

September 2018

Heerema Marine Contractors

# Sustainability Report

A HEEREMA COMPANY









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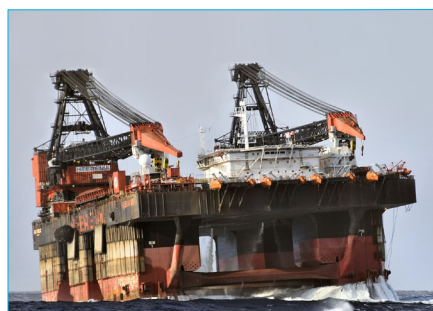
# World of Heerema



Sleipnir LNG tanks successfully installed



Our Oceans Challenge wins Offshore Energy's Public Outreach Award



A responsible retirement and sustainable decommissioning for the Hermod after 40 years of service



BlueScan developing robust database to drive down sustainability in supply chain



Increasing awareness within HMC by a growing Sustainability Community

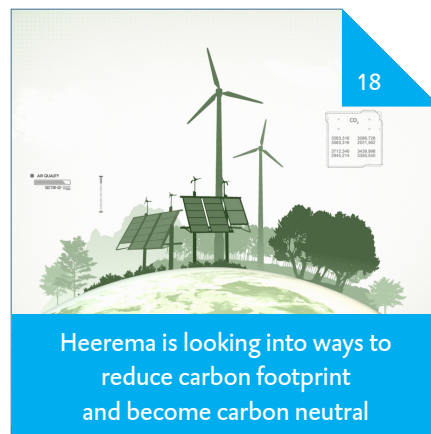
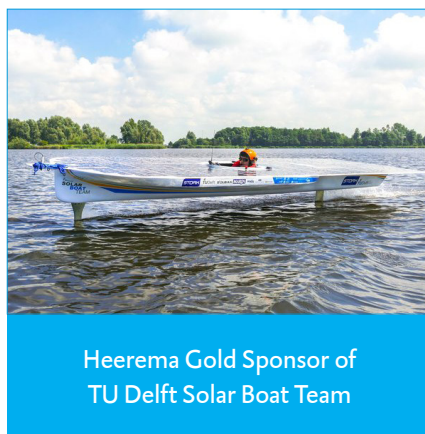
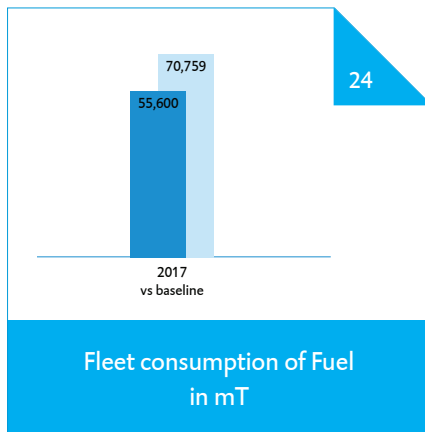
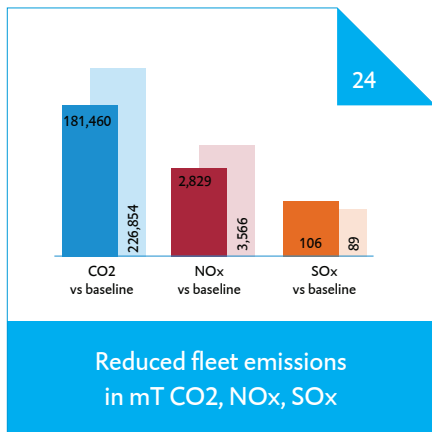


High tech simulation center developing renewable technologies



Investigation to create shore power in Calandkanaal started with Port of Rotterdam





# Foreword from the Board

We act sustainably because we want to. Not because we have to.

The last year has seen significant changes in the offshore industry. Oil prices continue to remain under pressure, leading to a more competitive landscape that drives oil and gas majors to compete for a larger market share. Despite the fact that these challenging times have not left Heerema Marine Contractors unscathed, it does provide us with the opportunity to transform into a strong, enduring company that is prepared for the future. In line with our ambition to be acknowledged as the best offshore construction contractor in the world, we aim to be a role model in terms of sustainability. This report is an embodiment of those ideals and shows Heerema's proudest accomplishments of 2017.

## Working Together

One of Heerema's core values is working together. We aim to implement this not only on a project or team level, but by actively seeking and engaging with all shareholders to create mutually beneficial bonds. Ours is a culture of collaboration within the industry. This is exemplified by Heerema joining the Energy Transition Coalition, an organization led by several major peers in our industry, driving an accelerated energy transition towards a sustainable future. Additionally, Our Oceans Challenge continues into a new cycle, ensuring Heerema is at the forefront when it comes to sustainable innovation.

## Taking Responsibility

Our sense of responsibility has never waned in the face of uncertainty. Heerema continues to invest heavily in sustainable assets and technology. One of the most striking examples

is the Sleipnir, our new-build vessel currently under construction in Singapore. This vessel is the first semi-submersible crane vessel ever to be equipped with dual-fuel LNG engines. Up to now, it is still one of a kind and its environmental footprint is significantly lower than any comparable vessel. To show our extraordinary dedication to create a more sustainable industry, the Sleipnir has been outfitted with a sustainability logo, uniquely portraying the care we take for our environment. 2017 has also seen the retirement of the Hermod, our first semi-submersible crane vessel together with the Balder. The decommissioning of the Hermod is currently underway in China, taking into account the highest standards of corporate social responsibility.

## Driving Sustainable Initiatives

The continuation and subsequent roll-out of sustainable themes under

Koos-Jan van Brouwershaven

CEO



Wijnand Tutuarima

CFO





Sustainability? Of course!

For more than 30 years I have been working offshore for Heerema. During these years I was part of a culture change in safety and our awareness of our impact to the environment.

Change is not easy. It triggers resistance. A sense of urgency is required to overcome this resistance. Our clients are making big steps into the ongoing energy transition. Heerema wants to participate in this transition and be a step ahead. At present, I am privileged to work onshore for Heerema where I can assist on many projects. This gives me the chance to share experiences and explore opportunities in sustainability. Current projects such as Sleipnir LNG and Shore power Calandkanaal, are an example of our dedication to sustainability.

By showing a genuine willingness to reduce our emissions we can connect with our clients who require the same attitude. But it is about more than that. I believe we need to change to ensure a healthy future for generations to come, and I know that Heerema wants to change.

Erik van Hintum  
*Steering Committee Sustainability*

the umbrella of the Sustainability Roadmap is an ongoing process. Exciting new opportunities demonstrate the potential impact we can create in terms of reducing our footprint. These include the feasibility study of using shore power in the Calandkanaal, our main base of operations for the North Sea with a historical significance for Heerema and the Port of Rotterdam. Next to these large scale initiatives, the smaller ones are perhaps even more important to capture the hearts and minds of Heerema employees. Our asset department and fleet personnel are looking into new ways to improve fuel and energy efficiency, such as increased usage of LED lighting on board vessels, or the installation of advanced power systems that significantly reduce fuel consumption during dynamic positioning operations.

### Exploring New Opportunities

This year has seen the inception of the newly founded Renewables Department, which will focus on the development and execution of

projects in the offshore renewables market. This group brings together some of the brightest minds in offshore engineering and execution. They will develop novel concepts for installation of mainly large wind turbines and HVDC converter platforms, that are well suited to our current asset base. We also foresee significant growth in other domains, with opportunities in large floating solar fields, silent piling and carbon capture and storage. We are privileged to own and operate a high tech simulation center where we can further develop the proof of concept of these new technologies. These topics are an important part of Heerema's innovation agenda.

### Proud, Willing and Ambitious

Heerema is a resilient, ambitious company. We believe in our people, and are convinced that the measures we are implementing today will transform our company and ensure that Heerema is prepared for the future.

# Who We Are

## Our project footprint around the world

For over fifty years, Heerema Marine Contractors has been a leading marine contractor in the international offshore industry. As such, Heerema is involved in managing the entire offshore construction supply chain, from design through to completion. Heerema delivers full offshore field development in some of the toughest marine environments on the planet. Our state of the art Simulation Center ensures that we address real-world issues affecting our clients' projects.

### What we do

Our Services are divided into three product groups: Oil and gas, Decommissioning and Renewables. Heerema executes assignments around the world on time and within budget, focused on transporting, installing, and removing offshore facilities.

### Oil and Gas

We lift offshore structures in a safe,

fast, and reliable manner. By using dual-crane vessels, Heerema is able to install integrated decks with reduced weather downtime. Our crane vessels can install fixed and floating facilities in all conditions around the world.

### Decommissioning

We remove platforms in an environmentally friendly, and cost-effective way. Our services include engineering, offshore preparation, removal, and onshore disposal/recycling of redundant facilities. Heerema works with other contractors to develop and apply innovative subsea cutting equipment and other techniques to ensure diverless removal of substructures.

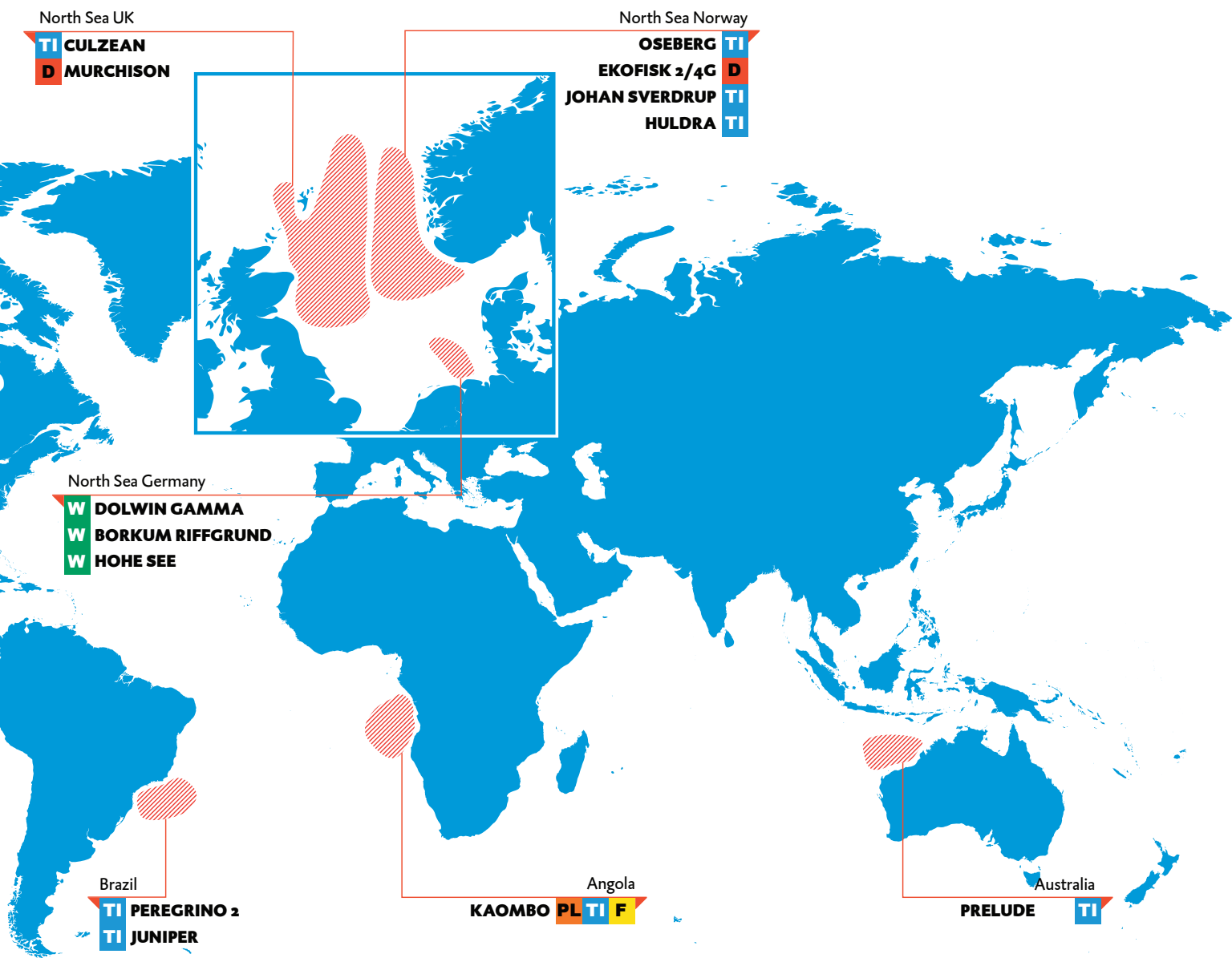
### Renewables

Exploring opportunities in wind and other renewables offshore is part of our newest portfolio. We have built a solid track record in the T&I of HVAC and HVDC substations. The Simulation Center enables us to

“execute” the offshore installation of wind turbines during development, which provides unique opportunities for our clients.







# HMC Fleet

## Largest vessels, reduced footprint

Heerema owns and operates the world's largest crane vessels. The Semi-Submersible Crane Vessel (SSCV) Thialf and Deepwater Construction Vessels (DCV) Balder and Aegir, a monohull vessel. Both the Balder and Aegir are equipped to execute complex infrastructure projects in shallow and deep water, next to their lifting capabilities. Heerema is also currently developing a new vessel: the new-generation semi-submersible crane vessel Sleipnir, which will be operational in 2019 and outfitted with dual fuel LNG engines. HMC's fleet has large deck areas and unique capacities in the areas of heavy lifting and motion behavior.

This has earned us a reputation for superior workability and excellent

station-keeping. Harsh environments and great water depths demand an innovative approach, experience, and of course, the right equipment. In addition to the construction vessels, Heerema operates the Bylgia and the Kolga, two of the cleanest tugs in their class. These are anchor handling tugs equipped with an extensive array of offshore support functions. 2017 also saw the retirement of the SSCV Hermod, one of Heerema's first ever semi-submersible crane vessels that had been in operation for over 40 years.

### Clean Fuel

Heerema aims to procure only low-sulphur MGO with a sulphur content of 0.1% or less. In 2017 the average sulphur content of all our bunkered fuel was 0.09%. Bio-degradable oil is used where possible, for example in Heerema's hydro-hammers. All vessels have a Ship Energy Efficiency Management Plan (SEEMP), which is discussed monthly within the Site Safety Leadership Team. In the end it is our people who transform our vessels into added value for our clients.



SLEIPNIR



THIALF

Lifting Capabilities	2 x 10.000mT	2 x 7.100 mT
Average Fuel Consumption per day* *Baseline (3 yr average)	t.b.d.	60.4 mT MGO
Emission Factors (mT/mT) for example 1 mT LNG produces 2,75 mT CO <sub>2</sub>	2.750 CO <sub>2</sub> 0.00783 NOX 0.000021 SOX	3.206 CO <sub>2</sub> 0.5886 NOX 0.0021 SOX





BALDER



AEGIR



KOLGA - BYLGIA

6.300mT	4.000mT	
39.4 mT MGO	37.1 mT MGO	15.8 / 14.3 mT MGO
3.206 CO <sub>2</sub> 0.05375 NO <sub>x</sub> 0.0021 SO <sub>x</sub>	3.206 CO <sub>2</sub> 0.03800 NO <sub>x</sub> 0.0021 SO <sub>x</sub>	3.206 CO <sub>2</sub> 0.04927 NO <sub>x</sub> 0.0021 SO <sub>x</sub>

# Sustainability and Heerema

## What does Sustainability mean to us?

Heerema aims to act in a sustainable manner because it believes that a responsible company has an obligation in this respect. This involves providing services that create social, environmental, and economic value, also referred to as the triple bottom line (people, planet, profit). By taking the lead towards a more sustainable offshore industry and stimulating awareness, we aim to make sustainability an integral part of how we do business, benefiting society, our clients and the company.

Adhering to our mission of 'being and being recognized as the best offshore contractor' Heerema must meet and exceed client expectations. For Heerema sustainability creates a business opportunity, a way to differentiate and achieve social and economic success.

What does sustainability mean to our employees, at the forefront of our business? We ask key members of the HMC Sustainability Community on their views on sustainability.

*"Easy: contributing to the world in restoring the environment to the full, so that future generations can still be dazzled by white glaciers and snowy mountains."*

*"Sustainability. For me it's trying to leave the smallest footprint we possibly can on the earth within the constraints of current society, i.e. the way people live now-a-days. The earth's resources are limited and I think we should be conservative in our use of them. I also extend this to trying to preserve oceans, forests and living space for wildlife."*

*"Sustainability for me is the development and innovation of your current processes to reduce waste (inefficiency) without a negative effect on the technical capabilities. This is to be done in such way that you enforce your long term economical position, increase your social acceptance and reduce your environmental negative impact."*

### Our Sustainable values Dare to Care

- We act sustainably because we want to. Not because we have to.
- Sustainability for Heerema is a careful balance between people, planet and profit.
- Heerema aims to be a role-model in terms of sustainability compared to peers in the offshore industry. Our roadmap is our guide to become just that. It is a reflection of our ambitions and values, while providing tangible themes to drive them forward.
- HMC's Sustainability Community is a vibrant community dedicated to driving the sustainability agenda, together.
- Increasing our knowledge on sustainability means reaching out to partners and peers throughout the offshore industry to share best practices.
- Sustainability is an integral part of our license to operate, going beyond our compliance to safety and environmental regulations.

Peter van der Graaf, VP QASHE & Steering Committee Sustainability



# Sustainability Roadmap

## Moving from Values into Actions



Aligned with the HMC Management Agenda, our ambition is to be a role-model in sustainability. Since 2016, Project Teams are assessing project activities on possible improvement in terms of sustainability and integrating these as projects targets. In 2017, with input from key contributors within Heerema, a Sustainability Roadmap was created. This roadmap provides Heerema with a framework for sustainability targets in the years to come. It reflects our journey and is a culmination of our achievements, current initiatives and our ambitions. Ultimately, sustainability projects must reduce environmental footprint,

reduce waste, and should reduce costs. In addition, these projects propel our sustainability agenda forward by creating awareness and engaging Heerema employees.

### Sustainable Themes

The sustainable themes represent our values and ambitions in achieving our sustainable targets. These are Offshore Excellence, Good Health and Well Being, Reduce Footprint and Emissions and Sustainable Supply Chain Management, which stem for People, Planet and Profit. Excellence is the fourth category which captures undefinable creativity and out of the box thinking.

Though the achievements accumulate over the years, and our ambitions are adjusted as we progress in our sustainable journey, our sustainable themes remain the same.

The themes are now being integrated as core functions within several departments within Heerema. Technology, HR, Procurement and Asset Management are the owners of offshore excellence, good health and well-being, sustainable supply chain management and reduced footprint and emissions respectively.

*“Companies are more active than ever in pursuing sustainability to align with values and engage stakeholders, a McKinsey survey shows. To see financial returns, though, integrating sustainability into core functions is key”*



# Our Newest Vessel is Taking Shape

A Giant in the making: SSCV Sleipnir

Offshore  
Excellence



**The largest dual-crane semi-submersible vessel in the world with a lifting capacity of two times 10.000 metric tonnes. For over a year, this colossus has been in the making. Now, late 2017 and beginning 2018, the Sleipnir is finally taking shape as its eight legs are being put together and its cranes are installed. It is safe to say that this giant will impact the offshore market for decades to come.**

When putting the two pontoons into the wide dry dock in the Tuas Boulevard Integrated Yard, the project entered a next stage. Before putting them into dock, the eight columns, each with a weight of



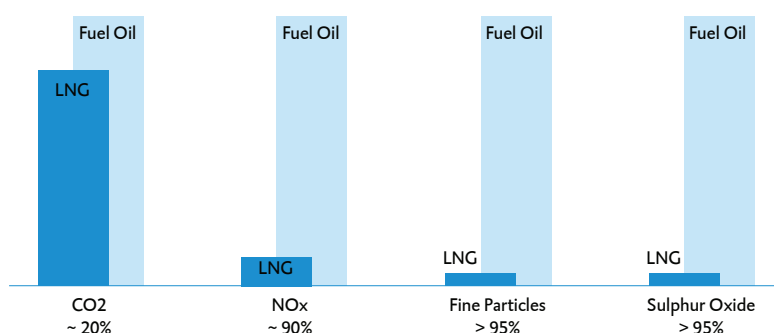
approximately 2,500 metric tons, were placed on the pontoons. The three mega blocks of the deck box were also installed. In the current dry dock, the installation of 12 braces has connected the two hulls and the two crane foundation blocks (each with a weight of 3,200 metric tons) have been installed. The in-board parts of the thrusters are installed into the pontoons. The propellers will be attached at the last stage when the ship is already afloat. Sleipnir's thrusters are unique in that they are retractable and can be removed underwater without the use of a habitat. More than 23 million man hours have already been spent on the construction of the vessel. The collaboration with Sembcorp Marine is excellent, and everyone is committed to making this huge project a success.

### Lifting more than ever

The construction of the cranes at Huisman in China and delivery to Singapore has been successful. All major crane components are largely completed: the crane houses are installed and testing of all systems by Huisman has commenced. Huisman China's management is a mix of Dutch nationals and mostly Chinese staff on the shop floor. These cultures clearly have different attitudes and values, therefore the willingness to understand and listen to each other is crucial in cooperation.

### Dare to Care - LNG

The Sleipnir is the first semi-submersible crane vessel ever to have been equipped with dual-fuel LNG engines. Up to now, it is still one of a kind and its environmental footprint is significantly lower than any comparable vessels. Next to this exceptional feat of engineering, the Sleipnir has been outfitted with a sustainability logo, showcasing our extraordinary dedication to creating a sustainable industry.



LNG vs Heavy fuel oil







# 40 YEARS OF DUTCH PRIDE RETIRING



*Saying goodbye to the old lady*

# HMC Carbon Neutral

How to prevent, reduce and compensate carbon emissions



**The end-goal of the Sustainability Roadmap is a sustainable, enduring Heerema. This vision of Heerema Marine Contractors, by some affectionately called “Royal Heerema”, aims to have zero incidents and zero waste, with a net neutral carbon footprint. Creating a carbon neutral Heerema is to be achieved using the following actions: Prevention, Reduction and Compensation. Daniel Biegel, a passionate Structural Engineer, explains why Heerema should strive to become carbon neutral and what the different steps entail.**

## **Why invest time and energy to become a carbon neutral contractor?**

The signs that our society is transforming are everywhere. Not just society, also our clients are pushing towards a carbon neutral economy. After the signing of the Paris Agreement, governments across the globe are putting

legislation into place to significantly reduce carbon emissions. The new Dutch government has pledged to reduce carbon emissions with 49% by 2030. That means our carbon emissions would need to be cut in half in just 12 years!”

“More and more of our clients are explicitly asking for “carbon-initiatives” in tenders and requiring contractors to reduce their carbon footprint. On top of this, the Port of Rotterdam has proclaimed the ambition to become the most sustainable port in the world and transition towards a full carbon neutral economy. These trends undeniably show the fact Heerema will need to transition its fleet into a carbon neutral asset base, starting now.”

## **You have focused on the compensation of emissions, why?**

“There are already quite some proposals for preventing and reducing the emissions of Heerema. These are for example Hybrid Thialf,

Shore Power, or economical sailing which are all either in use or under development. Given our fleet and assets, emissions are inevitable for us as a marine contractor, considering carbon capture technology or alternative fuels are not (yet) economical. I felt it was necessary that we work on the compensation part as this is where we can make a difference, today.”

## **What projects do you propose?**

“In order to offset the emissions that we produce as a company we have to look for activities with so called negative emissions. An “easy” example of this is growing trees. Let me explain what I had in mind. In many countries where we operate there are already plenty of forests with big trees. But on a global scale we see a devastating trend of deforestation. What I envision is that it would be much more effective and visible if we as Heerema, adopt a rainforest and protect these forests from deforestation. This would not only

*“We can become the first carbon neutral marine contractor ever.”*

offset our emissions but also maintain biodiversity of these areas. Making sure that this process is accredited by a third party, e.g. Gold Standard, is a key part of the process. An added bonus could be to adopt a rainforest in Malaysia in the area where our crew members are from. In this way, we can also involve our own crew sustain their environment and engage them on a very local level.”

#### How did you come up with the idea?

“It was a Monday morning at the beginning of the summer when it came to my head. After sparring with some colleagues I posted the idea on Heerema’s sustainability community and it started snowballing. At the time of writing, a couple of months later, we have about 100 likes and had several meetings with parties that could potentially help us. After it was shown feasibility was quite easy, people found the subject really empowering and fun to work with. These ambitions have even been submitted in tenders to clients.”

#### What is the next step?

“I believe the next step would be to solidify the steps - prevent, reduce and compensate - into solid policy. After that, we have clear plans on how to implement KPIs to incentivize the prevention, reduction and compensation of emissions. My gut feeling is that all this can happen very fast. I know that Heerema is a company that can work miracles if we really set our mind to it. We can become the very first carbon neutral marine contractor. Let’s do this!”



Daniel Biegel

#### Why become carbon neutral?

Clients and society are demanding a carbon neutral economy. The Dutch government aims to reduce emissions with 49% by 2030 and the Port of Rotterdam has the ambition to become a fully carbon neutral port. Clients require us to significantly reduce carbon emissions and are asking for carbon-initiatives in tenders.

#### How do we do it?

Actions towards a carbon neutral Heerema can be divided into the Prevention, Reduction and Compensation of emissions. Prevention would be to use economical sailing in vessels to ensure no fuel would be used in the first place. Reduction would be all measures of fuel efficiency, such as the Hybrid Thialf. The final step would be to compensate what is left, for example by means of a “Heerema National Park.



# Shore Power in the Calandkanaal

Exploring opportunities to develop electrically powered vessels



**Anno 2017, society demands a less carbon intensive and a more sustainable future. The Paris Agreement will be shaped into tangible laws and regulations on national and international levels. Clients are explicitly asking for “carbon-initiatives” in tenders and requiring contractors to reduce their carbon footprint. Heerema is willing to go far beyond compliance. Together with one of its historically most important stakeholders, the Port of Rotterdam, it is studying the feasibility of installing shore power in the Calandkanaal. This will virtually eliminate emissions in the Calandkanaal altogether.**

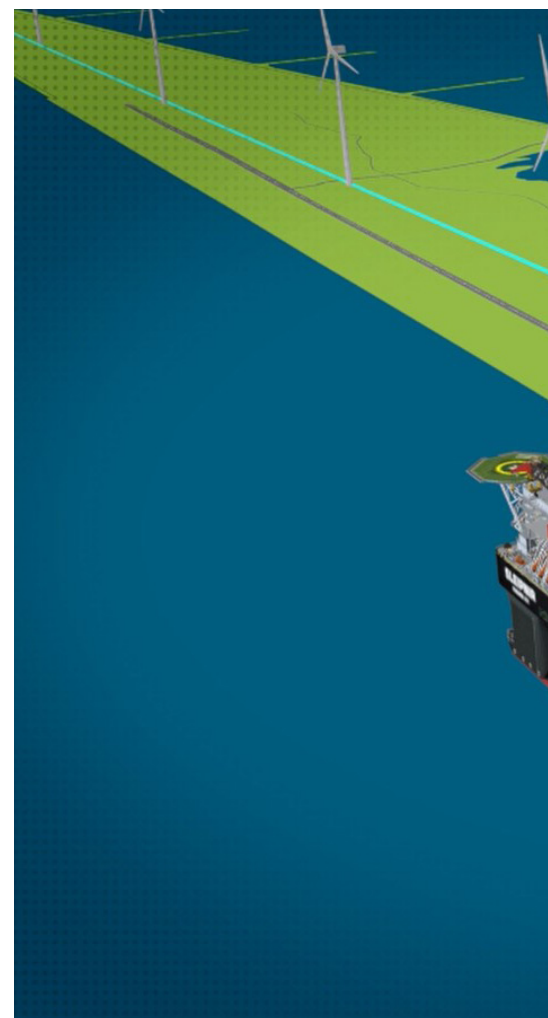
The Port of Rotterdam CO2 Neutral? The Port of Rotterdam has the ambition to be the most sustainable port in the world and intends to develop the Port of Rotterdam into the heartland of the energy transition, as stated in the Port Vision 2030. “The Port of Rotterdam Authority wants

to play a pioneering role, making the port an appealing example in the global energy transition”, notes Allard Castelein, CEO of the Port of Rotterdam. They aim to take the lead in the energy transition, making efforts to develop every possible initiative that could contribute to the transition to a CO2 neutral economy. The Port of Rotterdam is ahead of the regulations and not waiting for laws to be set in place: they are actively engaging companies to lower their carbon footprint.

## What is proposed?

The main scope is quite clear. It is proposed to create a 20MVA shore power connection in the Calandkanaal designed to accommodate a maximum of 2 vessels at the same time. HMC vessels Thialf, Sleipnir and Aegir would all be converted. It is envisioned the functional capabilities of the vessels will remain. That would mean two vessels could be moored and two cranes can still be operational. The

use of shore power at such a scale is an offshore industry first. This clearly shows that Heerema, as a pioneer, believes in a commitment beyond just compliance, as is already demonstrated by the use of LNG engines in our new-build vessel Sleipnir.



### What are the benefits?

Connecting HMC's fleet to the grid for sustainable energy will provide a significant reduction in terms of emissions and noise. Due to the fact the diesel generators will be switched off shortly after the vessel is moored, nearly all emissions – CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>x</sub> and PM – will be eliminated

by Heerema in the channel. In the future, even more vessels could be connected to the grid to reduce the (carbon) footprint even further. In addition to the emissions saved, noise generation will be reduced significantly too.



Artist Impression

Heerema Marine Contractors has a legacy of being the first of many in our industry. Our visionary sustainability agenda is no exception. LNG in Sleipnir, a sustainable office and in the future the ambition to execute our projects on a carbon neutral basis are just examples of many initiatives. The world must know that Heerema is a front runner in its ambition to become a sustainable company, where each and every employee lives and breathes people, planet and profit values and continues to be proud to be part of Heerema's continuing legacy of great achievements. Not because we have to. Because we *all* want to.

Ronald van Waaijen  
VP Sales & Business Development  
& Steering Committee Sustainability

# BlueScan

## Driving down Sustainability in the Supply Chain through collaboration



**A sustainable future cannot be achieved alone for the energy transition to succeed. We need to collaborate and work together to ensure our entire supply chain is sustainable. Not only in terms of environmental impact, but also in terms of human rights, corporate social responsibility, labor practices, fair operating guidelines and proper local content. Together with peers in the offshore industry, we have co-founded BlueScan, a practical assessment tool for sustainable procurement.**

From the MVO Nederland Maritime Network, several top Dutch maritime companies joined forces to make procurement more sustainable. These companies have embraced the challenge of combining sustainable values and sustained profitability, economically, socially and environmentally. Boskalis, Heerema Marine Contractors, Pon Power BV, Royal IHC and Theunissen Technical

Trading now collaborate to get to grips with this trend by creating a platform for sustainable procurement called BlueScan.

### Stronger Together

Parties in the maritime sector currently act solitary when it comes to embedding sustainability in procurement processes, often leading to different interpretations and implementations of sustainability. Health and safety is often included in sustainable procurement, but are procurement officers aware of issues like bonded labor, living wages, or consumption of resources by their suppliers? Is it sufficient to ask a supplier to sign a code of conduct? Advanced levels of CSR, i.e. full integration of sustainability improvements in management systems, is rarely seen.

By aligning methods and collaborating through this platform the companies involved lift their sustainable procurement processes to a higher level. This creates unity

and clarity for all parties concerning sustainability expectations and process implementation. Extensive adoption in the Dutch maritime sector will create worldwide ripple effects throughout the entire maritime value chain.

### Co-Creating a tool for sustainable procurement

Within the 'Sustainable procurement in the maritime sector' project companies co-create a platform. This platform, designed and implemented by SmartTrackers, is an online application that allows companies throughout the entire maritime sector to execute assessments of the sustainability level of their suppliers. It contains a questionnaire that builds upon the project partners' custom made methods and is aligned with international standards.



## CORE SUSTAINABILITY ISSUES



## THE SOLUTION



# Performance Indicators

## Environmental

### Indicators

Baseline 2017

#### Environmental impact indicators

Heerema Fleet & Office Flight Mileage (km)	190M	142M
Heerema Fleet & Office flight CO <sub>2</sub> emissions (mT)	38,629	26,415
Contained spills	6	5
Uncontained spills	9	11
Total recorded oil spill incidents	15	16
Amount of oil spilled uncontained (Liters)	2,441	227
Environmental fines	0	0

#### Transit & Work per Vessel

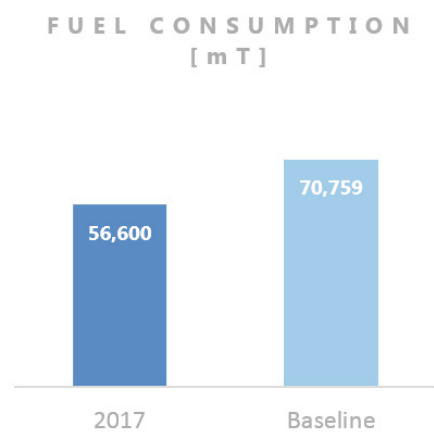
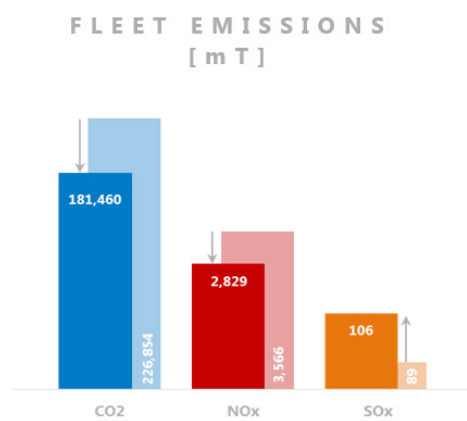
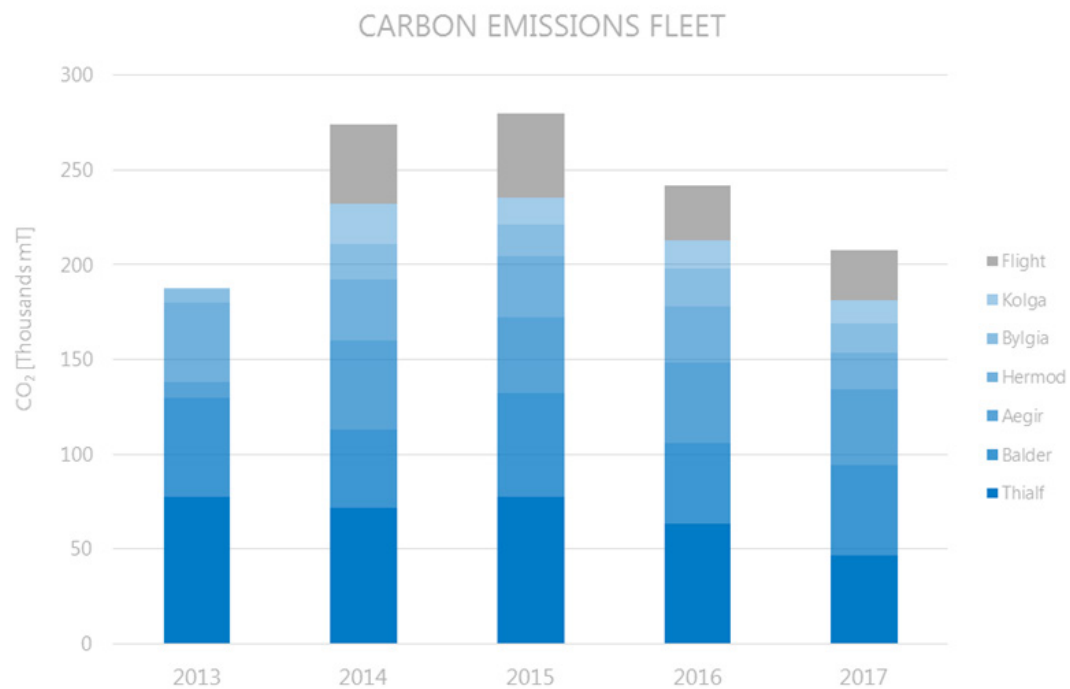
	Consumption (mT)		CO <sub>2</sub> emission (mT)		NO <sub>x</sub> emission (mT)		SO <sub>x</sub> emission (mT)	
	Baseline*	2017	Baseline*	2017	Baseline*	2017	Baseline*	2017
Aegir	13,524	12,504	43,358	40,088	514	475	17	12
Balder	14,384	15,037	46,115	48,209	773	808	15	46
Hermod	19,823	5,992	31,491	19,210	423	258	16	10
Thialf	22,051	14,410	70,694	46,198	1,298	848	37	26
Bylgia	5,755	4,878	18,451	15,639	292	248	16	7
Kolga	5,223	3,779	16,745	12,115	265	192	11	5
<b>Total</b>	<b>70,759</b>	<b>56,600</b>	<b>226,854</b>	<b>181,460</b>	<b>3,566</b>	<b>2,829</b>	<b>89</b>	<b>106</b>

1. CO<sub>2</sub>: fuel consumption x emission factor of 3.206

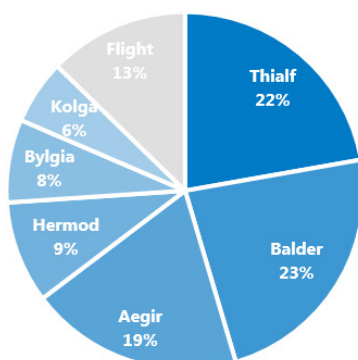
2. NO<sub>x</sub>: measured vessel specific figures

3. SO<sub>x</sub>: low sulfur < 0.1%

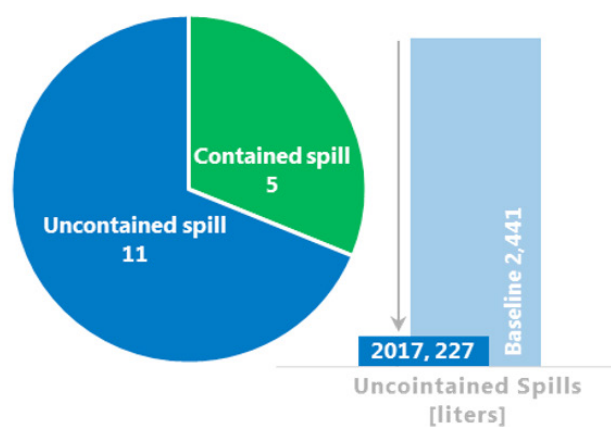
\*The Baseline is determined of the average of the 2013, 2014, 2015, except for Aegir Bylgia and Kolga where insufficient data is available for 2013. Note that fuel consumption is heavily dependent on projects executed.



### CARBON FOOTPRINT FLEET & FLIGHT



### SPILLS



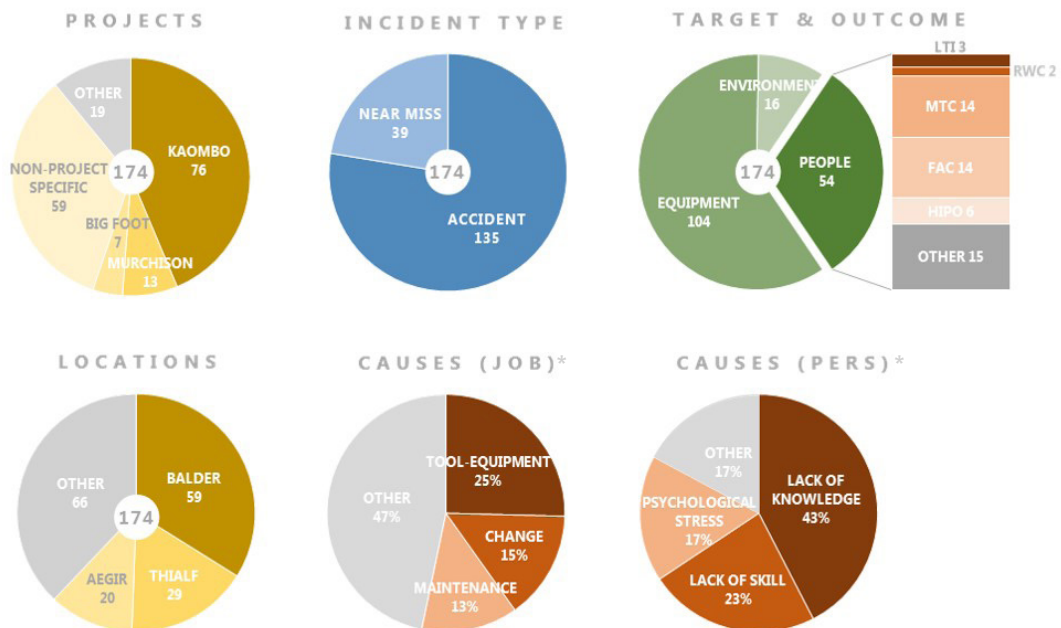
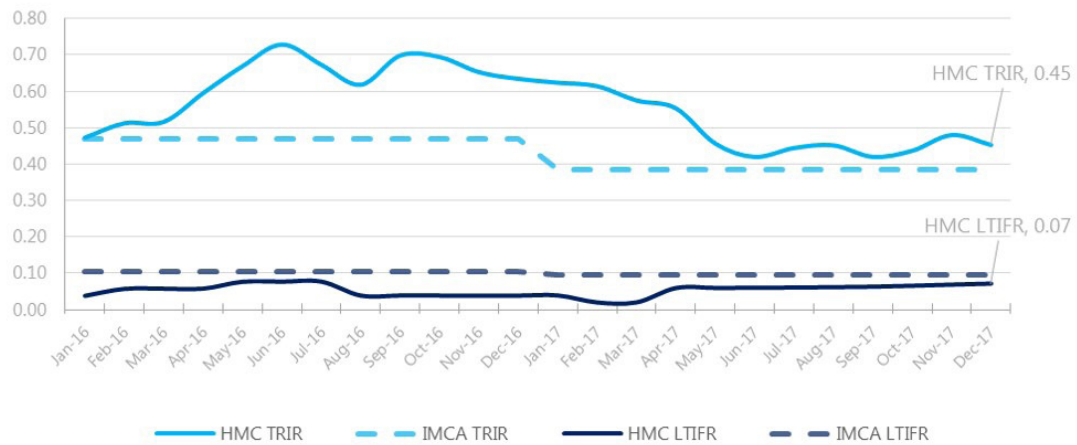


# Performance Indicators

## Health and Safety

Indicators	2017
Indicators HMC HSE reports	
Lost Time Incident Rate (LTIR)	0.074
Accident Frequency Rate (AFR)	0.45
Total working hours	8,395,595
HSE reports	
A)Fatalities	0
B)Permanent total disabilities	0
C)Lost workday Cases	3
Total Lost Time Injuries (A+B+C)	3
D)Restricted Work Cases (RWC)	2
E)Medical Treatment Cases (MTC)	14
Total Reportable Cases (A+B+C+D+E)	19
First Aid Cases (FAC)	15
Near Misses (NMI) Low Risk	34
Near Misses (NMI) High Potential	8
Indicators	2017
Social impact indicators	
Orientation Training IIF incl. refresher (own personnel)	509
Orientation Training IIF incl. refresher (subcontractors)	170
Train the Trainer orientation incl. refresher*	82
Training hours personnel excl. fleet (all offices)	16221
Number of Employees incl. fleet (total heads HMC)	1658
Employee turnover – Fleet	5.4%
Employee turnover – Office (NL)	8.3%

## TRIR & LTIFR COMPANY WIDE



\*Definitions of causes are in alignment with DNV M-Scat

# Reflection 2017

## Primary Objectives

Define the next steps in sustainability	Already much has been accomplished in the last few years. The question that remains is, how will we improve in the years to come? That is why a roadmap has been devised by a wide variety of employees, both in top management and at engineering level, to create a framework in which our ambition can be communicated. This roadmap has been rolled out in 2017 and forms the basis of our sustainable journey.
Improve Emissions Reporting	Our goal is to obtain a clear, auditable overview on emissions by means of improved data management and reporting. This means re-examine our emissions factors and improving our current reporting. Improvements are mainly done by streamlining the current data input and automating the processing. In addition, we will investigate the feasibility of certifying ourselves for a GRI certificate.
Propose HSE KPI top-Sheet based on leading indicators and lagging indicators	It is paramount to provide insight in our way of working by measuring our key performance indicators. In the current framework however, these are not the most insightful numbers or figures that show how our decisions impact our footprint. Creating new KPIs, based on simple and effective reporting, will increase our understanding of current trends. It will allow us to better direct our policies on HSE statistics and steer our vision towards a sustainable company.
Improve sustainability awareness to support our ambition	Our most pressing matter is to ensure all employees, office and fleet, are aware of our commitment to sustainability and are aware on how they can contribute. Even though many, people are adamant on being "more sustainable", it is not clear what they can do to help. Communicating our roadmap for sustainability and establishing the sustainability community to "live and breathe" the roadmap are paramount to its success.
Roll-out Sustainable projects in our Company	With the advent of our Sustainability Roadmap, projects can easily be identified and performed by members of the sustainability community or other enthusiastic employees. It is envisioned to execute most projects as lean, back-to-basics projects in the form of "Kaizen Events". These are projects with a duration of one or two days in which projects on the sustainability roadmap can be executed in a most effective and efficient manner in which everyone can participate. Impact is therefore created instantly over the course of several days.





## Secondary Objectives

- ✓ Participate fully in the second cycle of Our Oceans Challenge
- ✗ Revise our mobility plan of employees to lower environmental footprint
- ✓ Finish an environmental checklist for future projects
- ✓ Finish the Sustainable Procurement Tool project and evaluate



# Objectives 2018

## Moving From values into Actions

	<p><b>Think Different</b></p> <ul style="list-style-type: none"> <li>• Continue to grow sustainability community and drive sustainable projects using the Roadmap</li> <li>• Organize 2 SPRINTs and participate in a second Maritime Circular Track</li> <li>• Start each project with an improved sustainability workshop</li> </ul>
	<p><b>People</b></p> <ul style="list-style-type: none"> <li>• Develop a new “Mobility plan” to maximize employee travel efficiency and comfort</li> <li>• Seek out partnerships with parties that can grow HMC’s sustainability agenda</li> <li>• Organize a monthly gathering to energize the community and HMC employees</li> </ul>
	<p><b>Planet</b></p> <ul style="list-style-type: none"> <li>• Complete shore power business case study with Eneco and Port of Rotterdam</li> <li>• Implement Carbon Neutral vision into HMC</li> <li>• Define and embed relevant sustainability KPIs and embed them in the organization</li> </ul>
	<p><b>Projects</b></p> <ul style="list-style-type: none"> <li>• Expand the usage of BlueScan within HMC supply chain</li> <li>• Participate in third cycle of Our Oceans Challenge and develop 3 ideas to determine feasibility</li> <li>• Identify opportunities for automation within HMC supply chain and engineering</li> </ul>

# QASHE policies

## HMC regulation and compliance

- ISO 9001
- ISO 14001
- OHSAS 18001
- ISM
- MARPOL
- SOLAS
- Maritime Labour Convention

## Security

HMC maintains a Security Management System certified to the International Ship and Port Facility Security Code (ISPS Code).

## HMC code of conduct

We conduct our business with fairness, honesty, integrity and respect for the interests of our stakeholders in a wide variety of social, political and economic environments. HMC supports the ten principles of the United Nations Global Compact ([www.unglobalcompact.org](http://www.unglobalcompact.org)) with respect to human rights, labor rights, the protection of the environment and anti corruption.

## SHE management system

We actively strive to provide and maintain a SHE management system in line with legal requirements and industry standards and certified to ISO 14001, OHSAS 18001, the International Management Code for the Safe Operation of Ships and for Pollution Prevention (ISM Code) and the Maritime Labour Convention.

## Incident and Injury Free program

Our IIF-Dare to care program is aimed at improving the safety culture within the company. It embodies our belief in and commitment to maintaining an Incident and Injury Free workplace at all times and the mindset we aim to achieve. IIF training is provided to all HMC personnel and subcontractors working on our vessels, depending on how the subcontractor's safety practices can affect HMC's IIF performance.



**DARE to CARE**

## Job Safety

Control of work is managed through the implementation of a robust system of competency management, hazard identification and risk assessment, with the aim of preventing incidents. Work place assessment and job safety analysis are the essential elements in the permit-to-work system. The HMC Behavior-Based Safety Management System @EASE further improves our health, safety and environment performance.

## Stop the work policy

Anyone who feels that his/her or anyone else's work cannot be or is not being done safely has the authority and obligation to stop the work and initiate action to rectify unsafe conditions.



# Glossary

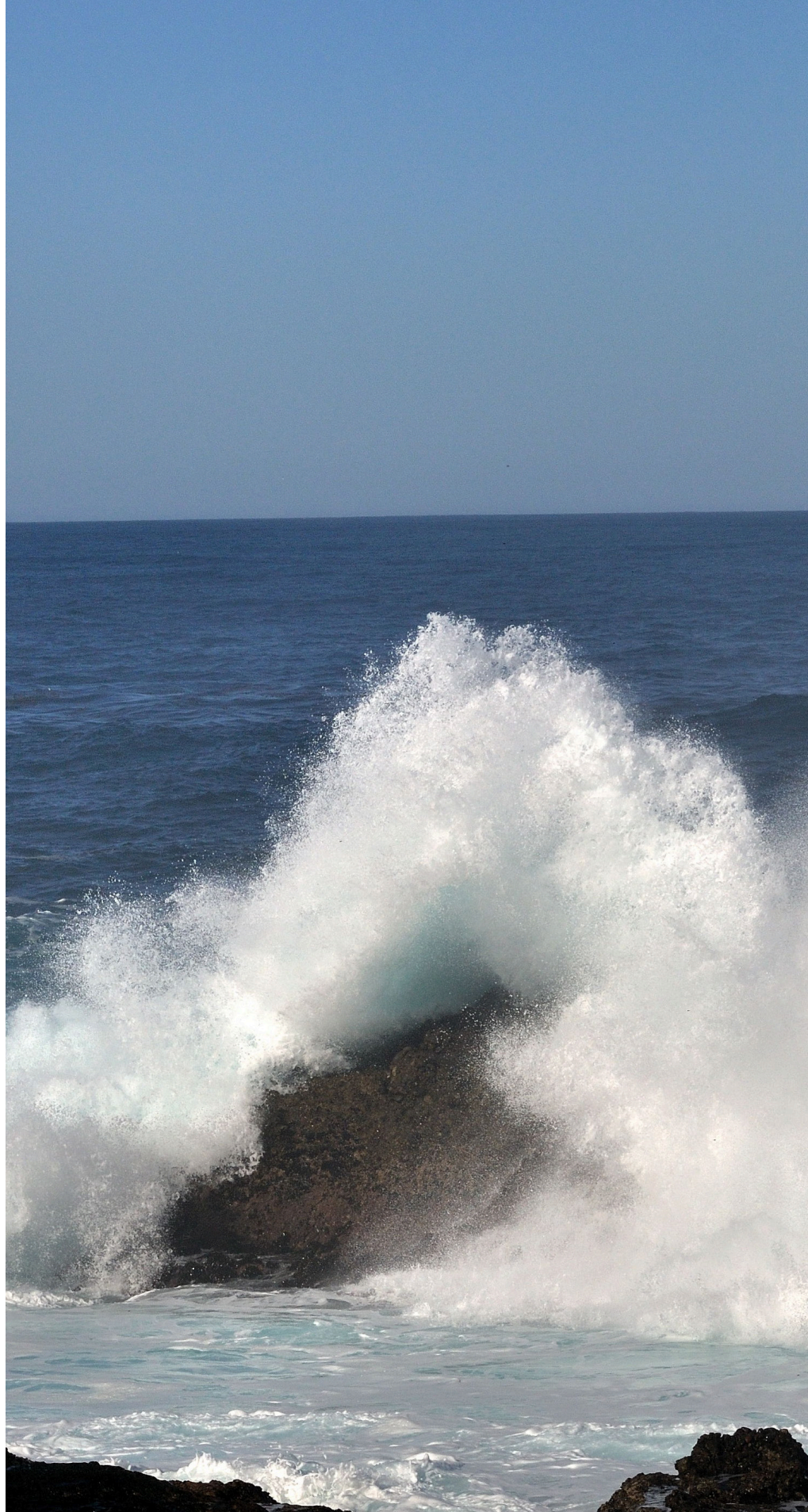
## Glossary of terms

BREEAM NL – Building Research  
Establishment Environmental  
Assessment Method  
DP – Dynamic Positioning  
EAL – Environmentally Acceptable  
Lubricants  
HAZID – Hazard Identification  
IMO – International Maritime  
Organization  
MGO – Marine Gas Oil  
ROV – Remotely Operated Vehicle  
WAI – Work Ability Index  
(questionnaire)

## References

Map of World - Single Color by  
FreeVectorMaps.com

Sustainability's deepening imprint,  
McKinsey 2017





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