

# SUSTAINABILITY REPORT 2022



# KEY FIGURES

(in EUR million, unless stated otherwise)	2022	2021
Revenue	<b>3,578</b>	2,957
Order book	<b>6,107</b>	5,406
EBITDA	<b>604</b>	462
Net result from joint ventures and associates	<b>19</b>	39
Depreciation and amortization	<b>283</b>	264
Operating result	<b>271</b>	199
Exceptional items (charges/income)	<b>26</b>	-
EBIT	<b>298</b>	199
Net profit	<b>241</b>	151
Net group profit	<b>240</b>	148
Cash flow	<b>544</b>	412
Net financial position incl. IFRS 16 lease liabilities: cash (debt)	<b>237</b>	203
<b>RATIOS (IN PERCENTAGES)</b>		
EBIT as % of revenue	<b>8.3</b>	6.7
EBITDA as % of revenue	<b>16.9</b>	15.6
Solvency	<b>48.6</b>	48.0
<b>NON-FINANCIAL INDICATORS</b>		
Employees including associated companies	<b>11,164</b>	10,250
Employees in Boskalis majority owned entities	<b>7,441</b>	6,254
Ratio women/men within Boskalis' majority owned entities	<b>15/85</b>	14/86
Number of nationalities within Boskalis' majority owned entities	<b>87</b>	85
Lost Time Injuries (LTI)	<b>3</b>	4
Lost Time Injury Frequency (LTIF)	<b>0.01</b>	0.02
Total Recordable Injury Rate (TRIR)	<b>0.30</b>	0.21
Strategic suppliers: percentage spend covered by Supplier Code of Conduct	<b>89</b>	88
CO <sub>2</sub> emissions scope 1+2 (MT ('000))	<b>1,203</b>	1,078
Please refer to the glossary for definitions of the terms used		

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# SUSTAINABILITY REPORT 2022

Printed copies of this Sustainability Report  
can be requested via [sustainability@boskalis.com](mailto:sustainability@boskalis.com).

The Sustainability Report can be found on  
[www.boskalis.com/sustainabilityreport](http://www.boskalis.com/sustainabilityreport).

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# CHAIR'S STATEMENT

Operationally, we can reflect on a solid performance in 2022 which led to a strong set of financial results. We concluded the year with a revenue of EUR 3.6 billion, EBITDA of EUR 604 million and an orderbook of EUR 6.1 billion. At year end we held a net cash position of EUR 237 million. Guided by our Sustainable Growth strategy, during the year we continued to mitigate and address the consequences of climate change through our core activities. In particular, we expanded our support to the offshore wind industry, putting ourselves firmly at the center of the global energy transition.

When we published our new business plan early in the year, we did so amid the significant optimism that characterized the world's emergence from the COVID-19 pandemic. That optimism proved to be short-lived when in late-February Russia attacked Ukraine. A year later, this conflict has had a considerable impact on the global economy, with rising energy and commodity prices resulting in record inflation. This has impacted our company in the form of the rapidly rising cost of fuel and other commodities. Conversely, the significant uncertainty in the energy sector is driving investment in the development of new offshore energy sources, particularly wind. This was reflected in a sharp increase in tender activity during the second half of the year for offshore wind projects in Europe, the United States and Taiwan. Looking back on 2022 as a whole, we can conclude that we are weathering the storm and remain in a strong position as a company.

During the year our shareholders accepted a voluntary public offer for all Boskalis' issued and outstanding shares. In November – having been listed on the Amsterdam stock exchange for the last fifty years – we became a private company and part of the HAL portfolio. Notwithstanding the acquisition by HAL, we continue to pursue our Sustainable Growth strategy and remain committed to our Corporate Business Plan. We also continue to publish this annual Sustainability Report and details of our performance against our strategy.

## PROTECTING AGAINST THE IMPACTS OF CLIMATE CHANGE

Last year was another notable year in terms of record global temperatures and extreme weather events. In June, severe flooding devastated parts of Pakistan, killing nearly two thousand people and causing almost USD 15 billion worth of damage. As the world galvanizes efforts to limit the global temperature rise, Boskalis'



activities play a part in tackling the consequences of climate change. In 2022 we were awarded the contract for the protection and replenishment of more than 40 kilometers of shoreline in Togo and neighboring Benin in West Africa. The project was awarded by the governments of Togo and Benin with the financing made available by the World Bank under the West African Coastal Areas Management (WACA) program. In this context, it is extremely pleasing that a sand engine – a concept that has been developed and applied successfully by Boskalis in the Netherlands – will be constructed on the African continent to protect the coastline and its resident population from the encroaching sea.

## ADVANCING THE ENERGY TRANSITION

In 2022 we continued to support the global transition to renewable sources of energy, completing the installation of 71 concrete gravity-based structures which act as the foundations for the Fécamp offshore wind farm in Normandy, France. The project supports France's ambition to produce a third of its energy from renewable sources by 2030. Last year was a busy year for Boskalis in the offshore wind market with the crane vessel Bokalift 2 entering service, joining the Bokalift 1 on wind farm projects in Taiwan. Post year end we announced the contract for our 100th offshore wind farm project that Boskalis has worked on over the last decade. Under the contract Boskalis will construct a large offshore wind farm off the coast of the United States. This exciting milestone illustrates the leading role we have established in the offshore wind market over the past ten years. In that time we have been involved in the realization of almost half of all offshore wind farms worldwide, excluding the Chinese market. With our combination of hydraulic engineering and offshore activities, we are making a unique contribution to the global energy transition.

## ROAD TO NET ZERO

We remain committed to our target of becoming climate neutral across our global operations by 2050. As such, we continue to implement emission reductions throughout the business and drive our competitive advantage via our ability to offer accessible, low-carbon solutions to our clients.

The greatest potential for near-term emission reductions lies with those parts of the company that are onshore – our offices and warehouses, lease car fleet and dry earthmoving equipment – and we have implemented a number of significant carbon-reduction measures over the last few years. Meanwhile, substantial reductions in the emissions linked to our vessels are dictated by the availability of suitable alternatives to fossil fuels and the global infrastructure to support clean sources of energy. In this area we lack direct influence and are heavily dependent upon the progress achieved by third parties with whom we collaborate to develop the expertise and technology to support the sector's transition to clean energy.

We continue to invest in clean sources of energy to run our offices and warehouses and have installed solar panels at a number of our premises in the Netherlands and abroad – most recently at our office in Singapore. Together these generate more than three million kilowatt hours of green electricity annually. Over the year we have made a significant investment in low-emission equipment in support of our ambitions for all onshore construction projects in the Netherlands to become climate-neutral by 2030. Investments in the onshore fleet include an electric dredger, electric asphalt sets, electric trucks and two 25-ton electric excavators, with further additions of electrical and other low-emission equipment planned in 2023.

Our Papendrecht campus is host to one of the largest car-charging facilities in the Benelux and I am proud that during 2022 we met our interim target for one quarter (25%) of our lease car fleet to be either hybrid or fully electric. This proportion will continue to grow as more electric car models become available on the market.

We continue to develop operational measures and wider technology to reduce fuel consumption and cut emissions within our fleet. We announced plans early last year to retrofit numerous vessels within our Offshore Energy division through the retrofitting of Energy Storage Systems, or 'power packs'. These systems will reduce the vessels' fuel consumption and associated CO<sub>2</sub> and nitrogen oxide emissions during DP operations. The systems also provide a power supply and energy storage facility while the vessels are docked and contribute to quieter and more efficient operations offshore.

## BIODIVERSITY

Many countries are stepping up efforts to limit biodiversity loss and restore damaged ecosystems, including through a new framework agreement reached at the COP15 biodiversity conference in Montreal last December. In 2022 we extended our partnerships with a number of leading non-governmental organizations and academic institutions as we look to further expand our nature-based approach to protecting and enhancing coastal ecosystems. Meanwhile, through our Artificial Reefs Program and related initiatives we remain focused on providing

our clients with a range of nature enhancements for offshore marine construction and renewable energy projects.

## SOCIAL IMPACT

I am proud of the work that Boskalis has done within local communities in the Philippines in support of the Manila International Airport project, which is providing the region with a vital transport hub. In collaboration with our client and other partners we commissioned extensive environmental and social impact assessments in Manila Bay and have developed and executed a number of detailed action plans to ensure the project meets international standards.

Elsewhere, our projects have continued to deliver valuable initiatives to communities across the globe. Of particular note, our cadetship program for aspirant seafarers in Taiwan is now in its third year and goes from strength to strength.

## CARE FOR OUR PEOPLE

Nothing is more important than the continued safety of our colleagues and subcontractors. With so many projects in the execution phase in 2022, it is therefore very pleasing to see a decline in our Lost Time Injury Frequency to 0.01 per 200,000 hours worked.

During the year we progressed our Human Excellence approach and several initiatives to support our colleagues in their personal development and better understand their needs and aspirations. In June we invited all Boskalis colleagues worldwide to participate in the Creating Our Horizon employee engagement survey. I was extremely pleased with the level of uptake across the company and the highly positive results were extremely gratifying, particularly given the many challenges of the last few years during the pandemic. It was certainly pleasing that we have made demonstrable progress in a number of key areas that we have focused on over the last three years.

I am very positive about the upcoming period. With such a passionate team of people at Boskalis and a healthy order book of exciting projects, the future is bright. The Board of Management is therefore looking ahead with confidence in both the market and our company.

On behalf of myself, and the Board of Management colleagues, I would like to thank all of our colleagues for their outstanding efforts and commitment over the past year. I am also grateful to all of our clients, partners and our shareholder for their continued support in everything we do.

Peter Berdowski

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# STRATEGY AND AMBITION



The Bokalift 2 crane vessel installs wind turbine foundations in Taiwan





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# BOSKALIS AT A GLANCE

**We operate around the world as a leading player in dredging, offshore energy and marine services.**

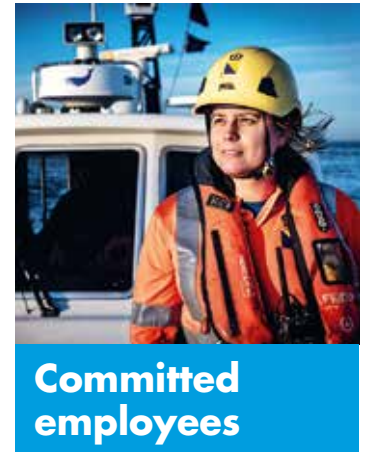
Through our activities, we play a pivotal role in keeping the world moving, both on land and at sea. Through our strategy and responsible business practices, we contribute to the United Nations' Sustainable Development Goals (UN SDGs), which form the blueprint for a more sustainable future. Our Corporate Business Plan has been set out with a clear eye on the trends that fuel our business. Population growth and an increase in wealth (GDP per capita) drive an increase in world trade, energy demand and the associated shift to renewables, whilst the consequences of climate change drive the need to protect urbanized areas from flooding. These developments together fuel the demand for the services Boskalis offers as a project-based organization. The key elements of our operations are described on this page.



**Diverse clients**

**With over 110 years' experience and a presence in over 90 countries, we offer a broad range of specialist maritime services to our clients.**

Our clients include government organizations, energy companies, project developers, port and terminal operators, and shipping companies. We provide a wide variety of solutions for our clients (including nature-based solutions), such as coastal protection, channel deepening, land reclamation, engineering, energy infrastructure, towage and marine salvage. In 2022 we were active in more than 70 countries. For more information on our offerings to clients, see our website: [www.boskalis.com](http://www.boskalis.com).



**Committed employees**

**As a highly specialized industry, our employees are our most important asset.**

We require experienced professionals with specialized skills and a workforce that is engaged with topics high on our agenda, such as innovation and sustainability. We therefore place significant focus on attracting the right talent and creating an inclusive workplace that supports and stimulates employees to develop and grow. The nature of our activities means that we have a relatively high risk profile, making the safety of our employees and subcontractors a top priority. Our safety program and performance are described further on page 30.

**“ WITH OUR COMBINATION OF HYDRAULIC ENGINEERING AND OFFSHORE ACTIVITIES, WE ARE MAKING A UNIQUE CONTRIBUTION TO THE GLOBAL ENERGY TRANSITION ”**

Peter Berdowski  
Chief Executive Officer



## Responsible suppliers

**Through our central procurement office we maintain relationships with around 1,500 direct suppliers. A reliable and efficient supply chain is essential to our business.**

Of our direct suppliers, 82% are based in the Netherlands, 14% in other European countries and 4% outside Europe. We expect all our suppliers to act responsibly and with integrity, in line with our values. We monitor the implementation of our Supplier Code of Conduct, working with suppliers on improvements where necessary. In addition, our supply chain partners can be a source of sustainable innovations. For more information, see page 72.



## A versatile fleet

**Our versatile fleet consists of more than 600 specialized vessels and floating equipment, which are deployed around the world.**

Our strength lies mainly in the fact that we deploy our own vessels on our projects. Throughout all our activities we pay particular attention to any impact our vessels may have on the environment. This impact covers areas that include emissions, safety, waste, ballast water, turbidity and energy management. In addition, we are committed to the safe and sustainable dismantling of all our vessels. Read more about our dismantling policy on page 73.



## Sustainable innovation

**We develop technical and infrastructure solutions that are flexible and can be adapted in response to changing environments.**

Boskalis' multidisciplinary teams work with our clients to optimize project plans and designs to reduce energy, increase circularity and limit the consumption of materials. Our technical and infrastructure solutions, that include low-carbon and nature-based options, often create environmental value, thereby exceeding the expectations of our clients. Through our innovation strategy we embed sustainable innovation within our organization and our project-planning process. We work together with start-ups, NGOs, industry platforms and civil society to share and build knowledge, and stay at the forefront of our sector. Read more about our approach to innovation on page 50-51.



## Community engagement

**Our projects sometimes interact closely with local communities.**

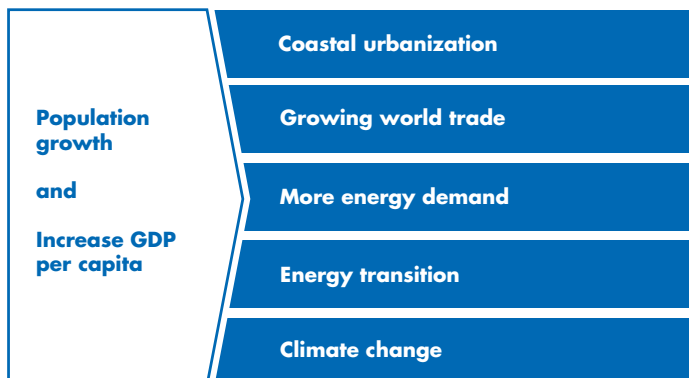
In many cases the presence of our activities creates a positive socio-economic impact on the nearby communities. This could take the form of local job creation, procurement or community investment. Wherever we can, we seek to enhance the positive impacts of our projects. At the same time, we pay close attention to potential adverse impacts our activities could have on the local communities. Read more about the way we manage this impact on page 58-65.

# OUR BUSINESS IN A CHANGING WORLD

In monitoring and developing our corporate strategy we keep a clear eye on the long-term trends that underpin the Boskalis business model. Population growth and rising levels of prosperity are the over-arching trends that propel our business, resulting in a need for more energy, as well as marine and inland infrastructure, to support economic growth and increasing levels of world trade.

By 2040, the global population is projected to rise by more than a billion people to approximately nine billion. By then, almost 70% of people – together with associated assets and infrastructure – will live on less than 1% of the world's land area, much of it in close proximity to water while some of that land will be reclaimed. At the same time, growth in emerging markets is expected to outpace that of advanced economies and the average Gross Domestic Product per capita is set to increase globally by around 45% over the next 20 years. This growing and more affluent population living in coastal regions underpins the drivers of our business: world trade, energy consumption and climate change.

According to the World Bank, infrastructure services are the backbone of development – they support essential services required to meet countries' economic, social and environmental objectives. In particular, the construction of trade-related infrastructure is recognized as a key component of progress towards achieving the SDGs. Growth in global trade is expected to continue, with increased interregional shipping having a particularly pronounced impact in Asia. Boskalis continues to benefit from this growth, as well as the trend towards larger vessels with deeper drafts. In ports these vessels require deeper access channels and larger and deeper berths and turning basins, creating widespread opportunities for dredging.





These demographic and economic developments in turn increase the global demand for energy. This can partly be met by existing power generation, however significant investments in new energy sources will also be necessary. The International Energy Agency (IEA) has estimated that USD 44 trillion in new energy supply infrastructure will be needed between now and 2040. At the same time, climate change necessitates a substantial shift in investment away from fossil fuels towards renewables.

The rate at which the energy transition proceeds will dictate the magnitude and focal areas for capital investment. Whilst this transition is driving growth in renewables, traditional energy sources, including oil and gas, are expected to remain significant components of the global energy mix in the years to come. Whatever the pace and shape of the energy transition, the effects of climate change – such as rising sea levels and more frequent extreme weather events – will continue to increase over the coming decades, pushing up demand for climate adaptive measures. With 75% of major world cities located on the coast, it is estimated that annual investment of USD 77 billion will be required to keep flood risks at their current levels. Without this level of expenditure, the cost of flood damage is projected to increase between a hundred and a thousand times by the end of the century.

In summary, the mid- to long-term development of macro trends relevant to Boskalis are all supportive of its business model. The structural growth and rising prosperity of the global population that increasingly lives in coastal areas drives demand for raw materials and energy and stimulates global trade. Meanwhile, climate change necessitates massive investments in the energy transition away from fossil fuels towards renewable energy sources. Given the unavoidable climatic changes that are already locked in as a result of current and near-term emissions, the effects of climate change will continue to increase over the coming decades. Adequately addressing these effects – through adaptive measures – will require substantial investments.

These macro trends will collectively propel demand for maritime infrastructure and, as such, constitute key drivers of sustainable growth for our business. It is therefore clear that Boskalis' portfolio of activities will remain highly relevant over time, with an abundance of opportunities to contribute to tackling the major societal challenges of our time.

# OUR APPROACH

## SUSTAINABLE GROWTH

Our focus on sustainable growth lies at the heart of our business strategy. Through the strategy we seek to incorporate sustainability across our activities, a process which is informed by our biennial materiality assessment and our broader management of our environmental and social impact. Our sustainable growth strategy has been developed and is overseen by the Board of Management.

**Purpose** – We create and protect prosperity and advance the energy transition.

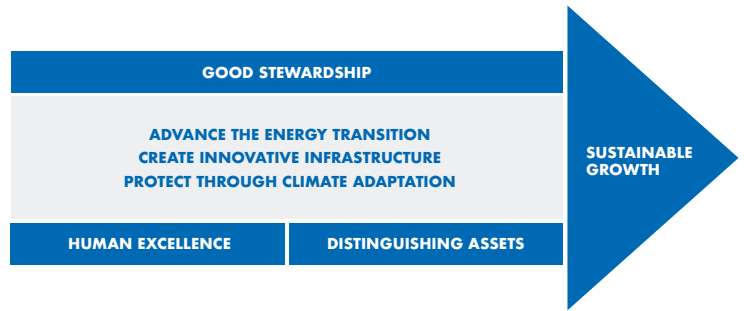
**Mission** – We strive to be the leading dredging and marine contracting experts, creating new horizons for all our stakeholders.

Our strategy is structured around three activity clusters and the value they bring to society with the objective of creating sustainable growth:

- **Advance the Energy Transition:** we help expand access to renewable power and facilitate the energy transition by developing infrastructure to deliver affordable and clean energy;

- **Create Innovative Infrastructure:** we facilitate world trade, support economic development, and create infrastructure and new land for society; and
- **Protect through Climate Adaptation:** we help protect populations and the natural environment from the consequences of climate change, such as rising sea levels and extreme weather conditions, through our coastal defense and riverbank protection activities.

A fourth area – our marine salvage business – creates additional benefits through the protection of seas and oceans from pollutants and environmental damage.



Sustainable growth lies at the heart of our strategy

STRATEGY AND AMBITION



## UNITED NATIONS' SUSTAINABLE DEVELOPMENT GOALS

At Boskalis our purpose is to create and protect prosperity and advance the energy transition. Through our strategy and responsible business practices, we contribute to the UN Sustainable Development Goals (SDGs) which form the blueprint to achieve a better and more sustainable future for our planet.

The four areas of our business set out above contribute to the following specific SDGs:

- Affordable and Clean Energy;
- Industry, Innovation and Infrastructure;
- Climate Action;
- Life Below Water.

Based on our activities we strive to create economic value and sustainable growth. This is achieved through our focus on Good Stewardship, Human Excellence and our Distinguishing Assets. With this approach we seek to promote productive employment and economic value thereby contributing to a fifth SDG:

- Decent Work and Economic Growth.

The core business activities, their explicit link with the SDGs, and our progress in 2022 is described from page 18.



## GOOD STEWARDSHIP

Good Stewardship is the first pillar supporting our business strategy and fundamental to the success of the company. Good Stewardship dictates effective management of risks and opportunities related to our business, and is thereby pivotal to our ability to achieve sustainable growth. Focal topics are identified from both the outcome of our biennial materiality assessment, as well as our structured approach to managing our broader social and environmental impact. They include the following:

**Responsible Business Conduct:** our focus on integrity and business ethics which is underpinned by our Responsible Business Principles, policy framework and business ethics program. Our Responsible Business Principles, as detailed in the Boskalis Code of Conduct and in our Supplier Code of Conduct, are based on international guidelines including the United Nations Universal Declaration of Human Rights, the UN Guiding Principles on Business and Human Rights, the OECD Guidelines for Multinational Enterprises and the conventions of the International Labour Organization.

**Safety and Occupational Health:** we aim to provide a safe, injury- and accident-free working environment and culture, while supporting the broader well-being of our employees and subcontractors. Our long-standing No Injuries, No Accidents (NINA) health and safety program is an important part of this pillar and continues to deliver quality results and ongoing improvements.

**Biodiversity and Ecosystems:** the prevention and mitigation – through our structured approach to managing environmental risks – of negative impacts on marine life or local habitats, such as those linked to invasive species, turbidity or pollution. We also aim to be an industry leader in the development of nature-based solutions to protect and enhance coastal ecosystems.

**Social and Community Impact:** the active management of our social engagement in the regions and communities where we work. The majority of our work takes place offshore, however, our operations can impact local communities at the coast or inland. This impact may be either positive – through the creation of jobs and opportunities for trade and economic growth – or, potentially, negative, through disturbance or changes to the local environment. Wherever possible we enhance the positive impact we can have and mitigate or offset negative outcomes of our work.

**Climate Change:** with regard to climate change, Boskalis plays a relevant role in numerous ways through its activities.

- We protect society from the consequences of climate change. We are uniquely positioned to protect populations and the natural environment from rising sea levels and extreme weather conditions through our coastal defense and riverbank protection activities.

- We help mitigate the effects of climate change by advancing the energy transition. The size and share of offshore wind energy has grown substantially within the group and based on the market outlook, the further prospects are positive. Early 2023, Boskalis acquired its 100th offshore wind project and over the last decade the company has been involved in the realization of almost half of all such projects outside of China.

Through our activities, we also generate emissions and have committed to becoming climate neutral across our global operations by 2050. As such, we aim to further reduce emissions and drive our competitive advantage through our ability to offer accessible, low-carbon solutions to our clients. More details on the progress of our emission reduction program can be found on page 44-49 of this report.

Good Stewardship also guides our interventions to enhance the positive and prevent or minimize any negative impacts of our operations. We focus our efforts on the above topics to develop new technologies and more sustainable ways of executing projects for our clients. To support our progress on these sustainability topics, we have articulated high-level ambitions and set measurable targets where possible.

## HUMAN EXCELLENCE

Today's employment climate is characterized by challenging economic conditions, growing expectations around local content and continuing shortages in the international labor market – particularly in Europe. Our people are considered our most important asset and a determining factor for our success. Our approach to human capital is therefore a key pillar of our business strategy and pivotal to our ability to achieve sustainable growth while managing the impact of our activities on our people and the world around us. Through the Human Excellence pillar within our Corporate Business Plan, we are committed to developing the skills and career ambitions of our people and creating the right conditions for everyone to reach their full potential. To achieve this, we foster effective leadership and ensure that employees are in control of their own personal development, giving them the time and resources to prioritize their performance and progress. By doing so, we put ourselves in a position of strength to meet the sustainability challenges and objectives of our activities and ensure the sustainable growth of our business.

## DISTINGUISHING ASSETS

Together with our human capital, Boskalis' strength lies in its ability to deploy proprietary, distinguishing assets. During the current business plan period, we expect to invest EUR 1.25 billion in assets, comprising of a combination of new builds, vessel modifications and acquisitions of existing vessels for both the dredging and offshore energy division. More specifically, Boskalis

intends to invest in two new jumbo trailing suction hoppers dredgers that will be capable of operating on future generation fuels such as methanol and will be more energy efficient than comparable, current generation vessels.

Within the Offshore Energy division Boskalis has built up a versatile fleet, mainly by acquiring vessels and in certain cases modifying them. The advantages of acquiring and modifying existing assets include the ability to extend the lifetime of vessels, a more sustainable approach when compared to a new-build. During the current business plan period, Boskalis intends to selectively expand its offshore fleet with assets geared to serving the offshore renewables market. In the first half of 2022 we also announced plans to retrofit numerous offshore vessels through Energy Storage Systems, or ‘power packs’. The conversions will reduce the vessels’ fuel consumption and associated carbon dioxide and nitrogen oxide emissions by an average of up to 20% during DP operations. For further information please see page 46.

**MATERIALITY ASSESSMENT**

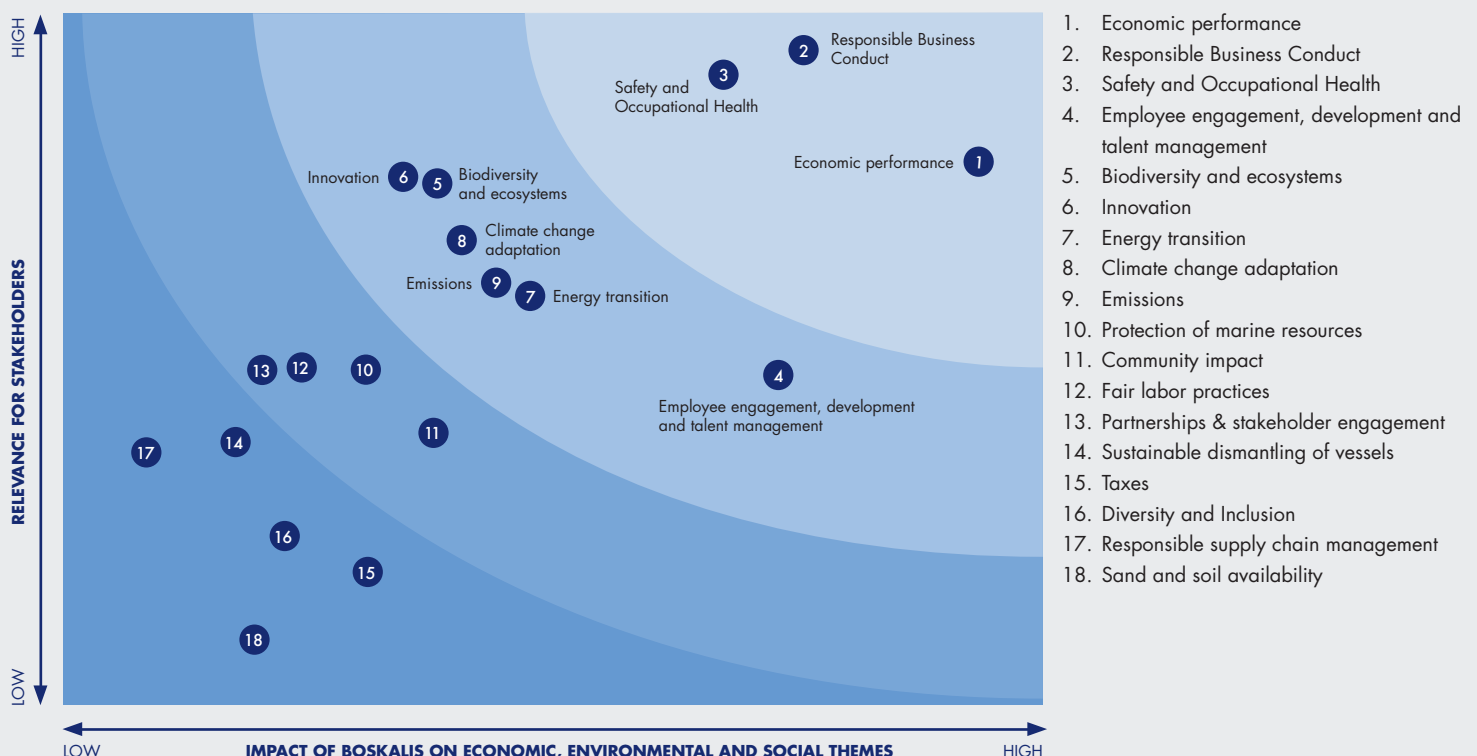
Our approach to sustainability is informed by a set of material topics that are identified through periodic materiality assessments. The materiality assessment illustrates the relative importance of a shortlist of 18 topics to our business and our stakeholders to ensure that our stewardship continues to focus on those topics which are deemed to be materially significant. These topics were

selected and defined based on leading industry ESG benchmarks and reporting frameworks, alongside a media and peer analysis. During the last update in 2021, we commissioned an independent third party to conduct an online assessment, seeking the view of over 200 stakeholders, including clients, investors, young or prospective employees, NGOs and suppliers. More than 50 members of senior management, including the entire Board of Management, were also invited to participate. Both external and internal stakeholders were asked to rank the selected topics that they considered to be most and least relevant for Boskalis. The relative importance of these themes is presented in the resulting materiality matrix below. Boskalis intends to update this assessment in 2023 in line with reporting principles based on double materiality.

**MEASURING, REVIEWING, REPORTING**

We have been publicly disclosing our sustainability performance for more than a decade. Our report focuses on communicating the key sustainability challenges and opportunities we face, and how we respond to them. You can read more about our reporting scope and disclosures on page 80.

**MATERIALITY MATRIX**





## OUR ACTIVITIES AND THE UN SUSTAINABLE DEVELOPMENT GOALS

SDG	AMBITION	SCOPE	TARGET
<b>Affordable and Clean Energy</b>	To facilitate the energy transition by developing infrastructure to deliver affordable and clean power	Offshore wind energy projects that help advance the energy transition, (natural) gas projects as part of the transition and all offshore platform decommissioning activities	To expand and strengthen our capabilities and service offering in renewable energy to support a wider range of clients and geographies through the energy transition
<b>Industry, Innovation and Infrastructure</b>	To create resilient innovative infrastructure for trade, economic development and society	Activities that are pivotal to the development and/or maintenance of resilient innovative infrastructure, including ports, waterways, land reclamation and inland infrastructure such as roads or housing	To support economic development through the creation of reliable and resilient trade and transport-related infrastructure that is delivered using sustainable and industry-leading techniques
<b>Climate Action</b>	To develop climate adaptive solutions that protect people and the natural environment from the impacts of climate change	Activities related to adaptive measures against climate change (extreme weather, flooding or rising seas), including coastal defense and riverbank protection activities	To share our knowledge and explore new types of financing for climate change-adaptation projects, whilst simultaneously expanding our capabilities and service offering to deliver climate adaptation projects
<b>Life Below Water</b>	To protect seas and oceans from pollutants and environmental damage	Marine Salvage (emergency response services, environmental services and wreck removal)	To prevent pollutants and hazardous cargo from vessels in distress entering the marine or coastal environment
<b>Decent Work and Economic Growth</b>	To promote productive employment and economic value through the sustainable growth of the company	Our activities	Focus on Good Stewardship, Human Excellence and our Distinguishing Assets to create sustainable growth for the company

## GOOD STEWARDSHIP

TOPIC	AMBITION	SCOPE	TARGET
<b>Responsible Business Conduct</b>	To operate to the highest ethical standards, guided by our own Responsible Business Principles, Code of Conduct, policy framework and Supplier Code of Conduct	Boskalis employees, suppliers and subcontractors	To reinforce our focus on integrity and business ethics through our compliance program, based on our Responsible Business Principles and Code of Conduct
<b>Safety and Occupational Health</b>	To provide a safe, injury and accident-free working environment and culture, while supporting the broader well-being of our employees and subcontractors	Boskalis employees and subcontractors	NINA (No Injuries, No Accidents): Lost Time Injuries (LTI) = 0.0 Total Recordable Incident Rate (TRIR) = 0.0
<b>Climate Change Mitigation</b>	To achieve our climate neutral ambitions at our operations and within our fleet and drive competitive advantage through our ability to offer low-carbon solutions for our clients	Scope 1 & 2	Net zero by 2050. Progress near and mid-term carbon reduction strategy and incorporate sustainable solutions into commercial offerings
		Scope 3	Instigate initiatives for Scope 3 emissions reduction where feasible on the basis of impact and influence
<b>Biodiversity and Ecosystems</b>	To prevent and mitigate negative impacts on marine life or local habitats, as well as leading the industry in the development of nature-based solutions to protect and enhance coastal ecosystems	Our own operations	To implement our methodology to measure and manage our biodiversity impact through the application and evolution of our biodiversity framework  To expand the knowledge base and commercial reach of our nature-based solutions
<b>Social and Community Impact</b>	To actively manage our social engagement in the regions and communities where we work	Our own operations	To continue to apply our approach to social impact management whilst developing additional tools, training and awareness within our organization

## HUMAN EXCELLENCE

TOPIC	AMBITION	SCOPE	TARGET
<b>Talent Management and Employee Engagement</b>	To provide a stimulating work environment, competitive labor conditions, and a culture characterized by high levels of trust and opportunities for personal growth	Our own operations	To build commitment to Human Excellence as a key pillar of our business strategy and in support of a skilled labor force, internal mobility and employee retention

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# SDG CONTRIBUTION THROUGH OUR ACTIVITIES



The four sisters: Causeway, Freeway, Shoalway and Strandway during foreshore replenishment activities in Noordwijk, the Netherlands



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**18**    **CONNECTING  
THE SDGs**

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**20**    **AFFORDABLE AND  
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# CONNECTING THE SDGs



Marker Wadden, the Netherlands

**Our Corporate Business Plan focuses on the core areas of our business that create economic and societal value. Based on an internal assessment, our activities contribute to several of the UN Sustainable Development Goals (SDGs).**

In 2015, the United Nations developed 17 SDGs comprising a common set of 17 goals and 169 sub-targets. The goals call for worldwide action among governments, business and civil society to end poverty, ensure prosperity for all and protect the planet. We aim to help realize these goals where we can through our business.

To identify which SDGs are most relevant to our activities and where Boskalis has the most to contribute, we completed an SDG assessment using the approach of the SDG Compass, a guide for business action developed by the Global Reporting Initiative, the UN Global Compact and the World Business Council for Sustainable Development. In line with this approach, we determined the extent to which we can contribute to the SDGs and the risks and opportunities they present throughout our value chain. This included assessing the impact our activities could have on the SDGs and rating our contribution to each of the 169 sub-targets. As a result, five SDGs have been identified as being most relevant to Boskalis:

- SDG 7: Affordable and Clean Energy
- SDG 8: Decent Work and Economic Growth
- SDG 9: Industry, Innovation and Infrastructure
- SDG 13: Climate Action
- SDG 14: Life Below Water



## MAPPING OUR SDG CONTRIBUTION BY REVENUE

For the purposes of measuring and reporting our contribution we mapped the relevant proportion of Boskalis' revenue against the SDGs indicated. Based on this exercise, around 78% of our business activities contribute directly to one of four SDGs, thereby supporting the aims of either SDGs 7, 9, 13 or 14. In addition to these SDGs that are directly linked to our activities, we also contribute to SDG 8 represented by a total Group revenue of EUR 3.6 billion and our total employee base. Boskalis plays an important role in advancing SDG 8 through our contribution to an economy and the creation of jobs directly and indirectly through our projects and the supply chain. According to the International Labour Organization, the foundation of contributing to SDG 8 is that the work and jobs created are productive and deliver a fair income, provide safety and security, offer prospects for development, allow freedom of expression and organization and equal opportunities and treatment for men and women. We pride ourselves on being a good employer, offering opportunities to develop and grow. We are committed to our human rights and labor principles as a fundamental part of the way we do business. We promote the same principles in our relationships with clients and other business partners and apply the Suppliers Code of Conduct to our suppliers.

In mapping our positive impact through revenue, we recognize that managing negative impacts of our operations on the SDGs is equally important in our sustainability journey. We describe the work we are doing on this in more detail in other sections of this report.

AFFORDABLE AND CLEAN ENERGY	INDUSTRY, INNOVATION AND INFRASTRUCTURE	CLIMATE ACTION	LIFE BELOW WATER
<p>Facilitating the energy transition by developing infrastructure to deliver affordable and renewable power</p>  <p>We contribute through offshore wind energy projects that help advance the energy transition, (natural) gas projects as part of the transition and all offshore platform decommissioning activities</p> <p>In 2022, these accounted for approximately 21% of Group revenue</p>	<p>Creating resilient infrastructure for trade, transport and society</p>  <p>We contribute through projects and services that are pivotal to the maintenance and/or development of maritime infrastructure such as ports, land reclamation for society and inland infra such as road-related developments</p> <p>In 2022, these accounted for approximately 46% of Group revenue</p>	<p>Developing climate adaptive solutions that protect people and the natural environment from the impacts of climate change</p>  <p>We contribute through projects and services primarily related to adaptive measures against climate change such as protection of land from flooding, sea defenses, development of polders and dike-related activities</p> <p>In 2022, these accounted for approximately 8% of Group revenue</p>	<p>Protecting seas and oceans from pollutants and environmental damage</p>  <p>We contribute through projects and services primarily related to the salvaging of vessels and associated pollution prevention</p> <p>In 2022, these accounted for approximately 3% of Group revenue</p>

Projects frequently contribute to multiple SDGs, however, in the revenue allocation to the above SDGs, a project was attributed to only one SDG. The revenue for a project is therefore not counted double or split over more than one of these SDGs.

# AFFORDABLE AND CLEAN ENERGY

Our activities underpin our corporate purpose and have the potential to create value for both our business and society. We contribute to SDG 7, Affordable and Clean Energy, by facilitating the delivery of energy in support of the energy transition.

## Ambition

To facilitate the energy transition by developing infrastructure to deliver affordable and clean power

## Scope

Offshore wind energy projects that help advance the energy transition, (natural) gas projects as part of the transition and all offshore platform decommissioning activities

## Target

To expand and strengthen our capabilities and service offering in renewable energy to support a wider range of clients and geographies through the energy transition

## 2022 Performance

- These activities accounted for 21% of our Group revenue
- See project examples on page 21



Access to lower-carbon energy is considered a global imperative for sustained socio-economic development, contributing to SDG 7, Affordable and Clean Energy. As part of our core business, we deliver a broad range of services that are crucial to developing renewable energy sources while maintaining sufficient energy supply. We facilitate the delivery of low-carbon solutions such as wind energy and are one of the leading players in the offshore wind market. We have a strong and successful track record in transporting and installing offshore wind farms, mainly relating to foundations and cables and, in 2022, these activities accounted for 21% of our Group revenue.

2022 was a busy year for Boskalis in the offshore wind market. The crane vessels Bokalift 1 and 2, as well as the fall-pipe vessel Seahorse, were active on various projects in Taiwan. Meanwhile the survey fleet site investigation campaigns were carried out for numerous offshore wind projects in the United States and Europe, where Boskalis was also active with its cable-laying vessels. During the year we experienced a sharp uptick in tenders for offshore wind projects in Europe, the United States and Taiwan. Post year end we announced our 100th contract in this sector – for the transportation and installation of the wind turbine foundations and power cables for a wind farm off the coast of the United States.

In addition to our facilitating activities in the renewables industry, our decommissioning expertise helps reduce the environmental footprint of the offshore oil and gas industry, ranging from preparation and removal of offshore platforms to onshore disposal and recycling. At Boskalis we see that a transition to cleaner energy is driving growth in renewables, but the growing demand for energy means that the dependence on fossil fuels is expected



Transport and installation of the foundations for the Fécamp offshore wind farm, France

to continue in the short to mid-term. We foresee that natural gas in particular, with its lower carbon intensity, will serve as an important transition fuel and thereby Boskalis has an important role to play by providing our services as part of the energy transition. These services include survey, IRM, seabed intervention, offshore transport and installation and dredging-related activities. These services and our associated assets are flexible and market agnostic, meaning Boskalis can simultaneously support transitional energy projects, rig decommissioning, and offshore wind activities to meet cross-sectoral client demand.

## ENERGY TRANSITION IN ACTION

### France: Fécamp offshore wind farm

On behalf of our client, Eoliennes Offshore des Hautes Falaises (EOHF), Boskalis has completed the installation of 71 concrete gravity-based structures which act as the foundations for the Fécamp offshore wind farm in Normandy, France.

The use of gravity-based structures – which were built on land before being lowered onto the seabed– result in significantly less noise pollution during installation compared to an alternative method whereby pin piles are driven into the seabed. Boskalis was contracted in consortium with Bouygues Travaux Publics (Bouygues) and Saipem who both completed the design, construction and installation of the gravity-based structures.

The wind farm is scheduled to start full operations in 2023. With a total power output of some 500 MW, the wind farm is anticipated to produce the equivalent of the domestic electricity consumption of approximately 770,000 people, representing more than 60% of the inhabitants of the Seine-Maritime department. The project

supports France's ambition to produce a third of its energy from renewable sources by 2030.

Following the successful installation of the gravity-based structures, in December 2022 Boskalis completed ballasting works and scour protection on the foundations. Locally available marine gravel with low fine content was selected for the ballasting to reduce the risk of turbidity and associated impacts on the local habitat. Meanwhile, the wind farm is located 12 kilometers offshore, ensuring that there is no contribution to coastal erosion, and the exact positioning was agreed in consultation with local fishermen in order to limit the impact on their activities.

### Germany: Dolwin 6, offshore grid connection in the North Sea

During the year Boskalis completed the installation and burial of subsea cables for the DolWin 6 North Sea offshore grid connection in Germany. The project connects a North Sea wind farm situated 40 kilometers offshore across the Wadden Sea to the German mainland at Norden, via the island of Norderney.

The contract was signed with Nexans, a subsea cable manufacturer, under back-to-back conditions with the German TSO Tennet GmbH. The project scope consisted of the installation and burial of two DC subsea cables and a separate fiber-optic cable in a single bundle.

The cables were buried between three and five meters below the seabed. To avoid scarring on the seabed, burials were completed largely using jet-trench techniques as opposed to controlled flow excavation (CFE). Specific modifications were made to Boskalis' equipment in order to achieve the required burial depth without scarring.

# INDUSTRY, INNOVATION AND INFRASTRUCTURE

Our activities underpin our corporate purpose and have the potential to create value for both our business and society. We contribute to SDG 9, Industry, Innovation and Infrastructure, by advancing world trade and creating socio-economic value.

## Ambition

To create resilient innovative infrastructure for trade, economic development and society

## Scope

Activities that are pivotal to the development and/or maintenance of resilient innovative infrastructure, including ports, waterways, land reclamation and inland infrastructure such as roads or housing

## Target

To support economic development through the creation of reliable and resilient trade and transport-related infrastructure that is delivered using sustainable and industry-leading techniques

## 2022 Performance

- These activities accounted for 46% of our Group revenue
- See project examples on page 23



Trade and transport are central to economic growth and ending poverty on a global scale. International trade infrastructure and effective transport corridors enable countries to innovate, improve productivity and provide better livelihoods for their people. Integrating with the world economy through trade and global value chains helps to promote sustainable industrialization and actively contributes to socio-economic development.

Executing hydraulic engineering projects for the developers of trade and transport infrastructure has been a core part of Boskalis for more than a century. Our activities in this area play a key role in supporting the socio-economic development of a region or country, contributing to the well-being of its inhabitants in a number of ways, including: maintaining and developing port infrastructure that facilitates global trade and economic growth; reclaiming land from the sea thereby allowing new housing to be built in densely populated cities or new commercial developments for (air)ports which boost global connectivity; developing inland infrastructure for trade and transport, reducing traffic congestion and creating more efficient transport networks.

Developing and maintaining trade- and transport-related infrastructure continues to be recognized as essential to accelerating progress towards achieving the SDGs, in particular SDG 9. Delivering climate resilient and sustainable trade- and transport-related infrastructure is an important way in which Boskalis can contribute to this goal. While our own project involvement is typically temporary and short term, we seek to leave a positive legacy and minimize or offset any negative impacts.





Deepening the access channel  
to the Port of Kemi, Finland

## CREATING INNOVATIVE INFRASTRUCTURE

### Deepening the access channel to Finland's Port of Kemi

During the summer months of 2022 Boskalis began the deepening of the 45-kilometer-long access channel to the Port of Kemi in Finland. On behalf of our client, we are dredging a total of one million cubic meters of moraine soils, sand and boulders to deepen the busy shipping fairway from 10 to 12 meters. Work was paused in mid-November due to the freezing conditions and will resume once the ice has melted in spring.

The project, which will be completed in 2023, will allow larger vessels to enter the Port of Kemi which is an important transport hub for Nordic countries, as well as an important service provider for the region's wind power industry. Port of Kemi provides the fastest route to northern Finland and other parts of Scandinavia.

The nearby region has recently attracted significant investment, creating a large number of jobs. Larger vessels going in and out of Kemi will support a planned bioproduct mill which is anticipated to increase the annual value of Finland's exports by approximately EUR 0.5 billion and provide 2.5% of country's electricity generation capacity using non-fossil fuels.

### Metro by the Sea, the Netherlands

During 2022 we completed the construction of the Metro aan Zee (Metro by the Sea), an extension of the metro line from Rotterdam to the Dutch North Sea coast at Hoek van Holland. The eighteen-month project – in a joint venture with Swietelsky Rail Benelux – included the construction of two metro stations and a semi-sunken enclosed tunnel that was designed to prevent biodiversity impacts within the coastal dunes which form a protected Natura 2000 area. The metro line extension provides a vital public

transport link between the Netherlands' second city and the beach, thereby reducing car traffic and associated CO<sub>2</sub> emissions, particularly in the busy summer months.

Due to the sensitive natural surroundings, two ecologists were appointed by Boskalis and our client – the City of Rotterdam – to monitor compliance with the environmental risk management plan. Meanwhile every new employee on the project received specific environmental training in parallel to the customary safety induction.

The impact of the project was actively monitored throughout the construction phase through an extensive schedule of documented inspections and tests. Measures taken to preserve the Natura 2000 area included parking heavy equipment off-site to prevent soil pollution. Lighting for the construction-site was directed away from the nature area to limit disturbance to wildlife.

"We weren't awarded this project because we offered the lowest price but, rather, because we had the best plan in areas such as collaboration with the client, and quality and process management," explained Project Manager Mark Boersma.

# CLIMATE ACTION

Our activities underpin our corporate purpose and have the potential to create value for both our business and society. We contribute to SDG 13, Climate Action, by protecting against the impacts of climate change.

## Ambition

To develop climate-adaptive solutions that protect people and the natural environment from the impacts of climate change

## Scope

Activities related to adaptive measures against climate change (extreme weather, flooding or rising seas), including coastal defense and riverbank protection activities

## Target

To share our knowledge and explore new types of financing for climate change-adaptation projects, whilst simultaneously expanding our capabilities and service offering to deliver climate adaptation projects

## 2022 Performance

- These activities accounted for 8% of our Group revenue
- See project examples on page 25



Rising sea levels, together with a growing number of extreme weather events caused by climate change, threaten the safety and livelihoods of more than one billion people around the globe. Boskalis provides innovative, sustainable solutions to contribute to SDG 13, Climate Action, while our expertise and century of experience in coastal defense and riverbank protection makes us a frontrunner in responding to the threats posed by global warming.

## CLIMATE ADAPTATION FINANCING

Since the Paris Agreement of 2015, climate adaptation has risen up the global agenda. However, while significant work is being done towards enhancing adaptive capacities, efforts towards climate change mitigation continue to receive the vast majority of global climate finance. Adaptation finance remains far below the scale necessary to adequately respond to the impacts of climate change, and almost all of it comes from the public sphere. This is especially the case for flood protection and coastal zone management, which provide vital public benefits but struggle to create tangible returns for investors.

Private sector investment is critical to closing the adaptation financing gap. In recent years, various publications and forums have discussed how to unlock and enable private capital to support climate change adaptation and resilience objectives. Regulatory and policy drivers (such as Paris 2015 and the EU Green Deal) and worldwide momentum on climate issues mean that the group of banks, funds, investors and insurers looking for sustainable prospects is growing rapidly. However, enabling commercial capital remains challenging; projects need to be bankable in order to tap the capital markets.



Shoreline protection work in Togo

## FINANCING SUSTAINABLE WATERBORNE INFRASTRUCTURE

Boskalis continues to identify and accelerate opportunities that would both create sustainable protective measures for the environment and communities living in coastal areas, and add commercial value for our business. We proactively engage with industry partners and stakeholders such as governments, financial (development) institutions and developers to share our expertise and explore opportunities to support the implementation of sustainable and climate-adaptive solutions.

In October 2022, Boskalis took part in the Confederation of International Contractors' Associations' mission to the World Bank Group Annual Meetings in Washington DC where we engaged with various development finance institutions, including the International Finance Corporation, IDB Invest, and Global Environment Facility, a large multilateral environmental fund that supports biodiversity protection and climate change response in developing countries. Engagements served to extend our networks, deepen our understanding of climate action funds and discuss early-stage prospects.

Furthermore, post year end in January 2023, Boskalis hosted a conference Towards Bankable Sustainable Coastal and Port Infrastructure at its headquarters in Papendrecht. Organized by the International Association of Dredging Companies (IADC) and the Dutch Association of Investors for Sustainable Development (VBDO), the event brought together a group of high-level representatives from large dredging companies, financiers and NGOs.

## CLIMATE ADAPTATION IN ACTION

### Coastline protection in West Africa

In March 2022 Boskalis was awarded the contract for the protection and replenishment of more than 40 kilometers of coastline stretching from the eastern coastline of Togo to the western coastline of Benin in West Africa. The award was made by the governments of Togo and Benin with the financing made available by the World Bank.

The current coastline has suffered from significant erosion, resulting in coastal retreat that serves as a threat to vital infrastructure and the livelihoods of the local population. Under the project, fifteen new groins will be constructed and six existing ones refurbished. A beach replenishment program will also take place using more than one million cubic meters of sand. Furthermore, on the Benin side of the border, a 6.4 million cubic meter sand engine will be constructed. The sand engine concept was co-developed by Boskalis and has been successfully applied in the Netherlands over the past decade. A large volume of sand will be deposited at a strategic location and, over time, the natural motion of wind, waves and currents will spread it eastwards along the coastline. This principle of building with nature will reinforce the coastline in a robust and natural way. The project got under way during the year and is expected to be completed late 2023.

The coastal protection project is part of the West African Coastal Areas Management (WACA) program which was developed in partnership with West African communities who live on the coast and depend on it for their livelihoods, food security, and prosperity.

# LIFE BELOW WATER

Our activities underpin our corporate purpose and have the potential to create value for both our business and society. We contribute to SDG 14, Life Below Water, by protecting marine environments through our salvage activities.

## Ambition

To protect seas and oceans from pollutants and environmental damage

## Scope

Marine Salvage (emergency response services, environmental services and wreck removal)

## Target

To prevent pollutants and hazardous cargo from vessels in distress entering the marine or coastal environment

## 2022 Performance

- These activities accounted for 3% of our Group revenue
- See project examples on page 27



Our salvage operations are deployed to rescue distressed vessels and their cargo, thereby averting serious environmental damage to the marine environment and contributing to the delivery of SDG Goal 14, Life Below Water. Operating from four strategic locations along international shipping routes – Houston, Cape Town, Rotterdam and Singapore – we can launch rescue operations at a few hours' notice anywhere in the world.

Wrecked or damaged ships can release bunker oil, lubricants or other potentially harmful substances into the marine environment. We actively support ship owners, insurance companies, port and terminal operators, oil & gas majors, as well as authorities and classification societies to prevent or minimize the seriousness of incidents. When an incident does occur, we aim to minimize spill damage by removing or containing the pollutants. We do this by providing emergency response assistance, re-floating grounded vessels and containing or removing polluting cargoes or bunker fuel.

On average, our Emergency Response and Wreck Removal teams respond to nearly 60 incidents a year. Over the last five years we have prevented an average of around 285,000 tons of (refined) oil products and approximately 910,000 tons of hazardous cargo from spilling into our oceans and seas.

We are a member of the International Salvage Union and the Standard P&I (Protection and Indemnity) Club. In both forums we leverage our substantial expertise in salvage operations and marine biodiversity to push the issue of environmental damage higher up the agenda.

During 2022, we developed our salvage techniques and safety practices specifically for the purpose of tackling vessel fires caused



The successful salvage of the Wisby Teak off the Dutch coast

by lithium batteries. Boskalis is called with increasing frequency to such incidents, which can have serious safety implications for crews and result in significant environmental impacts. We also focused our efforts on investigating and developing techniques for the effective containment and removal of plastic nurdles where they have been spilt into the marine environment. Containers carrying large quantities of this raw product may either be lost overboard or broken up during an incident, from where nurdles can enter the marine food chain and damage coastal ecosystems.

## SALVAGE IN ACTION

### FSO Safer, Yemen

Boskalis is advising the United Nations (UN) on the salvage of a partly oil-laden super tanker that has been moored off the coast of Yemen for 25 years. The single hull FSO Safer, which belongs to Yemen's national oil company, is in an advanced state of decay and presents a serious risk of an environmental disaster in the Red Sea. According to the UN, the vessel is holding 1.1 million barrels of oil which is four times the amount of oil spilled by the Exxon Valdez and enough to make it the fifth largest tanker oil spill in history. The vessel has been left to the elements since Yemen's civil war broke out in 2015.

The UN has approached Boskalis to advise on the salvage of the vessel and execute the operation. In November 2022 the UN completed part of its fundraising needed to transfer the oil to an alternative storage facility.

### Salvage of Julietta D in the North Sea

In early 2022 a succession of storms battered the Dutch coastline, resulting in three complex salvage operations in the North Sea.

On 31 January Boskalis successfully salvaged the disabled and drifting cargo vessel, Julietta D, preventing it from running aground near the resort of Scheveningen. The vessel had been anchored off the coast of IJmuiden but got into difficulty when its anchor chain broke in high winds, causing it to collide with another ship before drifting south and hitting an offshore wind platform. Hurricane-force gusts and a significant quantity of bunkered fuel oil on board, meant the stray vessel presented a serious environmental risk.

Four salvors from Boskalis' Salvage division were airlifted onto the Julietta D by helicopter and managed to make a towing connection with one of our large tugs, preventing the vessel from running aground. A second tug from Boskalis' salvage partner was then deployed to secure the Julietta D, before towing it to the port of Rotterdam.

"At the height of the operation we were facing all the conditions you'd rather avoid: strong winds, huge waves and a vessel adrift close to the shore," explained Richard Janssen, Managing Director Salvage. "With the support of our emergency response partners we were able to connect the vessel to our tugs and significantly reduce the risk of an environmental incident."

During two subsequent storms in February 2022 Boskalis rescued a Norwegian tanker – the Wisby Teak – after it went adrift off the Dutch coast. In highly challenging conditions, Boskalis' tug crew managed to get a towing connection across and tow the vessel into port. Earlier that month our salvors refloated the Mumbai Maersk, one of the world's largest container vessels, after a storm forced it to run aground off the German island of Wangerooge in the Wadden Sea.

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# CARE FOR OUR PEOPLE



We work in challenging locations on complex, technical and demanding projects. We rely on our team of dedicated, experienced professionals to achieve our ambitions. That is why we are committed to creating a diverse and inclusive workplace that challenges and inspires our employees to build their careers and achieve their potential with Boskalis. The well-being of our employees is a top priority and we are proud that our long-standing No Injuries, No Accidents (NINA) safety program continues to deliver strong results and ongoing improvements in our safety record.

#### RISKS AND DILEMMAS

- The global labor shortage and recruiting and retaining qualified, talented individuals
- Ensuring workplace safety

#### OPPORTUNITIES AND GOALS

- New markets can be targeted for recruitment
- Offer an inspiring and challenging work environment, with opportunities for structured career progression
- Provide a safe and healthy environment for our employees and subcontractors

SDGs identified by Boskalis that are closely related to topics covered within 'Care for our People':



# SAFETY AND OCCUPATIONAL HEALTH

## Ambition

To provide a safe, injury and accident-free working environment and culture, while supporting the broader well-being of our employees and subcontractors

## Scope

Boskalis employees and subcontractors

## Target

NINA (No Injuries, No Accidents), represented by:  
Lost Time Injuries Frequency (LTIF) = 0.0  
Total Recordable Incident Rate (TRIR) = 0.0

## 2022 Performance

- Continued roll out of The Expedition training to projects and business divisions
- Return of NINA DO-IT workshops following the pandemic
- LTIF 0.01
- TRIR 0.30



## NO INJURIES, NO ACCIDENTS

Safety is our top priority in everything we do. We want to ensure that our people and the people we work with return home safely every day. To help us achieve this goal, more than a decade ago we developed our NINA (No Injuries, No Accidents) safety program. Thanks to the sustained commitment of our employees, subcontractors and management, our safety record has improved significantly over the last 12 years. In 2022 we registered a Total Recordable Injury Rate (TRIR) of 0.30 while our Lost Time Injury Frequency Rate (LTIF) dropped to 0.01.

## NINA, OUR BEHAVIOR-BASED SAFETY PROGRAM

NINA develops people's awareness with regard to their own responsibility towards safety and stimulates a working environment in which safety responsibilities and potentially hazardous situations are both discussed openly and reported. We ensure that safety remains foremost in people's minds through regular staff engagement activities and training at all levels. This year, we talked to some 4,231 employees about their needs and concerns around safety, a dialogue that showed us again that safety is first and foremost about behavior. For this reason our trainings and workshops put an emphasis on behavior and we have implemented tools that, for example, help employees to communicate effectively with stakeholders. The focus on behavior helps implementation to be long-lasting and not just rule-driven.

Our operations are where the NINA program is most evident. At the start of a project, employees, subcontractors and client representatives receive a site-specific safety training, an interactive NINA induction session, and a NINA start-up, challenging everyone to think about the health and safety risks associated with that project. On longer projects there are refresher and reflection sessions, and NINA Workboxes are introduced on different topics where there is a need. We also hold evaluation sessions, or 'NINA moments'. Our NINA trainers travel regularly to projects all over the world to ensure the program is embedded throughout our operations and our NINA tools are available in 21 languages.

**The Expedition training:** a central focus of the NINA program in 2022 was the continued roll out of our new safety training, known as The Expedition. The program focuses on the concept of safety leadership and is aimed at further strengthening our safety culture. The training is run over six months and enables teams and individuals to develop their safety leadership skills in two key areas: supporting long-term teambuilding around safety issues and helping team members to maintain responsibility for their own and one another's safety within the high-pressure environment of executing a project. The program was originally designed for operational middle management but has since been expanded upwards to include business unit managers, thereby strengthening hierarchical relationships on safety matters. The training has been run across our business, including on projects within our



Dredging & Inland Infra, Offshore Energy and Salvage divisions, as well as with colleagues in Fleet Management and onboard our vessels. During 2022, 249 people were active in the program and five teams or 66 individuals have reached the metaphorical 'Summit' and completed the training.

**DO-IT Workshops:** following two years of restrictions imposed on account of the global pandemic, during 2022 we were once again able to deliver our practical DO-IT training to vessel crews and operational teams on projects. DO-IT workshops focus on raising awareness of NINA and its key principles by establishing channels of open communication to both give and receive feedback on safety matters. The workshops are targeted at operational staff on vessels, at site offices and on projects. During the year 159 workshops were held and the training was completed by 1,840 employees and contractors.

## OCCUPATIONAL HEALTH

We aim to ensure and safeguard healthy working conditions for our employees on projects, vessels and in our offices. We have integrated occupational health into our NINA program via the Fit for Duty statement and consolidated our eight Fit for Duty policies into one.

The prolongation of the pandemic in various parts of the world has made occupational health a top priority within Boskalis. During 2022 our central objective remained to keep the COVID-19 virus away from our projects, vessels, and offices. To mitigate risks, we have vaccination, medical check-ups and tailored prevention programs in place.

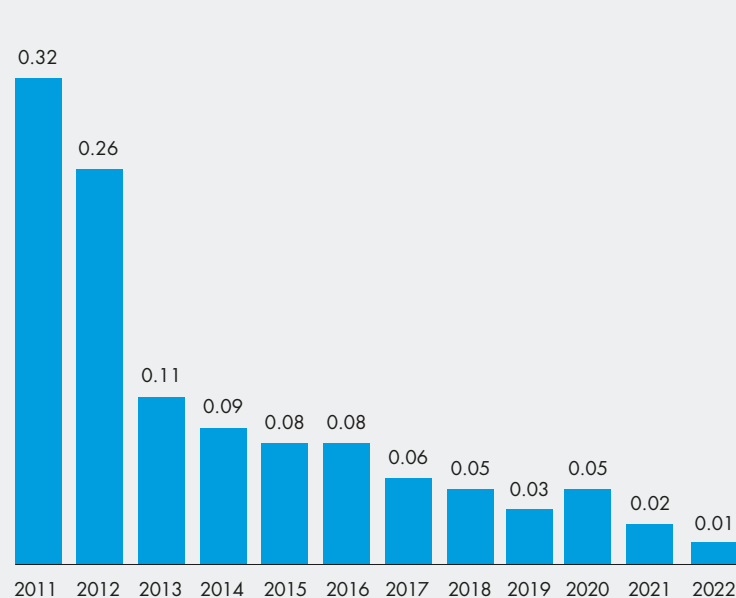
During 2022 our Travel Emergency Team – supported by medical specialists from our Travel Clinic in Rotterdam – remained in place. The team continued to assure safe and compliant travel to and from vessels and projects and to optimize the well-being of employees and subcontractors. Our prevention officer maintained their network of supporting experts, including company doctors, human resource professionals, domestic and overseas social workers and links within the internal Works Council.

We have continued our successful Work Safe in the Sun initiative throughout the year. A poster campaign and a number of communication tools were adopted to explain the risks associated with UV radiation and the protective measures which can be taken. Sunscreen dispensers have also been installed for vessel crews and at project sites.

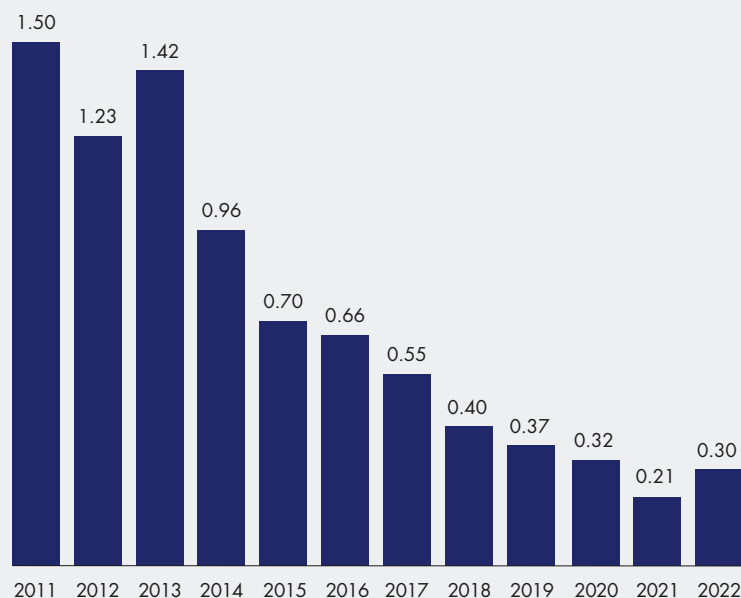
## OUR NINA PROGRAM

We are immensely proud of NINA, which has helped drive improvements in our safety culture and performance, as illustrated in our key performance indicators below. Since 2010 we have given safety training to more than 20,000 people, including our employees, client representatives and subcontractors.

**LOST TIME INJURY FREQUENCY** (per 200,000 exp. hours)



**TOTAL RECORDABLE INCIDENT RATE** (per 200,000 exp. hours)



# THE EXPEDITION: SAFETY LEADERSHIP IN WEST AFRICA

In early 2022, Boskalis began preparations for a coastal protection and beach replenishment project along more than 40 kilometers of shoreline in Togo and neighboring Benin in West Africa. Every day we focus on ensuring that colleagues, suppliers and communities we work with are safe.



We continuously seek to build an open and inclusive culture in which everyone is encouraged to speak out about safety issues. To further strengthen that culture, our Safety, Health, Environmental and Quality (“SHE-Q”) department has developed the NINA Safety Leadership Expedition: a six-month course in which participants set and work towards their own individual and team safety goals, while further developing their safety leadership. Colleagues working on the Togo and Benin project have been among the first to benefit from this new program.

“We could see that the Expedition training would be very valuable for us because we foresaw quite a high level of safety exposure working in the West Africa region and particularly in the local context,” explained Business Unit Director, Mattijs Siebinga. “The very nature of the project – building coastal protection within a busy fishing community that is living close to a retreating shoreline – means there is a lot of interaction with the local people. We are also employing a high number of local staff who typically lack experience of this kind of work and are not accustomed to Boskalis’ safety standards.”

The Expedition falls under the existing NINA program and focuses on two key components of safety leadership: long-term team building and enhancing levels of trust and openness when it comes to safety matters. It also concentrates on



Groin construction work in Benin

The objective established by the team in Togo and Benin is one of bringing safety to the local community. This reflects both the coastal protection works which will provide residents and businesses with security from the encroaching sea, and also the way in which Boskalis' approach will seek to develop a heightened awareness of safety and improve safety practice among local staff and the wider community.

The team and local context in Togo and Benin present some unique challenges from a safety perspective that the Expedition has been designed to tackle. The most hazardous aspect of the project is that local residents live very close to the site, whereas many are largely unaware of the risks. From a workforce perspective, the project brings people together from more than ten different nationalities, some with only a limited grasp of English or French. Culturally speaking, many are accustomed to hierarchical ways of working and are uncomfortable with speaking out on issues like safety in front of a supervisor or senior colleague. There is also a wide range of educational levels across the local workforce, a factor which poses several questions for effective safety leadership.

"Some of our colleagues on the ground are reasonably educated but others have limited reading or writing skills," explained Siebinga. "For those people you need to figure out effective ways to get the message across and ensure a strong understanding as to how to operate safely. That means using a lot of pictures and being quite creative with communication tools."

## WE DO IT TOGETHER

To improve safety awareness on the project and in the local community, Boskalis is running its separate NINA DO-IT safety trainings for more than a hundred local colleagues and subcontractors. To overcome language and cultural barriers, the Boskalis trainers have drawn on key elements of the Expedition program.

For Project Manager Frans Thomassen, the Expedition epitomizes his motto for the whole project – 'Travailler ensemble' or 'We do it together'.

"We send out the message that we do it together, from high to low," explained Thomassen. "Not only do we want to leave behind a well-protected coastline, we also want to create higher safety awareness. By doing so we aim to make a lasting impact."

The Expedition program has helped to break down cultural and language barriers and develop a tight bond between team members. This is keenly felt by Siebinga as he strives to achieve his own personal goal within the Expedition: to engage more fully with the whole project team – including local contractors and the on-site staff – to help ensure everyone's safety across the project and community.

"The Expedition has been pivotal in getting the team working closely together and creating open dialogue at all levels," said Siebinga. "As a leader, I have a much better understanding of all the people in the team than I would have in other situations and that is a real advantage from a safety perspective."

taking individual responsibility for safety and improving people's ability and willingness to lead the way in challenging circumstances.

## AIMING FOR THE SUMMIT

The training course itself is based on a specific objective or challenge that a team sets for itself at the "Summit" of the metaphorical Expedition mountain, with "Camps" – or stages – built in to their journey. At the same time, each team member defines their own personal leadership goal that will contribute to the team objective. Through a series of workshops and meetings, team members actively provide feedback to one another on how they are meeting their individual goals.

"We ask ourselves if we've made progress, or else, what is holding us back. We talk about emotional intelligence and we talk about breaking behavioral patterns in relation to others," explained SHE-Q Program Manager, Jeroen Schoonwater.

# TALENT MANAGEMENT AND ENGAGEMENT

## Ambition

To provide a stimulating work environment, competitive labor conditions, and a culture characterized by high levels of trust and opportunities for personal growth

## Scope

Our own operations

## Target

To build commitment to Human Excellence as a key pillar of our business strategy and in support of a skilled labor force, internal mobility and employee retention

## 2022 Performance

- Developed awareness and deeper understanding of Human Excellence within the organization
- Continued focus on talent development, performance management and internal mobility
- Renewed focus on internal recruitment and retention to meet the challenges of the global labor market
- Launched the Young Talent Program, a nine-month structured training course for staff in their early career
- Launched a new version of the Boskalis Leadership Development Program (BLDP) which invests in the professional development of our future leaders
- 87,301 training hours
- Percentage staff turnover 22.3%



## HUMAN EXCELLENCE

Under the Human Excellence pillar of our strategy, we aim to be highly strategic in how we grow our workforce and at the same time create an environment in which employees feel both connected and engaged, and can maximize their talents. To achieve this, we foster effective leadership and ensure that employees are in control of their own personal development, giving them the time and resources to prioritize their performance and progress.

During 2022 we focused on further embedding Human Excellence within our organization. Each month we held targeted events, workshops and webinars as part of the talent development tools and processes we have developed to further the pillar's objectives and increase awareness across our workforce. During Q1 2023 we will introduce training on our Human Excellence approach for every new employee as a core part of their induction process.

There are five main cornerstones within Human Excellence: Talent Sourcing, Performance & Development, Internal Mobility, Vitality, and Diversity & Inclusion. Particular progress was made through the year on Performance & Development and Internal Mobility as we prioritize the delivery of professional training and engagement opportunities that support continued career development across the organization.

During the year we also completed our periodic Creating Our Horizon employee engagement survey in which all Boskalis employees were invited to participate. More than 4,000 responses



to the survey were received across a representative cross-section of the organization. The survey produced very positive results, particularly when set against our industry peers and areas where we had sought to demonstrate improvement following a similar process in 2019. For more information please see page 37.

## **TALENT SOURCING**

The race to attract and retain the right talent remained challenging in 2022 as scarcity in the labor market continued to limit our access to the strategic competencies we need for critical roles and to expand our horizons in growth areas. Increased project complexity and a growing order book translates to a need to attract more sophisticated skill sets, and in greater numbers, to meet client requirements. The growth of our business must be powered by employees who are equipped with the specialist skills and knowledge to contribute to successful project preparation, execution and support.

Against the backdrop of the challenging European labor market, and to ensure a supply of sufficient talent to meet our future staffing needs, during the year we have established a new regional talent hub in Abu Dhabi. The hub, which is an extension of our existing presence in Abu Dhabi, will serve to attract and host important talent from the Middle East and Asia regions. The focus will be on the recruitment of project staff, roles for remote project support, and wider business support teams such as legal, ICT and the specific skills required to deliver our offshore engineering activities.

## **PERFORMANCE AND DEVELOPMENT**

To tackle the challenges of an increasingly competitive market and ensure our people realize their full potential, we delivered a range of training initiatives at various levels of the organization. Meanwhile we continued to respond to an expressed desire among our own employees for more career development opportunities within Boskalis. Through a number of new initiatives we have built further awareness of, and commitment to, our new performance management process that encourages our employees to take the lead in their own career progression. Through structured training and support we equip our managers and employees with the necessary knowledge and mindset to discuss career progression and personal development needs at least once a year.

### **YOUNG TALENT PROGRAM**

Faced with increasing competition in the early-career labor market, we launched our Young Talent Program. This is a nine-month training option for younger employees who are not part of the annual Boskalis traineeships for Operations and Engineering



or Fleet Management and Finance. The program is designed to provide a structured learning platform for those who have joined Boskalis early in their career and are looking to develop specific skill sets and enrich their experience within the company. The Young Talent Program is open to younger colleagues (typically below 35 years) in any role within Boskalis and mirrors several components of the existing traineeships. These include personal development, skills training and shaping opportunities for future career progression within Boskalis.

### **BOSKALIS LEADERSHIP DEVELOPMENT PROGRAM**

This year we ran our successful Leadership Development Program which brings together the best talent among senior managers across the organization. The program, which continues into 2023, focuses on skills development at a strategic level including developing business plans and objectives, stakeholder management and leading a team in a more complex world. We last ran the program in 2019 prior to the pandemic.

The current in-take comprises 25 senior leaders from all disciplines and based globally. Participants come together in different locations for four separate weeks of training over a nine-month period, accompanied by a range of strategic assignments.

### **PROJECT MANAGEMENT COMMUNITY**

To meet the challenge of an evolving commercial landscape and increased competition we have actively invested in our project manager community to ensure they are properly equipped with the right skills. In May 2022 nearly 40 project managers and directors in our Offshore Energy division completed management training as part of a new global program. Through a combination

of third-party content delivery and peer-to-peer coaching, the course developed project managers' knowledge and practical experience in areas such as commercial, contractual and risk strategy, as well as personal leadership, project ownership and awareness.

Following the completion of the formal program, what has become a tightly-knit community of project managers and directors continues to meet on a periodic basis and lead knowledge development and peer group training sessions for colleagues across the division. In 2022 parallel initiatives were started within the tender management community in Offshore Energy, as well as in our Dredging & Inland Infra division.

### **BOSKALIS ACADEMY**

During the year we sought to optimize our online learning management system, the Boskalis Academy, ahead of its phased roll out to all of our global operations and workforce. Through the Academy our employees can follow e-learnings and register for a range of accompanying live trainings and courses. Following its launch last year, we saw the platform gain significant traction among our employees with enrolment numbers vastly increased. Over the year our Learning and Development department executed 349 different training programs within the Academy. A total of 2,044 employees took a combined 6,649 courses, amounting to 45,386 training hours.

### **BOSKALIS WORLDWIDE VITALITY CHALLENGE**

In late 2022, around 750 employees gave their mental and physical well-being a boost by signing up to the Boskalis Worldwide Vitality Challenge. The challenge, in aid of the children's charity Right To Play, involved each employee logging their daily step count via an app and travelling virtually to a host of Boskalis projects and offices across the globe. The focus was on connecting with colleagues in different locations, sharing photographs of sports pursuits through the app, and learning about the company's different activities around the world.

In 21 days across November and December, participants completed a combined total of 479,559 steps, walking or running more than 69,000 kilometers. Together they raised over EUR 10,000 for Right To Play as a part of a larger fund raising event that also included our annual online radio show – Boskalis Worldwide Connected (BWC) – which returned in December. The radio program was born during the pandemic as a way to stay connected with colleagues. As in previous editions, the focus this year remained on playing favorite hits, having fun, and raising money for charity. The show provides a mix of interviews, quizzes, live links with colleagues on vessels and projects, while office staff and board members hit the airwaves live from the studio. Together the Worldwide Vitality Challenge and BWC raised EUR 60,000 for Right To Play and both initiatives were a great way for colleagues to connect with one another and enjoy themselves in the run up to the festive period.

### **PERFORMANCE MANAGEMENT SYSTEM**

Our performance management system is designed to encourage our people to discuss not just their performance, but also their ambitions and future development opportunities, directly with their manager via an annual Performance and Development interview. The process starts with a detailed self-evaluation by the team member which then forms the focus of a discussion with their manager. We provide training to both managers and employees in order to support an open and transparent dialogue with effective outcomes for both parties. In the context of staff retention and optimizing career opportunities for our people, we strive for a culture in which our team members and managers regularly discuss performance and development with a focus on active mobility within Boskalis.

### **INTERNAL MOBILITY**

Internal mobility is an important cornerstone within Human Excellence and the results of our employee engagement survey completed during the summer of 2022 indicate that it remains a valuable component for retaining talent. Within the same survey it was pleasing to improve our 'retention factor' score compared to the previous survey.

During 2022 we have sought to further increase the visibility of career opportunities within Boskalis with more emphasis placed on advertising and discussing roles internally before looking to the external market. We have also appointed a Talent Manager to drive greater awareness of internal mobility and what it means for individual members of staff. Through this new role we have developed a Talent Scan tool which enables employees to self-assess where their strengths and interests lie and then discuss future career paths or openings with a trained HR manager. The focus is to provide and assess career options for people who are weighing up their next steps at Boskalis. As well as focusing on potential candidates, we also work with hiring managers to adapt their recruitment mindset to one which can identify talent and the required competencies where they exist internally and then develop these through training and mentorship to fit particular roles.

As an organization we continue to place a lot of emphasis on internal networking, starting new conversations and making contacts, both through semi-organized events and other informal meet-ups scheduled on campus throughout the year.

### **VITALITY**

Boskalis recognizes the prevalence of concerns related to mental health and stress within the workplace, particularly in a context where staff may spend prolonged periods on vessels or at project sites away from home. During the pandemic we created an interactive Vitality Portal where employees can access a range of information and services to help address stress or sleep problems and better support an optimal work-life balance. On a confidential basis, employees can also use the portal to enlist the help of a coach to support them with particular challenges or needs that impact their daily life.

During 2022 we have sought to undertake a more structured approach to safeguarding mental health and well-being within the



## CREATING OUR HORIZON SURVEY

At the end of June 2022, all Boskalis employees worldwide were invited to participate in the Creating Our Horizon Survey, our periodic employee engagement assessment. A similar exercise was completed before the pandemic in 2019. The survey was conducted with the support of a specialist consultancy firm and ran for several weeks over the summer. More than 4,000 colleagues took the opportunity to share their feedback.

The survey measured employee satisfaction across seven different themes, the three most important being Engagement, Commitment and Alignment. Responses demonstrated progress on all seven when compared with 2019. Our Employee Net Promoter Score (eNPS) – how likely staff are to recommend Boskalis as an employer to their friends, family or peers – also increased sharply compared to 2019. More than half of all employees are ambassadors for the organization and our score of 37.7 is almost three times higher than the industry benchmark for Dutch maritime and infrastructure companies. Employees also shared their feedback on areas where they would like to see improvement or greater support, thereby giving important guidance for certain initiatives within the business.

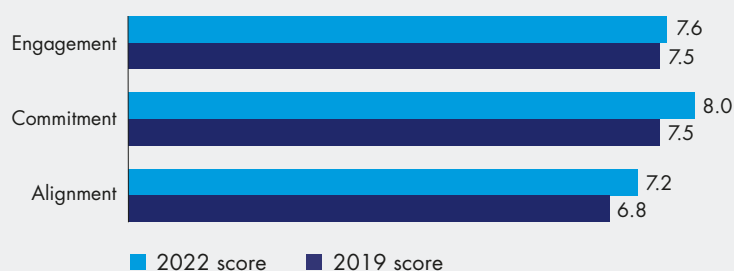
On the theme of Engagement, the company scored higher than the benchmark with other commercial organizations and industry peers. Responses indicated that our people broadly enjoy their work, are productive, and have confidence in the organization, their team and the way they perform. Meanwhile, on Commitment, which assessed how connected employees feel to the organization, the company also scored strongly. Where the pandemic has meant that several companies have struggled to maintain a strong connection with their staff over the last few years, Boskalis colleagues indicated that they feel more connected with their employer than they did three years ago. One of the initiatives credited with this improvement is our own internal news platform,

Yourizon, which was introduced in early 2020 just before the pandemic. The platform was a deliberate response to the weaker connection cited by colleagues in the 2019 survey and seeks to connect people and departments by sharing regular updates on projects and wider organizational developments.

Boskalis also fared well on the question of how employees view the company as an employer and on the theme of Staff Retention, scoring higher than the benchmark and showing strong improvement on 2019. The outcome marked a pleasing measure of our progress following investment in several initiatives over recent years to improve internal mobility and awareness around career development opportunities within the company.

Colleagues' opinions were expressly sought with regard to certain topics – including diversity and inclusion (D&I) and workload pressures – and responses demonstrated that there remains some progress to be made in these areas. With regard to heavier workloads, we are currently working on a number of initiatives to increase the level of talent as well as the number of employees in key areas of the business. Meanwhile our D&I taskforce will be working on a number of initiatives in this area over the coming 12 months.

## EMPLOYEE SURVEY





## LOCAL CONTENT IN THE PHILIPPINES

As a key part of our Manila International Airport (MIA) Land Development Project in the Philippines (see page 62-63 for more details) we have implemented a detailed local hiring plan which includes a particular focus on providing training and career advancement opportunities for people in the nearby communities. Boskalis has operations in more than 70 countries across the world and we take our social responsibility towards local people seriously. At year end, approximately 80% of our total workforce on the MIA project – or 1,400 people – are Filipino nationals. They are employed across the workforce in various roles such as seafarers, engineers, site supervisors and heavy equipment operators. Of that number, nearly 300 individuals have been recruited from the local community in Bulakan for positions as laborers, welders and plant operators.

Besides recruitment, the project local hiring plan also places a strong emphasis on skills development and in 2022 we successfully launched a traineeship for Articulated Dump Truck operators. This is explicitly aimed at upskilling and creating job opportunities for people from the communities in Bulakan. Candidates received formal classroom tuition followed by practical teaching on a dump truck simulator that we have shipped from the Netherlands specifically for this purpose. They then undertake two weeks of on-the-job training at the project site. At year end, 100 trainees had successfully completed the traineeship and were employed by Boskalis on the project.

“We are proud to offer both formal training and a broader career steppingstone for people from these communities,” explained Boskalis’ Human Resource Manager, Tim van der Stelt. “With our support, candidates not only have an opportunity to gain a practical qualification and work with Boskalis on this project up to the end of 2024, but this is also a chance for them to develop skills for longer-term employment, both during the construction of the airport itself and on future projects.”

workforce. As a first step in this process, we engaged a third party to conduct a validated survey with staff and run focus groups to discuss psycho-social issues and topics of concern within our Dredging activities. Based on the outcomes and findings of this process, we are currently working with a specialist health consultant to develop preventative measures and interventions as part of a comprehensive well-being program.

## SUSTAINABLE EMPLOYABILITY

Supporting the continued employability of our employees is an important focus for our business and our employees. We do this by helping to enhance staff skills for the future and by looking at ways to keep people healthy, safe and motivated through to their retirement. We aim to create an environment in which people stay committed and connected. We encourage employees to shape their own career and, if necessary, retrain for a position that is fitting in their stage of life. We offer a range of training and development programs through which our employees can gain the necessary skills for a different or less physically demanding job. During the year we continued our STIP program (“Start your Future in our Projects”) by hiring a second group of potential new colleagues. The program works with an employment agency to recruit and train people who are disadvantaged in the Dutch labor market, due to age or other factors, to take up specialist roles within Boskalis in functions such as Asphalt, Earthmoving, and Technical Services. We provide a one-and-a-half year training program that is designed to prepare participants for fulltime employment in suitable roles.

Our SamenFIT (FIT Together) program was launched five years ago among our Netherlands’ workforce. Post COVID-19, this year we were able to continue this program physically with running and soccer activities. The health of our older employees in the field has been an important focus of the program which has resulted in a significant decrease in sickness absence. During the year our Vitality Portal (see page 36), as well as the Boskalis Worldwide Vitality Challenge (page 36) also contributed to the health and well-being of our employees.





# DIVERSITY AND INCLUSION



Boskalis relies on a team of dedicated, experienced professionals to achieve its ambitions. That is why Boskalis is committed to creating a diverse and inclusive workplace that challenges and inspires its employees to build their careers and achieve their potential within the company. The importance of diversity is reflected within the Boskalis Code of Conduct and underlying Human Rights and Labor Policy. Boskalis does not accept discrimination in the workplace and has a strong practice throughout the organization of equal opportunities for all regardless of race, color, nationality, ethnic background, age, religion, political opinion, gender, pregnancy, sexual orientation, marital status, disability, trade union membership or any other characteristics protected by applicable law.

Last year we established a Diversity and Inclusion (D&I) Taskforce which was expanded during 2022. In order to establish a clear baseline and identify priority areas on D&I matters, the topic was the focus of a designated section within the employee engagement survey that was completed during the year. By late-2022 the Taskforce had begun to analyze the findings with a view to setting out its approach and immediate objectives in 2023.

Through the year a number of broader initiatives were undertaken to support D&I in different parts of the organization. For example, Boskalis Netherlands conducted a training for more than 200 colleagues on the subject of social safety and in March an external speaker addressed managers and staff at our headquarters in Papendrecht on the subject of adopting D&I as a pre-requisite for building strong, high-performance teams.

The employee population at Boskalis, partly due to the nature of its business activities is predominantly male, especially in the core processes on the fleet and in the projects. Our male to female ratio in 2022 was 85:15, representing a 1% increase in the proportion of women compared to 2021. In our head office, the amount of women increased by 1% points in 2022 with a male female ratio of 69:31.

To create a more balanced representation of gender on the work floor, Boskalis aims to attract, retain and promote women for and throughout the organization. Boskalis ensures that its job descriptions are gender-neutral. The recruitment process is based on an Objective Assessment Model, setting profiles based on

competencies without prior knowledge about the applicant to prevent unconscious bias on gender, age or ethnicity. Internal and external recruiters are specifically tasked to identify and submit capable female candidates. In our management development and trainee programs special attention is paid to eligible female candidates.

We are a truly international team, with employees of over 87 different nationalities. We are also well-balanced in terms of our age profile. Seventy four per cent of our employees are under 50, with 58% in the 30-50 age range. As a result, we have a good distribution of career opportunities, from junior through to senior positions. The nature of our work means that a very high proportion of our staff is project-based, or is on vessels. Many of our trained technical, financial and maritime staff work on projects in remote locations for long periods of time. The ratio of operational staff (fleet, yards and projects) to management and office support staff is 69:31.

### RESPONSIBLE LABOR PRACTICES

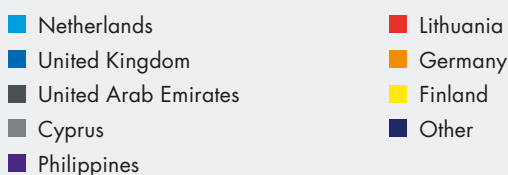
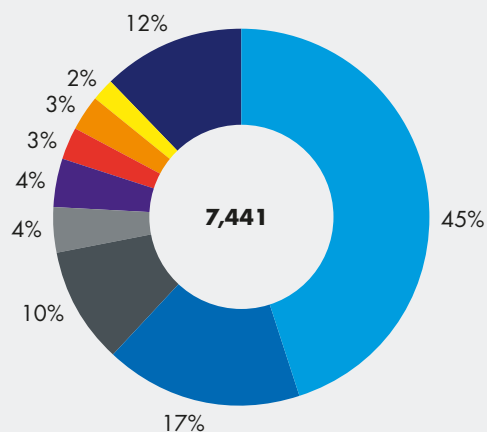
It is our responsibility to comply with applicable national and international employment laws and standards, including respecting the conventions of the International Labour Organization. We do not tolerate any form of forced or involuntary labor and any form of (modern) slavery or human trafficking and Boskalis is committed to preventing these practices in its operations and projects. Boskalis also does not tolerate child labor and applies the national laws on the applicable statutory minimum age for workers. We are committed to preventing child labor in our operations and projects.

We respect our employees' right to freedom of association and the right to collective bargaining. We collaborate with the Dutch Works Council and the trade unions and endorse the guidelines of the OECD Guidelines for Multinational Companies. Through our Supplier Code of Conduct, our strategic suppliers are required to observe fair labor practices. Of our 7,441 employees, 21% are covered by a Collective Labor Agreement. This covers most of our crews and project staff. Corporate and operational staff are covered by separate agreements, reached in consultation with the employee representation bodies. For information on our Diversity Policy please see page 76-77 of this report.

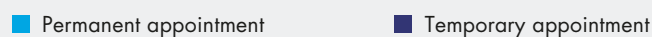
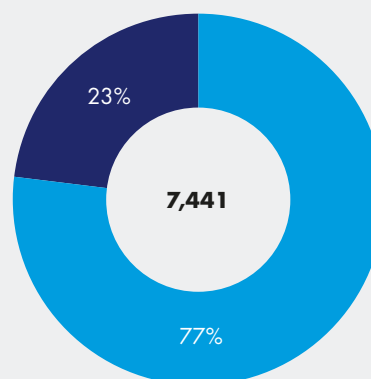
### CONTRACT TYPE AND STAFF TURNOVER

The majority of our employees (2022: 77%) are on a permanent appointment, and of this core staff many have a long tenure with the company. Staff turnover for employees with a permanent contract was 22.3% in 2022. This year we welcomed 2,812 new colleagues and 1,625 employees left Boskalis. Of these, 945 employees left due to voluntary termination or retirement. A total of 489 jobs were discontinued due to projects or contracts coming to an end. For projects, we supplement our workforce with staff drawn from a flexible shell. Depending on the project requirements, these employees are hired locally where possible or appointed on a temporary contract.

#### EMPLOYEES BY COUNTRY



#### TYPE OF EMPLOYMENT CONTRACT



# MANAGING OUR IMPACT ON THE ENVIRONMENT

**As a leading dredging and offshore contractor, we are keenly aware of the value of biodiversity and healthy ecosystems within society. We understand that it is essential to operate in such a way that maintains or improves the health of our oceans, rivers and wetlands. We are also conscious of the need to reduce the carbon emissions from our operations and are moving forward in the areas of cleaner fuels, energy efficiency and carbon offset, as well as through our commercial offerings and collaborative efforts, as key elements in our journey to net zero.**

## **RISKS AND DILEMMAS**

- Uncertain pace of development and availability for new low-carbon technologies
- Limited influence on global supply of clean fuels
- Some clients focus on price as principle selection criteria
- We have no, or very limited, influence on infrastructure investment decisions
- In the absence of regulation, voluntary use of costly alternative fuels creates a competitive disadvantage, unless clients are prepared to pay a premium

## **OPPORTUNITIES AND GOALS**

- Global knowledge exchange and collaboration opportunities
- Opportunity to build on several years' experience in biofuels and the Building with Nature approach
- Potential to differentiate through delivery of low-carbon solutions to clients
- Growing global awareness of the value of environmental management
- Increasing demand from clients to reduce and mitigate impact

SDGs identified by Boskalis that are closely related to topics covered within 'Managing our Impact on the Environment':





Dike reinforcement work as part of the Markermeerdijken project, the Netherlands

# CLIMATE CHANGE MITIGATION

## Ambition

To achieve our climate neutral ambitions at our operations and within our fleet and drive competitive advantage through our ability to offer low-carbon solutions for our clients

## Scope

Carbon emissions of own operations (Scope 1 & 2)

## Target

- Onshore projects in the Netherlands to become climate-neutral by 2030
- Net zero across our own operations by 2050. Progress near and mid-term carbon reduction strategy and incorporate sustainable solutions into commercial offerings
- Instigate initiatives for Scope 3 emissions reduction where feasible on the basis of impact and influence

## 2022 Performance

- Scope 1 and 2 CO<sub>2</sub> emissions 1.20 million MT
- 75% of tenders in the Netherlands include emission-reduction measures
- Expanded biofuel usage in the Netherlands' dry earthmoving transport, leading to around 55% reduction in CO<sub>2</sub> emissions against traditional fuels



As part of our contribution to the ambitions of the 2015 Paris Climate Agreement we remain committed to our target of becoming climate neutral across our global operations by 2050. As such, we aim to maintain our position as an industry leader in emissions reduction and drive competitive advantage through our ability to offer accessible, low-carbon solutions to our clients.

The rate at which we move towards our emission-reduction targets is a function of the opportunities and technology available to different parts of the company. Some aspects of our business are already achieving substantial reductions in their emissions, while other parts will take longer to do so since they are dependent on technology and infrastructure that is currently still being developed.

When assessing carbon reductions across the company, it is important to distinguish between those parts where we have direct control and our sphere of influence to prevent or limit emissions is significant, versus parts of our operation where our influence is indirect or where we are dependent upon the progress achieved by third parties.

Those parts of the company that are onshore – our offices and warehouses, lease car fleet and dry earthmoving equipment – offer the greatest potential for near term emission reductions and we have implemented a number of significant carbon-reduction measures over the last few years. The largest part of our CO<sub>2</sub> footprint is linked to our vessels, an area where substantial reductions in emissions are dictated by the availability of suitable alternatives to fossil fuels and the global infrastructure to support clean sources of energy.

## OFFICES AND WAREHOUSES

Over the last few years we have taken numerous steps to further reduce the carbon footprint across our offices and warehouses. In the Netherlands, we have prioritized the energy efficiency of our buildings and since 2016 all offices in use on our Papendrecht campus have held BREEAM certification. In line with the Greenhouse Gas Protocol, we also offset all of the electricity we purchase with Dutch Biomass NTA 8080 certificates, thereby neutralizing the associated Scope 2 emissions. During 2022 our office in Fareham in the UK achieved carbon neutral status – and certification by Carbon Neutral Britain – through a number of carbon reduction and offsetting measures.

Over the last few years we have installed solar panels at a number of our premises in the Netherlands and abroad, which together generate more than three million kilowatt hours of green electricity each year. Our distribution center in Vlaardingen holds an energy label A+++ and is CO<sub>2</sub> negative, generating more electricity than it consumes. Most recently, in 2022, we installed a total of 820 panels on the roof of our office in Singapore, which provide for approximately 60% of the building's total electricity usage. During the year we also installed additional panels on our newest office building at our headquarters in Papendrecht and further installations will be completed on the campus as well as at our premises in Waalhaven, Schiedam and Capelle, Rotterdam, during 2023.

## OFFICE COMMUTING

We have implemented several initiatives to reduce the carbon footprint associated with commuting to and from our offices and wider premises. We encourage the use of public transport to our head office in Papendrecht by offering a regular shuttle service from the local train station. In 2022 an electric minibus was purchased to reduce the emissions associated with this service.

We have adopted broader measures through company policy and the provision of new infrastructure to reduce our emissions from car commuting and accelerate the take-up of (plug-in hybrid) electric vehicles (EVs) among our workforce. Last year we opened a large-scale charging facility at our Papendrecht headquarters,

## OUR CARBON EMISSIONS

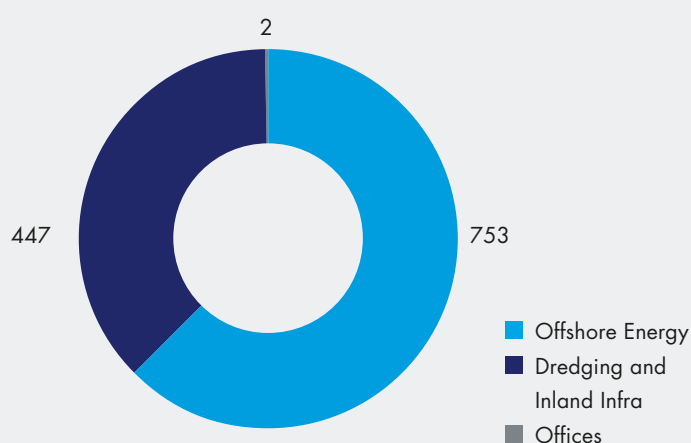
Our total Scope 1 and 2 CO<sub>2</sub> emissions amounted to 1.20 million MT in 2022. Emissions from our fleet amounted to 1.19 million MT compared to 1.06 million MT in 2021.

For our Offshore Energy division, our fleet CO<sub>2</sub> emissions in 2022 were 0.75 million MT, a 19% increase over 2021 when the figure was 0.63 million MT. This increase is largely explained by a higher vessel utilization and the addition of new vessels to the fleet, many of which are used in the renewables market. Fleet additions in 2022 included the construction support vessels Boka Atlantic and the Boka Northern Ocean, as well as the Bokalift 2 and the Fulmar Anchor Handler Tug.

Heavy Marine Transport, with an increased vessel utilization, was the largest contributor to the fleet's overall increase in CO<sub>2</sub> emissions. Marine Services, with its additional vessels and higher utilization, was the second highest contributor to the increase. Meanwhile, Heavy Lifting accounted for 8% of the emissions increase, in part due to the introduction of the Bokalift 2 mid-year.

In 2022 our dredging fleet CO<sub>2</sub> emissions remained at a similar level to 2021 at 0.44 million MT. This was in spite of a higher utilization rate of our trailing suction hopper dredgers in 2022 compared with the prior year.

**2022 SCOPE 1 AND 2 CO<sub>2</sub>** (Metric Tons '000)



	ENERGY CONSUMPTION					CO <sub>2</sub> MT ('000)**
	FLEET		ONSHORE			TOTAL
	VLSFO/HFO MT ('000)	MDO/MGO* MT ('000)	ELECTRICITY KWh (million)	GAS MJ (million)	FUEL* MT ('000)	
<b>2022</b>						
Dredging & Inland Infra	5	134			4	447
Offshore Energy		235				753
Offices			4.6	1.9		2.4
<b>Total 2022</b>	<b>5</b>	<b>369</b>	<b>4.6</b>	<b>1.9</b>	<b>4</b>	<b>1,203</b>
<b>2021</b>						
Dredging & Inland Infra		134			4.4	443
Offshore Energy	1	197				632
Offices			5.1	6.8		2.9
<b>Total 2021</b>	<b>1</b>	<b>331</b>	<b>5.1</b>	<b>6.8</b>	<b>4.4</b>	<b>1,078</b>

\* Includes biofuel.

\*\* For the method used to convert fuel to CO<sub>2</sub>, see page 81 of this report.

marking a significant investment in charging capacity for EVs. The facility has 252 charging points and is one of the largest of its kind in the Benelux region. The EV infrastructure is in line with our wider efforts – through our lease car policy – to reduce the overall CO<sub>2</sub> footprint of our car fleet in the Netherlands. This year we met our target for one quarter (25%) of this fleet to be either hybrid or fully electric by the end of 2022. As more car manufacturers add economical EV models to their range, the share of EV cars is set to further increase. In addition, our lease car policy offers our staff significant flexibility with regard to vehicle choice, enabling the use of a smaller and more fuel-efficient car for the daily commute with the option to switch to a larger car when required, such as during periods of annual leave.

### DRY EARTHMOVING EQUIPMENT

The vast majority of our Inland Infra dry earthmoving activities are conducted in the Netherlands. In 2022, all of our dry earthmoving trucks continued to run on a pure biofuel where it was available, resulting in a reduction in CO<sub>2</sub> emissions of nearly 55% across the entire fleet compared to using fossil fuels. Our broader land-based equipment ran on a combination of traditional fuels and various blends of bio-fuel, resulting in a 14% reduction in CO<sub>2</sub> emissions compared to traditional fuel usage across the fleet. During 2022 we invested in a range of low-emission equipment in support of our ambitions for all onshore construction projects in the Netherlands to become climate-neutral by 2030. Investments in the onshore fleet include an electric dredger (see page 47), electric asphalt sets, electric trucks and two 25-ton electric excavators. Further additions of electrical and other low-emission equipment are planned during 2023.

Since 2012 our Netherlands business has been certified as Level 5 (the highest level) on the CO<sub>2</sub> Performance Ladder of the Foundation for Climate Friendly Procurement and Business (SKAO). This ranking system is a tool used by Dutch government agencies and businesses to recognize performance in the areas of energy and materials efficiency.

### COMMERCIAL OFFERINGS

Wherever possible, we encourage our clients to adopt sustainable and low-carbon solutions to help reduce emissions. This is done in two principal ways: through the optimization of project designs to reduce energy, increase circularity and limit the consumption of materials; and by using low-carbon energy sources such as biofuels or (renewable) electricity to power our vessels and dry earthmoving equipment. In our domestic home market of the Netherlands we are taking major steps in proposing and successfully incorporating low-carbon solutions in our projects. In 2022, 75% of Boskalis Netherlands tenders included an emissions-reduction component. On successful tenders, such as the design of the N241 in the Province of North Holland (see page 47), we seek to work with our clients at the earliest possible stage – ideally in the design phase of a project – to develop a sustainability plan that shapes both the project scope and associated work practices. The final joint plan typically represents the optimal approach to reduce emissions both during construction and the facility's lifespan, as well as prioritizing wider sustainability criteria such as biodiversity and the re-use of materials. Through our experience in the Netherlands, we are developing expertise in sustainable project design that is both commercially viable and can be scaled up for application in other markets and geographies (for examples, please see page 25).

#### DESIGN

Reducing the total energy needed to deliver the project by optimizing the design and reducing the use of materials.

#### LOW-CARBON FUELS

Using lower-carbon energy sources such as biofuels, as well as machinery and facilities that run on (renewable) electricity.

#### ENERGY EFFICIENCY

Efficient use of energy, such as employing state-of-the-art technology and behavioral training for our drivers, crews and design engineers.

### OUR FLEET

At Boskalis, the largest contribution to greenhouse gas emissions comes from our vessels which account for around 99% of our Scope 1 and 2 CO<sub>2</sub> footprint – in 2022 this amounted to 1.19 million MT.

#### Near-term impact

In recent years we have devised and adopted a range of measures and new technologies to drive down fuel consumption and reduce emissions from our fleet. During 2022 we expanded these initiatives in support of further reductions. Where we have the ability and direct control to reduce emissions, the effects have been impressive.

In the first half of 2022 we also announced plans to retrofit numerous offshore vessels through Energy Storage Systems, or 'power packs'. The conversions will reduce the vessels' fuel

consumption and associated carbon dioxide and nitrogen oxide emissions by an average of up to 20% during DP operations. The systems also provide a power supply and energy storage facility while the vessels are docked and contribute to quieter and more efficient operations offshore. The modifications, which we aim to complete by the end of 2024, will be carried out on the versatile crane vessels Bokalift 1 and Bokalift 2, two construction support vessels and two diving support vessels, all of which have dynamic positioning DP2 capabilities.

Other measures to reduce emissions within our fleet include the development of dashboards onboard, as well as remotely, which improve awareness of operational efficiencies among crew members and help them to conserve fuel. During 2022 we extended our dashboard program to our entire fleet of Offshore vessels and also piloted the technology on three trailing suction hopper dredgers. Depending on the vessel and its operating





The E-Dredge 1

## COLLABORATIVE DESIGN FOR NEW N241 LAYOUT

Boskalis is currently engaged with the Province of North Holland and the Provincial Water Supply Company (PWN) to design and build a 12-kilometer stretch of the N241 which links the towns of Wognum and Schagen north of Amsterdam. The road will be redesigned to incorporate roundabouts and comply with new national safety standards. At the same time, Boskalis will reposition a mains water pipe that runs parallel to the road.

The contract is divided between an initial design phase and a separate execution phase. This innovative and collaborative approach has enabled Boskalis to work closely with its client to engineer and consider a whole range of sustainable solutions prior to execution. Design work over the last year has yielded a host of optimization measures including those to increase biodiversity and the reuse of materials, adoption of smart technology, and carbon reduction measures during the construction process.

This highly collaborative format provides the client with detailed insights into the sustainable approach, as well as the associated costs and potential risks. As of late-2022 the new road layout and construction design will incorporate areas for fauna and designated bat-corridors. Boskalis has also engineered approximately 3,200 tons of CO<sub>2</sub> savings through the use of, among others, recycled polymer sheet piles and asphalt granulate, while more than 500,000 liters of biofuel will be used to power our dry earthmoving trucks and equipment. This equates to an 84% CO<sub>2</sub> saving when compared with traditional construction methods.

## SOUTH HOLLAND, THE N206 RIJNLANDROUTE

On behalf of our client, the Province of South Holland, Boskalis has begun a EUR 105 million project to build a two-kilometer section of sunken road close to a Special Protected Area for birds on the edge of the Dutch city of Leiden. Boskalis' focus on emissions reductions has contributed to a 58% reduction in the project's overall environmental impact against the design reference.

To protect from rising water and potential flooding, conventional designs for sunken roads require significant quantities of concrete and steel reinforcements that carry a heavy carbon footprint. However, through Boskalis' innovative approach, these materials have largely been replaced with a water-resistant HDPE-foil. In combination with the replacement of excavated earth with Beaumix this results in a significant reduction in associated emissions. The foil – which is just two millimeters thick – covers an area of 96,000 square meters and has not previously been used on this scale in the Netherlands. Installation of the foil required sheet piles to be placed for a distance of about six kilometers, however these will be removed at the end of construction and re-used. The optimized design for the road itself includes a sand replacement secondary filling material and asphalt granulate. Meanwhile, Boskalis' dry earthmoving fleet will run on biofuel for the duration of the construction process leading to a significant reduction in CO<sub>2</sub> emissions.

## BOSKALIS' ALL-ELECTRIC DREDGER

In 2022 Boskalis acquired a new all-electric dredger, the BOKA E-Dredge 1. This emission-free vessel can function as both a profile suction dredger for extracting sand, and as a cutter dredger to remove clay and other more dense material. The vessel operates on shore power and can process approximately 500 cubic meters of sand every hour, resulting in significant reductions in CO<sub>2</sub> emissions compared to an equivalent fossil-fueled vessel. The e-dredger also has significantly lower emissions of nitrogen oxide (NoX).

The BOKA E-Dredge 1 was developed through close consultation between Boskalis and a Dutch supplier. In late-2022 the vessel completed its first project – the extraction of 100,000 cubic meters of sand at the Put van Caron lake in Oosterhout, the Netherlands – and will be deployed on a number of inland projects in 2023. The highly versatile and efficient vessel can be dismantled and re-assembled within two days and can be transported between projects by road.



conditions, the implementation of operational and technical efficiencies based on data from the dashboards can lead to a reduction in fuel consumption in excess of 8%. During the year we also began work with engine manufacturers to determine the optimum maintenance schedule for each of our vessels from the point of view of reducing fuel consumption. Pilot projects are planned for 2023.

Where possible we continue to use 'light', drop-in biofuels – blends of biofuel and marine gas oil – in our vessels which reduce carbon emissions by up to 90% when using a pure biofuel blend. During 2022 we carried out a number of projects using biofuel to power our vessels. These included land reclamation work at Maasvlakte, Rotterdam and beach replenishment on the Dutch Wadden Islands of Texel and Ameland using three vessels – the Freeway, the Causeway and the Willem van Oranje.

Through its long-term partner and fuel supplier, GoodFuels, Boskalis enables its clients to opt for biofuel powered vessels to reduce their carbon emissions on projects. Boskalis' own testing and sea trials program with GoodFuels and engine manufacturer Wärtsilä began in 2015 and the Willem van Oranje became the world's first dredging vessel to operate on 100% biofuel oil. Since then, Boskalis has successfully used various biofuel blends as an alternative to fossil fuels on both dredging and offshore installation vessels, resulting in considerable emissions reductions.

We have also adopted a number of broader measures within our fleet to reduce greenhouse gas and other emissions. These include:

- Drag reduction measures including the use of alternative hull coatings, limiting volumes of water ballast on our vessels, as well as polishing propellers and hulls which can help reduce emissions by up to 8%;

- The fitting of Selective Catalytic Reduction (SCR) systems which reduce the level of nitrogen oxide in exhaust gases by up to 90% on two of our trailing suction hopper dredgers. In early 2023 a third vessel – the Strandway – will also be fitted with an SCR.
- Investment in shoreside electrical power infrastructure at our own locations, allowing our vessels to shut down their main and auxiliary engines while at berth;
- Onboard power demand reduction through numerous measures including lighting technology, installation of waste heat generators for efficient use of waste heat, and optimized engine performance.

To help monitor the progress made in decarbonizing our fleet, we have developed a so-called Carbon Intensity Index (CII) for our largest asset category, namely the trailing suction hopper dredgers. The hopper CII is based on the amount of CO<sub>2</sub> per unit utilized capacity (ton weeks). Notwithstanding that hoppers perform a range of tasks under sometimes very different conditions, we believe this index provides a reasonable proxy to measure their carbon efficiency. Since 2011, the CII of the hopper fleet has declined by 25% reflecting an impressive improvement. With authority granted by the International Maritime Organisation, the International Marine Contractors Association is currently developing emission performance indicators suitable for offshore vessels. Several sector organizations within the dredging industry are also taking part in the search for appropriate emission indicators for dredging equipment. We aim to continue our active participation in these initiatives.

#### Mid-term impact

To move towards climate neutrality, new 'clean' fuels are needed for the international maritime industry. To reach this goal, we exert our indirect influence and are, in part, dependent upon factors that lie outside of our control.

Different vessels and segments of the industry have different requirements which stand in the way of a single optimal solution. The energy intensity demanded by our vessels and the nature of our operations – often in unpredictable and remote locations around the world – place stringent requirements on the type of alternative fuels that will be suitable. These will need to meet both the technical requirements of our operations, as well as practical considerations such as onboard capacity and safety standards.

Whichever alternative fuels are deemed to be most practical will then need to be produced economically, in sufficient quantities and in such a way that their availability can be relied upon across the globe.

The development of the expertise and technology necessary for the sector to complete its energy transition relies on collaborations with our industry peers, knowledge institutions and other partners. Through this approach we are participants in several initiatives investigating the viability of alternative fuels – including methanol, ammonia, and hydrogen – as well as testing these fuels with leading maritime engine manufacturers. We have also investigated the practicality of adopting new technologies such as via retrofitting our existing vessels for the use of alternative fuels, for example methanol.

## NEW ENERGY SOURCES

Led by two in-house clean energy specialists, we participate in several initiatives that are actively investigating the viability of alternative fuels for the international maritime industry.

Organizations we work closely with include the International Marine Contractors Association (IMCA), European Dredging Association (EuDa), Maritime Research Institute Netherlands (MARIN) and Rijkswaterstaat. The following are examples of research projects in which we are involved:

**The Green Maritime Methanol project, Phase 2:** along with several leading Dutch and international maritime companies and knowledge institutions Boskalis is investigating the feasibility of methanol as a sustainable fuel for the maritime sector. The two-year project extension, which started in 2021, is supported by TKI Maritiem and the Dutch Ministry of Economic Affairs and Climate Policy and is focused on new-build vessels and relevant safety requirements. During 2022 researchers looked at several safety aspects, such as the feasibility of underwater venting to relieve pressure. Furthermore, lab test engines are currently being modified to test different methods of methanol injection.

**Methanol as an Energy Step Towards Zero-Emission Dutch Shipping (MENENS):** as a member of a broader maritime consortium, we have launched a multi-year program of over EUR 35 million to conduct research into accelerating the use of methanol as an alternative fuel within the shipping industry. The MENENS program is sponsored by the Dutch Government's Rijksdienst voor Ondernemend Nederland (Netherlands Enterprise Agency) and aims to develop clean energy technology with a high degree of flexibility and broad applications within the shipping industry, from yacht building to offshore work ships and high-powered dredgers. Methanol can enable significant reductions in CO<sub>2</sub> emissions compared to traditional fuels and is viewed within the international maritime sector as one of the most feasible 'clean' fuels for large-scale adoption by the industry. A dual fuel methanol combustion engine of approximately 3.5 MW will be developed by our partner Wärtsilä and tested in variable loading conditions to simulate dredging operations. The project builds on findings from the first phase of the Green Maritime Methanol research project.

**AmmoniaDrive:** during 2022 NWO and the Ministry of Economic Affairs and Climate Policy awarded funding for this joint research initiative led by Delft University of Technology to further develop knowledge about the use of ammonia as an alternative fuel for zero-emission shipping. Ammonia's characteristics as affordable, carbon-free and relatively energy-dense make it a potential clean marine fuel for the future. However, significant research is still needed around how to use the energy stored in ammonia to power sea-going vessels. This five-year program gets underway in January 2023 and will investigate the viability of a hybrid ammonia fuel cell internal combustion engine, including two stroke and four stroke alternatives.

**The Clean Shipping Project:** a program run by Delft University of Technology in which several academic and private partners are working together to build inclusive, sustainable biobased value chains for maritime biofuels. The project investigates the technical, social and environmental aspects of turning bio-waste into biofuel. During 2022 a successful case study was conducted in Spain which looked into the viability of using olive residues as a source for biofuel. A second study was conducted in Columbia using waste from small-scale coffee and cocoa production. In early 2023 a third case study will be conducted looking into encroacher bush in Namibia. Boskalis' supply chain and technical functions will work closely with the research team in 2023 to analyze how these elements influence the biofuel value chain.

**SH2IPDRIVE:** as part of this multi-stakeholder initiative, Boskalis is supporting research into alternative ways of bunkering and storing hydrogen on board sea-going vessels. The initiative is developing a 300 kW containerized module for storing hydrogen in powder form (NaBH<sub>4</sub>) and investing techniques for releasing the hydrogen. Associated advantages for the maritime industry include larger-scale storage and transportation potential, safe handling and high-energy densities of the fuel.



Boskalis' electric excavator at work in the Netherlands

# INNOVATIONS AND PARTNERSHIPS IN ACTION

Boskalis aims to be a market leader in the provision of innovative solutions for our clients. We focus on testing and delivering sustainable ideas that positively impact the environmental and social outcomes of our projects. Our innovation strategy is built on our business units' priorities and defined innovation themes linked to our corporate and sustainability strategies. We recognize that innovation is just as much about the way we do things, as it is about new technology; new ways of thinking and changes to behavior are vital to achieving our sustainability objectives.

## SAFETY



## THE 'GO-BARRY' – A SMART MOVING TRAFFIC BARRIER

Following last year's successful pilot project, in 2022 a larger and definitive version of the Go-Barry remote-controlled traffic barrier was built for deployment on a Boskalis road maintenance project which will be executed in 2023 near the town of Maasburg in the Netherlands. Meanwhile, the previous version of the design continued to be used on the N243 construction project in North Holland.

The Go-Barry traffic barrier is designed for roadwork situations and is operated remotely. The design delivers substantial safety advantages for roadworkers, as well as improved traffic flow and time savings for motorists. During the year Boskalis signed an agreement with Rijkswaterstaat (the executive agency of the Dutch Ministry of Infrastructure and Water Management) for the award of ten projects for the deployment of the Go-Barry.



## BIODIVERSITY



## GEMINI PLATFORM

In partnership with Vortech, a scientific software company, Boskalis is testing data assimilation technology that can provide valuable decision-making support on our operations. The approach uses sensor data from a wavebuoy to enhance computer model predictions of swell conditions or turbidity. That information can then be used to better manage our operations in challenging or sensitive marine environments or to limit environmental impact.



In July 2022, the technology was used successfully in the Spanish port of La Coruna to support the loading of six 15,000-ton caissons onto a Boskalis vessel – the BOKA Vanguard – for transportation to Southeast Asia. Wider testing of the technology is currently taking place on dredging projects where it is used to predict the direction and movement of turbidity plumes. This helps to improve the workability of the vessel while supporting the protection of biodiversity in the vicinity of operations.

## GROW

Boskalis participates in several joint industry projects within the GROW consortium that initiates research and accelerates innovations in offshore wind. The initial program came to an end in November 2022 however GROW has subsequently been extended into a second phase. In 2022 we participated in the Simox project which investigates the effect of different installation methods on the lateral and vertical bearing capacity of the soil. Boskalis has prepared and manages a test site on the Maasvlakte in the Netherlands where piles have been installed using different techniques and then load tested.

## CLIMATE CHANGE MITIGATION



### MARITIME MASTER PLAN

Boskalis aims to equip two of its vessels – a trailing suction hopper dredger and a newly-converted excavator pontoon – to run on methanol and hydrogen, respectively. The initiative is being supported by funding from the Maritime Master Plan, a Dutch subsidy scheme being applied for from the National Growth Fund. The scheme is sponsoring the construction of between 25 and 30 energy efficient and climate neutral demonstration vessels for operation in coastal and inland shipping, offshore renewables, dredging and maritime security.

Boskalis will convert one of its crane vessels – the Medusa 2 – to an excavator pontoon, and install diesel electric propulsion and battery packs. This conversion will enable the subsequent installation of a hydrogen fuel cell under the Maritime Master Plan. The fuel cell would allow the vessel to operate completely emission-free.



### ZEDHUB: AN INNOVATION HUB TOWARDS ZERO-EMISSION DREDGING

Together with industry peers, Boskalis is a founding partner of an innovative community of industry players which is targeting zero-emission dredging in the Netherlands by 2030. ZEDhub is funded by the Drecht Cities Economic Development Board and brings together technology and system providers, shipbuilders, dredging contractors and end clients in a collaborative environment. The initiative began in mid-2021 and consists of several projects that span technological, regulatory and financial components of the energy transition. These include a focus on alternative maritime fuels, energy conversion solutions, safety, alignment through the value chain and developing business incentives.



Road2SID is a new project within GROW and involves the development of a roadmap for technological advancements in fixed-foundation offshore wind, with a focus on the North Sea. The project produces a roadmap with regard to the viability and opportunities associated with the integration of various functions within the design of offshore wind farms, including nature-inclusive design, aquaculture, and floating solar energy.

### PORTXL

Boskalis continues to partner with PortXL, a Dutch organization that identifies innovative start-up companies that can serve the needs of the global maritime industry. We are currently progressing from an initial stage of exploring cooperation with such companies to proving their value when it comes to innovating our business.

In December 2022 we signed a Letter of Intent with Ensemble Analytics, a company that provides solutions for strategic workforce planning. During the year we continued to work with two other selected companies – Water Insight and Reefy – and organized pilot programs. Water Insight monitors water quality using satellite images and spectral measurements to create turbidity maps. These can be used to calibrate data for turbidity models which are designed to improve the workability of our hopper dredgers. The technology was first tested at Marker Wadden in the Netherlands and has recently been deployed at the construction of the platform for the new Manila International Airport in the Philippines. Reefy has developed artificial reef units that combine ecological features with the engineering qualities required to sustain hurricane-force impacts while also creating a foundation for marine life. For further information on Boskalis' Artificial Reefs Program see page 55.

# BIODIVERSITY

## Ambition

To prevent and mitigate negative impacts on marine life or local habitats, as well as leading the industry in the development of nature-based solutions to protect and enhance coastal ecosystems

## Scope

Our own operations

## Target

- To implement our methodology to measure and manage our biodiversity impact through the application and evolution of our biodiversity framework
- To expand the knowledge base and commercial reach of our nature-based solutions

## 2022 Performance

- Continued our collaborations on biodiversity with several NGOs and knowledge institutions, further developing concepts for nature-inclusive design and laying the foundations for commercial applications
- Completed systematic analysis of data indicators on turbidity and pollution to improve communications and engagement about our biodiversity performance
- Extended delivery – to management and project-based staff – of our training program on international standards and guidelines around biodiversity and wider environmental issues
- Building with Nature program investment
- Turbidity: two incidents of exceedance on projects with a turbidity scope
- Pollution: four spills into water



Biodiversity, the diversity of life on earth, is critical for a healthy environment and is a priority for Boskalis. In December 2022 the COP15 biodiversity conference took place in Canada where the international community agreed a set of targets to reverse biodiversity loss and restore damaged ecosystems on land and at sea. In line with the OECD Guidelines for Multinational Enterprises, the protection of biodiversity and the marine environment are central to Boskalis' environmental and social risk management policies and procedures. Where our activities occur close to critical habitats or sensitive ecosystems, we apply systematic precautionary management and mitigation measures. We invest in research and development, ways of working and collaboration with third party experts to help protect and enhance biodiversity and marine life. Depending on location and the type

of work, our activities can have an impact on individual species as well as the broader habitat. The most significant biodiversity pressures related to our business are:

- suspended sediments/turbidity;
- the modification, fragmentation and/or loss of habitat;
- the introduction of invasive species;
- pollution from waste or spills.

## ENVIRONMENTAL MANAGEMENT MEASURES

We aim to prevent, reduce or mitigate any negative biodiversity impacts related to our operations. During the preparatory phase, as well as throughout a project's implementation, we plan, adapt and optimize our working methods to align with the environmental sensitivities associated with the local situation. We apply our Environmental and Social Policy (available on our website) as well as the relevant industry and international standards to manage biodiversity risks effectively.

Boskalis has a zero oil spill ambition and we maintain 14001 ISO certification across our business units. We also embed our environmental management approach within our Way of Working quality management system. Our fleet management system ensures that we apply the required environmental management measures on board our vessels. Some of our technical teams are actively involved in defining these measures at a global level through organizations such as the Central Dredging Association (CEDA), the World Association for Waterborne Transport Infrastructure (PIANC), and the European Dredging Association (EuDA). These measures cover matters such as ballast water management, vessel waste management, and preventative procedures against spills and other pollution. Our fleet management system ensures vessels are in compliance with relevant regulations such as the IMO Ballast Water Management Convention and IMO MARPOL Convention Annex VI.

We also actively seek opportunities to make a positive contribution to the conservation, restoration and enhancement of natural environments. We do this through the provision of nature-based infrastructure solutions, as well as through delivery of restoration projects such as the second phase of the Marker Wadden which our understanding of marine ecosystems makes us well-equipped to undertake. We continue to invest in the development of new technologies and work methods and to build an environmental mindset with our teams, project owners and stakeholders. Depending on the project type and scope of works for the contractor, we can also provide our Building with Nature (BwN) offering. BwN constitutes an innovative and holistic approach to hydraulic engineering that departs from the dynamics of natural systems in the design phase. This approach benefits the environment, economy and society.

## BIODIVERSITY FRAMEWORK

**Ambition:** To prevent, reduce or mitigate negative biodiversity impacts related to our operations and to lead the industry in the development of nature-based solutions to protect and enhance coastal ecosystems. We aim to translate our biodiversity ambition into our operations across five key areas and associated objectives:

<b>Nature-based solutions</b>	Providing effective, nature-based solutions and developing new technologies and ways of working
<b>Priority habitats and species</b>	<ul style="list-style-type: none"> <li>▪ Seeking opportunities to contribute to the protection or enhancement of priority biodiversity</li> <li>▪ Applying appropriate precautionary management and mitigation measures where we are active close to priority biodiversity</li> <li>▪ Accounting for sensitive breeding or migration patterns in our approach</li> <li>▪ Avoiding impact to marine mammals, marine turtles or coral</li> </ul>
<b>Pollution</b>	Achieving zero oil spills across our activities
<b>Invasive species</b>	Avoiding the introduction of alien invasive species
<b>Turbidity</b>	Protecting sensitive priority biodiversity by managing turbidity

'Priority biodiversity' for Boskalis is defined as the species and habitats that fall within our main scope of biodiversity influence, and on which we want to minimize impact or to proactively conserve or restore.

## ENVIRONMENTAL MANAGEMENT OPTIONS IN LINE WITH MITIGATION HIERARCHY

**Environmental training and management systems:** in addition to environmental management certifications for our businesses (see page 89), we organize environmental awareness training to ensure compliance with pollution prevention methods such as IMO MARPOL waste regulations, oil spill prevention, antifouling measures and sewage management. All our vessels over 400 GT have a waste management plan.

**Enhance environmental opportunities with building with nature:** on certain projects we can incorporate sustainable design solutions from the earliest (tender) stage. These include engaging with our partners and other environmental, design or engineering specialists, as well as stakeholders, to create cost-efficient solutions that not only mitigate the biodiversity risk and impact of the project but also serve to protect and enhance the local habitat or ecosystem.

**Technological innovation:** we continue to invest in research to bring leading-edge solutions to clients seeking an environmentally sustainable project or nature-inclusive designs. Together with our partners, we have brought several solutions to market that contribute to protecting biodiversity. These include: modular artificial reefs, large-scale oyster reefs as nature enhancements for offshore projects, a seagrass transplanter system and green valves for our hopper dredgers.

**Evaluation of environmental risks:** we study the situation and local environmental sensitivities to determine the project-related requirements for biodiversity management. Each project is different due to its unique location, regulatory framework and design.

**Optimize our work method:** we design a work method that meets all the environmental requirements of a given project and establish a relevant Environmental Monitoring and Management Plan (EMMP).

**Adaptive management:** during project implementation we monitor our environmental performance using in situ measurements and ecosystem receptor responses. We adapt and optimize our working methods as necessary to prevent or mitigate environmental impacts and to ensure compliance with all relevant regulation.

**Ballast water management:** we ensure all our vessels comply with the IMO Ballast Water Management Convention which aims to minimize the spread of invasive species.

## BOSKALIS BIODIVERSITY FRAMEWORK

Our biodiversity framework is based on our collaboration with the International Union for Conservation of Nature (IUCN) and detailed work within the business to identify our priorities and areas of influence in the field of biodiversity. The framework sets out our key ambitions for protecting biodiversity and covers the protection of marine and coastal habitats, pollution and spills prevention, the introduction of invasive species, habitat restoration and the management of turbidity from our vessels.

### MEASURABLE DATA INDICATORS

Using the framework as a base, during 2022 we completed an analysis of certain measurable indicators of our impacts on biodiversity across both our Dredging and Offshore Energy divisions.

Through our earlier work with IUCN we identified two priority areas of our framework – turbidity and pollution – that present a potential negative impact on biodiversity. A systematic analysis

was carried out to evaluate meaningful and comparable units of measurement that will enable Boskalis to better communicate its performance in these two areas to our stakeholders, in line with the expectations we see in tenders.

The results of our assessment of turbidity demonstrated that, of the projects carried out during 2022 that contained a turbidity scope, there were two turbidity exceedances that resulted in operational downtime. The incidents took place over 80,000 net operational vessel hours (NOH) and their severity against the agreed turbidity limits and impact on operations was extremely limited.

Our assessment of the priority area of pollution focused on measuring our performance against our target of achieving zero spills across our activities. During 2022 there were four spills across our operations. Each of the spills involved only biodegradable oil and therefore the impact on the marine environment was limited.

## NORTH SEA BIODIVERSITY GETS A BOOST

As a member of the BOOST (Better Oyster Outplanting & Seeding Techniques) consortium, Boskalis is participating in the development of a new method to establish large-scale oyster reefs as nature enhancements for offshore projects.

The BOOST concept was designed and pioneered by BlueLinked, a leader in circular marine aquaculture, and fits with the environmental goal of several countries – including the Netherlands – to restore strategically important oyster populations in the North Sea. The concept can be applied in marine construction and renewable energy projects on behalf of clients who increasingly require added ecological value.

The consortium, which has been granted significant funds from the Dutch Government, includes The Rich North Sea, BlueLinked, Advanced Tower Systems, Wageningen University & Research and Lobster Robotics. Through constructive collaboration these organizations will enable the successful development, deployment and monitoring of the technology.

The concept consists of two innovations: BlueLinked's onshore TinyOcean circular aquaculture system which is capable of covering biodegradable reef-tiles with thousands of baby oysters, and the subsequent large-scale deployments of these reef-tiles which – through hydro-morphological processes – cluster together to form growth centers for oyster reefs on the sea floor. Once a growth center is formed, the oyster reef expands naturally as oysters grow on top of other oysters while the underlying reef-tiles slowly biodegrade and disappear.

Through its dedicated Artificial Reefs Program (ARP), Boskalis is a leader in the field of nature-inclusive design and this innovation fits neatly within our sustainable innovation

portfolio and strategy. BOOST represents an extension of the ARP in the context of North Sea-based projects where we see a rapidly developing need, and thus market, for cost-effective nature enhancement on a large scale. The concept is also applicable globally, including in the US and Taiwan offshore markets where Boskalis is active.

### Sustainability Impact on Projects

BOOST embodies the lowest emission and highest 'power of nature' wielding technology to successfully develop oyster reefs on a large scale. It is intrinsically sustainable from the perspective of:

- **Emissions:** BOOST technology consists of small reef-tiles which are easily deployed in large numbers using small vessels and craft. No heavy marine installation vessels or cranes are required.
- **Operations:** The absence of heavy reef units and crane operations maximizes installation safety, efficiency (lower costs) and workability in North Sea conditions.
- **Powered by nature:** While the reef tiles biodegrade over time, their clustering by nature's forces allows the formation of growth centers, kickstarting the formation of oyster reefs which in turn kickstarts a positive feedback loop for biodiversity and subsequent oyster growth & proliferation.
- **Traceability:** The deployment of innovative autonomous underwater vehicles (AUV's) enables the flexible, safe and detailed monitoring of reef-tile clustering and growth.

## ENGAGE WITH OUR PROGRAM

Please visit our website ([boskalis.com/artificialreefs](https://boskalis.com/artificialreefs)) for frequent updates on the pilot projects, as well as our latest artificial reef designs and partnerships.





## ROTTERDAM REEF PROJECT: ENHANCING THE “GROENE POORT” PROGRAM

The Boskalis Artificial Reefs Program (ARP) is a research program aimed at understanding and applying the ecological, hydraulic and economic benefits of artificial reefs. The program consists of three key pillars: knowledge development, network creation and detailed engineering. The ARP offers a unique platform to exchange concepts and develop fit-for-purpose designs for our clients.

In 2022 the research efforts of the ARP shifted to the New Waterway, the Port of Rotterdam’s main entrance channel, where a modular artificial reef is set to be installed in 2023 to investigate its potential for protecting shore banks from the bow waves of large vessels. The reef also serves to enrich the biodiversity of the local marine ecosystem and act as an ecological steppingstone between the saline and freshwater environment.

The reef comprises 17 interlocking blocks weighing approximately six and a half tons each. They are made from sustainable concrete with a special surface texture designed to attract oyster beds and mussel colonies. The reefs have been designed and produced by Reefy, a Dutch start-up, and will be installed by Boskalis with support from Rijkswaterstaat (the executive agency of the Dutch Ministry of Infrastructure and Water Management) and Rotterdam Municipality.

“The sheer size and weight of these modular units makes them capable of withstanding wave energy whilst creating habitat, a rare combination,” said Paul Peters, Program Lead of the ARP.

The concept fits within the ARP program, which aims to develop and apply large-scale, modular artificial reefs for maximum positive impact within the context of Boskalis’ proposition as a marine contractor. By acting as breakwaters for wave energy,

artificial reefs can provide an alternative form of coastal protection. Through the restoration of habitat complexity in degraded coral and oyster ecosystems, they enhance the resilience of marine habitats.

In this context, the Rotterdam New Waterway is the fourth ARP pilot site and the first in the Netherlands. Others include projects in Monaco, Panama and Kenya where various artificial reef designs are tested in a range of environmental and ecological conditions.

“It all started with intensive collaboration between the different parties involved to think about further ecological innovations in coastal and riverbank protection,” explained Ebo de Vries, Innovation Manager at Boskalis Netherlands. “This project focuses on learning from the entire chain: from the production of the blocks to the monitoring of the reef.”

If the New Waterway trial is successful, several potential applications of the concept are anticipated among Boskalis’ clients and project owners, both in the Netherlands and internationally. Rijkswaterstaat has already expressed its interest in upscaling the application of the technology. De Vries added: “Wherever (coastal) erosion is a problem, this is an option that can serve as an alternative for conventional concrete defenses. It has the same technical function and performance but with much more ecological value.”

# ACCELERATING IMPACT THROUGH POSITIVE COLLABORATION

We see partnerships and collaboration as the backbone of our nature-based approach to protecting and enhancing coastal ecosystems. We will achieve much more by working together with others, sharing our knowledge and learning from each other.

Our longstanding collaborations with knowledge institutes and academic institutions enable us to benefit from the latest knowledge, add value to our work and better manage the biodiversity and climate risks presented by complex project environments. To this end, in 2022 we continued our formal collaborations with the global non-governmental organizations Wetlands International, the Hampshire & Isle of Wight Wildlife Trust, as well as our contribution to the work of EcoShape.

## **WETLANDS INTERNATIONAL**

Through the year we have maintained our valuable collaboration with the global non-governmental organization, Wetlands International. Together we continue to explore the potential to enhance and restore coastal wetland habitats, which not only support coastal protection, biodiversity and fisheries but also store some of the world's largest quantities of carbon. In line with our memorandum of understanding, we also consider a range of value propositions for Boskalis projects with regard to the promotion of best practices to enhance the sustainability of our maritime and dredging activities.

## **BLUE CARBON**

As an organization with longstanding experience of marine and coastal environments we believe we have an opportunity to explore ways in which we can avoid emissions and enhance carbon sequestration through the active protection or restoration of the wetland ecosystems where we work. At the same time, we are looking to determine to what extent projects with a blue carbon scope could be integrated in a credible way within our climate change mitigation strategy as we seek to become carbon neutral across our own operations by 2050.

Blue carbon refers to the organic carbon stored in marine and coastal ecosystems such as mangroves, salt marshes and seagrasses. These types of coastal habitats reduce the energy flow of the water and dampen waves and currents. As a result, any floating biomass or suspended sediment, with its associated carbon, is deposited onto the seabed where it is trapped under further layers of sediment, creating carbon storage, known as carbon sinks. If these ecosystems are disturbed, however, this stored carbon is rapidly released into the atmosphere. It is estimated that nature-based solutions, including the protection and restoration of these kinds of coastal ecosystems, could contribute as much as 12 billion tons to CO<sub>2</sub> mitigation efforts every year. Such activities also carry significant wider benefits for biodiversity and general societal well-being. Protecting and restoring global ecosystems in this way is considered critical to limiting global temperature rise to 1.5°C. And there is a potentially beneficial role for Boskalis in providing both the investment and expertise required in the run up to 2050.

During 2022 our focus has been to combine our own expertise and knowledge with that of Wetlands International and a new partner, Permian Global, to assess the potential benefits of establishing blue carbon projects. This includes exploring how such initiatives could help to address climate change and its consequences, as well as contribute to advancing best practices for climate action in the maritime dredging sector. Successful projects may also support a low-carbon future for Boskalis in line with the mitigation hierarchy and as a complementary measure to the company's emissions accounting, avoidance, and reduction efforts. During the year we completed a feasibility study and as a next step we want to develop a small-scale blue carbon project with the objectives to build knowledge about the risks and opportunities linked to blue carbon and optimize our efforts towards emission reductions, sequestration and the broader enhancement of biodiversity within marine ecosystems. In doing so we seek to shape and adhere to emerging quality standards and best practices.

### **HAMPSHIRE & ISLE OF WIGHT WILDLIFE TRUST (HIWWT)**

Over the last two years Boskalis Westminster in the UK has been working with the Hampshire & Isle of Wight Wildlife Trust (HIWWT) to undertake a seagrass restoration project within the Solent - a stretch of sea that separates the Isle of Wight from the southern coast of the mainland. Seagrass is a hugely important marine habitat but has suffered significant declines over the past century.

The Solent Seagrass Restoration Project began in April 2021 and directly contributes to Boskalis' Biodiversity Framework as we actively seek opportunities to contribute positively to the conservation, restoration and enhancement of natural environments through the provision of nature-based solutions.

Seagrasses are the only fully marine flowering plants and provide a number of environmental services – creating a vital habitat for wildlife, supporting fisheries, and preventing coastline erosion. Seagrasses can also store carbon in the seabed – a process known as blue carbon – up to 35 times faster than tropical rainforests. Globally they account for 10% of the ocean's total burial of carbon despite covering less than 0.2% of the ocean floor. Under the seagrass restoration project, marine wildlife experts and volunteers collect seagrass seeds and prepare them for planting using hessian

seed bags. The bags are then planted in the field to help restore the seagrass habitat. The project is being closely monitored so lessons learnt can help replicate the technique at scale within the Solent region and beyond.

### **ECOSHAPES AND BUILDING WITH NATURE**

Thirteen years ago, Boskalis established the EcoShape Foundation which executes the Building with Nature (BwN) program. Today EcoShape is recognized by multilaterals such as the UN and the World Bank as an expert on nature-based solutions and has become an enabler for such projects on the international stage. Over the last two years EcoShape's focus has therefore shifted to an international context, with the aim of upscaling and mainstreaming BwN through a broad range of international and local partners.

While the adoption of nature-based solutions is gaining momentum, this is not yet happening on the scale required to integrate global challenges like sea level rise and biodiversity degradation with the need for infrastructure development. Knowledge advancement and broader intersectoral collaboration is key to driving these innovations. Boskalis, together with other partners from the Dutch water sector, has therefore extended its investment in its partnership with EcoShape and is supporting a new five-year Building with Nature program that aims to further integrate nature-based solutions and infrastructure development through several pilots and knowledge development projects.

### **UN RECOGNIZES BUILDING WITH NATURE INDONESIA'S EFFORTS WITH WORLD RESTORATION FLAGSHIP AWARD**

The United Nations (UN) has recognized EcoShape's coastal protection project in Indonesia, in which Boskalis is a key partner, as one of the world's most successful examples of ecosystem and biodiversity restoration.

At the UN Biodiversity Conference in December 2022 in Montreal, the project was selected as one of the UN's inaugural World Restoration Flagships. It is one of ten such projects worldwide that is now eligible to receive UN support and funding. The project, which uses mangrove trees to form a natural barrier against the sea, is an example of how environmental advocates are mending damaged ecosystems across the planet.

Fokko van der Goot is program manager at EcoShape and a senior environmental engineer at Boskalis:

"We worked with the local community in Demak, on the coast of Central Java, to apply the Building with Nature approach to bring back the mangroves that had previously been cut down and make them aware of the benefits this offers: coastal protection, fish stock improvement and healthier and more sustainable fishpond management with higher yields. That we have succeeded in this, and to receive this recognition from the UN, is a great milestone."

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# MANAGING OUR IMPACT ON LOCAL COMMUNITIES



**We respect the rights of communities where we operate and are committed to being an active member of society. Engaging with and managing our impact on local communities is an important part of our work. In many cases we create socio-economic value through the infrastructure we deliver, as well as via local job creation, procurement and community investment. Where we can, we seek to enhance these positive impacts. At the same time, we aim to avoid or minimize any negative social impact of our activities by applying and continuously improving our management of social risks.**

#### **RISKS AND DILEMMAS**

- Given the temporary nature of our involvement in a local community, it can be hard to create and measure long-term impact
- As we are usually contracted to provide services for our client in a specific location, we can be limited in the scope we have to meaningfully engage with the local community
- Availability of suitably qualified local employees or suppliers
- COVID-19 restrictions in certain parts of the world meant traditional community engagement approaches were not always possible

#### **OPPORTUNITIES AND GOALS**

- The potential for infrastructure to contribute to socio-economic development
- To use our presence in communities to increase local knowledge, skills and employment potential
- Employment of local people and delivering fair wages, good labor practices and respect for human rights
- Work with our local subcontractors or suppliers on sustainability issues such as health and safety, environmental measures and human rights

SDGs identified by Boskalis that are closely related to topics covered within 'Managing our Impact on Local Communities':



# MANAGING OUR SOCIAL IMPACT

## OUR IMPACT AND MANAGEMENT APPROACH

The majority of our work takes place offshore, however, our operations can impact local communities at the coast or inland. This impact may be either positive — through the creation of jobs and opportunities for trade and economic growth — or, potentially, negative, through disturbance or changes to the local environment. Wherever possible we enhance the positive impact we can have and mitigate or offset negative outcomes of our work. Opportunities and risks that may be associated with our activities include:

- disturbance as a result of logistics and transportation;
- supply chain workforce welfare and human rights;
- impact on local livelihoods, indigenous peoples or cultural heritage;
- local job creation;
- training and education of local workforce.

The approach we take to managing potential social impact is in line with our Environmental and Social Policy, which aligns with the principles of the International Labour Organization and the OECD Guidelines for Multinational Enterprises. Each project is subject to a two-stage assessment process as follows:

- **The Environmental & Social (E&S) Impact Scan** enables us to apply a consistent approach to E&S management and thereby identify the projects that need our attention. The E&S Impact Scan is part of our quality management system, Way of Working. The scan supports the early recognition of environmental and social risks and opportunities associated with our intended designs and activities. By conducting the scan at the beginning of the tender phase or at an early stage in a project's development, we can more effectively incorporate the findings into the project process as well as improve allocation of specific resources and expertise.

During 2022 we reviewed and updated the Impact Scan to cover a broader set of E&S risks and opportunities and project requirements to better support early engagement with our clients and the incorporation of the outcomes within the project process.

- **The Environmental & Social Review process** standardizes the way we review environmental and social risks and opportunities in projects, once they have been highlighted by the E&S Impact Scan. The process structures requirements, risks and opportunities based on the IFC Performance Standards framework. This way Boskalis is better able to systematically review environmental and social requirements and prioritize and address potential environmental and social risks and opportunities.

In some cases our work is a small part of a larger project scope that has wider-reaching social impacts. As a contractor this can present a dilemma as we may have limited influence over our client or the local social or political context. In these situations we aim to work in line with the principles set out by the OECD Guidelines for Multinational Enterprises, exerting leverage to encourage social impact management practices in the chain. There are five areas to our social impact approach:

### SOCIAL RISK & OPPORTUNITY ASSESSMENT

We aim for early identification of social risks and opportunities as part of our standard risk and opportunities approach, to create awareness and to support an effective social management strategy at a project level.

### STAKEHOLDER ENGAGEMENT

Depending on the local stakeholder landscape, we develop a stakeholder management plan that may include on-site community liaison officers to engage with local communities and support stakeholder consultation processes.

### GRIEVANCE MANAGEMENT

Boskalis' Grievance Policy provides guidance for external stakeholders, who can bring forward any complaints to the appropriate entity for response. In addition, depending on the social-risk profile of the project, a specific project community and/ or worker grievance mechanism is put in place. This is used to channel grievances and complaints to the appropriate entity for response and any necessary management action.

### COMMUNITY CONTRIBUTION AND LOCAL DEVELOPMENT

We recognize our ability to stimulate positive community impacts through local job creation, local procurement, skills development and training. Where possible, we seek to benefit communities by maximizing these elements in our projects and seeking opportunities for community contribution.

### WORKER WELFARE AND HEALTH AND SAFETY

Our human rights and labor principles are a fundamental part of the way we do business. Through our safety behavior program, NINA, we take care of the safety, security and health of everyone involved in our activities. We apply fair employment practices and offer good and competitive terms of employment worldwide. We commit that our employees receive a living wage that covers their and their family's basic needs in their home country.

## AWARENESS AND CAPACITY BUILDING

In order to increase awareness and engagement on social and environmental impact we run two targeted training programs within the company.

- An interactive online sustainability and social impact training focusing on contracting and delivered to business leaders and specific project teams. The course covers our sustainability approach, Environmental and Social Policy and relevant (international) guidelines, alongside a case study and practical steps to apply these on our projects. During 2022 we completed a review of the training program and worked on an updated version that will include an Offshore Energy component and be rolled out within the divisions during 2023.
- A sustainability and environmental training for the international SHE-Q pool and business unit representatives within the Dredging & Inland Infra division. The training has been developed by the UK-based NGO Earth Active and builds on the above sustainability and social impact training to further develop team members' expertise in applying international standards (including IFC Performance Standards and ISO 14001) and wider sustainability principles. This training was also reviewed in 2022 and new sessions will be organized during 2023.

Through the year we also expanded our Environmental and Social Management Team and appointed a Director Sustainability at our headquarters in the Netherlands. We have also deepened our collaboration with external (national and international) consultants for the completion of independent Environmental and Social Impact Assessments on key projects.



Distribution of safety equipment in communities in the Philippines

# MANAGING IMPACT IN THE PHILIPPINES

In December 2020 Boskalis was awarded a contract by San Miguel Aerocity in the Philippines for the development of a land platform on which the client will build the new Manila International Airport. The facility will be located about 30 kilometers north of the capital, in the province of Bulacan, on the edge of Manila Bay.

Several years in the planning, the new airport will serve as a vital transport hub and provide much-needed relief to the congested Ninoy Aquino International Airport which puts significant strain on local infrastructure. The Manila Bay Area generates some 53% of the country's domestic product and is home to around 25 million people – or around a quarter of the Philippines' population – making it one of the most significant areas for the country's economic and social development. Meanwhile, the site for development consisted largely of abandoned diked aquaculture ponds and tidal mudflats which provide both an important stop-off for migratory birds on the East Asia – Australia flyway and a winter destination habitat for other species.

From the outset Boskalis recognized the extensive social and environmental complexities of the project. On finalizing the contract with the client we immediately commissioned international consultants to complete a gap analysis of the existing environmental and social due diligence. The analysis concluded that, at that time, the project complied with Philippines legislation but fell short of international standards. As a result, environmental and social impact assessments (ESIAs) for the multiple project components were then completed prior to execution with the aim of elevating the management approach to meet with international standards, including IFC Performance Standards and Equator Principles. Boskalis then set about developing detailed management plans to prevent or mitigate impacts during the construction of the platform. Following the award of the project, more than 12 months were devoted to completing the relevant ESIAs and management plans prior to the commencement of the platform operations.

Set against the challenging environmental and social context of the Manila Bay Area, certain aspects of the approach to managing the impacts of the project have been the subject of criticism by NGOs, most recently in early 2023. Boskalis acknowledges the complex operating environment and the challenges this has presented to the project. Since early 2021, we have worked with our partners



and client to devise and implement a range of environmental and social safeguards that support the effective management of the project's impacts. Besides taking a proactive role in managing environmental and social aspects of the project that fall within our direct scope, Boskalis has and continues to support the client on how they should manage their environmental and social scope, including the compensation program for local communities.

Over the last two years we have made significant progress on our plans. Based on periodic assessments by independent consultants working on behalf of the Dutch state's export credit agency Atradius DSB and the international banks funding the development, the project continues to meet international standards. Boskalis' and the client's respective responsibilities are clearly set out concerning the prevention, mitigation and remedy of any negative impacts of the project and we continue to use our presence and resources to benefit the local environment and community.

## COMMUNITY ENGAGEMENT

Over the course of several months Boskalis has applied its social impact approach to determine the implications of the project in the provinces of Cavite and Bulacan, which are home to local fishing communities. We subsequently worked to intensify the level of engagement with, and support for these communities in line with our resolve to minimize disturbance and enhance the positive impacts we can deliver through the project. Our efforts have included the creation of local jobs (see page 38), targeted skills development among the local population, safety-awareness creation and community conservation projects (see page 64).

From early in the planning phase, we sought to ensure open and regular channels of communication with the residents of 53 affected communities, known as "barangays". In the context of the global pandemic, particularly during the first half of 2021, this presented its own challenges as we were limited by an absence of face-to-face interaction. Early communication took place through the distribution of flyers and web-based platforms shared among community members.

We were later able to hire 40 personnel – known as Community Focal Points – across the affected barangays who speak the local language and are familiar with the culture and customs. They act as the formal interface between their communities and our eight Community Liaison Officers (CLOs). This engagement is further supported by regular community meetings in the barangays – more than 1,200 were held in 2022 – to share updates on the project and receive or respond to concerns. A weekly newsletter is also distributed with details of the location and nature of upcoming dredging activities, including any impacts on fishing activities.

"We have sought to fully understand the impact of the project, as it progresses, on peoples' daily lives," explained Sylvia Ernest, Social Manager at Boskalis. "It has been crucial to receive and understand concerns at the earliest opportunity so as to enable our team to adjust project activities or provide an effective solution."

A separate channel of engagement is provided through Boskalis' Stakeholder Grievance Mechanism which has been readily communicated to local residents via our Community Liaison

Officers and the Community Focal Points. The Grievance Mechanism provides a direct means for residents to lodge concerns and complaints about the project on a confidential basis and without fear of retaliation. Received grievances and their resolution are audited by an external party every quarter. Boskalis has welcomed the engagement received through this grievance process since it identifies problems at an early stage and enables the company not just to take action but also to pre-empt similar issues elsewhere.

"Our ability to respond to grievances promptly and effectively has helped to build local people's trust in us and the project," explained Ernest.

## SAFETY PROGRAM FOR FISHERFOLK

Given the reliance on fishing as a source of livelihood, Boskalis has adopted a range of measures to minimize interruptions to the work of local fisherfolk. In line with our own safety principles "No Injuries, No Accidents", we have developed a program to raise awareness about our activities and improve safety for the fishing communities. Approximately 40,000 safety devices have been distributed to ensure the approximately 3,000 local fishing vessels are visible offshore. Life vests and radar reflectors have been provided, as well as torches, LED lights and buoys to improve the visibility of fishing gear and prevent damage to nets. A Community Patrol Vessel is also deployed on a 24-hour basis to guide fisherfolk when they come too close to Boskalis' operations.

## BIODIVERSITY OFFSET

It was concluded from the ESIA's that the land platform's construction will have a detrimental effect on the wetlands and the resting and foraging areas used as a stop-off by the migratory birds. Over the last two years we have worked closely with expert consultants, Royal HaskoningDHV, local and international non-governmental organizations and globally recognized ornithology experts to fully understand the local habitats. We then set about creating temporary enhancement areas that host the migrating birds on the edge of the project site.

Together with our partners, we have undertaken numerous in-depth studies into the behavior, migration patterns, feeding methods and roosting requirements of the migratory birds. We have also developed a detailed understanding of the specific properties of this important habitat – such as food availability and water quality – that support the birdlife. In-house experts from Boskalis' Engineering Department then developed detailed biodiversity management plans in line with the mitigation hierarchy that, wherever possible, avoid impacts on the area and temporarily compensate for habitat loss on account of the land platform's construction until an alternative site is established.

Through a combination of our own in-house expertise and working closely with the client and other stakeholders, we continue to progress solutions for a range of environmental and social challenges associated with the project. Boskalis is proud to help realize plans for Manila's new international airport and thereby contribute to the future socio-economic growth of Manila Bay and the wider regions.

# COMMUNITY CONTRIBUTION IN PRACTICE



## SCOTLAND – SUPPORT FOR MENTAL HEALTH AND CHILDREN CHARITIES

During the year Boskalis Subsea Services in Aberdeen raised more than GBP 8,000 for the local charity, Mental Health Aberdeen. The charity was chosen by Boskalis staff who then participated in a number of initiatives – including a ten-kilometer running and obstacle race, hosting bake sales, raffles, Christmas Jumper Day celebrations and supporting a Mental Health Aberdeen quiz night – all to raise funds. Mental health is a critical issue and Boskalis colleagues feel the charity represents an opportunity to both contribute to awareness efforts while also benefiting from the charity's work and expertise in this area.

"It's definitely not a one-sided relationship with Boskalis just giving money to Mental Health Aberdeen," explained Carol Thomson, Management Assistant in our Aberdeen office. "We are really working together to increase awareness of mental health whilst supporting the charity. During the year the charity held an informative seminar for all our employees and further events are being arranged for 2023."

In 2022, Boskalis' Aberdeen office also continued its work on behalf of the Instant Neighbour Giving Tree Appeal that provides Christmas presents to approximately 13,500 children from deprived backgrounds in the northeast of Scotland. The initiative distributes new toys to children across Aberdeen and the wider county who otherwise would not receive a gift at Christmas. Those who benefit through the Giving Tree come from poorer families, many of whom struggle even to afford a traditional Christmas meal.

Between them, Boskalis employees in our Aberdeen office purchased gifts for one hundred children. During December they also supported the appeal further by wrapping and packaging items before they were sent out to the families. Boskalis also donated 100 chocolate selection boxes as well as soaps and shampoo with each Christmas parcel.

## THE PHILIPPINES – TURTLE CONSERVATION IN MANILA BAY

Boskalis is currently constructing a 1,700-hectare land platform for the new Manila International Airport in the Philippines. The project applies a range of environmental and social impact management practices in accordance with international standards (see page 62-63 for further details). In addition, Boskalis is undertaking several community initiatives, including structured support to conservation efforts to protect the Olive Ridley turtle which nests on beaches within Manila Bay and is classified as endangered in the Philippines.

During the latter part of the year Boskalis established a Turtle Scientific and Technical Working Group which has brought together representatives from local and national government, NGOs, nearby universities, and business to develop an extended turtle conservation program. In the initial phase, Boskalis is supporting a data collection and 'tagging' program through the provision of financial and in-kind support to local beach-patrols. Over time Boskalis also plans to support an education scheme to train beach-patrol groups on conservation and the proper handling of eggs.

"It is really important to develop local expertise and data gathering capacity in relation to the Olive Ridley turtles," explained Boskalis' Social Manager Sylvia Ernest. "We want to put existing conservation efforts in Manila Bay on a firmer financial footing and thereby enable the local community to benefit over the longer term."

"We are also investigating options for longer-term support including for the refurbishment and expansion of local hatcheries and the development of eco-tourism. These carry associated community benefits including employment and educational opportunities for local schools."





## **TAIWAN – OFFSHORE WIND CADETSHIP BOOSTS LOCAL PARTNERSHIPS**

In late-2022 Boskalis' local joint venture in Taiwan – BoWei – reached a milestone of 50 Taiwanese maritime crew and cadets that have been trained by or worked for the company on Taiwanese offshore wind farm projects. Several among the crew members have completed a flagship local cadetship program with Boskalis that has been developed in partnership with maritime academies in Taiwan and a local crew manning agency. BoWei works closely with National Taiwan Ocean University (NTOU) and National Kaohsiung University of Science and Technology (NKUST), to recruit and train young marine deck and engine room cadets. All trainees have gone on to work for Boskalis on Taiwanese offshore wind projects.

The cadetship was started two years ago and a select group of trainees has also benefited from the opportunity to travel to the Netherlands for specialized training at our headquarters in Papendrecht. Frank Chen is one of our cadets from the first batch of training and is currently 3rd officer of the Bokalift1 at our Changfang & Xidao wind farm project. “This cadetship program has been a rewarding experience for us and has paved the way for us for a future profession in the offshore wind industry,” he said. Local contractors and partners in Taiwan have expressed their appreciation for the knowledge and skills that the cadetship program brings to Taiwan’s offshore wind and maritime industry. Henry Hsu represents Samyogo Marine Co., a maritime consultancy in Kaohsiung City, South Taiwan, that works with BoWei.

“BoWei employs the finest Taiwanese crew members and assimilates their fleet of vessels into Taiwan by sending these young Taiwanese cadets to Europe to receive relevant trainings,” Hsu explained. “We can tell from these initiatives they are really invested in Taiwanese talent; they are investing in them for the longer term.”

Other subcontractors who have worked with Boskalis in Taiwan’s growing offshore wind industry view BoWei as a standout company in providing leadership and knowledge transfer to other companies in the sector.

“BoWei is a keen nurturing employer,” said Tian Bao Weng, chairperson of Bai Hai Tun Co. Ltd which works with Boskalis at our Changfang & Xidao project. “Sometimes we face a problem as we might not be familiar with the latest developments. But BoWei helps us to find a solution. We have learnt a lot about advanced equipment from the Netherlands and the latest technologies that they use.”

BoWei’s cadetship, together with other local initiatives, has seen it win several awards in Taiwan. In 2022 BoWei received the Taiwan Sustainability Award at the joint Taiwan Corporate Sustainability Award and Global Corporate Sustainability Forum ceremony in Taipei. The award recognized Boskalis’ knowledge-sharing with the local industry, its internship program and other environmental and social initiatives. BoWei has forged several partnerships to raise awareness about environmental issues in Taiwan and support efforts to reduce harbor pollution. In 2022, BoWei developed a partnership with Taiwan’s largest glass recycler, Spring Pool Glass, which recycles glass collected through organized clean-up initiatives.

## **THE PHILIPPINES AND BELIZE – DISASTER RELIEF**

In late-2021 large parts of the Philippines were left with a humanitarian disaster after a category five cyclone, known as Typhoon Rai, hit the country’s central and southern regions. Known locally as Super Typhoon Odette, it was the second most devastating typhoon in the country’s history and caused significant destruction. One of the locations that suffered most was Olango Island, which hosts the Philippines’ first Ramsar site with a suitable habitat for significant numbers of migratory shorebirds.

Boskalis has a longstanding presence in the Philippines. Early in 2022 we teamed up with two local non-governmental organizations on Olango Island to provide support to the victims of the tragedy. Working alongside Isla Paraiso and the ENR Youth Ambassadors, from February until April Boskalis helped organize a feeding program for 400 children across three different communities – or “barangays” – Pangan-an, Baring and San Vicente. We also provided assistance by donating materials and supporting the repair and rebuilding of homes in the San Vicente, Pangan-an and Sabang barangays. Local families were also given solar lighting for their homes.

Boskalis also supported a two-day youth camp on the island to increase awareness about the impacts of climate change and extreme weather events in the South Asia region.

“Boskalis decided to focus its support on Olango Island since both the island’s Ramsar Site and Boskalis share a long-standing relationship with Wetlands International,” explained Environmental and Sustainability Manager, Wayne Holden. “The island’s economy relies on ecotourism and had only just started recovering after the pandemic.”

In November 2022 Belize was hit by a hurricane which left large parts of the former capital, Belize City, flooded and without power. The category one hurricane reportedly affected around 170,000 people, forcing at least 5000 from their homes. Following extensive damage to peoples’ property Boskalis donated essential items in support of local relief efforts to the Department of National Emergency Management. These included cooking stoves, mattresses, towels, bed linen and vouchers to purchase food. All items were procured locally in order to support affected businesses.

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# RESPONSIBLE BUSINESS CONDUCT



The Fairway at work on the Manila International Airport project in the Philippines



We are committed to being a business partner that acts with integrity, reliability and responsibility. These are key elements for building trust between Boskalis and its stakeholders. We reinforce these intrinsic values by endorsing the principles of the International Labour Organization and the OECD Guidelines for Multinational Enterprises and by applying our Boskalis Code of Conduct. We regularly review our policies and codes of conduct to ensure that they keep pace with evolving practice and regulations. We use our leverage wherever we can to encourage responsible business conduct within the supply chain and audit compliance with our Supplier Code of Conduct.

#### RISKS AND DILEMMAS

- Our leverage in the value chain can be limited
- Large number and global spread of diverse suppliers due to project organization
- Limited availability and/or suppliers of industry specialized items

#### OPPORTUNITIES AND GOALS

- Being a responsible and reliable business partner
- Effectiveness in managing supply chain risks
- Further evolve our supply chain management

SDGs identified by Boskalis that are closely related to topics covered within 'Responsible Business Conduct':



# BUSINESS PRINCIPLES

## BOSKALIS CODE OF CONDUCT

Boskalis is a responsible multinational enterprise. Our purpose is to create and protect prosperity and advance the energy transition. We play a pivotal role in keeping the world moving both on land and at sea. The areas where we can make the largest contribution, both to the world economy and sustainable development, are tied to our business, our people and our activities. The company is committed to sustainable profitability and value creation for its shareholders. Boskalis wants to be an attractive employer and the client's first choice of contractor.

We are committed to conducting our business with integrity, honesty and fairness. We do this in compliance with applicable international and national laws and the Boskalis Code of Conduct.

The Boskalis Code of Conduct describes the guiding principles for our business conduct based on our core values, our commitment to our people, our clients, our investors, the environment and communities where we work. It describes our way of working and

behavior and has been designed to help all of us to make the right decisions in our daily work to improve our performance, build up trust with our stakeholders and safeguard our solid reputation.

The Boskalis Code of Conduct is based on international guidelines, including the Universal Declaration of Human Rights, the principles and the conventions of the International Labour Organization and the OECD Guidelines for Multinational Enterprises. Boskalis accepts responsibility for matters which lie within its sphere of influence. The Boskalis Code of Conduct applies to Boskalis, its subsidiaries and all its employees performing work for Boskalis.

We developed a set of underlying policies to the Boskalis Code of Conduct to elaborate upon certain important business principles. We review the Boskalis Code of Conduct and its underlying policies on a yearly basis to ensure that the content remains comprehensive, relevant and up to date. The last review has taken place at the beginning of 2023.



The employees of Boskalis receive a copy of the Boskalis Code of Conduct and its underlying policies when they start working for Boskalis. In addition, e-learning and targeted trainings are being organized to explain and train our people how to use them.

The full text of Boskalis Code of Conduct and its underlying policies are available on our corporate website and our intranet ('Bokanet').

### **SUPPLIER CODE OF CONDUCT**

The principles embodied in the Boskalis Code of Conduct are a fundamental part of the way we do business and we promote the same principles in our relationships with clients, suppliers and other business partners.

Boskalis has a Supplier Code of Conduct, which mirrors our own Code of Conduct. Besides considering quality, delivery reliability

and price, we also select our suppliers based on sustainability criteria. The Supplier Code of Conduct is an integral part of all procurement contracts. By entering into a contract, suppliers commit themselves to the Supplier Code of Conduct. This commitment is also applicable to their own suppliers. In 2022, 89% of our strategic suppliers endorsed the Supplier Code of Conduct, compared to 88% in 2021.

The full text of the Supplier Code of Conduct is available on our corporate website and our intranet ('Bokanet').

Each year, we conduct an implementation scan at a cross section of approximately 10% of our strategic suppliers. Suppliers that do not meet our standards are given the chance to improve under our supervision. In the absence of sufficient progress, we will eventually terminate our relationship with these suppliers. More details of this risk assessment matrix and the results over the past years are given on page 72-73.

## **OUR CORE VALUES – OUR COMPASS**

**We strive to be the leading dredging and marine contracting experts, creating new horizons for all our stakeholders. Our five core values guide us in achieving this mission.**

### **SAFETY**

Our people and their safety is the core of our success. Safety is the top priority in everything we do. Our behavioral safety program NINA targets No Injuries, No Accidents to safeguard our colleagues and suppliers.

### **TEAMWORK**

By working together we create new horizons. We approach our complex and specialist work with a collective mindset and the objective to excel. Collaboration within teams and cooperating with clients, suppliers and other stakeholders allows us to get the job done.

### **PROFESSIONALISM**

We strive to achieve the best results for the job without making promises we cannot deliver. With our expertise and

experience in project management, operations and risk management we seek to deliver our projects safely, on time and within budget.

### **ENTREPRENEURSHIP**

We offer innovative, competitive and sustainable solutions for our clients. With our strong business sense, we are forward thinking, exploring new ideas and opportunities. We take pride in creating new horizons.

### **RESPONSIBLENESS**

We are committed to conduct our business with integrity, honesty and fairness. Integrity is a prerequisite for success and an important cornerstone of our reputation. The impact of our activities on society and the environment is a key element in the way we conduct our day-to-day business.

## ANTI-BRIBERY AND ANTI-CORRUPTION POLICY

The Boskalis Anti-Bribery and Anti-Corruption principles are enshrined in the Boskalis Code of Conduct and elaborated upon in its underlying Anti-Corruption and Anti-Bribery Policy. Boskalis does not tolerate any bribery and corruption or any fraud or money laundering. Boskalis shall not offer, pay, request or accept bribes, facilitation payments or other favors for the purpose of acquiring or giving any improper business, financial or personal advantages.

In many countries where Boskalis operates it is impossible to conduct activities without a local partner or sponsor. The guidelines for collaborating with such a partner are set out in a contract, which also specifically includes the principles from the Boskalis Code of Conduct as described above. Local contacts may be maintained by an agent, who also assists in the efficient setting up and execution of projects. Control of integrity risks and compliance with the internal procedures for concluding agent contracts are part of the internal audits.

## ENVIRONMENTAL AND SOCIAL POLICY

The environmental and social guiding principles of Boskalis are part of the Boskalis Code of Conduct and detailed in the Environmental and Social Policy. Boskalis strives to be a leader in sustainability in the dredging, offshore contracting and marine services industries. We aim to create long-term sustainable profitability by managing our business and projects responsibly, adding social, environmental and economic value wherever we can, and leveraging our ability to influence and innovate. This commitment is founded in our ambition to contribute to the United Nations Sustainable Development Goals. Boskalis aligns its business practices with the United Nations Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises. We comply with the applicable environmental and social national and international laws.

## HUMAN RIGHTS AND LABOR POLICY

The Boskalis Code of Conduct includes the commitment that Boskalis respects and supports the dignity, well-being and human rights of our employees, the communities we work in and everybody involved in our operations. We have a Human Rights and Labor Policy that sets out the guiding principles for Boskalis to conduct its business, which is developed in line with the United Nations Universal Declaration of Human Rights, the UN Guiding Principles on Business and Human Rights, the OECD Guideline for Multinational Enterprises and applicable national and international labor laws, including the conventions of the International Labour Organization. We seek to identify adverse impacts related to human rights and labor caused by our business activities before they occur and take appropriate steps to avoid, cease, minimize or mitigate them.

## SANCTIONS POLICY

Boskalis does not perform any activities that are subject to international and/or national sanctions and does not have dealings with sanctioned persons. In addition, we follow the laws concerning export control for military and dual-use goods and services. The guiding principles regarding sanctions are laid down in the Boskalis Code of Conduct and our Sanctions Policy.

## TAX POLICY

The payment of taxes forms an important part of our contribution to the countries and communities in which we operate. Our approach to tax supports the purpose and the corporate business strategy of Boskalis. Our Boskalis Code of Conduct and the underlying Tax Policy reflect our guiding principles that we are responsible taxpayers managing our tax affairs accurately and transparently to the letter and the spirit of the applicable tax laws and regulations. Boskalis supports the OECD initiatives to promote tax transparency and reform of international tax regulations to end tax avoidance strategies and to come to fair tax systems. As part of the yearly review of the tax policy, we conduct various dialogues with external stakeholders, including investors.

## SPEAK UP POLICY

Boskalis has a Speak Up Policy in place that offers employees the possibility to report (suspected) misconduct within the company. The Speak Up Policy is developed in line with international and national applicable laws and the OECD Guidelines for Multinational Enterprises. Under the Speak Up Policy a report of (suspected) misconduct can be made on any subject of a general, financial or operational nature which is not in line with the Boskalis Code of Conduct. A confidential and independent counselor has been appointed for the purposes of the Speak Up Policy. Employees also have the possibility to consult a female counselor. Such a report can be made anonymously and on a 24/7 basis. The counselor shall take the reported suspected misconduct into consideration immediately and gain information in relation to this. Based on this information the counselor shall decide which actions are appropriate and necessary, including a possible investigation on the reported misconduct. The employee who has in good faith reported the suspected misconduct to the counselor, in accordance with the Speak Up Policy, shall not suffer any retaliation or detriment as a consequence of making a report.

## GRIEVANCE POLICY

Boskalis strives for open and clear communication with our various external stakeholders and is open to suggestions, ideas, complaints, grievances and criticisms. The Grievance Policy describes how we offer our external stakeholders the possibility to bring forward any grievance without the risk of any retaliations. Grievances may be treated on a confidential basis upon request and can be made anonymously on a 24/7 basis.





The Willem van Oranje trailing suction hopper dredger undertakes reclamation works at the Maaslakte 2 project, the Netherlands

# RESPONSIBLE SOURCING

## OUR SUPPLY CHAIN

Our relationships with our suppliers are fundamental to the success of our business – as well as to the realization of our sustainability ambitions. We set high standards for our suppliers and our contractual expectations regarding their approach to environmental, social and governance risks are outlined in our Supplier Code of Conduct.

Each year we perform an Implementation Scan at a selection of our contracted suppliers to monitor compliance with the Supplier Code of Conduct. Due to some enduring restrictions imposed on account of the pandemic, this year the Implementation Scans were conducted through in-person visits where possible, and partly through online meetings. Visits that were conducted remotely included a digital tour of the relevant facility.

Our central procurement office maintains relationships with approximately 1,500 direct suppliers. Of these, 82% are based in the Netherlands, 14% in other European countries and 4% outside Europe. The number of our suppliers varies from year to year based on the profile of our current projects. In 2022, a total of 201 of our suppliers were strategic partners, who together accounted for around 90% of central purchasing volume.

## PRE-QUALIFICATION PROCESS

Boskalis implements a standard and transparent prequalification process that our suppliers are required to complete prior to doing business with us. The pre-qualification process includes acceptance of our Supplier Code of Conduct and completing our sustainability questionnaire which is designed to increase engagement with suppliers and subcontractors on a range of environmental, social and governance issues. Our pre-qualification process is included in our Way of Working quality management system. Based on objective risk criteria, suppliers may also be required to complete a detailed prequalification assessment in one or more of the following areas: Health and Safety, Quality, Environmental, Corporate Social Responsibility, Financial/Insurance, or Supply Chain Management.

## OUR SUPPLIER CODE OF CONDUCT

Besides selection criteria such as quality, delivery and reliability, our central procurement department requires suppliers to accept and adhere to our Supplier Code of Conduct. In 2022, the Supplier Code of Conduct was updated as part of a broader policy review and the revised version was shared with all contracted suppliers. Our approach incorporates the principles of the Dutch Expertise Network for Procurement and Supply Management (NEVI) Code of Conduct, which helps procurement professionals deal with the ethical dilemmas they face as part of the procurement process. Our Supplier Code of Conduct sets out our expectations of suppliers' environmental and social performance. It mirrors our own Boskalis Code of Conduct and is an integral part of our General Purchasing Terms and Conditions, (available at [boskalis.com](https://boskalis.com)), and of central

procurement contracts. On signing a contract, suppliers commit themselves to the Supplier Code of Conduct. In 2022, 89% of our strategic suppliers (by spend) endorsed the Supplier Code of Conduct. In addition to the Supplier Code of Conduct, we work with our suppliers on a number of collaborative sustainability initiatives, such as:

- research, validation and implementation of cleaner engines;
- environmentally friendly fuels;
- energy savings;
- human rights and responsible business conduct;
- sustainable dismantling of our vessels;
- cradle-to-cradle and recycling concepts.

## IMPLEMENTATION SCANS

In addition to the pre-qualification process completed by our suppliers, Boskalis also commissions a third party to conduct annual Implementation Scans at a selection of our contracted suppliers to verify compliance with our Supplier Code of Conduct. Since 2012, Implementation Scans have been carried out at 160 suppliers, with 54 visits to foreign suppliers located in 20 countries, including Vietnam, China, Singapore, United Arab Emirates, Turkey, and Tunisia. Past experience suggests that this process contributes to improvements in the sustainability standards and processes adopted by our suppliers.

The scans comprise a sustainability questionnaire based on our Supplier Code of Conduct, as well as a separate audit and risk assessment. The reporting format is based on the socially responsible procurement method of the Chartered Institute of Purchasing and Supply. Where any causes for concern are identified by the scan, our suppliers receive a set of recommendations which support improvements in their sustainability approach. If insufficient progress is made over time, this may lead to the termination of our relationship with that particular supplier.

## 2022 IMPLEMENTATION SCAN RESULTS

This year 20 suppliers were reviewed. Of these, 14 were new suppliers and six were suppliers that had been reviewed previously. Of the recurring visits we found that all suppliers but one had improved their risk profile since the previous scan. As well as the overall risk assessment for each supplier, we receive a qualitative report from our third-party auditors. This covers the steps our suppliers have taken or are developing on sustainability, including but not limited to safety, environmental management, effective governance and responsible business conduct, protecting human rights and limiting their carbon emissions. The reports also indicate how our business partners are approaching sustainability risks with their own suppliers. In this way, we gain a more complete understanding of the risks and opportunities through our value chain and develop a platform to both strengthen our supplier relationships and improve performance in the future.

## SUSTAINABLE RECYCLING

Our approach to ship dismantling is embedded within our Environmental and Social Policy and is focused on safe and sustainable dismantling. We follow existing international legislation and regulations in this area and have been repeatedly recognized as an industry leader by the NGO Shipbreaking Platform. Our vessels are dismantled by third parties and prerequisites for our policy include: strict safety requirements, a hard surface on which to dismantle the vessel, and responsible disposal of waste. For each vessel, the possibilities for responsible dismantling locally are assessed and weighed against the environmental and other costs of transporting it over a long distance, for example to a certified ship dismantling yard in Europe. Where relevant, agreements are made with local yards in close consultation with the NGO Shipbreaking Platform to adapt business processes in such a way that they meet Boskalis' stringent requirements.

During the ship dismantling process, knowledge is shared with local yards. Vessels are dismantled at certified shipyards in accordance with the Hong Kong Convention and Boskalis' own standards. For 500 GT+ vessels that will be dismantled or are offered for sale, we draw up an Inventory of Hazardous Materials (IHM). In the event a vessel is sold, we incorporate the sales contract for future dismantling; the new owner must also do so in accordance with the Hong Kong Convention. In 2019 the EU Ship Recycling Regulation (EU SRR) came into effect. The EU SRR sets out strict procedures for the recycling of European flagged ships, both covering the method of waste processing as well as designating specific facilities for the recycling procedures. The EU SRR coexists next to the EU Waste Shipment Regulation, which applies to non-EU flagged ships which are situated within the EU. Boskalis follows these regulations.

In 2022, Boskalis sold a number of vessels. During the year we recycled the Boka Installer at a facility in Ghent, Belgium and the Java Walrus at a ship breaking yard in Ras Al-Khaimah, United Arab Emirates.

## IMPLEMENTATION SCAN 2022



- Dialogue necessary (1 and 2): constant coordination and continuous dialogue with the supplier with regard to sustainability
- Persuasive communication (3): focused on convincing the supplier to take measures in the area of sustainability
- Informative communication (4): explaining the reasons behind the Boskalis sustainability policy to enable an organization to adopt this internally
- Standard communication (5): general discussions on sustainability; keeping up to date on each other's developments

# GOVERNANCE

Boskalis operates with the Board of Management and the Supervisory Board a two-tier Board model, which means that management and supervision are segregated.

The Board of Management is responsible for the day-to-day management of the business, the continuity of the company and for setting out and realizing the company's strategy for the long-term as for the culture, opportunities and risks and the results of the company. The Board of Management is responsible for establishing the company's objectives, implementing its business policies and for the resulting performance. The Board of Management is accountable to the Supervisory Board and the General Meeting of Shareholders. In performing its tasks, the Board of Management is guided by the interests of the company and its activities, the markets the company is operating in, and takes into account any relevant interests of parties involved with the company. The Board of Management performs a biennial materiality assessment to identify the topics important to the business and its stakeholders. The outcome of this assessment is used in the formulation of the company's strategy for the long-term and in particular sustainable growth. Please refer to page 12-15 of this report.

The Supervisory Board is responsible for supervising the Board of Management on the formulation and implementation of the strategy for the long-term. Furthermore, the Supervisory Board is responsible for supervising management performance regarding the general affairs of the company and advising the Board of Management. In doing so the Supervisory Board also focuses on the effectiveness of the company's internal risk management and control systems and the integrity and quality of the financial reporting. The Supervisory Board is supported in its work by three core committees: the Audit Committee, the Nomination & Remuneration Committee and the ESG Committee. For a summary of the activities of the Supervisory Board, please refer to page 16-19 of Boskalis' Annual Review.

At Boskalis there is close collaboration between the Supervisory Board, its committees and the Board of Management. The Board of Management and the Supervisory Board are jointly responsible for looking after the interests of our stakeholders.

The company has a Group Management, consisting of the members of the Board of Management and the Group Directors. The Group Management meets on a regular basis in order for the



Board of Management to obtain a full overview of the activities in the divisions of the company, to align the day-to-day management across the company and to ensure optimal exchange of information between the divisions.

Our stakeholders are those groups and individuals that directly or indirectly influence the company's activities or are influenced by them. They include the employees, shareholders and financial institutions, suppliers, clients, government bodies, educational and knowledge institutes, industry and society associations (including NGOs) and the communities in which Boskalis operates.

At least one General Meeting of Shareholders takes place every year. Its tasks include the adoption of financial statements, and it holds authority with regard to the appointment and dismissal of Supervisory Board members and the members of the Board of Management.

The interests of employees are promoted by the Works Council, which provides ongoing employee representation as required under the Dutch Works Councils Act.

The guiding principles and values relating to our business activities are set out in the Boskalis Code of Conduct and its underlying policies as well as in the Supplier Code of Conduct. These codes set out clearly the business ethics for employees and suppliers of Boskalis describing how they should conduct themselves with regard to, for example, legislation and regulations, human rights and labor, anti-corruption, sanctions, competition, the environment and communities, health and safety, staff and quality. Both codes can be found on the company's website. Boskalis reviews the Boskalis Code of Conduct and the Supplier Code of Conduct on a yearly basis.

In addition, the core values and rules for safety at work are set out in our safety program, No Injuries, No Accidents (NINA). The Board of Management regularly stresses the importance of complying with the Boskalis Code of Conduct and the NINA principles. The Board of Management also provides employees with the opportunity to report any suspected misconduct within Boskalis of a general, financial, operational and employment nature which is not in line with the Boskalis Code of Conduct to a confidential independent counselor, without jeopardizing their legal position in accordance with the Speak Up Policy.



Furthermore, Boskalis offers through the Grievance Policy its external stakeholders the possibility to bring forward their suggestions, ideas and grievances. The Speak Up and Grievance Policies can both be found on the company's website. The Articles of Association of Boskalis set forth aspects of the governing principles regarding the company related to among others, the seat, the objects, the capital and shares of the company as well as its governing bodies, the financial year, the annual accounts and loss and profit.

Boskalis is no longer listed at Euronext Amsterdam as from 9 November 2022. Therefore the Dutch Corporate Governance Code (the "Code") is no longer applicable to the company.

In the governance of Boskalis the topics 'long-term strategy', 'culture' and 'diversity' are important to note.

## LONG-TERM STRATEGY

Boskalis focuses on its long-term strategy and the continuity of the company through its purpose and mission. The purpose of Boskalis is to create and protect prosperity and advance the energy transition. The mission is that the company strives to be the leading dredging and marine contracting experts, creating new horizons for all its stakeholders. This view of the Board of Management on the long-term strategy is translated into a corporate business plan, which is formulated by the Board of Management on a thorough review of Boskalis' markets and business lines. The Supervisory Board is fully engaged in the formulation of the strategy and the Corporate Business Plan and oversees its implementation.

In the development of the strategy and the corporate business plan attention is paid to the implementation and its feasibility, the underpinning business models and assumptions, the opportunities and risks for the company, its operational and financial goals and their impact on the position of Boskalis on future relevant markets, the interests of the stakeholders, as well as environmental, social matters and governance matters as well as business ethics.

For a detailed description of Boskalis' long-term and sustainable growth strategy, as well as the latest Corporate Business Plan, please refer to page 10-12 of Boskalis' Annual Review.

## CULTURE

At Boskalis our purpose is to create and protect prosperity and advance the energy transition. We seek to foster a culture in which our employees identify strongly with our purpose and embrace the core values of the business. A strong culture builds cohesion and enables our people to develop and achieve mutual goals, thereby contributing to the long-term success of the company.

We are committed to promoting an inclusive culture aligned with our core values of safety, teamwork, professionalism, entrepreneurship and responsibility. To support such a working environment, we rely on the leadership and tone set by senior management as well as regular engagement with our staff. This is further bolstered by aligning our performance review framework

around our core values. Through periodic employee engagement surveys, we monitor aspects of our culture and the extent to which they align with our values and purpose. For further information please refer to page 37 of this report.

Boskalis places a strong emphasis on integrity and business ethics, an area where we are further increasing our engagement with staff through training and e-learning around our Responsible Business Principles and Code of Conduct. As a project-based organization, with a global footprint, we rely on the highest ethical standards and levels of trust among individuals and teams working in complex operating environments. The Supervisory Board has been involved in the formulation of the Responsible Business Principles and the Boskalis Code of Conduct and discusses its implementation and effectiveness with the Board of Management on a regular basis. Further information on the Boskalis Code of Conduct, its underlying policies and the core values are to be found on page 68-70 of this report.

Our NINA safety program instills an acute awareness across our workforce of people's own responsibility regarding safety matters and provides a set of behavioral tools to assess and manage risks. NINA and its targeted training programs support a culture of responsibility and proactivity that goes far beyond safety.

This is mirrored in our approach to talent development in which we offer employees a range of tools and resources to grow their skills and develop their careers. Please refer for more information on Boskalis' safety culture to page 30-33 of this report. The safety program has the continuous attention of the Board of Management, and its effectiveness is a standard topic of discussion within the meetings of the Supervisory Board.

The culture within the company, the values, the Boskalis Code of Conduct and the work and safety culture programs are also standard topics on the agenda of the meetings with the Works Council. Members of the Supervisory Board are regular attendees at these meetings.

In the opinion of the Board of Management and the Supervisory Board the culture within Boskalis supports its purpose and mission to create long-term value for all stakeholders and delivers good results in compliance and effectiveness.

## DIVERSITY

Boskalis relies on a team of dedicated, experienced professionals to achieve its ambitions. That is why Boskalis is committed to creating a diverse and inclusive workplace that challenges and inspires the employees to build their careers and achieve their potential within Boskalis. Boskalis is an international employer that attracts and selects the best talent from around the world to maintain its position as a frontrunner in the industry. The importance of diversity is reflected within the Boskalis Code of Conduct and the underlying Human Rights and Labor Policy.

Boskalis does not accept discrimination in the workplace and has a strong practice throughout the organization of equal opportunities for all regardless of race, color, nationality, ethnic background, age, religion, political opinion, gender, pregnancy,

sexual orientation, marital status, disability, trade union membership or any other characteristics protected by applicable law. The employee population, partly due to the nature of its business activities is predominantly male, especially in the core processes on the fleet and in the projects. To create a more balanced representation of gender on the work floor, Boskalis aims to attract, retain and promote women for and throughout the organization. Boskalis ensures that its job descriptions are gender neutral. The recruitment process is based on an Objective Assessment Model, setting profiles based on competencies without prior knowledge about the applicant to prevent unconscious bias on gender, age or ethnicity. Internal and external recruiters are specifically tasked to identify and submit capable female candidates. In the management development and trainee programs special attention is paid to eligible female candidates.

In line with the Boskalis Code of Conduct and the underlying Human Rights and Labor Policy, the Supervisory Board has drawn up a diversity policy and plan for the composition of the Board of Management, the Supervisory Board and the senior management explaining the company's broad view on diversity, whereby the principle of the best person for the job is leading. This Diversity Policy is in accordance with the Act to improve gender diversity in the boards of Dutch companies and to include a plan on the incorporation of more diversity within the Board of Management, the Supervisory Board and the senior management.

As described in the Diversity Policy, the composition and size of the Board of Management are based on the profile and strategy of the company. The expertise, experience and various competencies of the members of the Board of Management should contribute to this profile and strategy. The goal for the composition of the Board of Management is to aim as much as possible for a diverse composition, whereby for every appointment the principle of the best person for the job is leading. The employee population of Boskalis, partly due to the nature of the business activities, is predominantly male, especially in the core processes on the fleet and in the projects. The current Board of Management with four male members can be seen as a reflection of that employee population. In the year under review no changes occurred in the composition of the Board of Management. The Supervisory Board has decided to aim to improve the gender diversity of the Board of Management with the appointment of at least one female member to the Board of Management in or before 2025.

Ultimo 2022, 14% of the senior management team of Boskalis is female. Boskalis has decided to adopt a target to improve gender diversity of its the senior management; with this target the percentage of female leaders will be increased to 20% in or before 2025.

The composition and size of the Supervisory Board are also based on the company's profile and strategy. As stated in the profile of the Supervisory Board and the Diversity Policy, the expertise, experience and various competencies of members of the Supervisory Board should contribute to proper supervision of the company's management and general performance. The goal for the composition of the Supervisory Board is to aim as much as possible for a diverse composition, where possible taking into account the statutory requirements and the requirements related to

education and experience contained in the Diversity Policy. Per ultimo 2022 this resulted in four members of the Supervisory Board being male and two members being female. In view of the objective of achieving a balanced representation on the Supervisory Board, emphasis is placed on diversity when drafting the profile for new members of the Supervisory Board. In the year under review no changes occurred in the composition of the Supervisory Board. The current composition of the Supervisory Board is in line with the Act to improve gender diversity in the boards of Dutch companies. The Supervisory Board will continue to adhere to the requirements of the Act to improve gender diversity in the boards of Dutch companies in its future selection- and appointment procedures for the Supervisory Board.

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# APPENDIX







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# ABOUT THIS REPORT

## PURPOSE AND SCOPE OF THE REPORT

We have been reporting on our sustainability approach, performance and results in a separate annual Sustainability Report since 2009. The scope of our sustainability reporting is based on the information requirements of our key stakeholders. Our key stakeholders have an influence on our license to operate and may be significantly impacted by our activities. In order to ensure that our approach to sustainability meets with the priorities of our stakeholders we update our materiality analysis on a biennial basis, most recently in 2021. We also keep track of key environmental, social and governance developments within our industry, as well as our reporting obligations as a company.

The Sustainability Report sets out the key elements of our updated business strategy and how we integrate sustainability across our activities, a process informed by our materiality assessment and our broader management of our environmental and social impact. The report provides details about how we manage the risks and opportunities related to our principal sustainability topics and, where possible, gives measurable indicators of our performance and impacts.

The Sustainability Report includes sustainability data from entities that are fully or majority owned by Boskalis and from joint ventures in which Boskalis has a controlling interest. Boskalis also relies on a significant number of subcontractors to perform daily activities. Boskalis acknowledges its responsibility for the safety of its subcontractors and they are therefore included in its safety performance reporting. Divestments are reported in accordance with the financial reporting rules for consolidation. This means that acquisitions are reported as from the moment control (ownership) is acquired. Divestments are reported up to the moment that control is relinquished.

## REPORTING PROCESS

The Sustainability Report is compiled by a multidisciplinary team under the responsibility of the Board of Management. Its content was discussed with the Supervisory Board. The consolidation of sustainability data takes place at successive levels, starting with the projects and local office organizations, moving up through the relevant business units and staff departments and ending with the consolidated group reports. This is based on quarterly reporting via a dedicated online SAP-based reporting tool, which is monitored by our Group Accounting & Reporting department, in close consultation with our Corporate Communications department that is responsible for the production of the Sustainability Report. In addition, as in previous years, a number of internal audits were conducted on material sustainability topics and indicators in 2022. Although we are confident that our internal audit ensures

a reasonable level of data reliability, we have our sustainability information verified to a limited level of assurance by an external accountant.

## REPORTING PRINCIPLES

Our Sustainability Report and sustainability data is prepared in accordance with our reporting principles, which are based on national and international reporting guidelines. KPIs are selected on the basis of interactive stakeholder dialogue and the strategic issues relevant to Boskalis' operations.

## EXTERNAL VERIFICATION

The information contained in this report faithfully represents the outcome of systematic data gathering and analysis. As in previous years, Boskalis appointed an external assurance provider to verify its key sustainability metrics. Please refer to page 89 for the assurance report and conclusion of our external assurance provider.

## METHODS OF ESTIMATION, MEASUREMENT AND CALCULATION

We use generally accepted protocols to compile, measure and present information. We aim to ensure reliability of our reported data by performing internal audits and externally verifying our data. However, due to generic challenges in the data collection process and the nature of sustainability data, there are limitations associated with measuring and calculating data. Here we elaborate on the methodology, calculations and inherent limitations of the data.

## HR DATA

The detailed HR data in this report covers our own employees and excludes those of joint ventures and employees seconded from other companies to Boskalis (e.g. Anglo Eastern crew). For our detailed HR reporting, please refer to page 86.

## **CO<sub>2</sub> DATA**

The CO<sub>2</sub> data covers all fuel consumed by vessels of the Dredging & Inland Infra and Offshore Energy divisions as well as our onshore dry earthmoving equipment in the Netherlands. ISO and ISM standards are used for the conversion of fuel to CO<sub>2</sub>. The following ISO and ISM standards are used for the conversion of fuel to CO<sub>2</sub>:

- Conversion of MT of vessel fuel to CO<sub>2</sub> takes place according to IMO Resolution MEPC.212(63), using the following conversion factor per MT of fuel:
  - MGO/MDO 3.206 MT CO<sub>2</sub>
  - VLSFO/HFO 3.114 MT CO<sub>2</sub>
- Conversion of MT of fuel for onshore equipment to CO<sub>2</sub> takes place according to the conversion factors published by the Netherlands' Ministry of Economic Affairs and Climate Policy.
  - Diesel 3.0171 MT CO<sub>2</sub>
- Conversion of m<sup>3</sup> of biofuel to CO<sub>2</sub> takes place according to DEFRA carbon emission factors, using the following conversion factor per MT of fuel:
  - Biofuel 0.04562 MT CO<sub>2</sub>

The energy use and associated CO<sub>2</sub> emissions from our offices in the Netherlands are from renewable sources and are therefore excluded from the CO<sub>2</sub> data in this report.

## **SAFETY DATA**

Our safety data covers all our own employees, including subcontractors that work under our supervision. Lost Time Injury (LTI) expresses the number of workplace accidents serious enough to result in absence from work. Lost Time Injury Frequency (LTIF) expresses the number of workplace accidents resulting in absence from work per 200,000 hours worked. The LTIF overview on page 85 shows a breakdown for the various divisions. In addition to LTIF, we also provide the Total Recordable Injury Rate (TRIR). TRIR is composed of LTIs, Medical Treatment Cases and Restricted Work Cases, per 200,000 hours worked.

## **SUPPLY CHAIN DATA**

The supply chain data refers to the procurement spend by the strategic suppliers of the Central Procurement department. A total of 201 of these suppliers are regarded as strategic partners who account for some 90% of the Corporate Procurement department's purchasing volume.

## **REVENUE PER PRIORITY SDG**

For revenue mapping to the SDG's, each project is assigned a pre-determined sustainability tag. A project can only have one sustainability tag. Even if a project contributes to multiple SDG sub-targets, there is no disaggregation of revenue within a project to multiple tags; the largest revenue share determines which tag is applicable to any given project. There is one exception: SDG 8 Decent Work and Economic Growth. In principle, all projects contribute to this overarching SDG. Per SDG, the following types of projects are presumed to contribute to the SDG goals:

- SDG 7 - Affordable and Clean Energy: includes all activities and services primarily related to energy transition including renewables, (natural) gas, and all decommissioning related activities;
- SDG 9 - Industry, Innovation and Infrastructure: includes all activities and services primarily to the maintenance and/or development of maritime infrastructure such as ports, land reclamation, inland infra such as road related developments;
- SDG 13 - Climate Action: includes all activities and services primarily related to adaptive measures against climate change such as protection of land from flooding, development of polders and dike related activities;
- SDG 14 - Life Below Water: includes all activities and services primarily related to the salvaging of vessels;
- SDG 8 - Decent Work and Economic Growth: in principle, all activities and services contribute to SDG 8.

## **TURBIDITY EXCEEDANCES**

This relates to the number of exceedances of turbidity limits, that resulted in operational downtime, recorded on projects with a turbidity scope. Such exceedances are related to dredging operations as opposed to other factors, such as weather.

## **SPILLS DATA**

Our spills data covers all oil and fuel spills originating from (majority) owned and operated vessels where the quantity of the spill is more than a barrel of oil or fuel into the marine environment.

## **PUBLICATION DATE**

The Sustainability Report 2022 was published at the same time as the Annual Review 2022 on 9 March 2023 on the corporate website.

## **CONTACT**

Any suggestions you may have for improving our sustainability policy or the way we report on it are greatly appreciated. We are happy to engage with you on this subject, in which case you are kindly requested to contact:

Simon Jennings  
Sustainability Manager  
Telephone: +31 78 6969310  
Email: sustainability@boskalis.com  
Website: www.boskalis.com/sustainabilityreport

# EU TAXONOMY

The EU Taxonomy Regulation sets out a basis for a classification system currently being developed with the aim of providing companies, investors and policymakers with appropriate definitions for which economic activities can be considered environmentally sustainable. To be recognized as such, economic activities will have to make a substantial contribution to at least one of the EU's climate and environmental objectives, while also doing no significant harm to the others and meeting a prescribed set of minimum social safeguards.

The Taxonomy Regulation establishes the following six environmental objectives:

- Climate change mitigation;
- Climate change adaptation;
- The sustainable use and protection of water and marine resources;
- The transition to a circular economy;
- Pollution prevention and control;
- The protection and restoration of biodiversity and ecosystems.

The Taxonomy Regulation identifies environmentally sustainable economic activities based on technical screening criteria which are set out in so-called accompanying delegated acts. In December 2021, the European Council approved the Climate Delegated Act which contains technical screening criteria for activities that contribute substantially to the climate change mitigation and adaptation objectives. A second delegated act – the Environmental Delegated Act – concerning the technical screening criteria for the remaining four environmental objectives, has not been published in its final form.

Companies reporting under the EU Taxonomy should report on the 'eligibility' of their economic activities under the Climate Delegated Act. In this context, eligibility means that an activity is included in this delegated act and thus has the potential to make a substantial contribution to the environmental objectives of the Taxonomy Regulation. Companies should also report on the 'alignment' of their economic activities. Taxonomy-alignment of an activity goes beyond eligibility and implies that an activity fully complies with the technical requirements and social safeguards enumerated for this activity.

CLIMATE DELEGATED ACT	PROPORTION OF REVENUE	PROPORTION OF CAPITAL EXPENDITURES	PROPORTION OF OPERATIONAL EXPENDITURES
<b>A. TAXONOMY ELIGIBLE AND ALIGNED ACTIVITIES (CODE)</b>	15-20%	15-20%	15-20%
<ul style="list-style-type: none"> <li>• Installation, maintenance and repair of renewable energy technologies (7.6)</li> </ul>			
<b>B. TAXONOMY NON ELIGIBLE ACTIVITIES</b>	80-85%	80-85%	80-85%
<b>TOTAL (A+B)</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

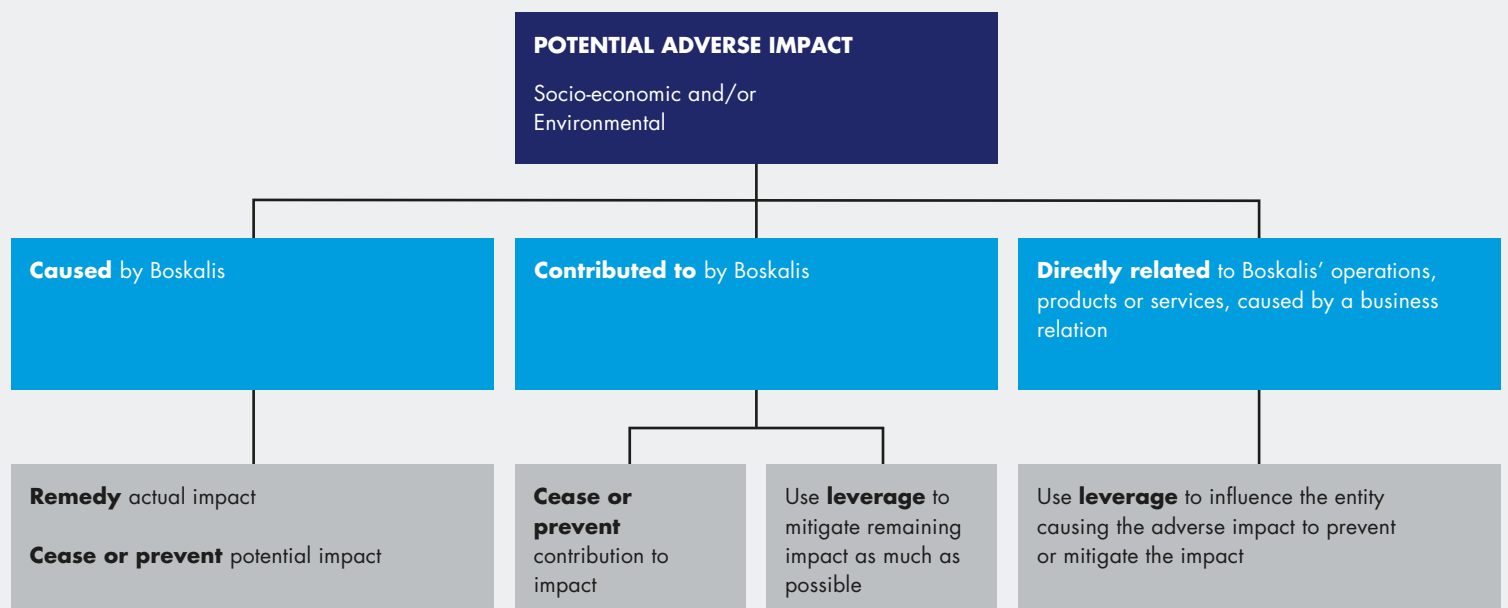
Boskalis has reviewed the eligibility and alignment of its activities under the Climate Delegated Act. The application was conducted at a project level with the objective of assessing the eligibility and alignment of projects executed during 2022. The eligible and aligned share of operational expenditures is assumed to be proportionate to the eligible share of revenue. Furthermore, a high-level assessment was done of the share of our capital expenditures during 2022 that have been made towards activities included in the Climate Delegated Act. The table below summarizes the results from these evaluations.

Nearly all of the revenue, operational and capital expenditures eligible under the Climate Delegated Act relate to Boskalis' offshore wind related activities.

# BOSKALIS APPROACH FOR MANAGING POTENTIAL ADVERSE IMPACT

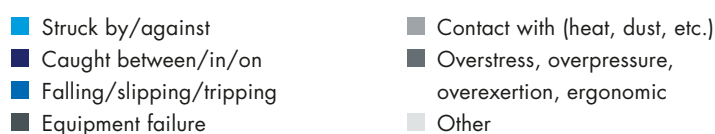
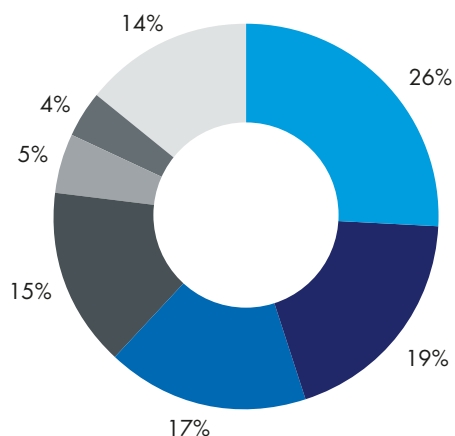
Our activities add value for our business and our clients. However, despite our extensive expertise around the implementation of such projects, we are not always in the position to directly influence the overall design or implementation strategy of a project. This could be the case if we become involved at a later stage in the project preparation, as a subcontractor on a project or in the case of countries where the inclusion of environmental or social considerations in contracts are not mandatory by law. In these cases we strive to proactively take measures to identify any environmental and social impact our activities may cause before they occur. We then take appropriate action to avoid, minimize or mitigate them. In those cases where our influence is restricted, we use our leverage by entering into dialog with the relevant stakeholders. Where we can, we aim to promote positive contributions.

For reference, the Boskalis approach for managing potential adverse impact is illustrated below.



# SHE-Q DATA

## INCIDENTS 2022



## INCIDENT REPORTS 2022

Fatality	
Lost Time Injury (incl. fatalities)	3
Restricted Work Case	23
Medical Treatment case	40
First aid case	183
Occupational Health Injury / Disease	5
Near Miss	778
High Potential Incidents	8
Environmental Incidents	34
Safety Hazard Observation Card	23,972

	2022				2021			
	TRIR	LTIF	HOURS (MILLION)	LTI'S	TRIR	LTIF	HOURS (MILLION)	LTI'S
Dredging and Inland Infra	0.44	0.02	20.85	2	0.26	0.02	17.44	1.5
Offshore Energy	0.14	0.01	19.18	1	0.19	0.02	18.03	2
Towage (Northwest Europe) & Salvage	1.82	-	0.77	-	0.40	0.00	0.75	0
Others	-	-	4.48	-	0.00	0.00	3.89	0
<b>GROUP TOTAL</b>	<b>0.30</b>	<b>0.01</b>	<b>44.28</b>	<b>3</b>	<b>0.21</b>	<b>0.02</b>	<b>40.11</b>	<b>3.5</b>

## OVERVIEW OF CERTIFICATIONS BOSKALIS

	ISO 14001	ISO 45001 <sup>1)</sup>	ISO 9001
DREDGING & INLAND INFRA	✓	✓	✓
OFFSHORE ENERGY	✓	✓	✓
SALVAGE	✓	✓	✓

1) VCA only for projects and activities carried out in the Netherlands, instead of ISO 45001

# HR DATA

The employees of joint ventures and the employees of Anglo Eastern, crew of the former Dockwise vessels, are included in the overall reporting in view of this group's substantial size. However, these employees are not employed by a Boskalis majority owned entity and are not included in the detailed reporting.

## NUMBER OF EMPLOYEES

	2022	2021	NATIONALITIES	2022	2021
Boskalis	<b>7,441</b>	6,254	Number of different nationalities	<b>87</b>	85
Anglo Eastern	<b>1,850</b>	1,618			
Subtotal	<b>9,291</b>	7,872			
Joint Ventures	<b>1,873</b>	2,378			
<b>TOTAL</b>	<b>11,164</b>	10,250			
			WOMEN/MEN RATIOS	2022	2021
			Women	<b>15%</b>	14%
			Men	<b>85%</b>	86%
			<b>TOTAL</b>	<b>100%</b>	100%

## COMPOSITION OF WORKFORCE

NUMBER OF EMPLOYEES BY COUNTRY	2022	2021
Netherlands	<b>3,385</b>	3330
United Kingdom	<b>1,246</b>	729
Germany	<b>212</b>	270
Cyprus	<b>315</b>	217
Finland	<b>124</b>	140
United Arab Emirates	<b>714</b>	624
Lithuania	<b>199</b>	184
Belgium	<b>124</b>	109
Singapore	<b>440</b>	84
Brazil	<b>14</b>	13
Philippines	<b>331</b>	138
Australia	<b>21</b>	13
Poland	<b>31</b>	20
Indonesia	<b>18</b>	20
Egypt	<b>12</b>	12
Estonia	<b>27</b>	25
Latvia	<b>37</b>	31
United States	<b>35</b>	17
China	<b>13</b>	15
Sweden	<b>10</b>	10
Panama	<b>19</b>	12
Other	<b>114</b>	241
<b>TOTAL</b>	<b>7,441</b>	6,254



<b>TYPE OF CONTRACT BY GENDER</b>	<b>TOTAL 2022</b>	<b>FEMALE : MALE</b>	2021
Fixed term/project based	<b>23%</b>	<b>14% : 86%</b>	19%
Permanent/indefinite	<b>77%</b>	<b>16% : 84%</b>	81%
<b>TOTAL</b>	<b>100%</b>		100%

<b>FULLTIME/PARTTIME RATIOS BY GENDER</b>	<b>TOTAL 2022</b>	<b>FEMALE : MALE</b>	2021
Fulltime	<b>90%</b>	<b>13% : 87%</b>	91%
Parttime	<b>10%</b>	<b>42% : 58%</b>	9%
<b>TOTAL</b>	<b>100%</b>		100%

<b>AGE PROFILE BY GENDER</b>	<b>TOTAL 2022</b>	<b>FEMALE : MALE</b>	2021
Age <30	<b>16%</b>	<b>23% : 77%</b>	14%
Age 30 – 50	<b>58%</b>	<b>16% : 84%</b>	58%
Age >50	<b>26%</b>	<b>10% : 90%</b>	27%
<b>TOTAL</b>	<b>100%</b>		100%

<b>COLLECTIVE BARGAINING AGREEMENTS BY GENDER</b>	<b>TOTAL 2022</b>	<b>FEMALE : MALE</b>	2021
No	<b>79%</b>	<b>18% : 82%</b>	62%
Yes	<b>21%</b>	<b>8% : 92%</b>	38%
<b>TOTAL</b>	<b>100%</b>		100%

## TRAINING

<b>TRAINING HOURS BY JOB CATEGORY AND GENDER</b>	<b>TOTAL 2022</b>	<b>FEMALE : MALE</b>	2021
Management	<b>1,104</b>	<b>746 : 358</b>	861
Project staff	<b>43,617</b>	<b>7,741 : 35,876</b>	32,837
Office staff	<b>12,284</b>	<b>4,743 : 7,541</b>	13,040
Crew/yard staff	<b>30,296</b>	<b>105 : 30,191</b>	29,911
<b>TOTAL</b>	<b>87,301</b>		76,649

## RECRUITMENT

INFLOW BY AGE BY GENDER	TOTAL 2022	FEMALE : MALE	2021
Age <30	25%	23% : 77%	30%
Age 30 – 50	58%	17% : 83%	56%
Age >50	18%	10% : 90%	15%
<b>TOTAL</b>	<b>100%</b>		<b>100%</b>

OUTFLOW BY REASON BY GENDER	TOTAL 2022	FEMALE : MALE	2021
Divestments	0%	0% : 0%	0%
End of project/contract	30%	11% : 89%	47%
Voluntary resignation	54%	15% : 85%	34%
Refirement/death	4%	11% : 89%	9%
Termination	12%	16% : 84%	9%
<b>TOTAL</b>	<b>100%</b>		<b>100%</b>

OUTFLOW BY AGE BY GENDER	TOTAL 2022	FEMALE : MALE	2021
Age <30	16%	19% : 81%	17%
Age 30 – 50	57%	15% : 85%	58%
Age >50	26%	9% : 91%	25%
<b>TOTAL</b>	<b>100%</b>		<b>100%</b>

## JOB CATEGORY PROFILE

JOB CATEGORIES BY GENDER	TOTAL 2022	FEMALE : MALE	2021
Management	2%	13% : 87%	3%
Office staff	29%	38% : 62%	31%
Project/Site Staff	37%	10% : 90%	33%
Workforce/Crew	32%	2% : 98%	33%
<b>TOTAL</b>	<b>100%</b>		<b>100%</b>

JOB CATEGORIES BY AGE	2022			2021		
	<30	30 T/M 50	>50	<30	30 T/M 50	>50
Management	2%	53%	45%	2%	50%	48%
Office staff	14%	60%	27%	13%	61%	26%
Project staff	21%	60%	19%	19%	61%	21%
Crew/yard staff	13%	53%	33%	13%	54%	33%
<b>TOTAL</b>	<b>16%</b>	<b>58%</b>	<b>26%</b>	<b>14%</b>	<b>58%</b>	<b>27%</b>

# INDEPENDENT ASSURANCE REPORT

To the Stakeholders of Royal Boskalis N.V.

## Introduction and objectives of work

Bureau Veritas Inspection & Certification The Netherlands B.V. (Bureau Veritas) was engaged by Royal Boskalis N.V. (Boskalis) to provide limited assurance over selected performance indicators to be presented in its Sustainability Report 2022 ("the Report"). The objective is to provide assurance to Boskalis and its stakeholders over the accuracy and reliability of the reported information and data.

## Scope of work

The scope of our work was limited to assurance over the following information included within the Report for the period 1st January to 31st December 2022 (the 'Selected Information'):

- Direct greenhouse gas (GHG) emissions (Scope 1);
- Fuel consumption of marine gas oil (MGO), Very Low Sulphur Fuel Oil (VLSO) and heavy fuel oil (HFO) from the fleet;
- Number of employees broken down by:
  - employment contract (permanent or temporary contract) and by gender;
  - employment type (part-time, full-time) and by gender;
  - country and number of nationalities;
- Inflow and outflow of employees broken down by age (<30, 30-50, >50) and gender, and outflow by reason;
- Percentage of employees covered by collective bargaining agreements broken down by gender;
- Composition of workforce broken down by gender and by age (<30, 30-50, >50);
- Number of training hours broken down by gender and by job category (management, office staff, project staff, crew/yard staff);
- Talent management and engagement;
- Lost Time Injury Frequency (LTIF) and Total Recordable Injury Rate (TRIR);
- Total number of Lost Time Injuries (LTIs) and fatalities;
- Prevention of occupational and other diseases;
- Spend represented by strategic suppliers;
- Percentage of strategic suppliers who have signed the Boskalis Supplier Code of Conduct;
- Spills recorded that exceed one barrel of oil; and
- Turbidity exceedances that result in project downtime.

## Reporting criteria

The Selected Information needs to be read and understood together with the Boskalis 'Methods of Estimation, Measurement and Calculation', a copy of which is available in the 'About this Report' section of the Report.

## Limitations and Exclusions

Excluded from the scope of our work is any verification of information relating to:

- Activities outside the defined assurance period;
  - Positional statements of a descriptive or interpretative nature, or of opinion, belief, aspiration or commitment to undertake future actions; and
  - Other information included in the Report other than the scope of work defined above.
- The following limitations should be noted:
- This limited assurance engagement relies on a risk based selected sample of sustainability data and the associated limitations that this entails.
  - This independent statement should not be relied upon to detect all errors, omissions or misstatements that may exist.

## Responsibilities

The preparation and presentation of the Selected Information in the Report are the sole responsibility of the management of Boskalis.

The responsibilities of Bureau Veritas were to:

- Obtain limited assurance over the Selected Information;
- Form an independent conclusion based on the assurance procedures performed and evidence obtained; and
- Report our conclusions to the Boskalis Board of Management.

## Assessment Standard

We performed our work to a limited level of assurance in accordance with International Standard on Assurance Engagements (ISAE) 3000 Revised, Assurance Engagements Other than Audits or Reviews of Historical Financial Information (effective for assurance reports dated on or after December 15, 2015), issued by the International Auditing and Assurance Standards Board.

## Summary of work performed

As part of our independent verification, our work included:

1. Conducting interviews with relevant personnel of Boskalis;
2. Reviewing the data collection and consolidation processes used to compile the Selected Information, including assessing assumptions made, collection processes, and the data scope and reporting boundaries;
3. Reviewing documentary evidence produced by Boskalis;
4. Confirming the accuracy of a selection of the Selected Information to the corresponding source documentation;
5. Reviewing Boskalis systems for quantitative data aggregation and analysis;
6. Performing analytical procedures of the Selected Information;
7. Re-performing aggregation calculations of the Selected Information; and
8. Assessing the disclosure and presentation of the Selected Information to ensure consistency with assured information.

A 5% materiality threshold was applied to this assurance. It should be noted that the procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

## Conclusion

On the basis of our methodology and the activities and limitations described above, nothing has come to our attention to indicate that the Selected Information is not fairly stated in all material respects.

## Statement of Independence, Integrity and Competence

Bureau Veritas is an independent professional services company that specialises in quality, environmental, health, safety and social accountability with over 190 years' history. Its assurance team has extensive experience in conducting verification over environmental, social, ethical and health and safety information, systems and processes.

Bureau Veritas operates a Quality Management System which complies with the international standards and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards, quality reviews and applicable legal and regulatory requirements which we consider to be equivalent to ISQM 1 & 2<sup>1</sup>.

Bureau Veritas has implemented and applies a Code of Ethics, which meets the requirements of the International Federation of Inspection Agencies (IFIA)<sup>2</sup>, across the business to ensure that its employees maintain integrity, objectivity, professional competence and due care, confidentiality, professional behaviour and high ethical standards in their day-to-day business activities.

The assurance team for this work does not have any involvement in any other Bureau Veritas projects with Boskalis.



**BUREAU VERITAS**

Bureau Veritas Inspection & Certification The Netherlands B.V.,  
Plotterweg 38, 3821 BB Amersfoort, 7th March 2023

<sup>1</sup> International Standard on Quality Management 1 (Previously International Standard on Quality Control 1) & International Standard on Quality Management 2

<sup>2</sup> International Federation of Inspection Agencies – Compliance Code – Third Edition

# GLOSSARY

**Ballast water** Used in ships to improve depth, stability and strength when the ship is not fully loaded. It can have a negative environmental impact due to the spread of invasive species.

**Building with Nature** Innovation program that focuses on sustainable hydraulic engineering concepts for river, coastal and delta areas. Using the natural system as a basic point of departure, it uses ecosystems to meet society's infrastructural needs while boosting the development of nature at the same time.

**BOOST** Better Oyster Outplanting & Seeding Consortium to establish methods for large-scale oyster reefs as nature enhancements for offshore projects.

**Cash flow** Group net profit + depreciation + amortization + impairment losses.

**CEDA** The Central Dredging Association, an independent forum for all stakeholders involved in dredging and the wider associated industries in Europe, Africa and the Middle-East.

**CO<sub>2</sub>** Carbon dioxide is an odorless and colorless gas that exists in the earth's atmosphere.

**Confederation of International Contractors' Associations (CICA)** A non-profit, voluntary and global association of trade associations representing member construction firms from their respective regions.

**CSR** Corporate Social Responsibility, which is a self-regulating business model that helps a company be socially accountable – to itself, its stakeholders and the public.

**Decommissioning** Dismantling and/or removal of oil and gas rigs which have been permanently taken out of service.

**DP** Dynamic positioning, a computer-controlled system to automatically maintain a vessel's position and heading by using its own propellers and thrusters.

**Drop-in biofuels** Produced from biomass and an alternative to existing liquid fuels, without requiring any significant modification in engines or installations.

**EBIT** Earnings before interest and tax.

**EBITDA** EBIT before depreciation, amortization, impairment and other exceptional charges.

**EuDA** The European Dredging Association, which is a non-profit industry association for European dredging companies and related organizations.

**Energy transition** Building towards a society that is less dependent on fossil fuels.

**Environment and Social Impact Assessment (ESIA)** Widely used method to analyze, assess and measure the social and environmental effects of a project on the community and the natural surroundings.

**EU Taxonomy** An EU classification system governed by legislation that sets out common definitions for businesses and investors as to what degree economic activities can be considered environmentally sustainable.

**Global Environment Facility (GEF)** A multilateral fund dedicated to confronting biodiversity loss, climate change, pollution, and strains on land and ocean health.

**Green valve** System to exclude air bubbles during the overflow from the hold of a trailing suction hopper dredger from excess water containing fine sediment. The sediment reaches the bottom more rapidly, decreasing the turbidity in the water column.

**GT** Gross tonnage.

**HFO** Heavy Fuel Oil.

**IDB** Invest Private sector arm of the Inter-American Development Bank and finances projects that advance clean energy and strengthen transportation systems in Latin America and the Caribbean.

**IMO** The International Maritime Organization, a specialized agency of the United Nations. Its primary purpose is to develop and maintain a comprehensive regulatory framework for safe and sustainable shipping.

**IMO Ballast Water Management Convention** The International Convention for the Control and Management of Ships' Ballast Water and Sediments is a 2004 international maritime treaty which requires signatory flag states to ensure that ships flagged by them comply with standards and procedures for the management and control of ships' ballast water and sediments.

**IFC** International Finance Corporation The IFC's Environmental and Social Performance Standards define IFC clients' responsibilities for managing their environmental and social risks.

**IMCA** International Marine Contractors Association A leading international trade association for the marine contracting industry. It is a not for profit organization with members representing the majority of worldwide marine contractors in the oil and gas and renewable energy industries.

**International Salvage Union** Facilitating world trade by providing marine services which save life, protect the environment, mitigate risk and reduce loss.

**ISO standard** Standards issued by the International Organization for Standardization. Standards include quality management systems (ISO-9001) and environmental management systems (ISO-14001).

**IUCN** The International Union for Conservation of Nature, an international organization working in the field of nature conservation and sustainable use of natural resources. It is involved in data gathering and analysis, research, field projects, advocacy, and education.

**LTI** Lost Time Injury. Expresses the number of workplace accidents serious enough to result in absence from work.

**LTIF** Lost Time Injury Frequency. Expresses the number of workplace accidents serious enough to result in absence from work, per 200,000 hours worked.

**MARIN** The Maritime Research Institute Netherlands, a provider of advanced expertise and independent research to the maritime industry.

**MARPOL** The International Convention for the Prevention of Pollution from Ships, which is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes.

**MDO/MGO** Marine Diesel Oil/Marine Gas Oil.

**MT** Metric Ton.

**Net Group profit** Net profit + net profit attributable to non-controlling interests.

**NEVI Code of Conduct** Helps procurement professionals, as well as all other parties/stakeholders in the procurement process, deal with the ethical dilemmas they face in their work. The code is based on four core values: business ethics, expertise and objectivity, open competition, and sustainability.

**NGO** Shipbreaking Platform Coalition of 19 environmental, human rights and labor rights organizations working to prevent the dangerous pollution and unsafe working conditions caused when end-of-life ships containing toxic materials in their structure are freely traded in the global marketplace.

**NINA (No Injuries, No Accidents)** Boskalis safety program to achieve an incident and accident-free working environment. NINA sets out Boskalis' vision on safety and describes the safety conduct the company expects from its staff and subcontractors. The program makes people aware of their own responsibility and encourages them to take action to prevent unsafe situations.

**OECD Guidelines for Multinational Enterprises** Recommendations that provide non-binding principles and standards for responsible business conduct in a global context consistent with applicable laws and internationally recognized standards.

**Operating result** EBIT minus exceptional items.

**Order book** Contract revenue as yet uncompleted.

**PIANC** The World Association for Waterborne Transport Infrastructure, a global organization providing guidance and technical advice for a sustainable waterborne transport infrastructure to ports, marinas and waterways. Return on equity Net profit as % of average shareholders' equity.

**Rijkswaterstaat** The executive agency of the Dutch Ministry of Infrastructure and Water Management.

**Scope 1, 2 and 3 emissions** Categories for reporting greenhouse gas emissions. Scope 1 are emissions from sources that are owned or controlled by the organization. Scope 2 are emissions from consumption of sources of energy generated upstream from the organization. Scope 3 are emissions generated by third parties upstream or downstream from the organization.

**Safety Hazard Observation Card (SHOC)** Used to report hazards and suggestions for improving safety. SHOC trend analysis gives insight in how people experience safety in their daily work.

**SHE-Q** Safety, Health, Environment and Quality.

**Sustainable Development Goals (SDGs)** Set of seventeen goals with specific targets. Formulated by the United Nations through a deliberate process involving its 193 Member States, as well as global civil society, the goals define the global sustainable development priorities and aspirations for 2030.

**Spills** Defined as more than a barrel of oil or fuel from a Boskalis vessel into the sea.

**Supplier Code of Conduct** Requirements drawn up by Boskalis for its suppliers of products and services. Boskalis wants to do business with suppliers who act responsibly and with integrity. The Code is an integral part of any agreement between supplier and Boskalis.

**TKI Maritiem** A maritime consortium for knowledge and innovation, commissioned by the Dutch Ministry of Economic Affairs and Climate Policy.

**TRIR** Total Recordable Injury Rate, which is the number of LTIs, restricted work cases and medical treatment cases per 200,000 hours worked.

**Turbidity** Caused by churning up the seabed or riverbed during dredging activities, which reduces the incidence of light in the water. This can be temporarily detrimental to underwater animal and plant life.

**VCA** Safety, Health and Environment Checklist for Contractors applicable to our Dutch operating companies.

**VLSFO** Very Low Sulphur Fuel Oil, are fuels with a sulphur content not exceeding 0.50%

**West African Coastal Areas Management (WACA)** A World Bank program that supports countries' efforts to improve the management of their shared coastal resources and reduce the natural and man-made risks affecting coastal communities.

**WoW** Boskalis Way of Working, our quality management system that aims to achieve operational excellence with a clear focus on safe and sustainable solutions and a consistent client approach.



 **Boskalis**

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# COLOPHON

**Compiled and coordinated by**

Royal Boskalis N.V.

Corporate Communications Department

Group Controlling Department

[www.boskalis.com](http://www.boskalis.com)



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