



# Climate Plan

Heerema Marine Contractors  
October 2023 | Leiden





**We use our Sustainability Strategy for the long-term developments and short-term objectives. It reflects our journey and is therefore being updated according to lessons learned along the way.**

**Meike Kolthof** | General Manager Sustainability

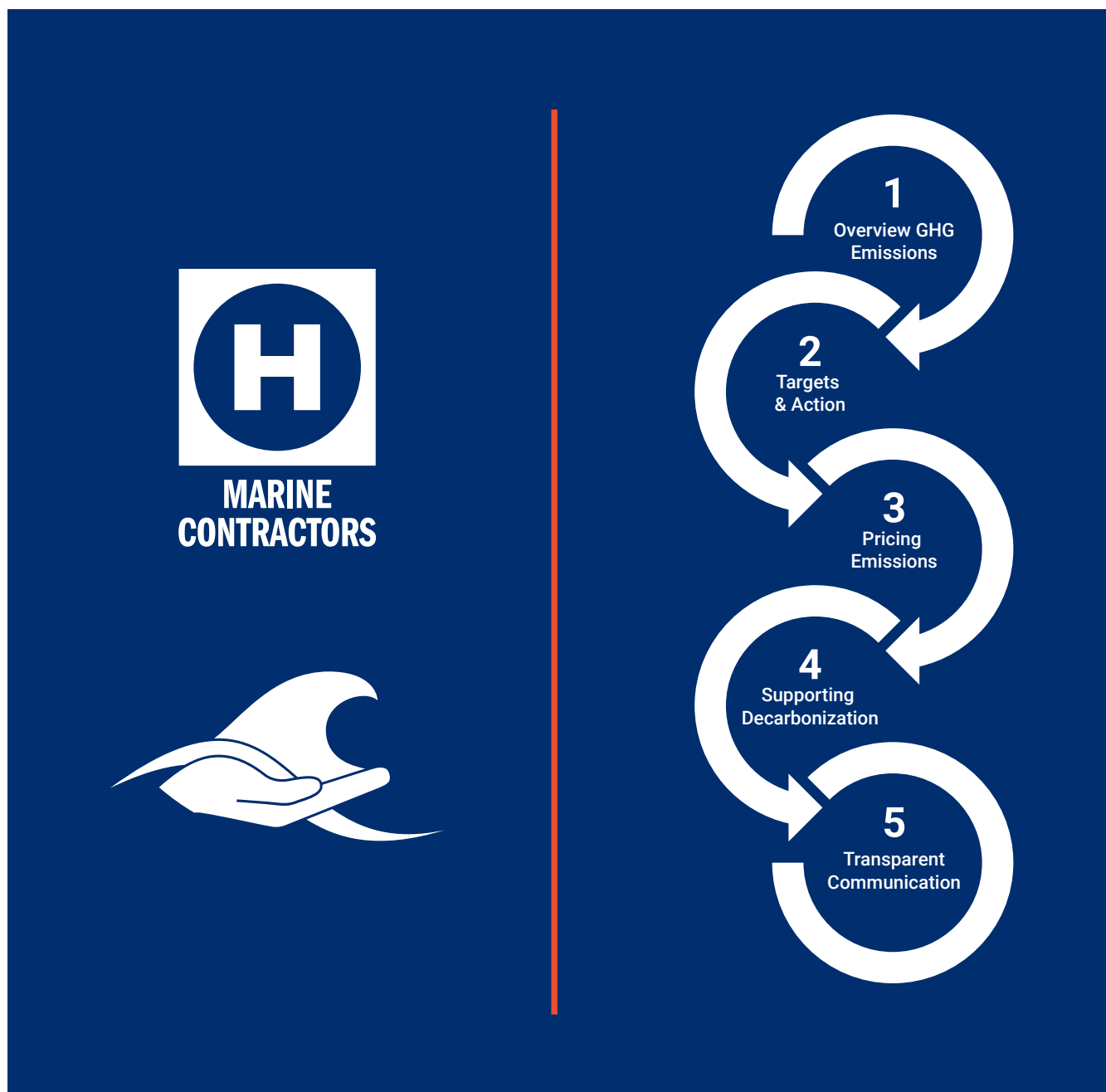
# Heerema Marine Contractors' GHG emissions footprint

Our approach towards 2050, how we are shaping the changes required between now and 2050.

The following steps outline our approach for acting in a way that is climate responsible. We recognize challenges in the approach and the

solutions that we identify. Therefore, we seek to transparently document the full details of our approach on an annual basis, including uncertainties.

The steps are based on the approach as presented by the [NewClimate Institute](#).





# 1

## How does Heerema maintain an overview of GHG emissions?

Our first step in acting climate responsible is to regularly monitor our annual greenhouse gas (GHG) emissions and actively strive to improve our comprehension of the environmental impact we generate. This knowledge empowers us to plan and implement actions aimed at minimizing our GHG emissions.

### Scope 1

#### Direct emissions from owned or controlled sources

For Heerema, Scope 1 emissions are related directly to the activities and operations performed offshore with our vessels. These include emissions due to combustion of fuel from the Sleipnir, Thialf, Balder, Aegir, Kolga and Bylgia, as well as gas usage of all Heerema offices. Methane slip from the use of LNG is included in these figures.

### Scope 2

#### Indirect emissions from the generation of purchased energy

For Heerema, scope 2 emissions are related to the purchase of energy (electricity) in our offices. These locations are Leiden-, Houston-, London- and Singapore office. Heerema's Scope 2 emissions are close to 1% of Scope 1 emissions and will not significantly influence the baseline of 250.000 [mT].

### Scope 3

#### Indirect emissions that occur in the value chain (upstream/downstream)

For Heerema, Scope 3 emissions are related to purchased (capital) goods and services such as third party vessels and equipment, fuel- and energy-related activities, transportation and distribution upstream and downstream, waste generated, business travel, employee commuting, and leased assets.

Reference: GHG protocol

### HOW DO WE CALCULATE OUR EMISSIONS?

Heerema's carbon footprint is calculated inline with existing standards, guidelines and protocols. For the scope 1 emissions that emerge from our fleet, we apply the following formula:  $CO_2eq [mT] = fuel\ consumption [mT] * emission\ factor [mT\ CO_2/mT\ fuel]$

The emission factors are retrieved via databases advised by the Climate Neutral certification Standard. The Well-to-Wheel emission factors are used for our carbon footprint.

### WHERE DO WE GET THE DATA FROM?

We generate our data from multiple sources to ensure we capture the full extent of our impact:

**Fleet** Data input via daily progress reports of our fleet, that include consumed amount of fuel per day.

#### Offices

Data input on yearly energy use via General Management offices.

#### Flights

Data input via crewing schedules on yearly flights of fleet and office personnel.

#### Commuting

Data input via crewing schedules on yearly flights of fleet and office personnel.

#### Subcontractors

Data input via procurement processes and project execution.

#### Suppliers

Data input via procurement processes and project execution.

### HOW DO WE VALIDATE AND VERIFY OUR CALCULATIONS?

To ensure accuracy in our reporting we have a yearly audit conducted by an external party in line with the ISO 14064 greenhouse gas (GHG) validation and verification. For the year 2021 and 2022 the external audit was executed by Ecocert in line with the Climate Neutral certification standard.

# 2

## How does Heerema act on the reduction of GHG emissions to reach its decarbonization targets?

Our second step in acting climate responsible is take action on the reduction of our GHG emissions, in line with our ultimate goal of achieving net-zero GHG emissions by 2050 latest.

### SCOPE 1 AND SCOPE 2 TARGETS

We take a climate responsible approach to address our climate footprint in a transparent and constructive way. To achieve the required reduction needed, Heerema committed to a net-zero target by 2050. As a near term target, Heerema is committed to reduce 35% by 2030, compared to its baseline in 2020.

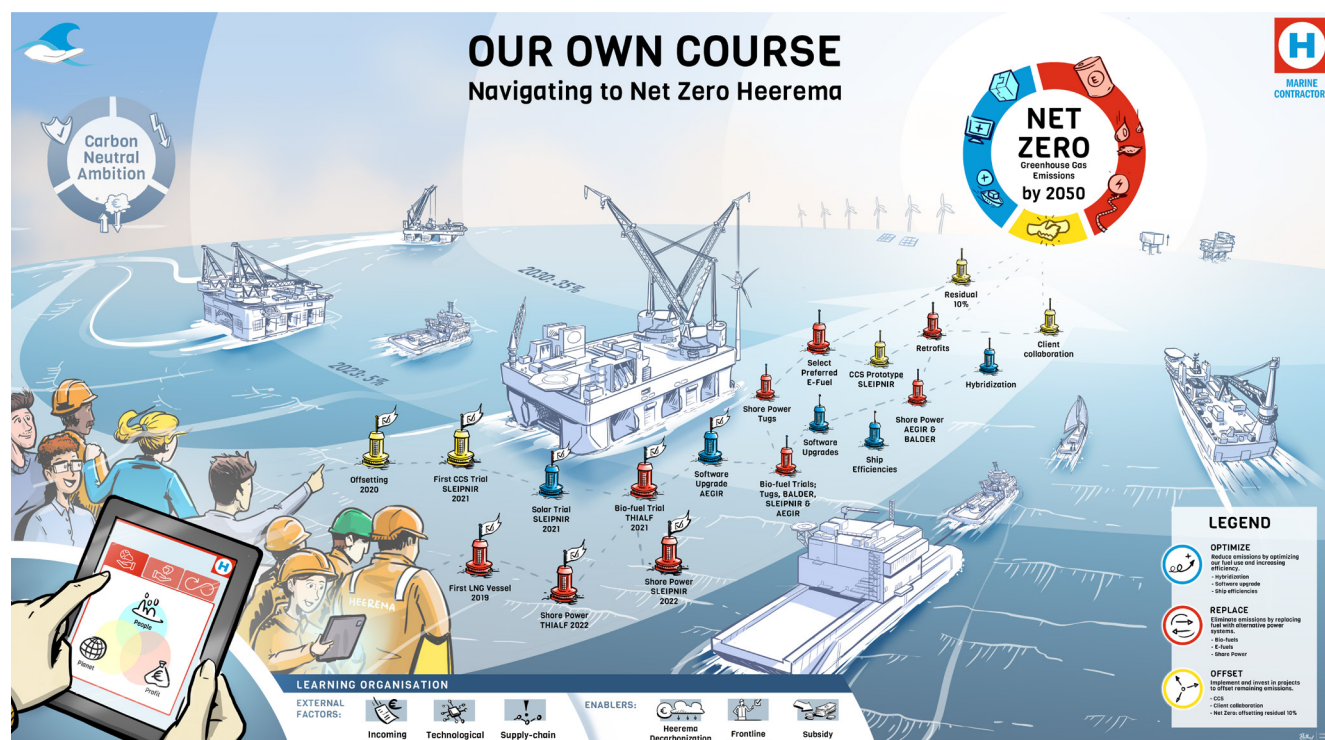
### DECARBONIZATION STRATEGY

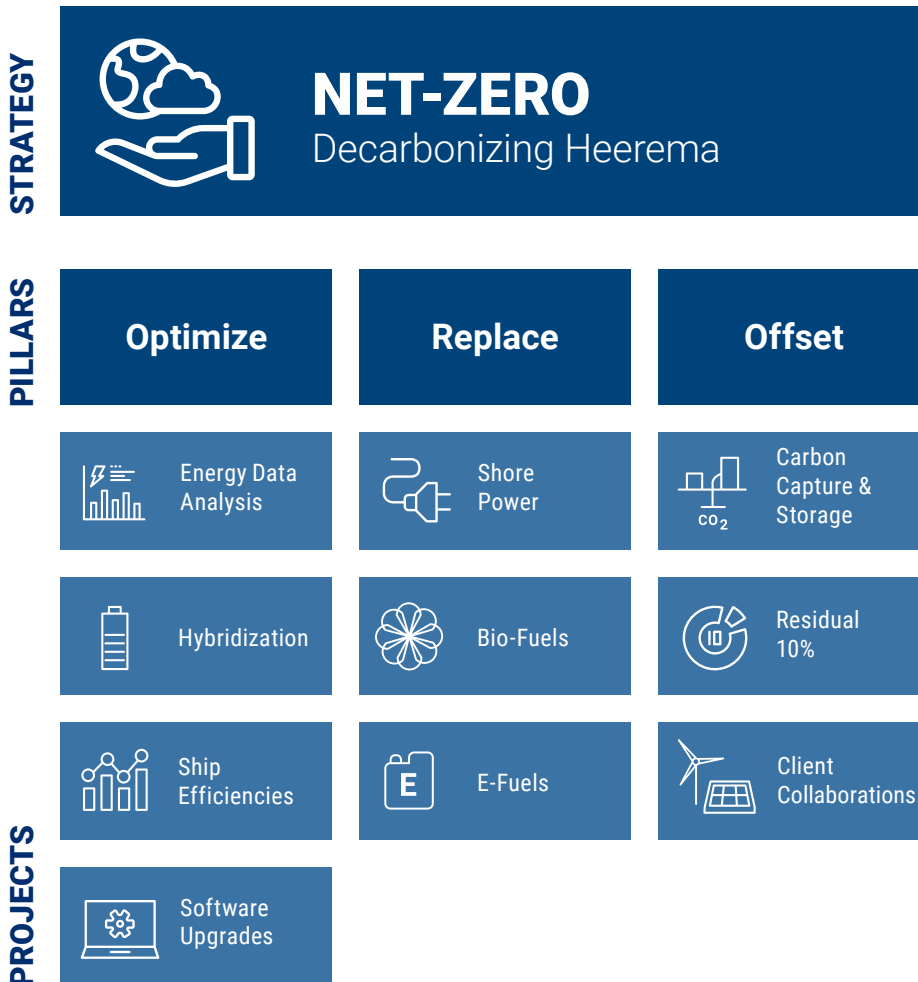
To reach our Scope 1 and Scope 2 targets, we apply our decarbonization roadmap linked to our net-zero ambition. The roadmap includes zero-emission technologies that either optimize our vessels, replace conventional fuels, or offset residual emissions.

**Optimize measures** are classified as those reduce emissions by optimizing our fuel use and increasing efficiency.

Examples are hybridization, improved crane utilization, and an improved power management system.

**Replace measures** are classified as those that eliminate emissions by replacing fuel with alternative power systems. This could be a bio-fuel or e-fuel. Other options are renewable energy sources like green electricity via shore power.





**Offset measures** are defined as those that offset, capture, or otherwise neutralize our carbon footprint. An example is the development of a carbon capture system (CCS) onboard Sleipnir. Alongside taking action in such industry studies, we collaborate with certified carbon offsetting project suppliers that align with our mission to create sustainable value(s).

**WE BELIEVE IN ACTING NOW**

Heerema is continuously working on translating values into action by implementing zero-emission technologies onboard our vessels. Between 2020 and 2022 we have successfully prevented 5% of our emissions at the source with the installation of our Shore Power connection in the Port of Rotterdam. Other examples of achievements within decarbonization are the trials with alternative fuels, research into e-fuel retrofits, studies regarding a hybrid vessel, and testing Carbon Capture and Storage systems.

In the years 2020 to 2023, we compensated 100% of our emissions. Moving forward we have committed these resources to the Heerema Decarbonization Fund that got introduced in 2023. This internal fund consists of financial resources available for decarbonization ideas, offsetting possibilities, and frontline initiatives in line with our commitment to a net-zero company by 2050. This fund supports yearly reduction of emissions, learning by doing, and engagement in the organization.

SCAN THE QR-CODE FOR HEEREMA SHORE POWER

In line with the Greenhouse Gas Protocol, it might be difficult to achieve 100% emissions reduction. Therefore, it is allowed to neutralize your residual emissions through offsetting via carbon removal projects up to a maximum of 10%.

As a result, offsetting will consistently remain an integral component of our sustainability strategy. We believe our approach is in line with the NewClimate Institute perspective on a climate

responsibility approach: “a climate responsibility approach needs to first and foremost incentivize and facilitate the reduction of one’s own emissions.”

**SCOPE 3**

**TARGETS**

Our scope 3 emissions have a separate reduction plan, since this involves collaboration with our suppliers and subcontractors. To set targets for our Scope 3 emissions, we have inventoried our top 10 suppliers for 2020 and 2021

to collaborate on tracking and reducing emissions by engaging. The approach of reducing our Scope 3 emissions is based on the Greenhouse Gas Protocol and the Climate Neutral Standard.

**DECARBONIZATION STRATEGY**

**- SCOPE 3**

The approach of reducing our Scope 3 emissions is based on the Greenhouse Gas Protocol, for which we make use of the Technical Guidance for Calculating Scope 3 Emissions.

**Identify and understand** risks and opportunities associated with value chain emissions



**Identify GHG** reduction opportunities, set reduction targets and track performance;  
**A.** Overview top 10 suppliers  
**B.** Overview top 10 subcontractors

**Engage suppliers** and other value chain partners in GHG management and sustainability;  
**A.** Request footprint **B.** Collaborate on reduction plan  
**C.** Collaborate on implementation initiatives



**Enhance stakeholder** information and corporate reputation through public reporting



# 3

## How does Heerema deal with emission pricing?

Our third step towards being climate responsible is to create insights in the costs of our climate impact, and to raise awareness on these costs in decision making processes.

Within the landscape of emission reduction regulations, such as the European Union Emissions Trading System, a price per unit of emissions will be imposed. The exact price depends on the market based mechanism of ETS and/or other regulations related to emissions pricing. For decisions made in the near future, these financial regulations are already taken into account.



# 4

## How does Heerema support action?

Our fourth step towards being climate responsible is to support initiatives that drive transformative action to combat climate change and accelerate progress in reaching the objectives outlined in the Paris Agreement.

Support of action encompasses initiatives that might not yet produce measurable emission reductions, however have the potential for transformative impact in the future.

### CONSORTIA

By participating in consortia Heerema aims to support and take action. This way of collaborating adds significant value, including the acceleration of innovation through collaborative efforts among diverse industry partners, and the facilitation of knowledge and expertise exchange across sectors. These collaborations foster a culture of continuous learning and adaptation, enabling organizations to develop more robust solutions. Furthermore, government support reduces financial barriers and underscores the societal importance of consortium initiatives. Perhaps most significantly, the sharing of insights and knowledge generated within consortia extends their impact far beyond individual organizations,

contributing to broader societal progress and addressing pressing challenges on a global scale.

Heerema is actively engaged in collaborative research and development with industry partners through consortia, focusing on cutting-edge technologies such as Carbon Capture and Storage, and the hybridization of vessels and e-fuel technologies like the application of Methanol.

### GRADUATION STUDENTS

Engaging with students via internships or graduation projects, offers numerous advantages in supporting action. Their fresh perspectives and innovative ideas inject creativity into the workplace, driving sustainable improvements. Students often bring up-to-date technological knowledge and trends, supporting the organization in their outside-in perspective. Additionally, students working in organizations contributing to the energy transition

gain valuable industry exposure, learning firsthand about the intricacies and challenges of this complex field. They acquire knowledge that will shape their future careers, providing a solid foundation for tackling energy transition issues and driving sustainable change in the broader landscape.

Heerema is always seeking to collaborate with schools and universities, on topics varying from future drive trains for vessels to quantifying the potential impact of batteries onboard when connected to shore power.

# 5

## How does Heerema communicate in a transparent way?

Our fifth step towards being climate responsible is to communicate the details of our approach clearly and on a regular basis.

We have committed to open and transparent communication about our impact and we will document the full details of our Climate Responsible approach on an annual basis, including any challenges and uncertainties.

The applicable information will be shared using our:

- Yearly Sustainability Report
- Yearly Impact Report
- Corporate webpage
- Yearly audit results

Additionally, we believe in collaboration and feedback. Therefore, if this Climate Plan inspires you, triggers questions or makes you curious for more – please reach out to Meike Kolthof, Manager Sustainability to talk about this sustainability journey.



**MARINE  
CONTRACTORS**



**To be the leading  
marine contractor  
creating sustainable  
value(s) for clients  
and stakeholders**

**Our Mission Statement**







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