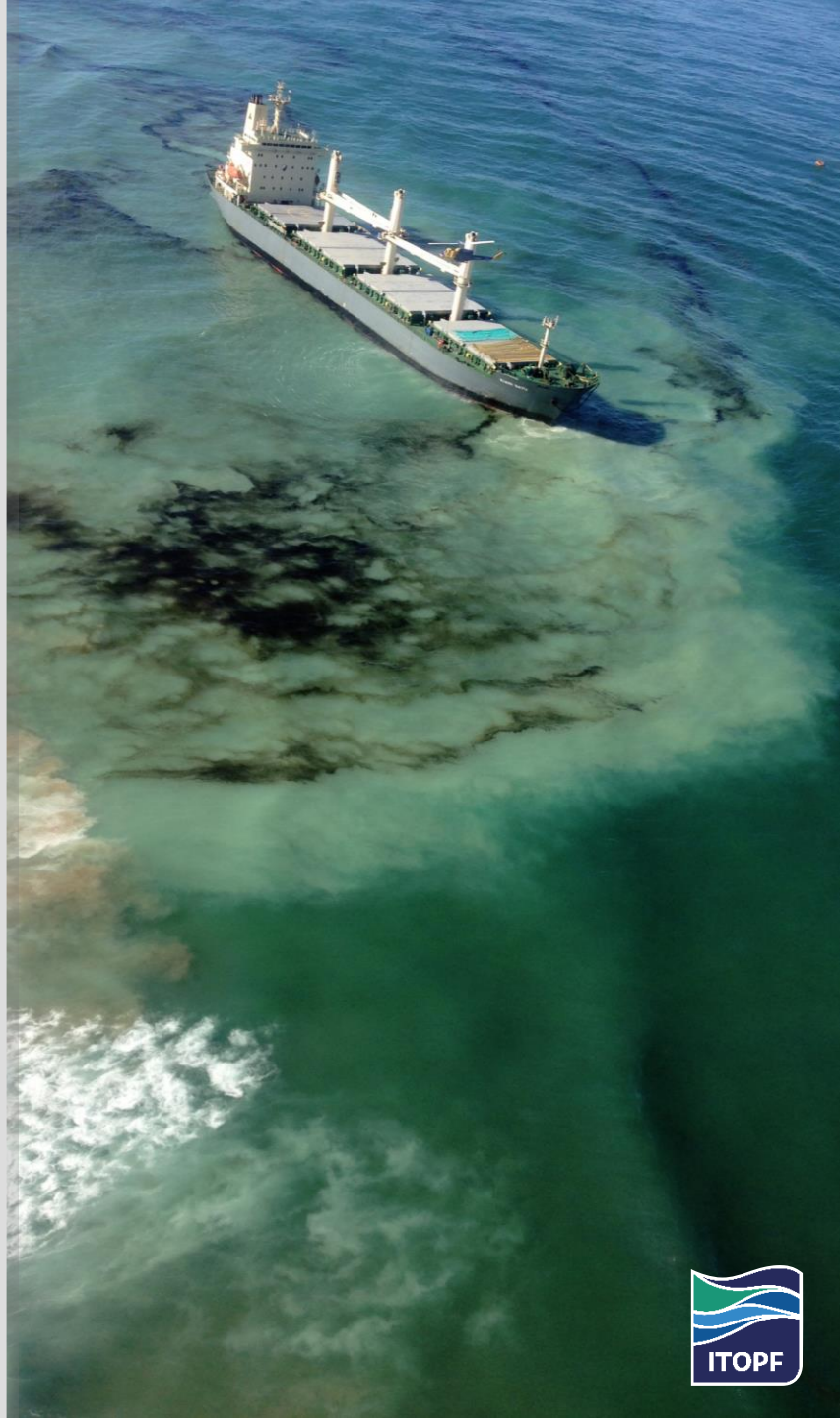
Evaluation

Preliminary assessment of likely extent of the pollution, its probable behaviour, fate, potential impact and local level of preparedness

Mobilisation







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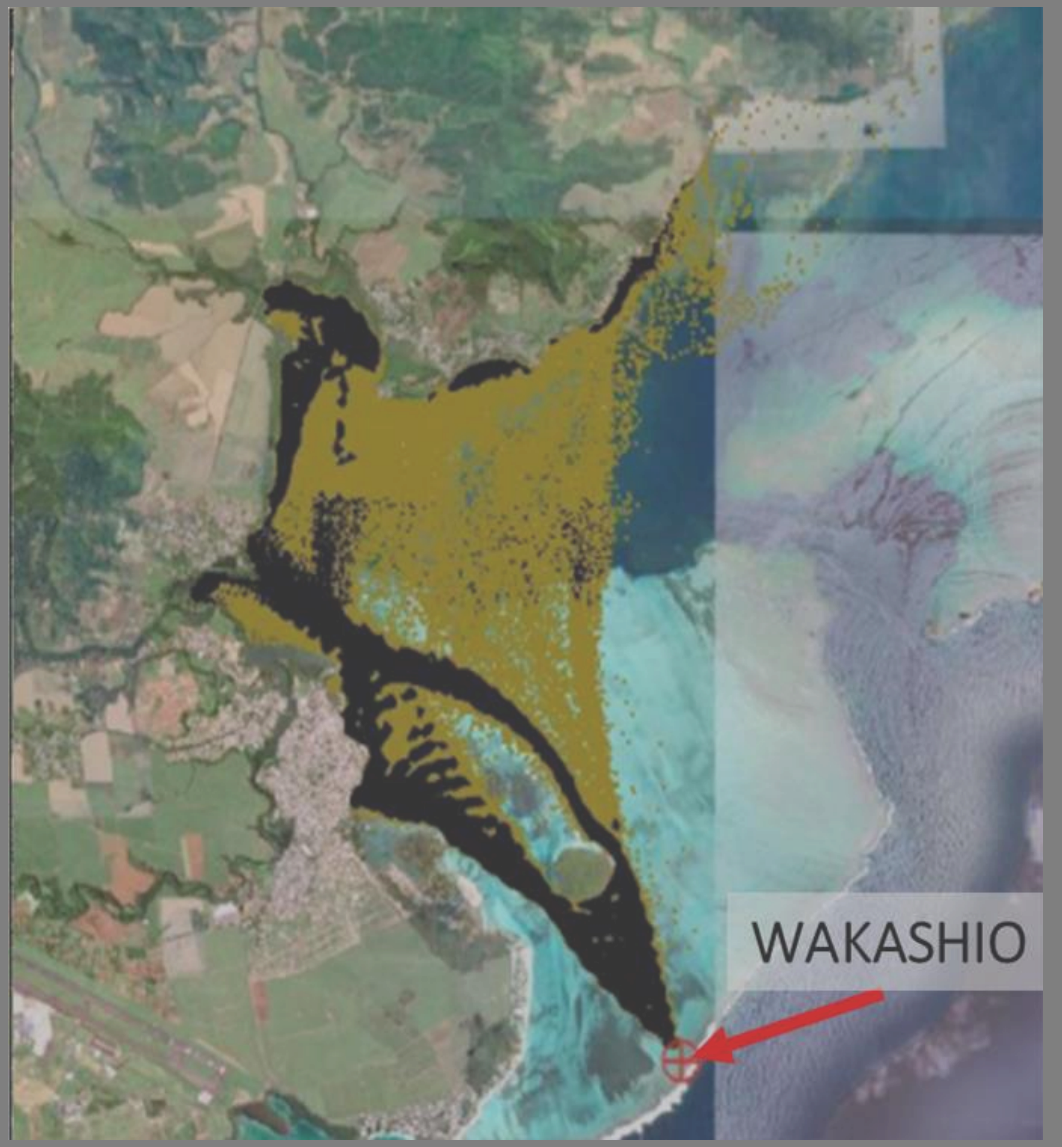
REMOTE SENSING AND MODELLING

WAKASHIO

25 JULY 2020



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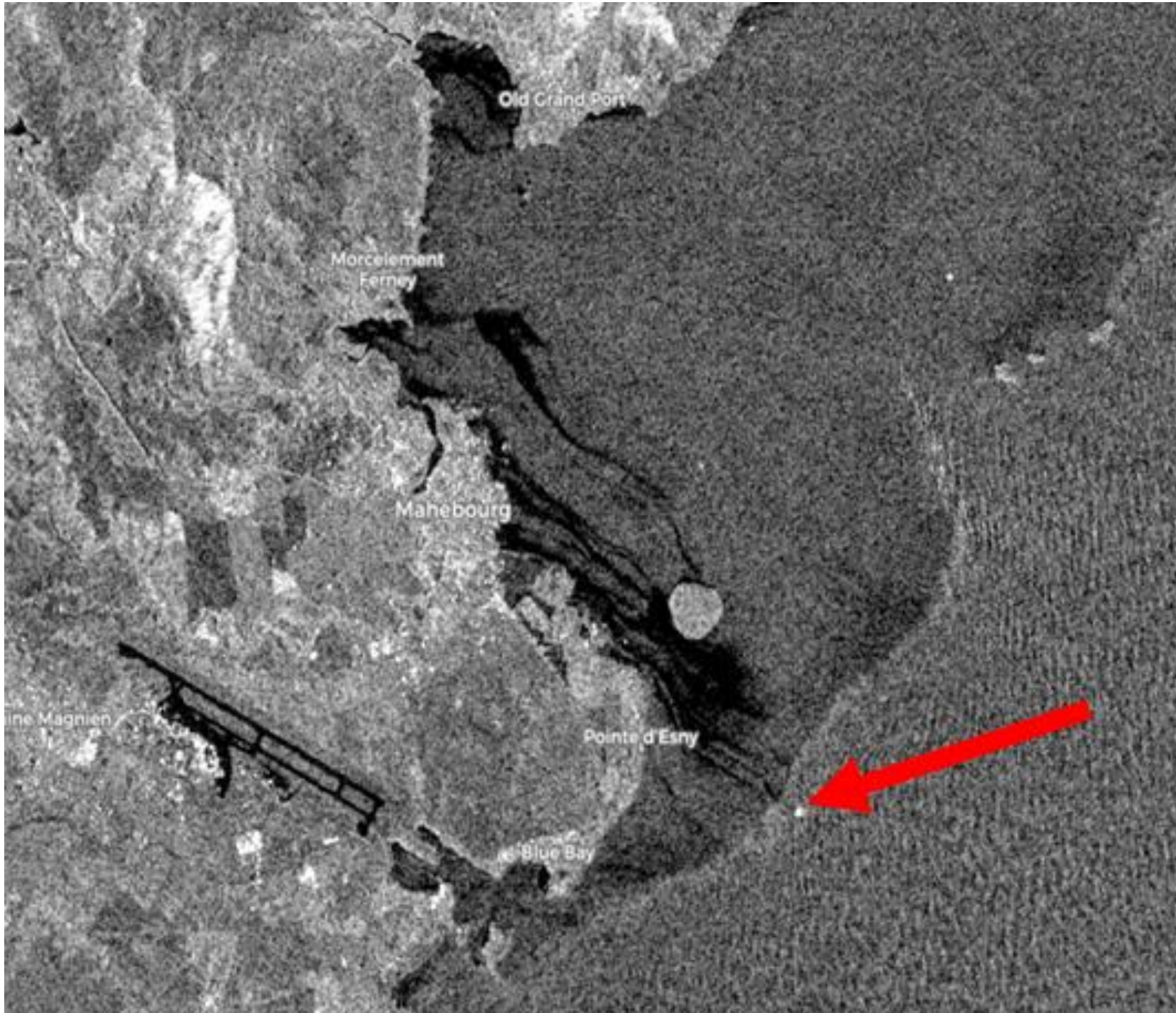


WAKASHIO

25 JULY 2020

Source: MPF/PHS

ROLE ON-SITE

SPILL RESPONSE

- Briefing from correspondent and/or surveyor
- Meet with lead authority and/or spill responders
- Conduct initial survey of affected area (ideally jointly)

ITOPF

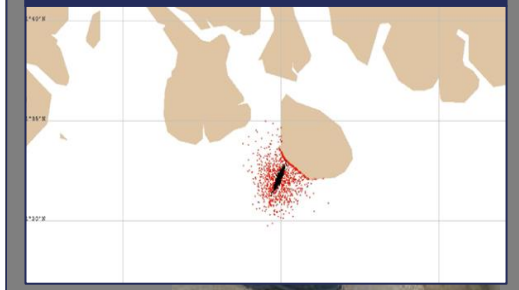
ROLE ON-SITE

SPILL RESPONSE

- Provide impartial technical advice to government, responders & affected stakeholders
- Promote joint assessments & cooperation between all parties
- Monitor spill response & investigate damage to sensitive resources
- Arrange for additional expertise & equipment to be brought on site

ROLE VARIES DEPENDING ON THE INCIDENT AND LEVEL OF IN-COUNTRY PREPAREDNESS

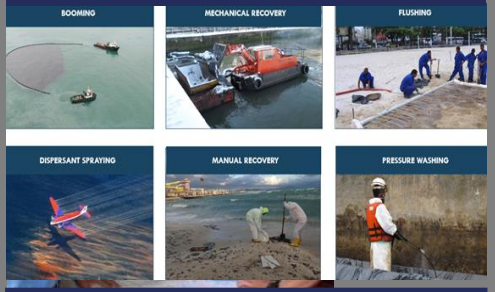
FATE & BEHAVIOUR MODELLING



AERIAL SURVEILLANCE

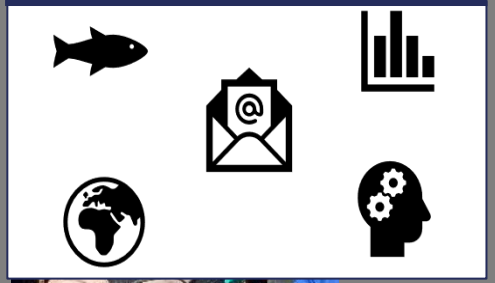
SHORELINE & AT-SEA SURVEYS

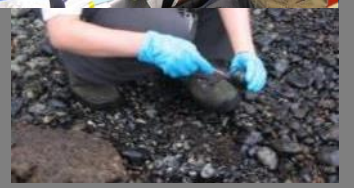
ADVISE ON RESPONSE OPERATIONS



LIAISE WITH STAKEHOLDERS

REPORTING





ITOPF

ROLE

ON-SITE

Aerial Surveillance

Aerial surveillance offers **valuable information** critical to the early stages of a response:

- **Confirmation of the source of pollution**
- **What is being spilled?**
- **Where is the pollutant heading?**
- **What sensitivities may be at risk?**
- **How is the pollutant interacting with the shoreline?**
- **Are the response measures employed effective?**

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AT-SEA RESPONSE

Technique toolbox

ITOPF

AT-SEA
RESPONSE

SPILL RESPONSE

- Mitigating pollution damage
- Understanding limitations

ITOPF

AT-SEA
RESPONSE

SPILL RESPONSE

- Mitigating pollution damage
- Understanding limitations

ITOPF

ROLE ON-SITE

AT-SEA SPILL RESPONSE

- Mitigating pollution damage
- Understanding limitations

WAKASHIO

25 JULY 2020


Source: Polyeco


Source: Polyeco


Source: MPF/PHS


Source: Polyeco

ROLE ON-SITE

AT-SEA SPILL RESPONSE

- Mitigating pollution damage
- Understanding limitations

WAKASHIO

25 JULY 2020

AT-SEA
RESPONSE

SPILL RESPONSE

- Mitigating pollution damage
- Understanding limitations
- Time and place
- Pros and cons

Shoreline Protection

- Shoreline surveys conducted to assess severity of **impact**, plan **response operations** and track progress/recovery.
- Ideally **conducted jointly** with **government authorities** to develop common strategy.

SHORELINE RESPONSE

Shoreline surveys

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SHORELINE RESPONSE

Clean-up techniques

- Mitigating pollution damage
- Recommending techniques

SHORELINE RESPONSE

Clean-up techniques

- Mitigating pollution damage
- End Points
- How clean is clean

SHORELINE RESPONSE

Clean-up techniques

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ITOPF

ROL
E
ON-SITE

Shoreline clean-up techniques

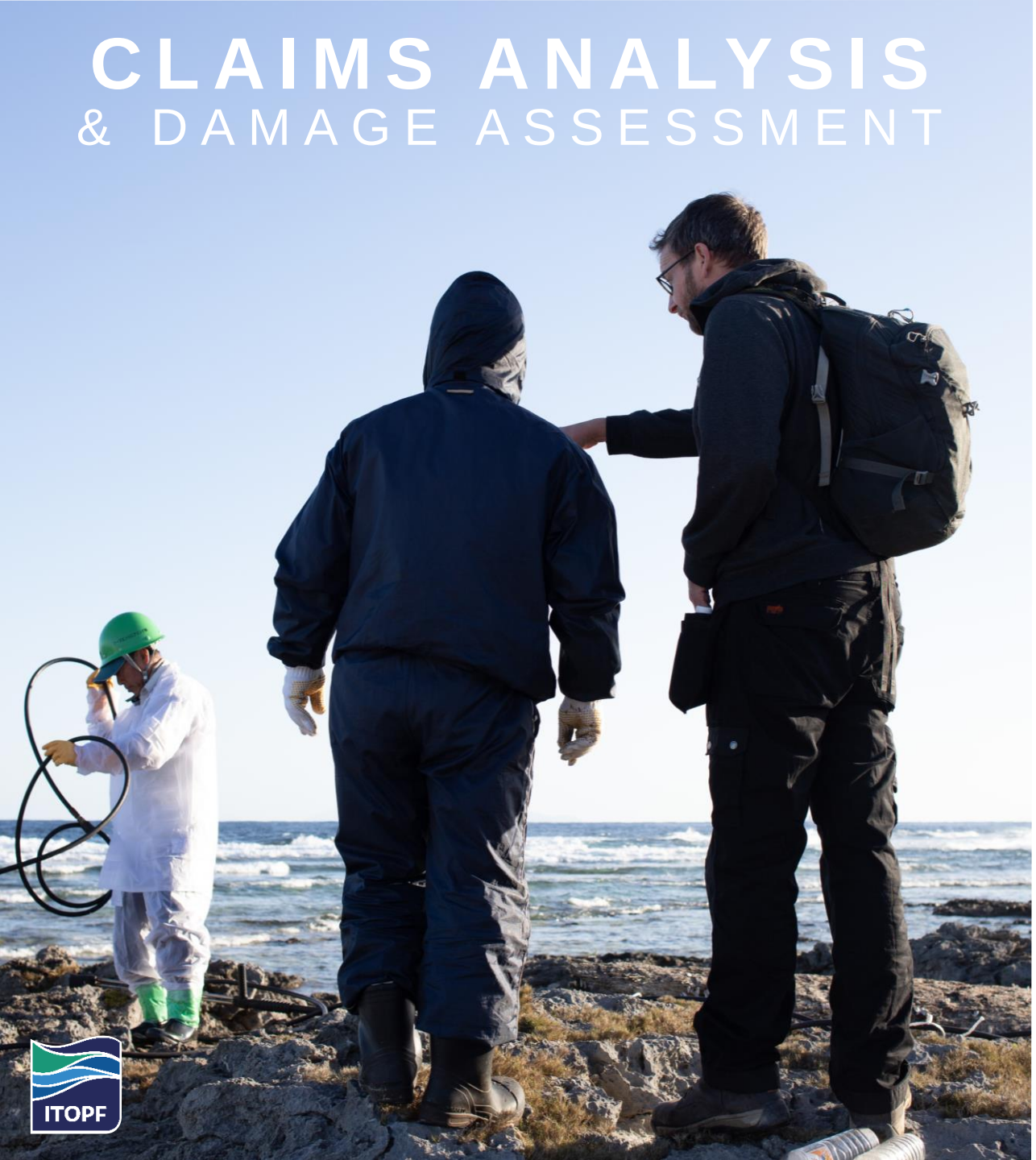
- Mitigating pollution damage
- End Points
- How clean is clean

SHORELINE RESPONSE

Clean-up techniques

- Mitigating pollution damage
- More harm than good

CLAIMS ANALYSIS
& DAMAGE ASSESSMENT



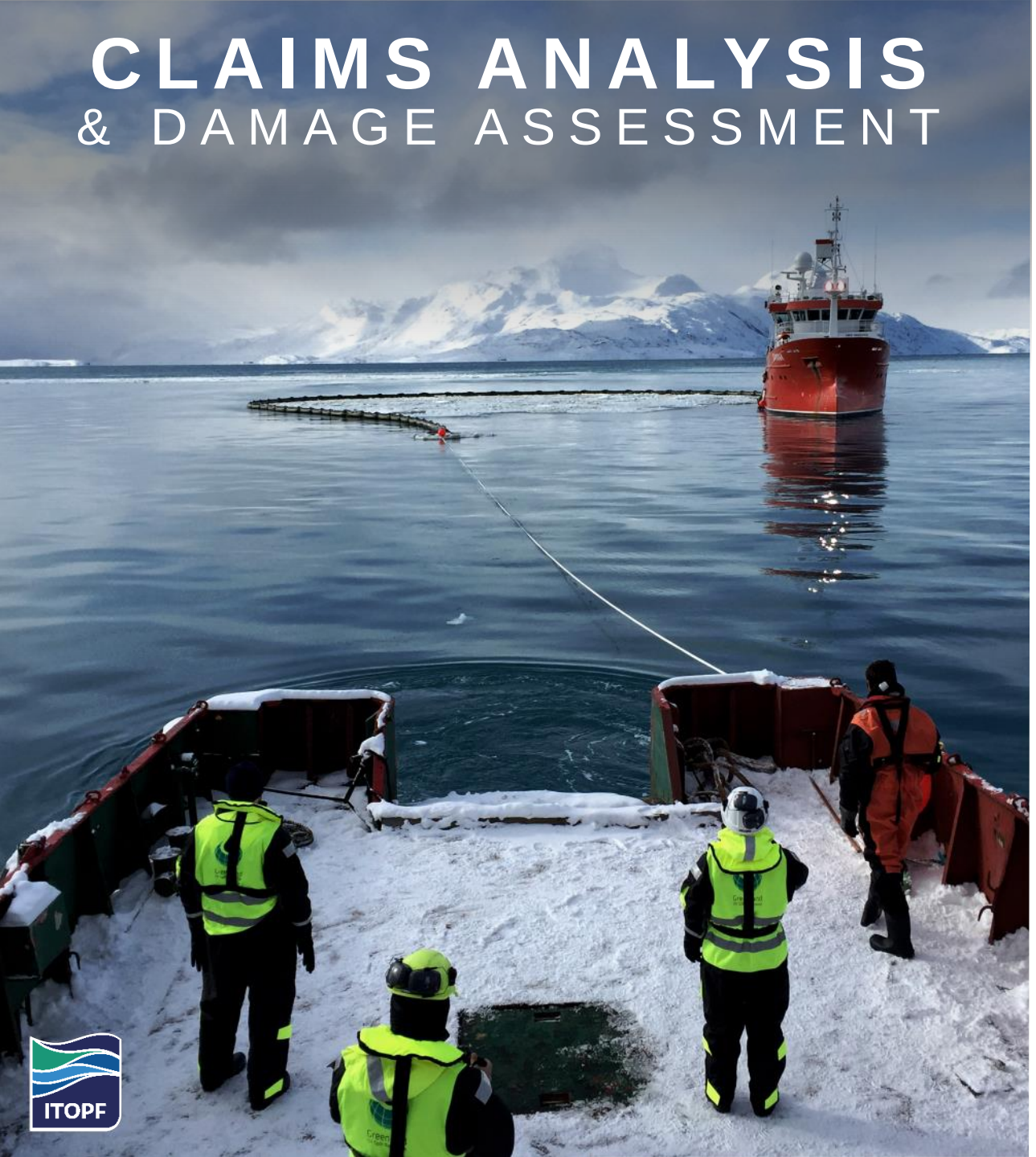
ITOPF is ideally placed to provide advice on the technical reasonableness of spill response costs, as well as damage caused by spills

•Aim is to encourage a **cooperative approach** to facilitate the prompt and amicable settlement of claims.

•**Objective** comments on **technical merits** of claims to **all parties.**

•ITOPF's support is regularly requested on the **four claim types** covered by the **international compensation regime**:

CLAIMS ANALYSIS
& DAMAGE ASSESSMENT



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Preventive measures

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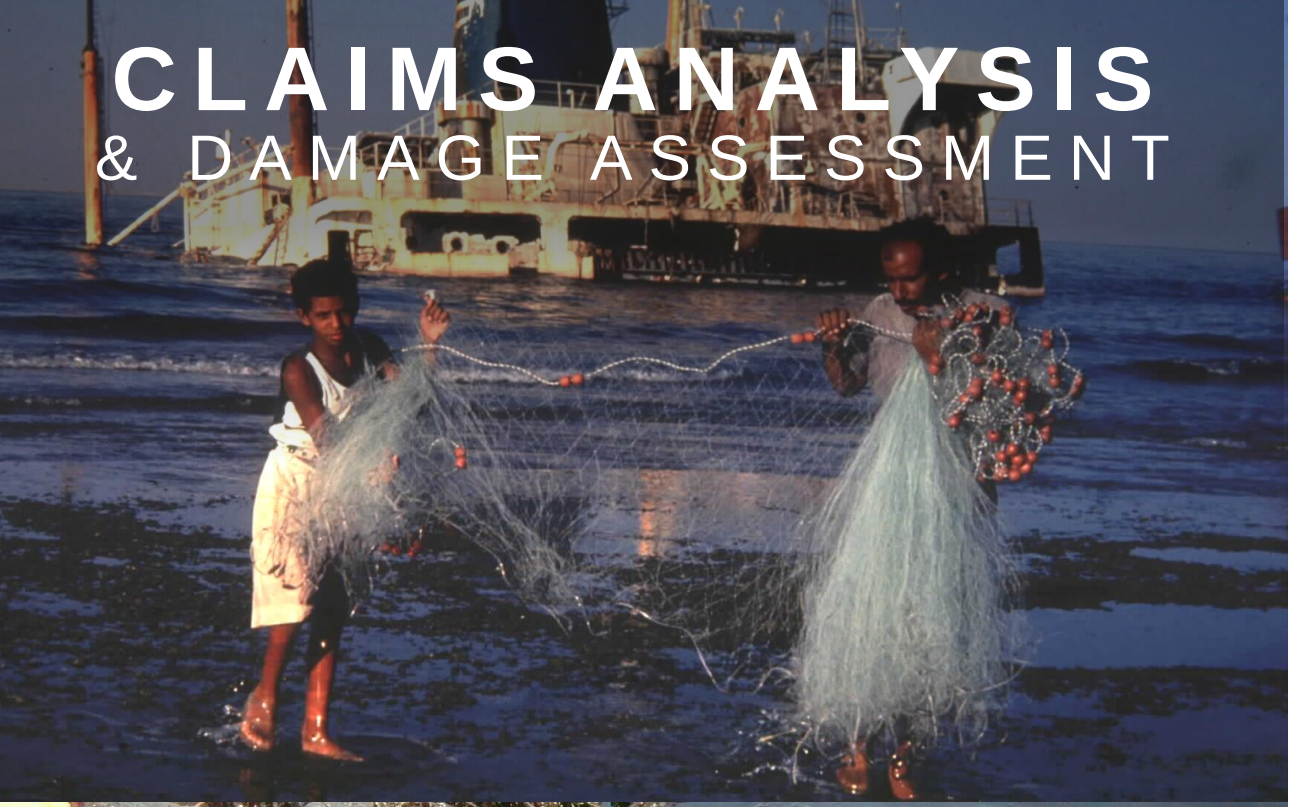

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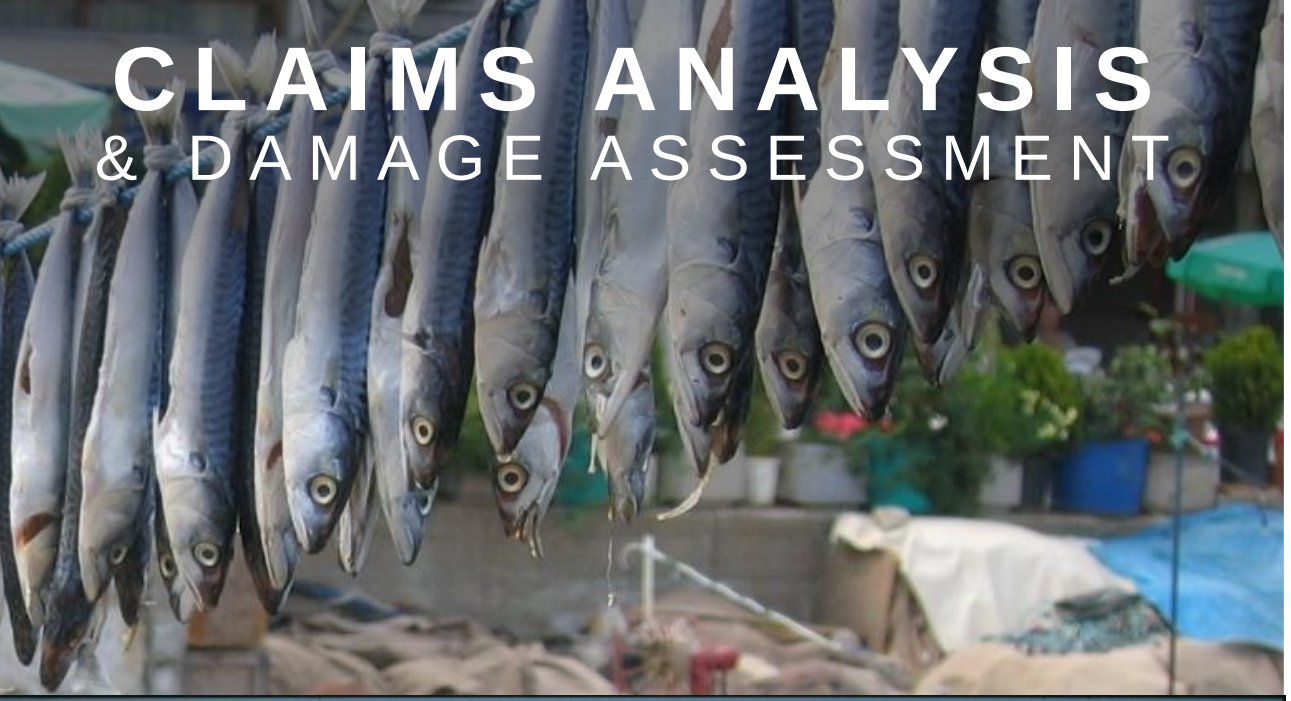
Preventive measures

Property Damage

CLAIMS ANALYSIS
& DAMAGE ASSESSMENT



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Preventive measures

Economic loss

Property Damage

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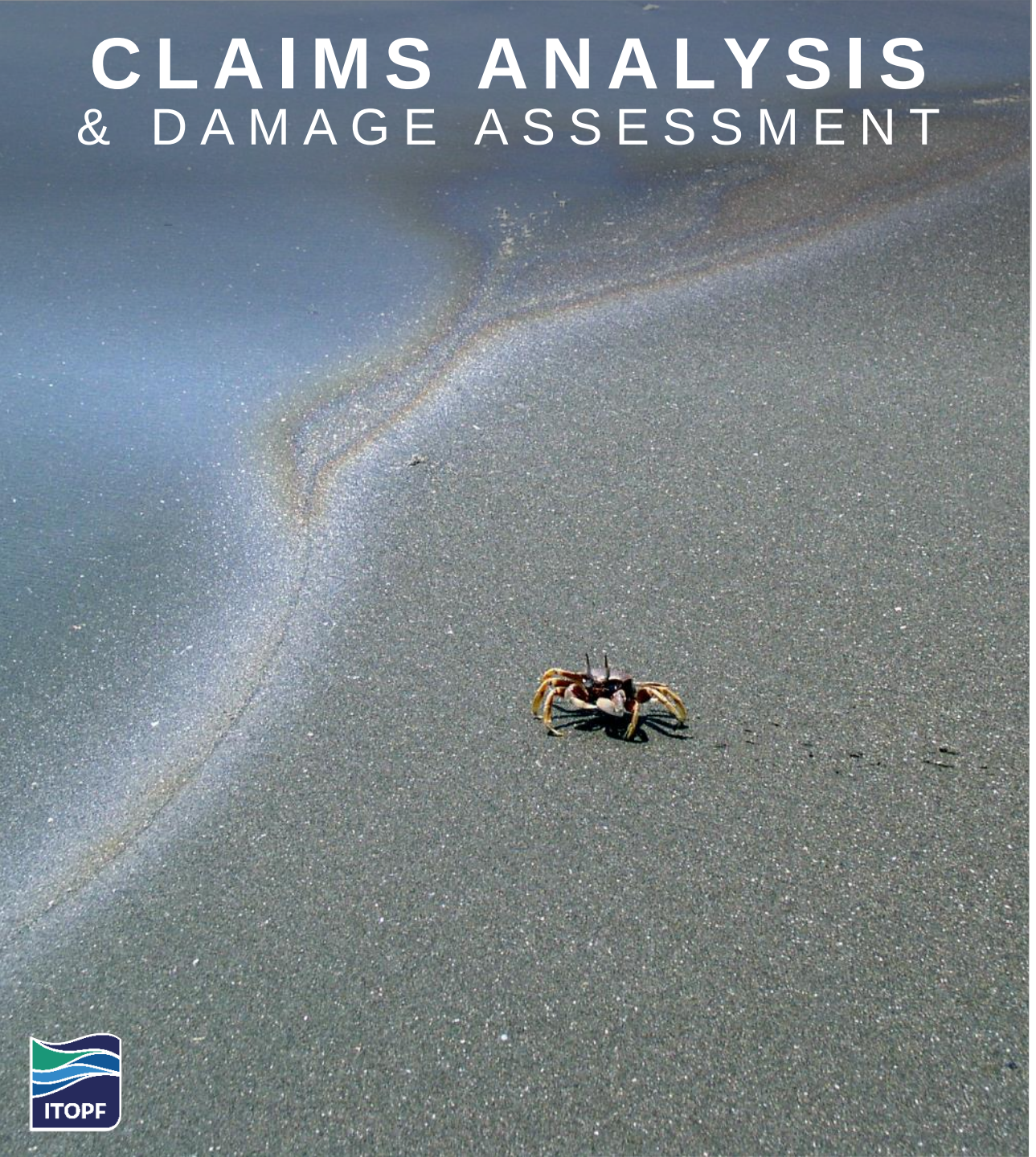

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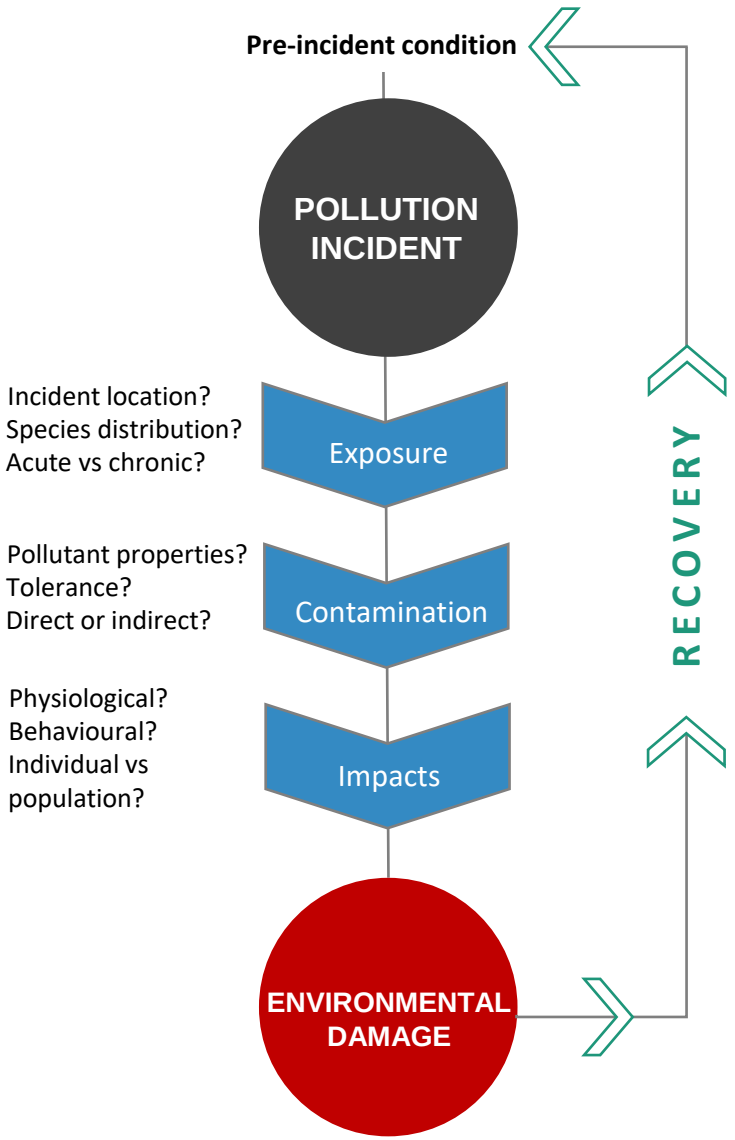
Preventive measures

Economic loss

Property Damage

Environmental Damage

ENVIRONMENTAL MONITORING



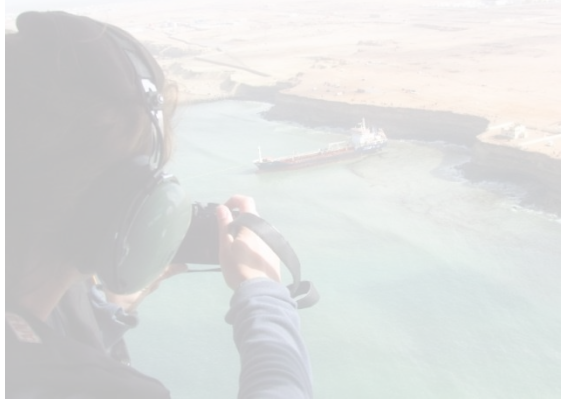
- **Post spill** studies help determine **severity of impact** and **recovery**.
- **May include chemical** sampling and/or **biological** sampling.
- Studies must be **designed and scaled** according to circumstances.
- Studies inform the need for **restoration measures** to **accelerate recovery**.

TECHNICAL

5

SERVICES

SPILL RESPONSE

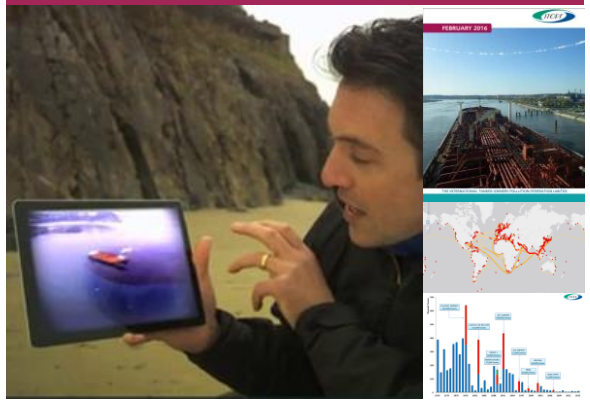


DAMAGE ASSESSMENT & CLAIMS ANALYSIS

CONTINGENCY PLANNING & ADVISORY

TRAINING & EDUCATION

INFORMATION SERVICES

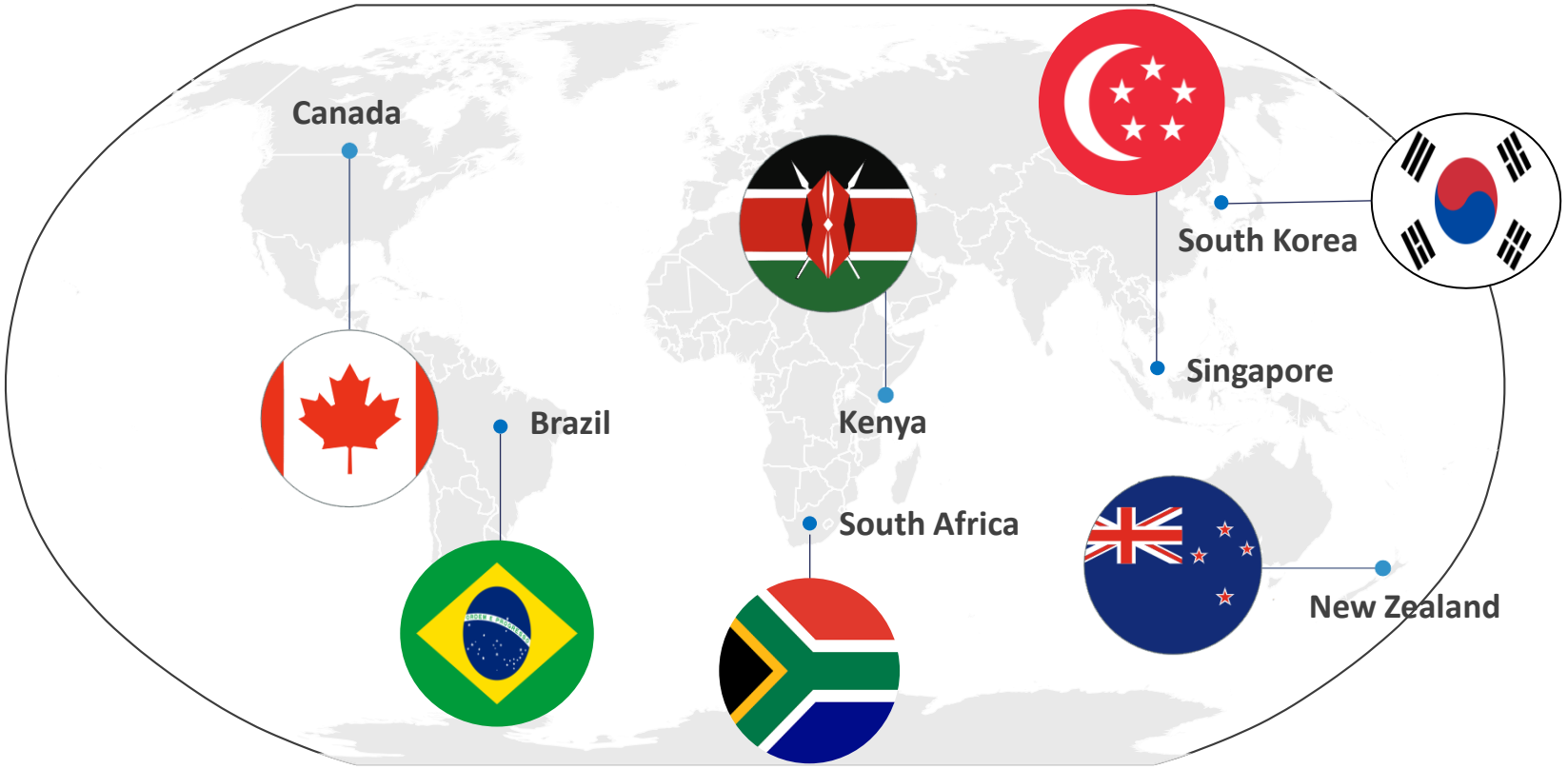


ITOPF

CONTINGENCY PLANNING & ADVISORY WORK

We regularly advise governments and industry on the preparation of contingency plans and other matters related to accidental pollution from ships.

RECENT CONTINGENCY AND ADVISORY PROJECTS:



40+

Projects since 2010

IPIECA International Association of Oil & Gas Producers

RETOS™ arpel

Shell

WEST Mediterranean Marine Oil & HNS Pollution Cooperation

ITOPF

TRAINING & EDUCATION

IMO Training Partner

230+

Training events since 2015

ITOPF

Training topics

EXPERIENCE BASED

At-Sea Response | Aerial Surveillance | Shoreline Response | Cold Climate Response | Command and Control

We organise and participate in training courses, workshops and seminars for government & industry around the world.

TAILORED

Coral Reef Groundings | Environmental Damage and Monitoring | Claims and Compensation | Response to HNS Incidents | Dispersant Application

INTERACTIVE

Waste Management | Shoreline Surveys | Impacts of Spills on Fisheries and Mariculture | Impacts of Spills on Tourism

And more...

We are a primary and trusted source of information on accidental ship-source pollution.

INFORMATION SERVICES

50 Years of tanker spill statistics

Resources in multiple languages

www.itopf.org

Richard Johnson – Technical Director

Thank you

Richard H. Johnson Technical Director

MARINE POLLUTION INCIDENTS &
THE ROLE OF ITOPF

ITOPF