



DESMI GROUP
DESMI RO – CLEAN A/S
ENVIRO-CARE PRESENTATION
ADB 2021

DESMI

Corporate overview

DESMI A/S – Group company

At a glance

Established in 1834: 185+ years of experience & financial strength

Headquarters in Denmark and local offices in more than 20 countries

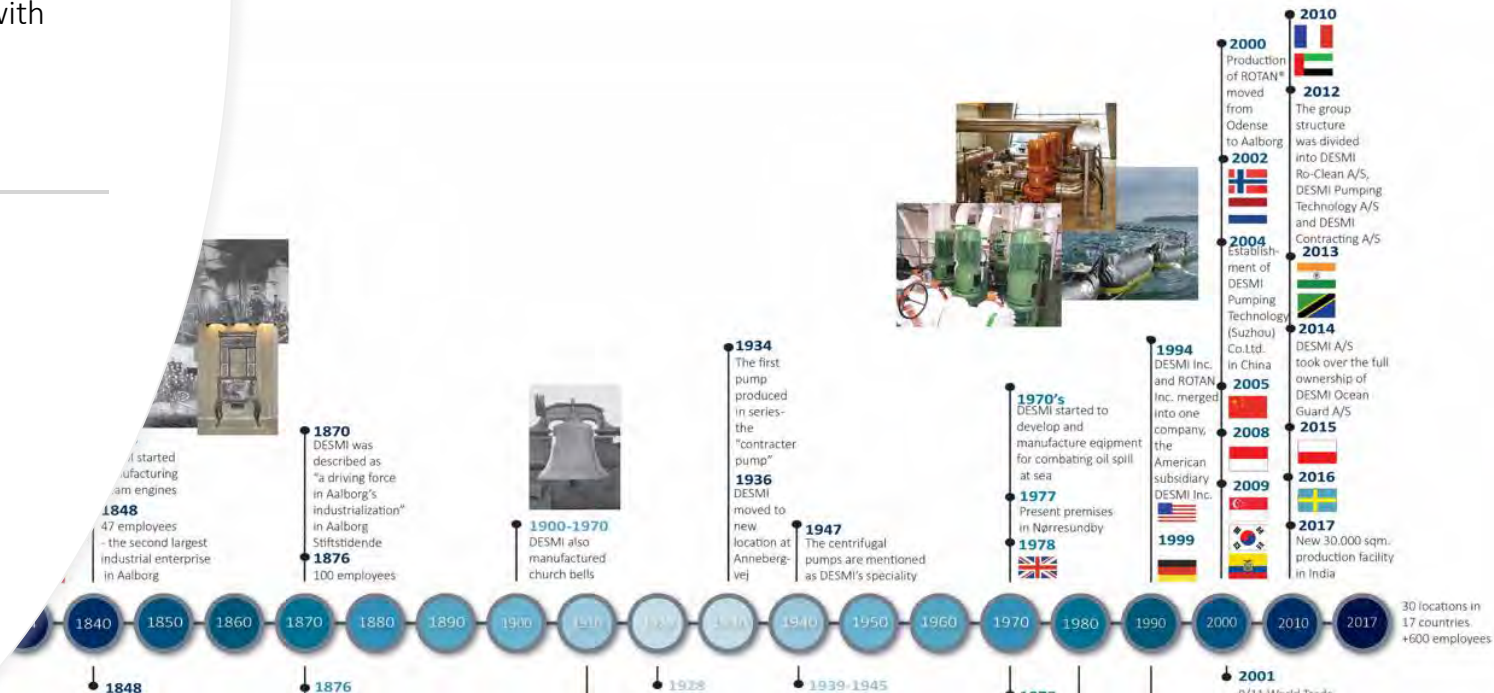
A group company with integrated businesses to manufacture & sell pumps, pump related systems and environmental clean-up solutions for five segments

As the global leader in marine & offshore pump & water surface pollution sector, the solution operates in more than 100 countries with +1000 employees

Production facility in China, Denmark, India and the US



DESMI



DESMI A/S: A group company with five reporting segments

Acting as one global company with focus on growth & synergies



Marine & Offshore

For more than 50 years we have supplied marine pumps to the world's fleet - from the largest container ships to the smallest fishing vessels.



Industry

The key factors in all areas of the process industry are reliability, productivity and performance of the production plant.



EnviRo-Clean

Our solutions for oil spill, Seaweed & marine debris are trusted in the industry. Whether the requirement is for offshore, shoreline, Arctic, Equatorial environment or in the busiest cities, we deliver proven solutions at best life cycle costs.



Defence & Fuel

Our Fuel handling solutions from DESMI Defence & Fuel are highly recognized by armed forces around the world, both Navy, Air Force and Military.



Utility

DESMI supplies energy efficient & reliable pump solutions to District Heating, Power & Waste-to-Energy Plants, District Cooling Plants & networks, Medium/Larger HVAC, Power Generation, Leisure Industry, Sprinkler Systems and Wastewater.

DESMI

EnviRo – Clean Segment



DESMI ENVIRO – CLEAN

Segment companies

DESMI Ro-Clean A/S (HQ)

DESMI Singapore Pte. Ltd.

DESMI GmbH

DESMI Ltd.

DESMI Peru

DESMI Africa Ltd. Tanzania

DESMI Latinoamerica S.A.

DESMI Korea

DESMI Inc.

DESMI Ro-Clean APAC

DESMI S.A.R.L

DESMI India LLP.

DESMI Pumping Technology A/S (Br.)

DESMI

Business Segment: Knowledge, Expertise & Operations



Foundation from DESMI Oil Spill Response business



World's most experienced Oil Spill Response equipment manufacturer with 40+ years of service to the industry



Known for expertise in unsurpassed containment and collection methods in oceans, seas, rivers & lakes to deflect and collect surface oil, marine debris & seaweed thereby reducing the impact of global challenge in the waterbodies



A modern and dynamic organization, which has constantly evolved to meet the needs of its customers and the changing business environment



Green technologies and environmental consciousness products & systems that comply with global regulations

AMOUNT OF MARINE LITTER IS EQUAL TO THE SIZE OF RUSSIA?

Through the Gyre

By now, most of us are aware that there is a large patch of floating plastic in the middle of the Pacific Ocean. What you may not know is that it's not made up of plastic bags and empty bottles. It's made up of billions of tiny pieces of plastic, and it's basically invisible unless you're floating in it. While this might sound better, it's actually much worse for the environment—and for you.

Location

The garbage patch is located in the North Pacific Gyre, one of five major swirling masses of currents in the world's oceans.



Size

The borders of the plastic garbage patch are difficult to determine because much of the plastic is in pieces too small to be seen by satellites or planes.

Estimates of the size range from about 250,000 square miles (an area roughly the size of Texas) to 6 million square miles, which would mean that the garbage patch covers about 1% percent of the entire Pacific Ocean.

Plastic Chemicals

Plastics in the water absorb floating chemicals, which are attracted to the plastics' oil base. Many of these chemicals are known known as persistent organic pollutants, which never leave the environment or break down. These chemicals include:

- Aldrin (insecticide), Chlordane (insecticide), Dieldrin (insecticide), DDT (pesticide), Dioxins (toxic chemicals that are an industrial waste product of activities like metal smelting and paper bleaching), Endrin (insecticide), Furans (toxic chemicals used as solvents), Heptachlor (insecticide), Hexachlorobenzene (fungicide), Mirex (insecticide), Polychlorinated Biphenyls (or PCBs, coolant and lubricant), Toxaphene (insecticide)

Impact

Ocean life can mistake the small pieces of floating plastic for zooplankton. When they eat, they also ingest the chemicals that the plastic has absorbed. These organisms and small fish are consumed by larger fish, which also absorb the chemicals, and which are then eaten by people. Many of these persistent plastics also end up in the stomachs of marine birds and animals.

Formation

Of the one billion pounds of plastic people use each year, about 10 percent ends up in the ocean. Seventy percent of that eventually sinks, but the other 30 percent is carried on the surface by ocean currents. When plastic ends up in the waters of the Pacific, much of it is swept up into currents that lead to the Pacific Gyre. Garbage from the east coast of Asia takes roughly a year to reach it; garbage from the west coast of North America takes five years.

Contents

Ninety percent of the trash floating in the world's oceans is plastic. In every square mile of ocean, according to some estimates, there's nearly 50,000 pieces of plastic. In the Pacific Gyre, most of that plastic comes from four sources:

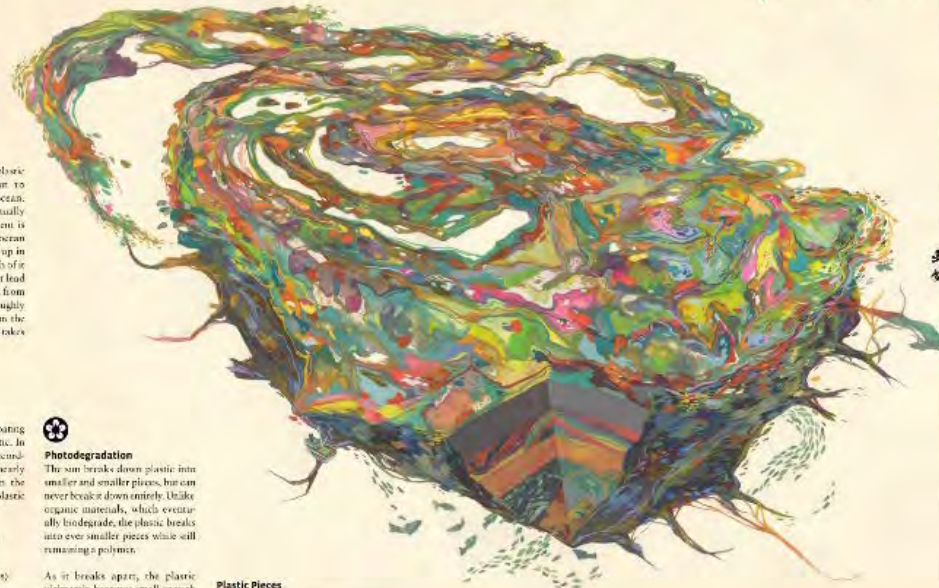
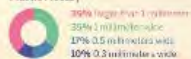
- Low density polyethylene (plastic bags)
- Polypropylene (cork caps)
- Polyethylene terephthalate (plastic water bottles)
- Expanded styrene (Styrofoam)

Photodegradation

The sun breaks down plastic into smaller and smaller pieces, but can never break it down entirely. Unlike organic materials, which eventually biodegrade, the plastic breaks into ever smaller pieces while still remaining a polymer.

As it breaks apart, the plastic ultimately becomes small enough to be ingested by aquatic organisms which reside near the ocean's surface. Plastic waste enters the food chain.

Plastic Pieces



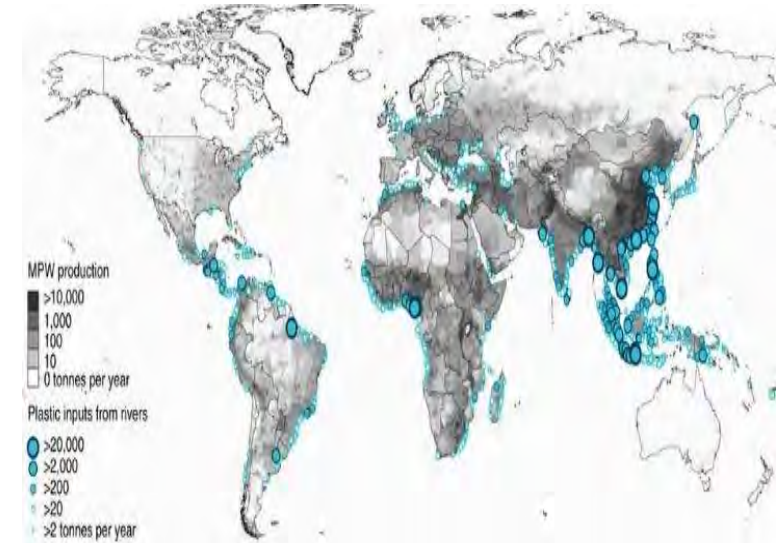
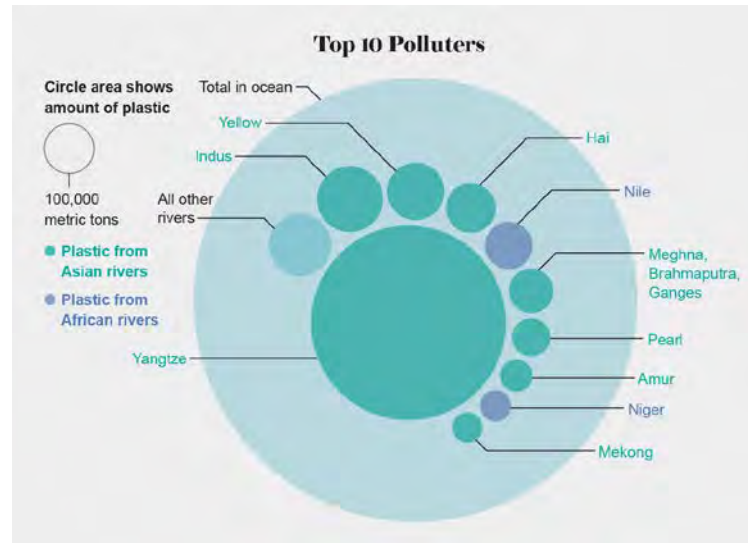
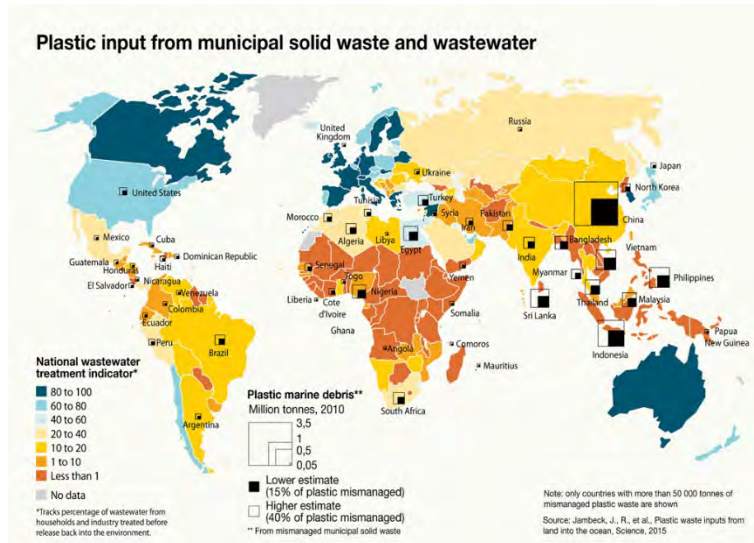
The iceberg of the Great Pacific Gyre

DESMI

MOST WIDESPREAD POLLUTION PLAGUING OUR WATERS

OUR PLANET IS GETTING FILLED WITH MUNICIPAL SOLID WASTE & PLASTIC POLLUTION

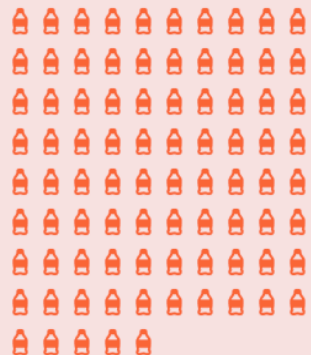
[Plastic waste harming world's oceans \(cnn.com\)](http://cnn.com)



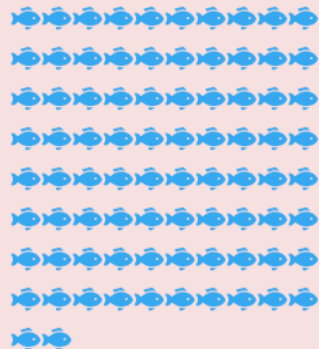
MOST WIDESPREAD POLLUTION PLAGUING OUR OCEANS, RIVERS & LAKES

2050

Plastics in ocean
850 million metric tons



Fish in ocean
812 million metric tons



Approx. 60% of the fishes have disappeared



Citarum River, West Java, Indonesia

Millions of people rely on rivers for drinking & washing



The Ganges, India

MARINE POLLUTION

Our societies that deserve to be Improved



Pollution from
plastics – A
threat to nature
and society



McKinsey Researchers Result

Reducing plastic loads by 50 percent in the 10 top-ranked rivers, would reduce the total river-based load to the sea by 45 percent

**POLLUTION IS NOT
ONLY IN TOPMOST
POLLUTING RIVERS**

**EACH BIG RIVER HAS HUNDREDS OF TRIBUTORIES – CONTRIBUTING
NOT ONLY WATER BUT ALSO POLLUTION**



DESMI Beginning
with *The Ocean
Clean-up*

- DESMI system in the
North Sea in 2016



DESMI

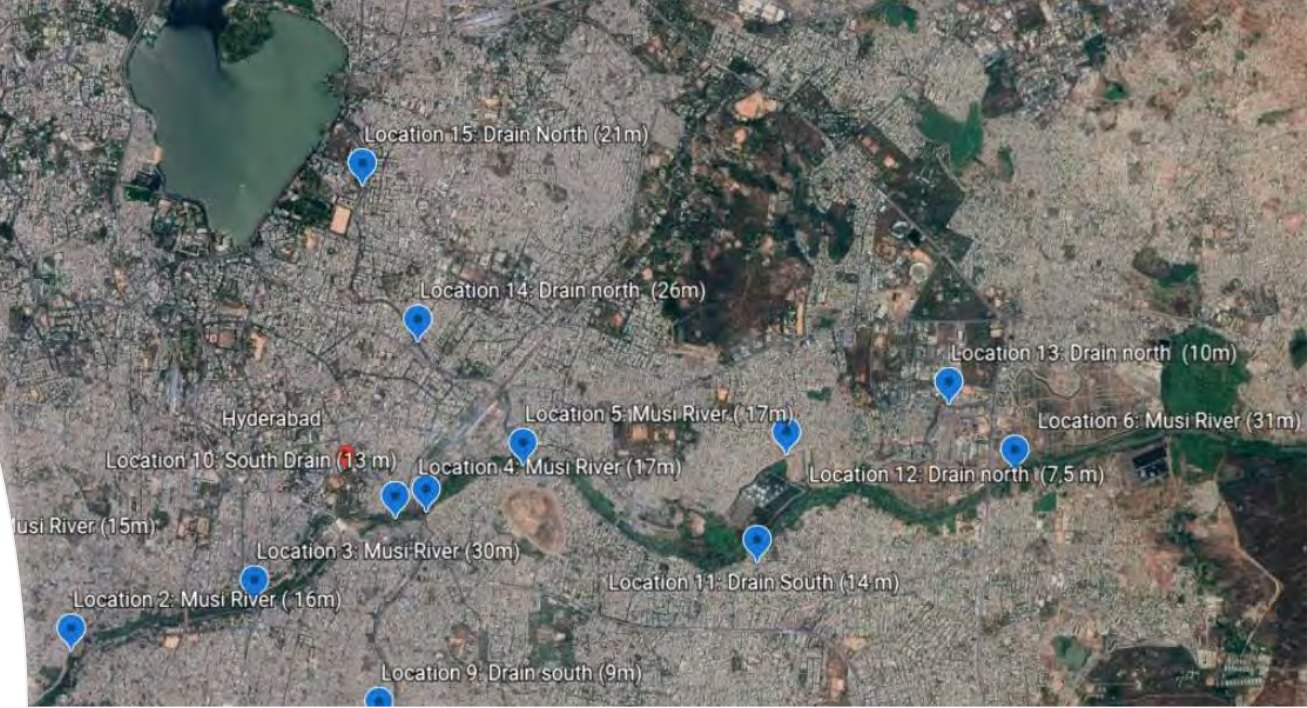
Our First Initiative in India
With 30% waste reduction from
Delhi in tributary to the 2nd most
polluting river in the world



OUR SOLUTIONS
CAN BE
IMPLEMENTED IN
SMALLER DRAINS
& LARGEST
RIVERS

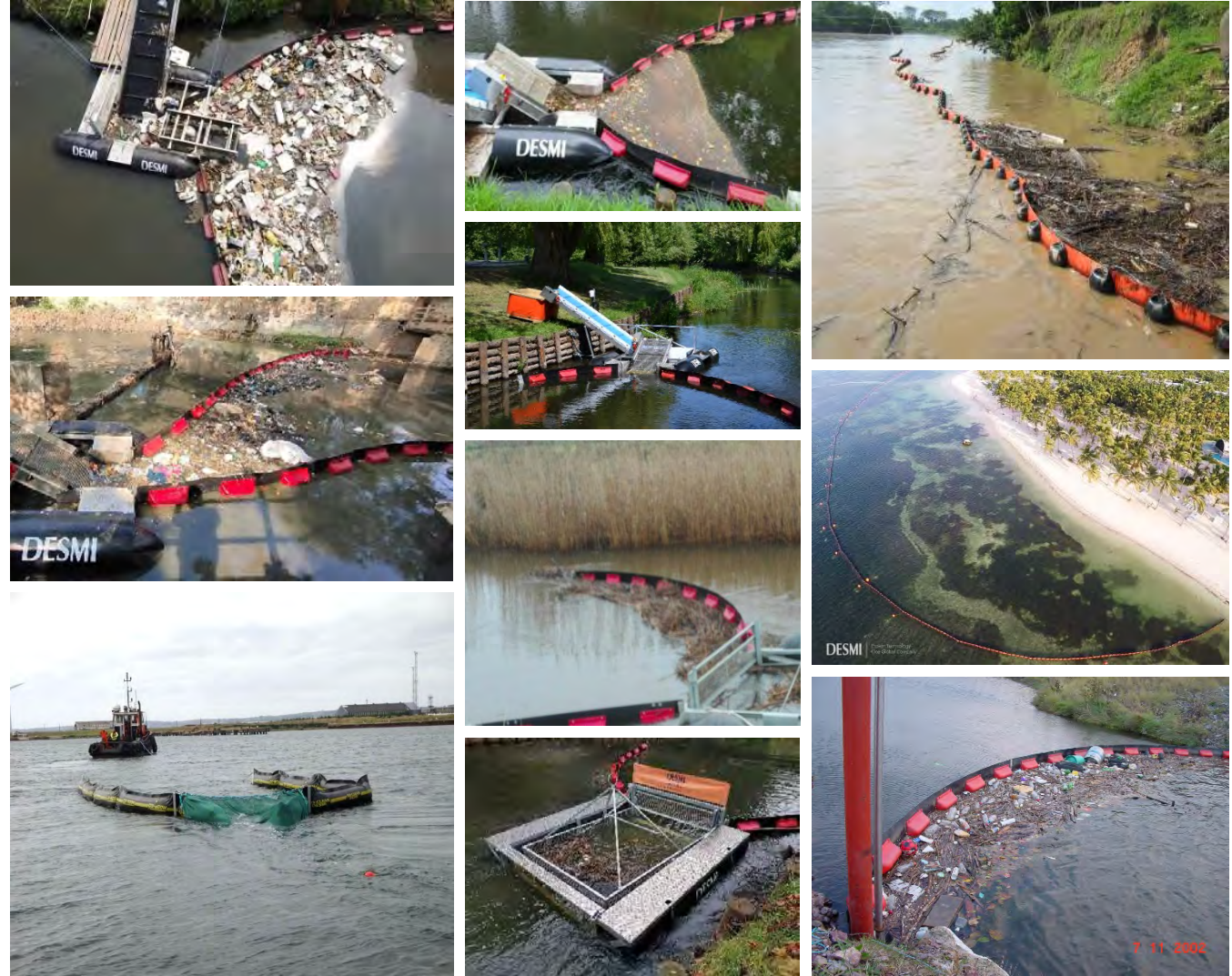


OUR SOLUTIONS CAN
BE IMPLEMENTED
INDIVIDUALLY & ON
CITY SCALE



DESMI

WE HAVE THE TO
THE MARINE
TRASH PROBLEM



DESMI



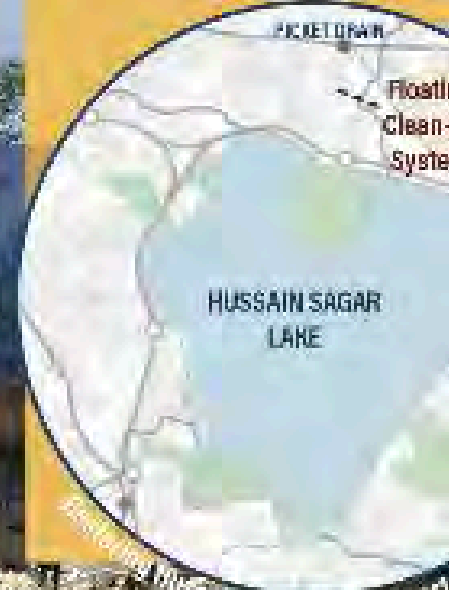
OUR AGENDA

CONTROLLING WASTE



DESMI

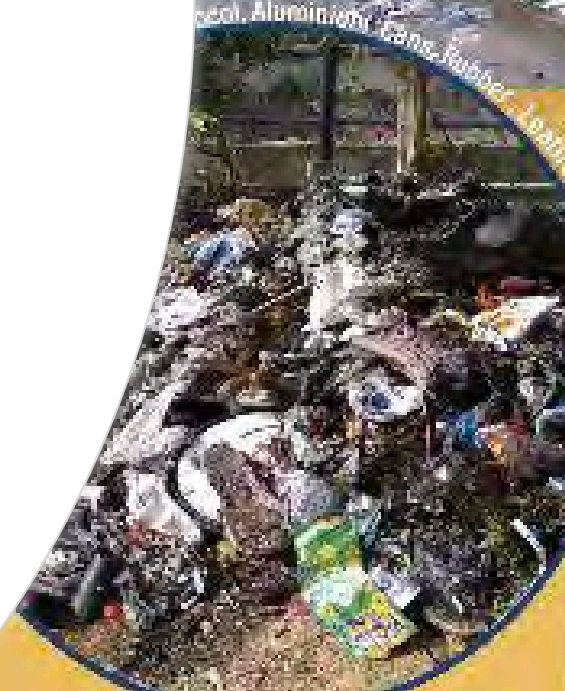
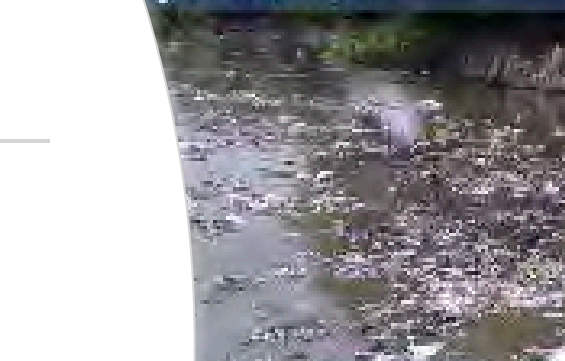
An automated floating solid waste clean-up system has been installed, as a **proof of concept** project, in an inlet drain of the Hussain Sagar Lake. This initiative addresses the most critical wetland pollution issue using an environmentally-sound technological solution.



OUR AGENDA

RECOVERING WASTE

[Cleaning Hussain Sagar Lake - An HMDA-led Initiative in Partnership with WRI India and DESMI - YouTube](#)



Approx. **15-20 tonnes** (wet weight) of floating solid wastes have been intercepted and removed from the drain since its installation in Dec 2020.

DESMI

Plastic Waste in Indonesia

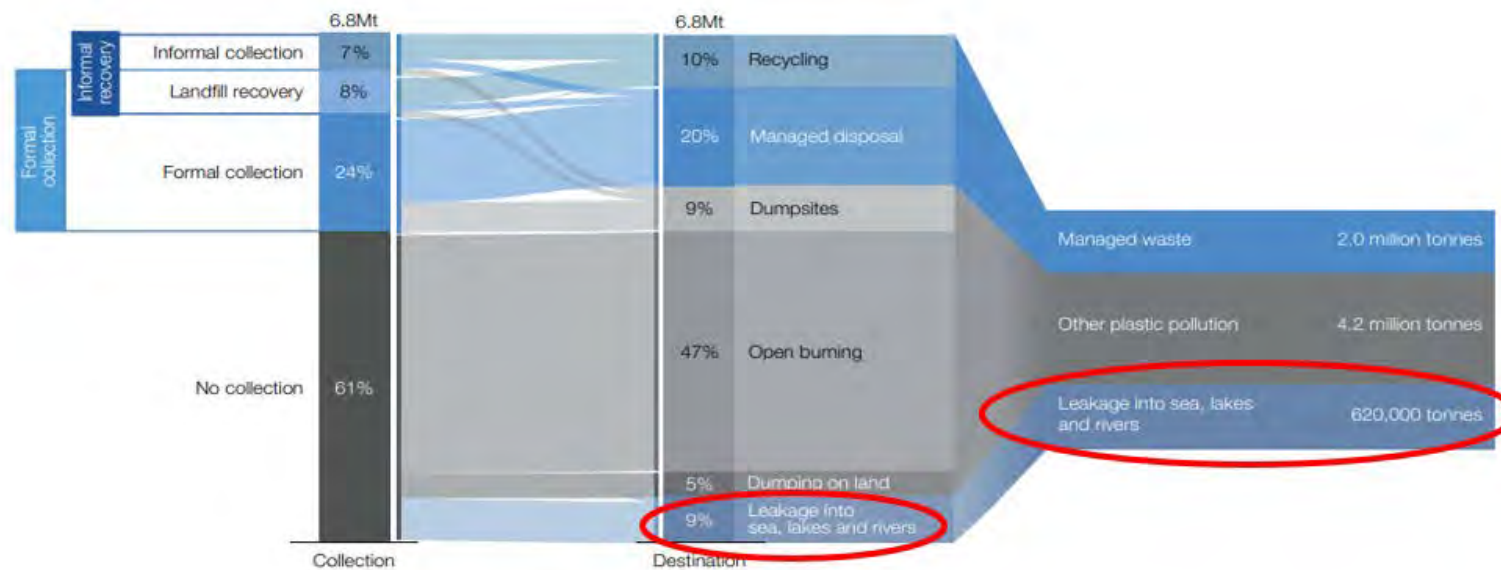
- Indonesia generates around **6.8 million tonnes of plastic waste per year**
- The figure is growing by **5% annually**
- Despite major commitments from government, industry and civil society, the flow of plastic waste into the country's water bodies is projected to grow by 30% between 2017 and 2025, from **620,000 tonnes per year** to an estimated 780,000 tonnes per year.
- Around **72% of plastic pollution originates in rural regions and small- to medium-sized cities**
- The mismanagement of plastic waste is a domestic challenge – one that requires substantial action and policy change from the local level to fuel momentum nationally.

Source: NPAP report



Where Indonesian's Plastic Waste Ends Up Today

Percentage of total waste generated



Source: NPAP analysis

Indonesian National Plastic Action Plan Partnership

- Launched early 2019
- **Ambition:**
 - To cut its marine plastic leakage by **70 percent by 2025**
 - To be **plastic pollution-free by 2040**
- Delivering this 70% ocean leakage reduction scenario from 2017 to 2025 requires a total **capital investment of USD 5.1 billion** and an **operational funding budget of USD 1.1 billion/year in 2025**, in order to run an effective waste management and recycling system.

Source: NPAP report

DESMI EnviRo – Care



WHY DESMI?

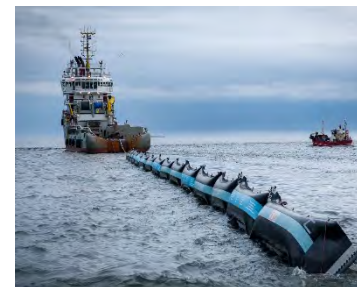
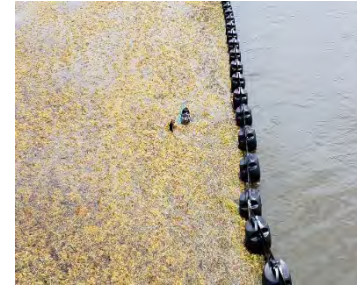
DESMI has years of experience on the provision, design and production of floating booms for containment and deflection of different pollutants as oils, floating trash and organic elements such as seaweed



PIONEERS IN THE INDUSTRY



- Years of competence in safeguarding oceans & waterbodies from marine debris plastic pollution
- The first ever “Ocean Clean-up” conducted with DESMI solutions – North Sea 2016
- Combating the ocean bound plastics as close to the source of pollution as possible – marine waste clean-up in the heart of busiest cities
- Environment- friendly technologies to collect & process plastic & organic rich waste and ensure the circular economy benefits for our customers
- End – to – End marine waste management solution
- Innovation of sustainable solutions with high quality products
- Highly experienced & dedicated staff
- Emphasis on waste management awareness, environment, health & safety by training & educating internal & external stakeholders



Efficient & Reliable products & services

Solutions for every need at the best life cycle costs



Trusted throughout the industry

- Manual to Automated products & systems
- Tailored made equipment to match local conditions
- Environment friendly technologies – collection & processing
- Innovation of sustainable products with top quality
- Containerized modular solutions
- Interface expertise
- Free consultation
- Waste processing technologies complying modern regulations
- Service agreements
- Frame agreements
- High capacity & durable products
- World renowned booms



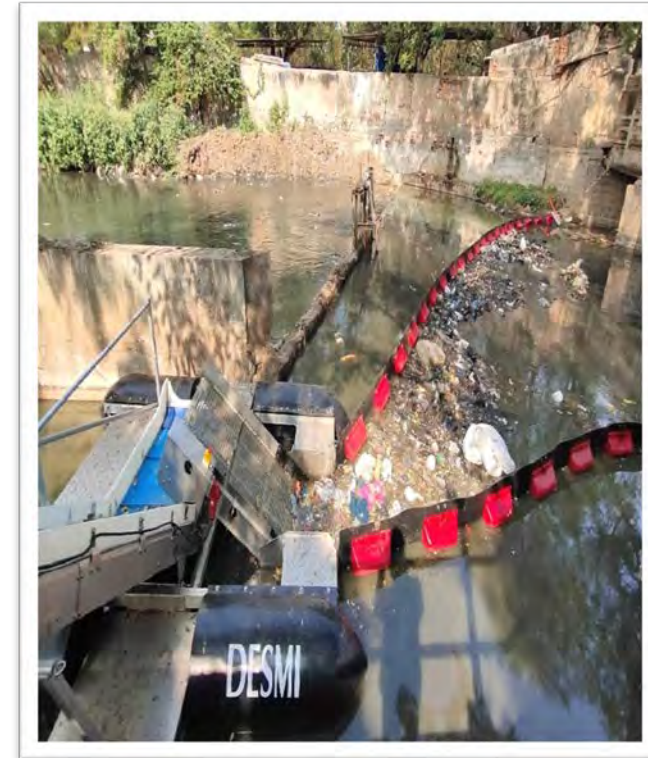
Our Projects in India

Drain/ River Clean-Up Project in Delhi, Telangana & Haryana



Our Projects in India

Latest Hyderabad Project





DESMI Sargasso Removal in Mexico Sargassum/ Floating Seaweed Beach & Near-Shore Clean-ups

- The DESMI seaweed solution has proven to be very efficient and unique, providing a reliable alternative for sargassum/floating seaweed management keeping sandy beaches free of sargassum and at the same time removing “free-of sand” Sargassum for further utilization as base for paper, medicine, fertilizer etc.
- The seaweed recovery skimmers are designed to operate in harsh weather as well. Remote clean-ups can also be achieved with such system operations. Most suitable for beach clean-up & near shore pollution.

EnviRo – Care UN Sustainable Development goals strategy

Curbing plastic pollution & impacting climate change agendas



A certified UNDP partner in impacting UN SDGs

Helping our customers to manage their waste & water sector and offering simplified end-to-end solutions

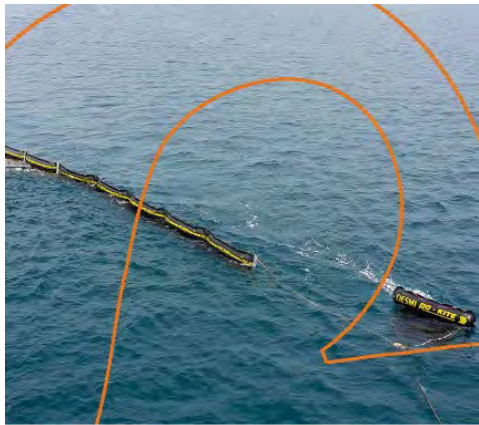
Our Green technologies and environmental conscious products & systems comply with regulations in every relevant market

Superior quality equipment from the most competitive suppliers and vendors globally

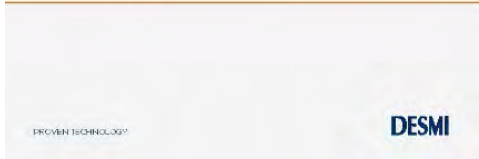
Seamless customer engagement, enabling our customers to have resourceful yet simplified solutions for efficient & quality waste management

Contact us





RO-KITE - Eliminates the need of a second tow vessel
PROVEN OIL SPILL TECHNOLOGY



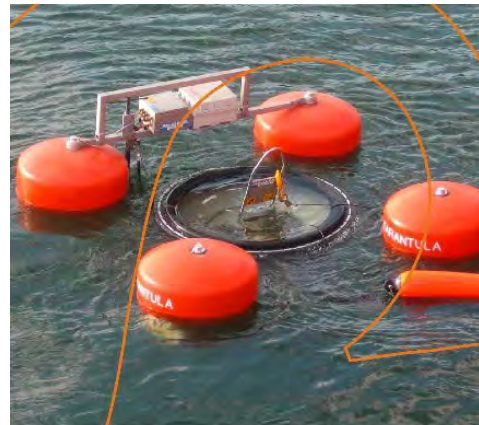
OIL SPILL RESPONSE
Proven Oil Spill Technology



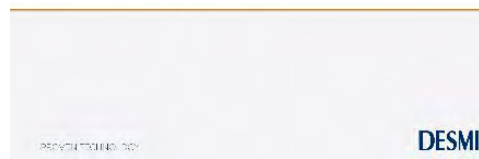
COMPANY PROFILE



OIL SPILL RESPONSE EQUIPMENT
Proven Oil Spill Technology



TARANTULA - High capacity offshore skimmer
PROVEN OIL SPILL TECHNOLOGY



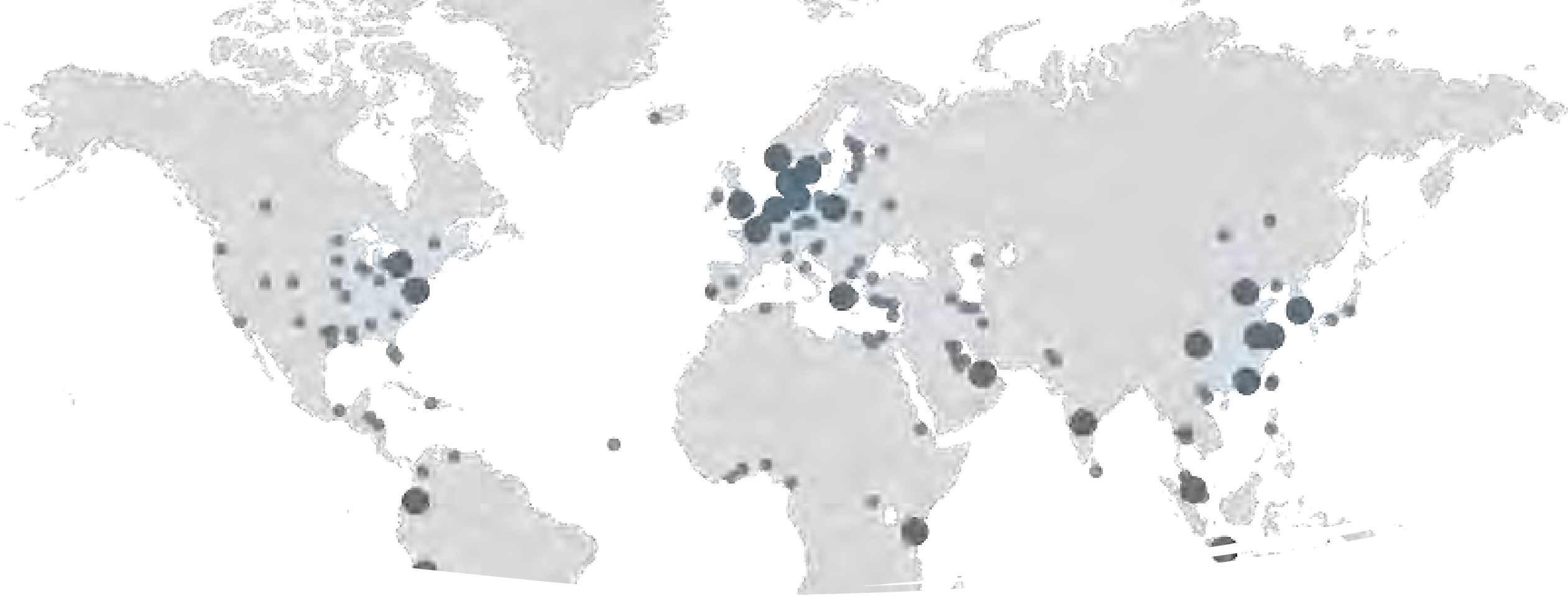
Customer service is our core value
Life Cycle Support
We deliver the systems but stand beside our
customers throughout





DO YOU WORK TO COMBAT POLLUTION IN WATERBODIES?

- MUNICIPALITY
- CONSULTANT TO A MUNICIPALITY
- TOURISUM AUTHORITY
- WATER/RIVER AUTHORITY
- ORGANIZATION SUPPORTING WATER CLEAN-UP AGENDAS



DESMI
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