

# SUSTAINABILITY REPORT 2021



## **KEY FIGURES**

(in EUR million, unless stated otherwise)	2021	2020
Revenue	2,957	2,525
Order book	5,406	5,306
EBITDA	462	404
Net result from joint ventures and associates	39	19*
Depreciation and amortization	264	264
Operating result	199	140
Exceptional items (charges/income)	-	-195
EBIT	199	-56
Net profit (loss)	151	-97
Net group profit (loss)	148	-97
Cash flow	412	355*
Shareholders' equity	2,404	2,283
Net financial position incl. IFRS 16 lease liabilities: cash (debt)	203	318
RATIOS (IN PERCENTAGES)		
EBIT as % of revenue	6.7	5.5*
Return on capital employed	5.8	3.9*
Return on equity	6.4	3.8*
Solvency	48.0	50.5
FIGURES PER SHARE (IN EUR)		
Profit	1.16	0.69*
Dividend (proposal)	0.50	0.50
Cash flow	3.18	2.48*
NON-FINANCIAL INDICATORS		
Employees including associated companies	10,250	9,913
Employees in Boskalis majority owned entities	6,254	6,137
Ratio women/men within Boskalis' majority owned entities	14/86	14/86
Number of nationalities within Boskalis' majority owned entities	85	84
Lost Time Injuries (LTI)	4	9
Lost Time Injury Frequency (LTIF)	0.02	0.05
Total Recordable Injury Rate (TRIR)	0.21	0.32
Strategic suppliers: percentage spend covered by		
Supplier Code of Conduct	88	85
CO <sub>2</sub> emissions scope 1+2 (MT ('000))	1,078	984

Please refer to the glossary for definitions of the terms used

\* Excluding exceptional charges



### SUSTAINABILITY REPORT 2021

This report was prepared in accordance with the Global Reporting Initiative (GRI) Standards: core option.

Printed copies of this Sustainability Report can be requested via csr@boskalis.com.

The Sustainability Report can be found on www.boskalis.com/sustainabilityreport.

Certain photos in this Sustainability Report were taken before the outbreak of COVID-19 or on vessels or at locations where the 1.5-meter social distancing rule and other public health measures do not apply.

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### CHAIRMAN'S STATEMENT

Looking back at 2021, we can be proud of what we have achieved in an environment which remains affected by the COVID-19 pandemic. Against this backdrop, it is all the more impressive that we can reflect on an operationally strong year in which we improved on our 2020 financial performance. With an EBITDA of EUR 462 million, orderbook of EUR 5.4 billion and a net financial position of EUR 203 million cash, our performance in 2021 was very solid. Throughout the year we have continued to grow our role in providing solutions for some of the urgent sustainability challenges facing the world today, including efforts to both mitigate and tackle the consequences of climate change. Our support to the renewables industry means that we are now one of the leading players in the offshore wind market.

This report also marks the launch of our updated Corporate Business Plan. Our sustainable growth strategy is structured around three activity clusters and the value they bring to society: creating innovative infrastructure, advancing the energy transition and providing protection against the impacts of climate change. Through our activities we facilitate world trade and economic development, we are helping expand access to renewable power, and we protect populations and the natural environment from rising sea levels and the consequences of extreme weather events, such as flooding. The majority of our revenue is generated through one of these outputs and thereby creates economic and social value that also contributes directly to the United Nations Sustainable Development Goals.

Our strategy is founded on three pillars: Good Stewardship, Human Excellence and Distinguishing Assets. Good Stewardship ensures the effective management of our principle sustainability risks, including responsible business conduct, safety and occupational health and reducing our carbon emissions. As part of our strategy, we have also intensified our commitment to Human Excellence to help us foster the necessary talent and commitment of our employees that will ensure the sustainable growth of our business. Our third pillar is aimed at acquiring or developing assets which, together with good stewardship and our industry expertise, make Boskalis successful.



### PROTECTING AGAINST THE IMPACTS OF CLIMATE CHANGE

Climate change and its effects continue to dominate the global agenda as reports of severe storms or record heatwaves appear with increasing frequency. In response, global leaders are stepping up efforts to curb rising temperatures, including through the Glasgow Climate Pact agreed at COP26 last November. At Boskalis, our activities can also play a part in tackling the impacts of climate change. In 2021 we were awarded the contract for a major dike reinforcement, river-widening and area development project at the Meandering Meuse in the Netherlands. The project is part of the Dutch High Water Protection Program and gained in relevance following last summer's dramatic floods in Belgium, Germany and South Limburg. We were also commissioned to construct two additional nature islands to accompany the five existing islands of the Marker Wadden, which we have been working on in recent years. During the year we also strengthened more than 33 kilometers of dikes along the Markermeer between Hoorn and Amsterdam. These dikes serve as flood protection for more than 1.2 million people.

In 2021 it was pleasing to see the adoption of the EU Strategy on Adaptation to Climate Change, however we still face a number of challenges when it comes to scaling up adaptive measures globally. Here in the Netherlands, we became part of a joint initiative supporting Rijkswaterstaat (the executive agency of Dutch Ministry of Infrastructure and Water Management) to develop carbon-neutral and ecologically friendly methods for shoreline maintenance along the North Sea coast.

#### **ADVANCING THE ENERGY TRANSITION**

In 2021 we continued to facilitate the provision of renewable energy by completing the world's largest operating floating wind farm, Kincardine, off the coast of Scotland. Floating offshore wind technology is becoming increasingly key to the achievement of ambitious decarbonization targets now being set by governments around the world. At the end of 2021, we were awarded a major contract for the transport and installation of the monopile foundations and substations for an offshore wind farm on the east coast of the US. The project will see Boskalis actively invest in the training and development of the US workforce in the offshore wind industry. This is an important contract in a market that will offer further opportunities for Boskalis in years to come. With the new Bokalift 2 crane vessel coming into service in 2022 for the Changfang and Xidao project, together with the Bokalift 1, our heavy transport fleet and our other offshore wind services have put us in a strong position to serve the fast-growing renewables market in the years ahead.

#### **ROAD TO NET ZERO**

We are committed to our target of being 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.

The rate at which we move towards our climate target is a function of the opportunities and technology available to different parts of the company. At our offices and warehouses in the Netherlands we are continuing to install solar panels on a large scale and have recently substantially increased our electric vehicle charging infrastructure at our head office. Meanwhile, our Inland Infra dry earthmoving activities are also making strides in emission reductions. In 2021, all of our dry earthmoving trucks ran on a pure biofuel where it was available, resulting in a reduction in  $CO_2$  emissions of nearly 50% across the entire fleet compared to using fossil fuels.

The largest part of our CO<sub>2</sub> footprint is linked to our vessels, an area where we have initiated a range of measures and technologies to drive down fuel consumption and reduce emissions from our fleet. These include the development of dashboards, the use of biofuels and the installation of power packs. Where we have the ability and direct control to reduce emissions, the effects have been impressive, as reflected in a 20% reduction of the carbon intensity of the hopper fleet since 2011. More substantial reductions in emissions are dictated by the readiness and global availability of suitable alternatives to fossil fuels. One of the main contenders to become such a fuel is methanol. As a member of a maritime consortium, we are undertaking a EUR 35 million multi-year research program to accelerate the use of methanol as an alternative fuel within the shipping industry. We continue to collaborate with our industry peers, knowledge institutions and other partners to develop the expertise and technology necessary for the sector to reach climate neutrality.

#### BIODIVERSITY

In 2021 we continued our collaborations with a number of global non-governmental organizations and tested the practical application of IUCN's Global Standard for Nature-Based Solutions<sup>™</sup> against Building with Nature projects completed by Boskalis. Meanwhile our Artificial Reefs Program continues to expand, providing our clients with innovative options to protect coastlines and preserve or restore marine ecosystems. During the year, and in line with our Biodiversity Framework, we began a process to develop measurable indicators of our impacts on biodiversity. These will enable us to better communicate our management of biodiversity risks and the effectiveness of our nature-based solutions to all of our stakeholders.

#### **SOCIAL IMPACT**

Our projects have delivered valuable community initiatives throughout the year, from contributing to university education in the maritime sector to supporting local residents through the provision of construction materials and leisure facilities.

In the course of 2021, preparatory works commenced in Manila in the Philippines ahead of the construction of the platform for the new international airport. A large team of experts have worked hard over the past year to complete a thorough environmental and social impact assessment and to draw up detailed action plans in accordance with international standards. These plans will be rolled-out from 2022 onwards.

#### **CARE FOR OUR PEOPLE**

In a busy operational year, it is encouraging to see an improvement in our safety performance with a decline in the Lost Time Injury Frequency to 0.02 per 200,000 hours worked. Nonetheless, it is truly sad to report that, for the first time in many years, we were confronted with a fatal accident on board one of our vessels. My sincere condolences go to the family and friends of our muchrespected colleague.

With the pick-up in the market and our very solid order book, we launched several new initiatives last year to highlight the many opportunities for personal development within Boskalis. Among them, Human Excellence Week in November focused on encouraging employees – particularly our younger colleagues – and their managers to engage in a structured dialogue around career advancement within the company.

I am optimistic and confident about the mid- to longer term period that lies ahead of us. The near-term market outlook is generally positive, albeit that the impact of current geopolitical developments in Eastern Europe are difficult to read. With the best talent in our industry, we have a substantial role to play in the energy transition and providing sustainable solutions to many of the challenges facing today's world. Together we are creating sustainable new horizons.

On behalf of the Board of Management, I would like to thank all of our colleagues for their great dedication and valued flexibility during the past year, as well as our clients, partners and shareholders for the trust and confidence they place in us.

Peter Berdowski

## STRATEGY AND AMBITION

Transport of a floating wind turbine to the Kincardine offshore floating wind farm



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### BOSKALIS AT A GLANCE

From our headquarters in Papendrecht in the Netherlands, 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; for a full description of our activities, see our Annual Report 2021. 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.



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 2021 we were active in nearly 70 countries. For more information on our offerings to clients, see our Annual Report 2021 or 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 38.

#### "WITH THE BEST TALENT IN OUR INDUSTRY, WE HAVE A SUBSTANTIAL ROLE TO PLAY IN THE ENERGY TRANSITION AND PROVIDING SUSTAINABLE SOLUTIONS TO MANY OF THE CHALLENGES FACING TODAY'S WORLD"

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. 15% in other European countries and 3% 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 84.



A versatile fleet

Our versatile fleet consists of approximately 650 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 fuel type, safety, waste, ballast water 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 85.



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 lowcarbon 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 58-59.



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 72-77.

SUSTAINABILITY REPORT 2021 – BOSKALIS

### 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.



Trends that drive our business

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) 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 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.

Irrespective of the unpredictable and potentially less favorable short-term developments in some of the regions and markets where Boskalis is active, 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 the longer term, 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:

 Create Innovative Infrastructure: we facilitate world trade, support economic development, and create infrastructure and new land for society;

- 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; 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



#### 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:

- Innovation, Industry and Infrastructure;
- Affordable and Clean Energy;
- 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 2021 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 wellbeing 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. Over the last number of years, EUR 750 million of capital expenditures has been allocated to serve this market and approximately a quarter of the identified expenditures in the new business plan period are also related to renewables.

Through our activities, we also generate emissions and have committed to being 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 in 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

In a world of rapid commoditization, low cost capital and growing expectations around local content, human capital is the main differentiator for gaining a sustainable competitive advantage. Our approach to human capital is 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. Under this pillar, we aim to strategically grow our workforce while creating an environment where employees feel safe, connected, engaged and can maximize their talents. 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 upcoming business plan period, we currently 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.

In the coming business plan period, Boskalis intends to invest in the jumbo hopper segment. Boskalis will include two new jumbo trailing suction hoppers dredgers that are being designed to be ready to operate 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. In contrast to dredging vessels, offshore vessels can often be readily acquired in the market. The advantages of acquiring existing assets and modifying them include the ability to extend the lifetime of vessels, a more sustainable approach that helps prevent premature scrapping. During the new business plan period, Boskalis intends to selectively expand its offshore fleet with assets geared to serving the offshore renewables market, including the Bokalift 2, the conversion of a fallpipe vessel, modifications on a number of existing vessels and a new motion compensated pile gripper frame for wind turbine foundations.

#### **MATERIALITY ASSESSMENT**

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Our approach to sustainability is informed by a set of material topics that are identified through periodic materiality assessments. During 2021, we commissioned an independent third party to update our materiality analysis to ensure that our stewardship continues to focus on those topics which our stakeholders deem to be materially significant.

The materiality assessment illustrates the relative importance of a shortlist of 18 topics to our business and our stakeholders. These topics were selected and defined based on leading industry ESG benchmarks and reporting frameworks, alongside a media and peer analysis. An online assessment was then carried out, 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.

#### WHAT WE HAVE LEARNT

There are many valuable aspects of the materiality process. It is vital that we listen to and engage with our key stakeholders to

better understand our business and our impacts. The primary value comes from an analysis of what has changed since we last conducted the assessment in 2019. The most significant outcome of the process was the increased primacy that both internal and external stakeholders attached to the topic Responsible Business Conduct as compared with two years ago. This topic is defined as ethical business conduct that is based on our values of integrity, reliability and responsibility, including anti-corruption and antibribery as established in Boskalis' Code of Conduct and specific Anti-Bribery and Anti-Corruption Policy. The 2021 assessment also saw Biodiversity and Ecosystems rise in prominence among our stakeholders, reflecting the importance of an effective approach to environmental management and the protection of natural habitats and marine ecosystems.

#### **MEASURING, REVIEWING, REPORTING**

We have been publicly disclosing our sustainability performance for more than a decade. Our report is based on the guidance of the Global Reporting Initiative (GRI) and focuses on communicating the key sustainability challenges and opportunities we face, and how we respond to them. Together with our Annual Report 2021, we fulfill our responsibilities with respect to the Dutch 'Besluit bekendmaking niet-financiële informatie'. You can read more about our reporting scope and disclosures on page 94. The Boskalis Annual Report 2021, which is published together with this report, covers our economic and operational performance.



OUR ACTIVITIES AND THE UN SUSTAINABLE DEVELOPMENT GOALS					
SDG	AMBITION	SCOPE	TARGET		
Industry, Innovation and Infrastructure	To create resilient innovative infrastructure for trade, economic development and society	Activities that are pivotal to the develop- ment 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 innovative trade and transport-related infrastructure that is delivered using sustainable and industry-leading techniques		
Affordable and Clean Energy	To facilitate the energy transition by developing infrastructure to deliver affordable and renewable 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		
Climate Action	To develop climate adaptive solutions that protect people and the natural environ- ment 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 profitable climate adaptation projects		
Life Below Water	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		
Decent Work and Economic Growth	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		
	GOO	D STEWARDSHIP			
ТОРІС	AMBITION	SCOPE	TARGET		
Responsible Business Conduct	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		
Safety and	To provide a safe, injury and	Boskalis employees and subcontractors	NINA (No Injuries, No Accidents):		
Occupational Health	accident-free working environment and culture, while supporting the broader wellbeing of our employees and subcontractors		Lost Time Injuries (LTI) = 0.0 Total Recordable Incident Rate (TRIR) = 0.0		
Climate Change Mitigation	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		
Biodiversity and Ecosystems	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 further develop 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		
Social and Community Impact	To actively manage our social engagement in the regions and communities where we work	Our own operations	To continue to apply our approach to socio impact management whilst developing additional tools, training and awareness within our organization		
	HUM	AN EXCELLENCE			
ТОРІС	AMBITION	SCOPE	TARGET		
Talent Management and Employee Engagement	To be highly strategic in how we grow our workforce, whilst creating an environment in which employees feel both connected and engaged, and can maximize their talents	Our own operations	To refresh our approach to performance management and talent development in support of career advancement, internal mobility and employee retention		

## SDG CONTRIBUTION THROUGH OUR ACTIVITIES



18	CONNECTING THE SDGs	
20	INDUSTRY, INNOVATION AND INFRASTRUCTURE	
24	AFFORDABLE AND CLEAN ENERGY	
28	CLIMATE ACTION	
32	LIFE BELOW WATER	

### CONNECTING THE SDGs

Marker Wadden, the Netherlands

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Our updated 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 listed above. Based on this exercise, around 83% 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 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.

#### INDUSTRY, INNOVATION AND INFRASTRUCTURE

Creating resilient infrastructure for trade, transport and society



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

In 2021, these accounted for approximately 41% of Group revenue

#### AFFORDABLE AND CLEAN ENERGY

Facilitating the energy transition by developing infrastructure to deliver affordable and renewable power



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

In 2021, these accounted for approximately 29% of Group revenue

#### CLIMATE ACTION

Developing climate adaptive solutions that protect people and the natural environment from the impacts of climate change



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

In 2021, these accounted for approximately 8% of Group revenue

#### LIFE BELOW WATER

Protecting seas and oceans from pollutants and environmental damage



We contribute through projects and services primarily related to the salvaging of vessels and associated pollution prevention

In 2021, these accounted for approximately 5% of Group revenue

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.

## 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

#### 2021 Performance

• These activities accounted for 41% of our Group revenue



• See project examples on page 22

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 wellbeing of its occupants 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. In addition to a number of more detailed project cases presented on page 22, examples of our projects in 2021 that deliver socio-economic impact include:

- Preparatory works for a significant land development project in the Philippines for the new Manila International Airport, bringing extensive transport infrastructure and associated socio-economic growth to the region;
- Completed the construction of the N69 provincial road between Eindhoven and Valkenswaard in the Netherlands. The road has an energy-neutral design and its construction realized a 25% reduction in carbon emissions compared to the client's original plans. Ninety percent of all raw materials used consisted of recycled materials;
- The extension of the metro line from Rotterdam to the Dutch North Sea coast at Hoek of Holland. The project includes the construction of two metro stations and a semi-sunken enclosed tunnel to prevent biodiversity impacts within a Natura 2000 area.



#### **CREATING INNOVATIVE INFRASTRUCTURE**

**OFOR Zwolle: a sustainable underground bike park for the city** In November 2021 we completed the construction of a climateadaptive, low-emission bicycle park adjacent to the central railway station in Zwolle, a city in the northeast of the Netherlands. The unique, underground design enabled energy efficiencies of 61% compared with the client reference design and provides for newly-designated green public spaces at the heart of the city.

The bike park has capacity for 5,800 bicycles and incorporates a street drainage and water storage system – known locally as the "Super Sponge" – which can hold a thousand cubic meters of water. This reduces the risk of flooding for nearby residential properties and water storage can be scaled-up during prolonged periods of heavy rainfall. Stored water is then used to nourish the city's trees and green spaces in the drier summer months, removing the need for dedicated water-carrying transport and associated  $CO_2$  emissions. In turn, climate-adaptive features have been added to the surrounds of the bike park, including its partially brown roof, trees, a pond, and an artificial waterfall. These create shade and provide cooling water to help mitigate heat stress in the city during warmer periods brought about by climate change.

During construction, Boskalis' earthmoving equipment ran on biofuels and environmentally-friendly materials such as a low-emission concrete were used. Excavation works were carried out in dry conditions, created using soil consolidation techniques, thereby reducing transported volumes of material and associated  $\rm CO_2$  emissions. The structure's design makes optimal use of daylight and has motion-censored LED lighting and a smart-ventilation system.

#### Land reclamation for social housing in Bahrain

In October 2021 Boskalis was awarded a EUR 30 million land reclamation project to support a new social housing development in Bahrain. The contract follows the successful completion, in early 2021, of the second phase of the Busaiteen project which involved the construction of a large sand causeway for a five-kilometer-long, six-lane motorway as part of the Bahrain Northern Link Road (BNLR) that seeks to ease congestion in the capital, Manama. Under the new award, around 34 hectares of land will be reclaimed for the purpose of the Danat al Sayah social housing development. Boskalis will execute the work in 2022.



"DEVELOPING AND MAINTAINING TRADE-AND TRANSPORT-RELATED INFRASTRUCTURE CONTINUES TO BE RECOGNIZED AS ESSENTIAL TO ACCELERATING PROGRESS TOWARDS ACHIEVING THE 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 renewable 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

#### 2021 Performance

- These activities accounted for 29% of our Group revenue
- See project examples on page 25-27



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 2021, these activities accounted for 29% of our Group revenue.

The increasing pace of development of floating offshore wind (FOW) technology also opens up significant opportunities for Boskalis, with commercialization taking place much sooner than previously anticipated. This year we completed the world's largest operating floating wind farm, Kincardine, off the coast of Scotland. Additional renewable energy capacity made possible by FOW technology will be key to the achievement of ambitious decarbonization targets now being set by governments around the world. The benefits of floating wind farms include the ability to install them in much deeper water than fixed farms, therefore opening up many new prospects. The size of the floating offshore wind market is expected to grow substantially as costs are predicted to fall, making this an economically attractive alternative to fixed-bottom offshore wind farms. As this market becomes more established, floating wind farms could represent significant new business opportunities for Boskalis.

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 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 crosssectoral client demand.

Examples of our projects in 2021 in terms of offshore renewables, gas and decommissioning-related activities include:

- Successfully completed the transportation and installation of five floating wind turbines for what is the largest operating floating wind farm in the world, Kincardine, off the coast of Scotland;
- Awarded our first contract in the US for the transportation and installation of monopile foundations and substations for an offshore wind farm development off the state of Rhode Island. Under the project Boskalis will invest in the training and development of the US workforce actively involved in the realization of the American offshore wind industry;
- Executing the supply and installation of 102 inter-array cables for the Moray Offshore Windfarm East, off the coast of Scotland. The wind farm will be capable of supplying electricity to more than one million households;
- Completion of an IRM and decommissioning campaign for Shell with our diving support vessel BOKA Polaris in the North Sea;
- Completed a two-kilometer gas pipeline connection from an onshore power plant in El Salvador to an offshore Floating Storage and Regasification Unit, including the mooring and hook-up.



#### **ENERGY TRANSITION IN ACTION**

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Taiwan: Changfang and Xidao offshore wind project

In 2021, work progressed on the Changfang and Xidao offshore wind farm project in Taiwan. Over the course of three summer seasons, we will transport and install a total of 186 pin piles and 62 jacket foundations approximately 15 kilometers off Taiwan's western coast. On completion, scheduled for 2023, the wind farm is expected to have a total capacity of up to 600 MW. The wind farm will be the launching project for our new Bokalift 2 crane vessel which has been converted from an existing hull. This DP2 vessel has accommodation for 150 people, boasts 7,500 square meters of free deck space and a 4,000 ton revolving crane capable of lifting structures more than 100 meters high. The vessel's large deck space makes it particularly suitable for installing wind turbine foundations, bringing significant efficiencies when compared with deploying multiple vessels.



"We can pick up the foundations in a port, load them onto the deck and then transport them to the offshore wind farm, where you place the foundations on the seabed using the crane," explains Project Manager Jurjen Haitsma. "So we can do everything by deploying just one vessel. And that's special because most of our competitors don't have vessels with this kind of deck space and therefore they need barges and tugs to bring the foundations to the field."



#### Ostwind 2: offshore grid connection in the Baltic Sea

In November 2021 Boskalis completed the installation of two cables for the Ostwind 2 offshore grid connection on behalf of our German client, 50Hertz Transmission GmbH. The project connects the Baltic Sea wind farms Arcadis Ost 1 and Baltic Eagle to Germany's high voltage transmission grid. The third and final cable will be installed in Q2 and Q3 of 2022.

Boskalis is contracted together with consortium partner NKT in what is our largest cable installation contract to date. Due to its size and scope, multiple Boskalis business units have joined forces to execute the project including Subsea Cables, Seabed Intervention, Boskalis Hirdes and Marine Services.

The project scope covers the design and installation of three high voltage, alternating current electrical cables with a combined total length of approximately 270 kilometers. The cables are being installed through the Greifswald Bay and along the east coast of Rügen Island for approximately 76 kilometers until they split in two directions. One cable continues to the Arcadis Ost offshore wind farm's substation and the other two connect to the Baltic Eagle offshore wind farm's substation.

"WE FACILITATE THE DELIVERY OF LOW-CARBON SOLUTIONS SUCH AS WIND ENERGY AND ARE ONE OF THE LEADING PLAYERS IN THE OFFSHORE WIND MARKET"

# 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 profitable climate adaptation projects

#### 2021 Performance

• These activities accounted for 8% of our Group revenue



• See project examples on page 30

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.

#### CHALLENGES FOR CLIMATE ADAPTATION

Climate adaptation continues to rise up the global agenda, resulting in initiatives like the new and more ambitious EU Strategy on Adaptation to Climate Change. This strategy was adopted in February 2021 and prepares for the impact of climate change by focusing on solutions and implementation. However, when it comes to the implementation and scaling-up of climate-adaptive solutions to support some of the world's most vulnerable populations, significant hurdles remain. For example:

- For financiers, adaptive measures often lack sufficient revenue-generating capacity and a business enabling environment (e.g. effective governance and institutional/legal structures);
- Development institutions and governments often lack technical expertise with regard to adaptative development and integration in infrastructure planning;
- Legislative frameworks and policies to incentivize (private) development of climate-adaptive solutions are lagging;
- Climate change scenarios involve long-term uncertainties, impacting the effectiveness of adaptive measures.

### JOINT STUDIES INTO FINANCING SUSTAINABLE WATERBORNE INFRASTRUCTURE

Boskalis continues to identify and accelerate opportunities that would both add commercial value for our business and create sustainable protective measures for the environment and communities living in coastal areas. 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 collaboration with key industry players and on behalf of the International Association of Dredging Companies (IADC), we co-published a study in September 2021: *Financing Sustainable Marine and Freshwater Infrastructure*. The underlying purpose of the study is to raise awareness about sustainable dredging solutions within the financial community, and to encourage the uptake of green marine and freshwater concepts by private investors.

We also contributed to the study *Financing Nature-based Solutions for Coastal Protection*, published by the Netherlands Enterprise Agency. This study summarizes the existing financing landscape for coastal nature-based solutions, making a critical contribution to both climate change mitigation and adaptation, and provides guidelines to develop financing structures for implementing or scaling-up projects.

#### **DUTCH COASTLINE CHALLENGE**

Boskalis is part of a joint initiative to advance sustainable methods for shoreline maintenance along the Dutch coast. The project – which is in partnership with Rijkswaterstaat (the executive agency of the Dutch Ministry of Infrastructure and Water Management), Vereniging van Waterbouwers, Deltares, Delft Technical University and the EcoShape foundation – focuses on developing carbonneutral practices and equipment as well as the reduction of ecological impacts attributed to sand extraction and replenishment. The research forms an important part of helping Rijkswaterstaat to realize its ambition of making beach replenishment activities in the Netherlands carbon-neutral by 2030.

The project, which got underway in 2021, focuses initially on the Umuiden-Texel section of the Netherlands' coastline and seeks to draw on interdisciplinary partnerships to bring together relevant technological knowledge, policy and regulation, and commercial experience. With a firm eye on the impact of climate change and potentially significant sea level rises in years to come, the emphasis is on the ability to scale up the resulting approaches to tackle more significant coastal maintenance needs in the future, both in the Netherlands and abroad. The project is expected to deliver its conclusions in early 2023.



"As well as through advances in technology, we aim to reduce emissions and ecological impacts through the integration of different stages of coastal maintenance and exploring alternative maintenance strategies," explains Thomas Vijverberg, Deputy Manager Hydronamic and part of the Dutch Coastline Challenge team. "The Netherlands focus provides a 'living lab' for sustainable and scalable coastal maintenance techniques which can then be expanded and deployed internationally."

#### **DELIVERY OF CLIMATE ADAPTIVE PROJECTS**

Boskalis is responding to the growing need for coastal protection and flood prevention on a global scale. We deliver projects on behalf of our clients, using a state-of-the-art fleet of dredging vessels, talented and dedicated professionals and specialized equipment. Examples of our climate-adaptive projects in 2021 include:

- Strengthening more than 33 kilometers of dikes along the Markermeer between Hoorn and Amsterdam in the Netherlands. The dikes serve as flood protection for more than 1.2 million people;
- In May 2021 Boskalis was awarded a conditional contract for a major dike reinforcement, river widening and area development project at the Meanderende Maas in the Netherlands. The project is part of the national Flood Protection Program in which the government and regional Water Boards work together to protect the Netherlands against flooding;
- Reinforcement of the Netherlands' coastline at Noordwijk (over 11km) and Wassenaar (over 6km) by foreshore replenishment with more than 8.5 million cubic meters of sand using a number of medium-sized trailing suction hopper dredgers;
- Commencement of the second phase of construction of the Marker Wadden islands nature reserve in the Netherlands that provides a major boost to the ecological quality of the Markermeer lake. Two new islands, with a surface area of 300 hectares below and above the water level, will be added to the nature reserve. Like the previous islands, they will be constructed with silt, clay, peat and sand from the bottom of the Markermeer lake.

#### **CLIMATE ADAPTATION IN ACTION**

#### **Coastline Replenishment on Texel**

On behalf of Rijkswaterstaat, in March 2021 Boskalis began coastline replenishment work on the island of Texel, the largest and most populated of the Wadden Islands in the province of North Holland.

Maintenance of the beach and foreshore needs to be carried out on different parts of the island every four to five years to keep the coastline at safe levels. Boskalis has completed several such projects on Texel in the past.

During 2021 and early 2022 Boskalis will strengthen the shoreline with more than eight million cubic meters of sand using two 4,500m<sup>3</sup> trailing suction hopper dredgers, the Freeway and the Causeway.

To reduce emissions of environmentally harmful substances, and particularly nitrogen oxide, both vessels have been fitted with

Selective Catalytic Reduction (SCR) systems. The technology uses urea, a type of ammonia, which is nebulized and added to the vessels' exhaust fumes, sparking a chemical reaction which converts the molecules into nitrogen and water which are almost entirely harmless. We expect the SCR systems to reduce nitrogen oxide emissions by nearly 90%.

The conversion of the Freeway and Causeway vessels gave Boskalis a competitive advantage when it came to meeting the tender requirements of our client. In line with Dutch climate policy, Rijkswaterstaat incorporated an Environmental Cost Indicator (MKI) at the bidding phase of the project which required tendering contractors to set out the anticipated environmental impact of its



operational method; the amount of nitrogen oxide that would be generated in completing the project was one of the benchmark indicators in the tender process.

As Boskalis responds to the expanding sustainability needs of its clients, among other solutions, there are plans to replicate the SCR system on further vessels, including the Rockpiper.

"The Netherlands is currently leading the way in terms of environmental requirements for nitrogen oxide but everything suggests that European countries such as Denmark and Germany will be following suit," explains Fleet Manager Henrik Keij. "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"

> Foreshore replenishment activities near the island of Texel, the Netherlands

## 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

#### 2021 Performance

- These activities accounted for 5% of our Group revenue
- See project examples on page 33-34



Our salvage operations are deployed to rescue distressed vessels and their cargo and thereby avert serious environmental damage to the marine environment. Our Salvage business provides emergency response and wreck removal services all over the world and its pollution prevention activities contribute 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, terminal operators, oil & gas majors, as well as 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.

Our salvage plans include steps, actions and alternatives on the most effective measures to avert damage to the vessel, its cargo and the environment. Due to the dynamics of continuously changing circumstances and time pressures inherent to salvage operations, such plans are often founded on the best available information at hand and expected developments. National or regulatory authorities, or the client, often have the ultimate decision-making power as to which subsequent action is pursued.

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 320,000 tons of (refined) oil products and approximately 920,000 tons of hazardous cargo from spilling into our oceans and seas.

We are a member of the International Salvage Union and the P&I (Protection and Indemnity) organization. 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.

Notable examples of our Salvage projects in 2021 include:

- Ever Given this ultra-large container carrier blocked the Suez Canal for six days in March 2021, with a significant impact on global supply lines. Our salvage operators refloated the vessel, averting a prolonged blocking of the Suez canal and thereby limiting the negative consequences for a large share of world trade;
- Tamango the removal of bunker oil and other pollutants, including asbestos, from this fishing vessel that caught fire close to the Norwegian port of Kirkenes in June 2021;
- NS Qingdao the transfer of chemical cargo, including fertilizer, from this bulk carrier off the South African port of Durban following an onboard fire.



#### **SALVAGE IN ACTION**

#### **Eemslift Hendrika**

In April 2021 our salvage team successfully prevented a general cargo ship from running aground off the Norwegian coast after it got into difficulty on its voyage from Bremerhaven in Germany to the Norwegian port of Kolvereid. With around 350 tons of heavy fuel oil and 50 tons of diesel fuel also on board, the situation presented serious environmental risks in the event that the ship ran aground on the rocky Norwegian coastline.

The 12 crew members were successfully airlifted to safety, leaving the unmanned vessel drifting in the North Sea towards the coast. Bad weather initially prevented our salvage team from being airlifted aboard the listing ship, however, as it changed course towards the coastline, the team were eventually lowered onboard by helicopter late at night and able to avert the environmental threat.

"Through the bravery of our salvage team, supported by our response partners, we managed to hook-up to the vessel and tow her into a place of shelter where she was subsequently stabilized, thereby avoiding a considerable environmental incident off the Norwegian coastline," said Richard Janssen, Managing Director Salvage.


"OUR SALVAGE OPERATIONS ARE DEPLOYED TO RESCUE DISTRESSED VESSELS AND THEIR CARGO AND THEREBY AVERT SERIOUS ENVIRONMENTAL DAMAGE TO THE MARINE ENVIRONMENT"

> Salvage operation of the cargo ship Eemslift Hendrika off the Norwegian coast

# 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 wellbeing 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 wellbeing 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

#### 2021 Performance

- Launch of The Expedition training
- Developed NINA E-learning
- LTIF 0.02
- TRIR 0.21





#### **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. Since then our Total Recordable Injury Rate (TRIR) has dropped to 0.21 and our Lost Time Injury Frequency (LTIF) to 0.02, thanks to the sustained commitment of our employees and management. Nonetheless, very sadly, for the first time in many years, in 2021 we were confronted with a fatal accident on board one of our vessels.

#### 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 1,800 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 an interactive NINA induction session, a rule-based safety training 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 20 languages. Among several ongoing initiatives, in 2021 we focused on two main areas within the NINA program:

- Online training: a central focus of the NINA program in 2021 was to develop online versions of all NINA training modules so that the program could continue to run effectively in all locations throughout the pandemic. In total, 43 training programs have successfully been launched online. This process followed the introduction of the NINA E-learning which was launched for our own teams, subcontractors and third parties in 2020 and has been completed by 4,531 employees and contractors.
- The Expedition training: a new safety program, known as The Expedition, was launched during the summer of 2021 with a focus on the concept of safety leadership and aimed at further strengthening our safety culture. The Expedition is a six-month program for 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. During 2021, 107 people took part in the program. The launch of The Expedition follows successful pilots on the Ostwind 2 and Kitimat projects in 2020.

#### **NEW SHOC PLATFORMS LAUNCHED**

To achieve a safer working environment our people are encouraged to report hazardous situations using our Safety Hazard Observation Cards (SHOCs) system. In 2021 we launched a new SHOC reporting and data analysis platform that includes a mobile app, web application and dashboard. The new platforms enable a more pro-active approach to accident prevention by enabling users to track their reports, include their own safety suggestions, and record positive safety behavior. Meanwhile users of the web app and dashboard can determine behavioral trends and safety statistics across projects.

#### **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 has made occupational health a top priority within Boskalis, something that is reflected in the outcome of the materiality assessment among our stakeholders. During 2021 our central objective remained to keep the COVID virus away from our projects, vessels, and offices. To mitigate risks, we have vaccination, medical check-ups and tailored prevention programs in place. Our Emergency Response Team can offer rapid response in the event of a health crisis. The team comprises employees from our corporate SHE-Q and human resources departments, as well as medical specialists from our Travel Clinic in Rotterdam. Our prevention officer maintains a network of supporting experts, including company doctors, human resource professionals, domestic and overseas social workers and links within the internal Works Council.

As a result of continuing restrictions around the pandemic, we have focused heavily on the mental health of our employees, particularly those facing long periods of quarantine or who live alone and have not been able to engage physically with colleagues. Our designated Quarantine Team monitored the mental health of colleagues at risk via regular phone calls and other forms of interaction.

#### THE VITALITY PORTAL

Recognizing the need to focus on the wellbeing of our employees throughout the pandemic, we created the interactive Vitality Portal, where employees can find a diverse package of information, services and activities to support their vitality and encourage an optimal work/life balance. In response to particular issues such as stress or sleep problems, Boskalis held bi-monthly live and interactive webinars as well as custom tutorials on relevant topics. 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.

#### **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 18,500 people, including our employees, client representatives and subcontractors.



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



### A SAFETY CULTURE ACROSS THE FLEET

Boskalis

Cable installation and burial with a trencher for the Mordy East windfarm project

Boskalis



In early 2021 Boskalis completed a cable installation and burial project off the coast of Scotland on behalf of our client the Moray Offshore Windfarm East Ltd (MOWEL). During the project, a pattern of safety incidents emerged on board Boskalis and subcontractor vessels, prompting Boskalis to consult directly with the leadership of every vessel to find an effective remedy. Through structured engagement with crew members, Boskalis was able to lead an open discussion about safety concerns and stimulate behavior that led to a reduction in the incident rate across the fleet. We spoke to Neil Crawford, Subsea Cables Package Manager at MOWEL, and Boskalis Project Manager Bart Roeleveld about the role played by the NINA program.

"As we hit peak construction and we had several vessels in the field – lots of different subcontractors working – we saw a trend of minor incidents that started appearing in multiple places," Crawford recalled. "This was flagged as an early indicator that we could be a step away from a serious incident so some level of intervention was required."

The initial response of Boskalis' Project Manager Bart Roeleveld was to organize a NINA (No Injuries, No Accidents) refresher training for everyone on board the vessels. NINA makes vessel and project crew aware of their own responsibility regarding safety and provides a set of tools to assess the risks in individual circumstances; and take appropriate measures to prevent incidents. But Roeleveld knew that, on its own, the training was unlikely to produce the required results.

"The solution lay in a longer term approach, particularly one which helped crew members to come up with actions themselves that would help them to reduce incidents," Roeleveld explained. "So instead of trying to solve this on the vessels' behalf, I set up a meeting with the vessels and the client and ourselves onshore. And the question was: how can we solve this?"

From there, Roeleveld brought in a third party to help foster an open discussion in which everyone was comfortable to share their safety concerns and ideas. This initial forum was followed by a series of structured one-hour meetings, on a weekly basis, involving the leadership on board every vessel.

"Bringing in a third party to really openly understand the challenges for each party, to get them on the table, I think that was a really important step," explained Crawford.

"It was about finding a solution through individual ownership and accountability, trying to empower the people who are actually doing the work to come up with the best way of doing that and owning that. This demonstrated to us as a client that Boskalis was really taking health and safety seriously. They were taking responsibility for improving the safety culture across the fleet and we also saw real examples of good practice from one vessel being shared and adopted by another. And from there the trend of safety events and incidents went down. We saw a positive impact in terms of a reduction in the number and severity of incidents."

According to Crawford, in a situation that is governed by a number of safety rules and programs, the NINA program and its behavior-based philosophy was key to giving the crews the right tools to respond.

"The challenge, certainly with our project, was that a large component was delivered by established subcontractors that have their own safety system embedded. So it didn't make practical sense to try to change that," Crawford said. "For us, the NINA program and its focus on behaviors was correct because when we drilled down into the safety incidents they were often down to underlying human factors as opposed to people breaking rules."

Through the open discussions, crew members across the fleet were able to shed light on the root cause of some of the incidents, thereby enabling everyone to propose solutions. The structured dialogue then enabled the crews to share lessons learned and fresh safety initiatives.

"We spoke directly with the offshore construction manager and the captain so they were the ones leading the safety initiatives onboard and reporting back with their progress each week," said Roeleveld.

One of the human factors Crawford mentioned was a sense of time pressure to complete the project. This prompted not just re-establishing the "think before you act" philosophy that is embedded within NINA, but also ensuring that this message was regularly reinforced and that everyone onboard felt able to speak up.

"That was one of the key themes from the NINA behavior side that I felt came through and was an important message," Crawford said. "I think the main story from Moray East was through Boskalis' active intervention and positively addressing the issues early on we saw a marked improvement across all areas on the second half of the project."

### 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 refresh our approach to performance management and talent development in support of career advancement, internal mobility and employee retention

#### 2021 Performance

- Renewed focus on talent development tools and performance management processes within our Human Excellence approach
- Launched the Boskalis Academy, an online learning management system for our employees in the Netherlands
- Evolution of our recruitment process to meet the challenges of the global labor market
- 76,649 training hours
- Percentage staff turnover 12.4%
- New Diversity Policy and Diversity Taskforce that reports to the Board of Management



#### COVID-19

During 2021 the pandemic continued to pose a number of challenges for Boskalis employees and management. Through the year our HR department remained highly responsive to the impact of the virus and the associated restrictions on the workforce and implemented a range of initiatives to optimize not only the wellbeing of our employees, our first concern, but also the continuity of our business practices.

#### **OUR APPROACH**

In a world of rapid commoditization, low cost capital and growing expectations on local content, human capital is the main differentiator for gaining a sustainable competitive advantage. Coupled with the current shortages in the international labor market, this exerts pressure on our staffing requirements both in terms of numbers and the skillsets required. Our people are therefore considered our most important asset and a determining factor for our success. Recruitment, retention and the development of excellent staff sit at the apex of Boskalis' sustainable growth strategy. 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.

#### HUMAN EXCELLENCE

Human Excellence is a strategic pillar within our Corporate Business Plan. Under this pillar, we aim to be highly strategic in



how we grow our workforce, whilst creating 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. Through the Human Excellence pillar, in 2021 we have focused on attracting and developing the right talent, delivering effective engagement and supporting internal mobility within Boskalis.

During the year Boskalis held a Human Excellence Week which served to showcase the talent development tools and processes we have developed in regard to the pillar's objectives and heighten awareness on these topics across our workforce. A particular focus of the week was to support employees' self-management with regard to their own development and to trigger structured and meaningful engagement between managers and employees around performance, future ambitions and career prospects. Managers were also actively engaged to stimulate and facilitate development and mobility within their teams and allow time and space for learning and development.

#### **OUR 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 responsibleness. 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 with our core values.

Through our periodic employee engagement survey, we monitor aspects of our culture and the extent to which they align with our values and purpose. In our most recent survey, which elicited more than 4,000 responses, employees described their "passion" and sense of "pride", both in being part of the organization and in terms of their own role and contribution to projects. Reflecting our values of teamwork and entrepreneurship, many employees described projects they were working on as "pioneering" or "unique" and made positive reference to the autonomy and responsibility the company gives to individual teams to execute complex assignments.



#### WAVEJUMP INNOVATION CHALLENGE

The WaveJump program and the Innovation Challenge (WIC) represent opportunities for our employees to share and develop their innovative ideas and inventions. The program is based on a continuous process of four phases: create, explore, validate, and implement ideas. Innovation Coordinators support Idea Owners in bringing an idea to fruition. During 2021 four teams continued to develop their ideas towards commercial success, including the Go-Barry project (see page 58).

WaveJump serves not only as an effective platform to bring together our international employee base to share their ideas, but it also generates unique solutions for our clients, delivers contributions to safety, and helps us manage the impact of our work on the environment.

Boskalis places a strong emphasis on integrity and business ethics, an area where we are further increasing our engagement with staff through a new e-learning program 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.

Our NINA (No Injuries, No Accidents) safety program instils 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 responsibleness 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. Feedback from our employee survey highlighted an appreciation of this approach and, in particular, a culture which sees senior management put its trust in people to get on with the work at hand, whilst supporting them in their professional development.

#### ATTRACTING TALENT

The race to attract and retain the right talent remained challenging in 2021 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. Growing project complexity translates to a greater need to attract more complex skill sets to meet client requirements. We have therefore continued to evolve our recruitment process to attract the next generation of engineers and other specialists, recognizing that innovation and sustainability resonate with the talented individuals we want to join our organization.

At the beginning of the year we restructured our approach to hiring graduates for our trainee programme. We took the decision to separate our online recruitment campaigns into two strands, Operations and Engineering on the one hand and Fleet Management and Finance on the other. This enabled more targeted engagement with potential applicants, followed by a tailored testing and interview process. Emphasis was also placed on using our existing projects and global platforms to recruit internationally. Of 56 trainees recruited for our Operations and Engineering trainee programmes, one third were from outside the Netherlands.

Against the backdrop of a challenging labor market, to help us better understand our future talent we commissioned an external consultancy to conduct a demand and supply survey within specific business units. Based on various factors such as the number and type of projects in the pipeline, together with staff utilization and retention rates, among others, the survey developed detailed projections for our future hiring needs. The same survey will be conducted in other business units in the coming year to further support the planning process for our strategic workforce.

### TALENT DEVELOPMENT AND PERFORMANCE MANAGEMENT

To meet the challenges of an increasingly competitive market and ensure our people realize their full potential, in 2021 we delivered a range of training initiatives at every level of the organization. Meanwhile feedback from our own employees has shown a clear desire for more career development opportunities within Boskalis. We have responded by revising our performance management process to make it more transparent and shifting the emphasis around talent development to activate our employees to take the lead in their own career progression.

#### **BOSKALIS ACADEMY**

In 2021 we launched the Boskalis Academy, an online learning management system where our employees in the Netherlands can follow e-learnings and register for a range of accompanying live trainings and courses. The Academy was borne out of the online learning platform set up in the early phase of the pandemic when all company training programs were forced online. The unprecedented circumstances of COVID-19 presented an opportunity to restructure the way in which we offer training to our people and has resulted in a blend of online and live training courses. The hybrid system has vastly reduced travel time and costs and also led to increased attendance rates with a higher percentage of those starting a course seeing it through to completion. Between 3,500 and 4,000 employees have access to this online learning platform which will be extended to our global operations and workforce in 2022. During 2021 our Learning and Development department executed 255 different training programs within the Academy. A total of 1,537 employees took a combined 3,829 courses, amounting to 35,411 training hours.

Our separate Online Academy offers over 400 e-learning courses which can be completed from any of our locations globally and regardless of role or level within the company. Through the Online Academy, employees are in control of their learning and are very much encouraged to take the lead in their own development and hold conversations with their manager about which training fits with their current or future needs. During 2021 new courses in Intellectual Property, Effective Communications, Finance, and Finance for Non-Finance Professionals were developed.

#### PROJECT MANAGEMENT ACADEMY

Faced with an evolving commercial landscape and increased competition within Offshore Energy, during 2021 we have actively invested in our project manager community to ensure they are properly equipped with the right skills to meet this challenge. More than 40 project managers and directors in our Offshore Energy division undertook management training as part of a new global programme. 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 and project ownership and awareness.

#### DREDGING ACADEMY

Following its launch in late-2020, our Dredging Academy provided training courses throughout 2021 to develop the craftsmanship and wider skills of employees within the division. The Academy's learning modules focus on specific dredging functions and equipment and are delivered through on-the-job learning, supported by knowledge-sharing and mentorship from colleagues.

"As the complexity of projects in the dredging industry increases, we distinguish ourselves more and more based on the skills we have available and how we deploy them on projects," explained Dredging Academy Manager Albert de Jong. "The high level of craftmanship that this program delivers enables our people to be deployed across a range of dredging vessels and projects."

The Academy's formal learning takes place online and can therefore be completed from project sites and onboard our vessels, making it easily accessible and – supported by mentors and other crew members – highly effective.

During the year the Academy trained more than 400 people over 80 training days. The combination of modules and flexible pathways offered by the Dredging Academy support internal mobility within the division and sustainable employability over the longer term.



#### PERFORMANCE MANAGEMENT SYSTEM

The improved performance management system was finalized and launched across our Netherlands workforce in 2021. The new approach encourages 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. Based on the Human Excellence pillar, we strive for a culture in which our team members and managers have an open and transparent dialogue about performance and development with a focus on active mobility within Boskalis.

#### INTERNAL MOBILITY AND RETENTION

Internal mobility is an important cornerstone within Human Excellence. In 2021 we have improved the visibility of career opportunities within Boskalis and – through structured training and support to both managers and employees – have fostered a more focused dialogue around personal development and progression.

During the year we developed the Mobility Desk which is designed to offer our people more comprehensive career guidance, outside of formal management and reporting structures. The focus of the initiative in 2022 is to provide and assess career options for people who are weighing up their next steps at Boskalis. The Mobility Desk can give them the appropriate support and guidance on a range of pathways for progression within the company.

#### 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 launched our STIP program ("Start your Future in our Projects"). 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 that was launched in 2017 is now a well-integrated concept among our Netherlands' workforce. 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. In 2021 our Vitality Portal (please see page 39) added some important elements to Boskalis' greater goal of contributing to the health and wellbeing of our employees.

#### **EMPLOYEE ENGAGEMENT**

With so many of our employees continuing to work from home, or away on ships, for longer periods than usual due to the COVID-19 travel bans, we undertook a range of initiatives to keep our employees motivated and engaged.

#### INTERNAL COMMUNICATIONS

The role of internal communications has been critical throughout the pandemic, resulting in frequent COVID-19 updates from CEO Peter Berdowski via email and video messages. Through our global internal communications platform Yourizon, we have continued to share stories and pictures from colleagues working on projects, vessels and at home, with the aim of keeping everyone in the company up to date on the latest developments. Through 2021 we held regular livestreams and interviews with the CEO and the members of the Board of Management to keep the organization informed and connected.

#### **QUARANTINE SUPPORT**

Large numbers of colleagues continued to be subject to long periods of quarantine, with the potential for serious impacts on personal wellbeing. Our Quarantine Support Team gave assistance to colleagues all around the world, looking after their mental and physical wellbeing. We adapted this support to suit local circumstances; some colleagues were in isolation on vessels while others had to spend their quarantine in hotels. In some instances we hired extra staff from outside the organization, including psychologists. We also set up a Quarantine Support portal with tips, about how to use the time in isolation for selfdevelopment, by following training courses for example via the Boskalis Online Academy. A Quarantine Guidelines toolbox was introduced to give practical advice and tips as well as a box with provisions for the quarantine period.





Over the last two years the pandemic and the necessary restrictions have had a substantial impact on the working conditions and mobility of our employees around the world. From long periods of quarantine in hotels, to extended periods onboard our vessels, our employees and their families back home have made notable sacrifices on behalf of our company. To show its appreciation, Boskalis sent flowers and small gifts to employees' families who have been most impacted.

"When we arrived in Taiwan we had to spend two-and-a-half weeks in hotel quarantine before even joining the vessel," remembers Alje Noorman, Captain of the Beachway hopper dredger that was working on the Yunlin offshore wind farm at the height of the pandemic. "After that, we had to wait another week to board the vessel because the colleagues we were replacing were not allowed ashore due to the COVID-19 restrictions. We eventually joined the ship but by the time of the next scheduled crew change, Taiwan had closed its borders entirely so no one was able to get on or off."

Noorman and his crew were eventually forced to head north-east to Japan where they were able to do a crew change before flying home several weeks later than planned.

"What happened with the Beachway is just one example of what our colleagues and their families have been through during the pandemic," explained Edgar van Oers, Manager Nautical Department, Crew and Compliance within the company's Dredging division. "As a company we wanted to show our gratitude so we decided to send out flowers and small gifts, particularly to the families who have been without their loved ones for extended periods."

"The crews' partners and families all received some nice flowers while they were away which was really appreciated," Noorman said. "They were also sent gift sets of luxury soaps and cosmetics so that really made their wives happy and it was comforting to know the company was thinking about them while we were stuck on the other side of the world. Sometimes you have bad luck, but gestures like this really help to keep peoples' spirits up."



#### BOSKALIS WORLDWIDE CONNECTED – OUR AWARD-WINNING RADIO SHOW

After first hitting the airwaves in 2020, the online radio show Boskalis Worldwide Connected (BWC) returned in May 2021 and again in December for a festive edition. Like the year before, the focus of the program was on staying connected during the pandemic, having fun and raising money for charity. The shows provided a mix of interviews, quizzes, live links with colleagues on vessels and projects, while other Boskalis staff including board members took turns in the studio to add to the fun. BWC has raised a total of EUR 50,000 for the charity Doctors Without Borders and was a great way for employees to enjoy some festive cheer and connect with their colleagues during another year with long periods of working from home.

In December 2021 the show was crowned the winner in the "Internal Communications in response to COVID-19" category at the prestigious European Excellence Awards in PR and Communications. The Excellence Awards honor outstanding achievements in the field of communications. All entries are judged by a jury on criteria that include creativity, innovation, implementation and strategy. The award followed four other awards the show picked up earlier in 2021 at the Internal Communications and Engagement Awards, organized by Communicate Magazine in the UK.

One of the judges summed up what the radio show has achieved: "It was a standout creative idea, with great impact both for Boskalis and for its community. What a wonderful way to bring employees together during a difficult time. An amazing idea, delivered brilliantly."

### 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. 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 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. Our male to female ratio of 86:14 remained the same in 2021 compared to 2020 and 2019. In our head office, the amount of women increased by 1% points in 2021 with a male female ratio of 70:30.

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. In 2021 we established a new Diversity Taskforce to support diversity across the company.

We are a truly international team, with employees of over 85 different nationalities. We are also well-balanced in terms of our age profile. Seventy three percent 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 66:34. The majority of our managers and support staff are based in our head office in the Netherlands.

#### **RESPONSIBLE LABOR PRACTICES**

All over the world our employees devote a considerable amount of their time, knowledge and expertise to Boskalis. It is therefore 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 6,254 employees, 38% 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. We have a Boskalis pension plan and information on this can be found in our 2021 Annual Report under 'Defined benefit pension plans'. For information on our Diversity Policy please see page 91 of this report.

#### CONTRACT TYPE AND STAFF TURNOVER

The majority of our employees (2021: 81%) 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 decreased in 2021 to 12.4% compared with 13.0% in 2020. This year we welcomed 1,306 new colleagues, all new hires, and 1,189 employees left Boskalis. Of these, 518 employees left due to voluntary termination or retirement. A total of 561 jobs were discontinued due to projects or contracts coming to an end. Both inflow and outflow figures are lower than in 2020, impacted by the effect of the pandemic and the uncertainties in the job market. 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. In most cases, such contracts are discontinued on project completion.





#### SUPPORTING OUR EMPLOYEES IN THE AFTERMATH OF TYPHOON RAI

Following the typhoon that devastated parts of the Philippines in late-2021, Boskalis is providing financial support to more than a hundred employees and their families living in affected areas. Typhoon Rai, a category 5 cyclone, tore through the central and southern islands of the country in December 2021, killing around 400 people and leaving hundreds of thousands more homeless. The islands were plunged into a humanitarian disaster with local communities desperate for food, clean water and power.

Boskalis employs more than 1,000 Filipino colleagues, directly and through Anglo Eastern, and this number will further increase with the large projects currently under execution in the bay of Manila. Nearly 300 colleagues live in the worst-hit areas, many of whom have had their homes destroyed or badly damaged. Boskalis is providing those affected with an interest-free loan to help them repair or re-build their property.

"Given the catastrophic situation on the ground, it will take a considerable effort for people to put their lives back together." said Lodewijk Wijngaard, Human Resources Director in Dredging and Inland Infrastructure. "The company is glad to be able to provide this much-needed assistance to our colleagues and their families."



# 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':



### 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

- Net zero 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 influences

#### 2021 Performance

- Scope 1 and 2 CO<sub>2</sub> emissions 1.08 million MT
- 82% of tenders in the Netherlands include sustainability measures



As part of our contribution to the ambitions of the 2015 Paris Climate Agreement we are committed to our target of being 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 can achieve substantial reductions in their emissions in the near term, 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 the total carbon footprint of the company, it is important to distinguish between those parts where our sphere of influence to reduce emissions is significant and where we have direct control versus parts of our operation where our influence is indirect or where we are dependent upon 'outside' developments. 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. The largest part of our  $CO_2$  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 availability of 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. We also offset all electricity we purchase with Dutch Biomass NTA 8080 certificates, thereby neutralizing the associated Scope 2 emissions.

In 2020 we installed more than 5,350 solar panels at one of our distribution centers in Vlaardingen, generating 1.6 million kW hours of green electricity per year – equaling 15% of Boskalis' total energy consumption in the Netherlands. This makes the facility, which holds an energy label A+++,  $CO_2$  negative, generating more electricity than it consumes. In 2021 we installed additional solar panels on our newest office building at our head office in Papendrecht and we are currently investigating options for further upscaling.

#### OFFICE COMMUTING

We have 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. Prior to the pandemic we also supported car-pooling among our staff through an organized initiative and mobile app.

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. In November 2021 we opened a large-scale charging facility at our Papendrecht headquarters, marking a significant investment in charging capacity for EVs. The new facility has 252 charging points and is one of the largest of its kind in the Benelux region.

The new EV infrastructure is in line with our wider efforts – through our lease car policy – to reduce the overall  $CO_2$  footprint of our car fleet in the Netherlands. We aim 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.

#### **OUR CARBON EMISSIONS**

Our total Scope 1 and 2  $CO_2$  emissions amounted to 1.08 million MT in 2021. Emissions from our fleet amounted to 1.06 million MT compared to 0.97 million MT in 2020.

For our Offshore Energy division, our fleet  $CO_2$  emissions in 2021 were 0.63 million MT, a 17% increase over 2020 when the figure was 0.54 million MT. This increase is largely explained by the acquisition of Rever Offshore in late 2020 and the addition of numerous vessels, many of which are to be used in the renewables market. Vessel additions in 2021 included the Boka Tiamat, Boka Fulmar, Southern Ocean, Ocean Revolution, Horizon Geodiscovery, Ocean Geograph and the recommissioning of a heavy marine transport vessel. The acquisition of Rever Offshore also contributed to a larger fleet of diving support vessels with the addition of the Boka Polaris and Boka Topaz. Subsea Services contributed 3% to the division's overall increase in  $CO_2$  emissions. At the same time, Heavy Marine Transport, with an increased vessel utilization, and



	ENERGY CONSUMPTION					CO2 MT ('000)**
	FLEET			ONSHORE		TOTAL
	<b>HFO</b> MT ('000)	MDO/MGO* MT ('000)	<b>ELECTRICITY</b> KWh (million)	<b>GAS</b> MJ (million)	<b>FUEL*</b> MT (million)	
2021						
Dredging & Inland Infra		134			4.4	443
Offshore Energy	1	197				632
Offices			5.1	6.8		2.9
Total 2021	1	331	5.1	6.8	4.4	1,078
2020						
Dredging & Inland Infra		133			3.5	439
Offshore Energy		169				542
Offices			4.9	5.6		2.8
Total 2020		302	4.9	5.6	3.5	984

\* Includes biofuel.

\*\* For the method used to convert fuel to CO2, see page 95 of this report.

Marines Services with its additional vessels, accounted for 7% of the increase. Furthermore, Heavy Lifting also contributed to the emissions increase, in part due to the higher occupation of the Bokalift 1 in Taiwan and the repositioning and testing of the Bokalift 2 that is currently under construction before it starts working on offshore wind projects.

In 2021 our dredging fleet CO<sub>2</sub> emissions remained at a similar level to 2020 at 0.43 million MT. This was in spite of a higher utilization rate of our trailing suction hopper dredgers in 2021 compared with the prior year.

We do not report the emissions from Towage as this business has been incorporated in joint ventures. The emissions from our Salvage operations are not reported in our Scope 1 and  $2 \text{ CO}_2$  emissions, we rely on vessels from the other divisions or third party assets for these services.

#### DRY EARTHMOVING EQUIPMENT

The vast majority of our Inland Infra dry earthmoving activities are conducted in the Netherlands. In 2021, all of our dry earthmoving trucks ran on a pure biofuel where it was available, resulting in a reduction in CO<sub>2</sub> emissions of nearly 50% 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 7.3% reduction in CO<sub>2</sub> emissions compared to traditional fuel usage across the fleet.

Our Emission-Free Construction Site Program targets all onshore construction projects in the Netherlands being climate-neutral by 2030, with the first pilots for emission-free equipment scheduled to start in 2022. 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 2021, 82% of Boskalis Netherlands tenders included a sustainability component. On successful tenders, such as the OFOR Zwolle bicycle park (see page 22), we typically work with our clients to develop a sustainability plan that shapes both the project scope and work practices to reduce emissions. The final joint plan typically also seeks to prioritize 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 29).

#### 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 98% of our Scope 1 and 2  $\mathrm{CO}_{_{2}}$  footprint – in 2021 this amounted to 1.08 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. Where we have the ability and direct control to reduce emissions, the effects have been impressive. These measures include the development of dashboards onboard certain vessels, as well as remotely, to improve awareness of fuel consumption among crew members and help shape their behavior to conserve fuel and reduce emissions through operational changes. Our dashboard program, which began in 2020 and is evolving, currently focuses on the smaller vessels within our offshore fleet. Depending on the vessel and its operating conditions, dashboards can lead to a reduction in fuel consumption in excess of 8%.

Where possible we 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. In December 2021 Boskalis took delivery of its largest-ever consignment of drop-in biofuel which was used to power two

hopper dredgers - the Willem van Oranje and the Strandway on projects in north-western Europe. The delivery of more than 1,000m<sup>3</sup> of Hydrotreated Vegetable Oil (HVO), a sustainable biofuel derived from used cooking oil, was in collaboration with Boskalis' long-term partner and fuel supplier, GoodFuels. Through this partnership Boskalis enables its clients to opt for biofuelpowered 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 emissions. These include:

- Ongoing efforts to optimize and right-size our fleet. These have resulted in significant declines in vessel tonnage and associated CO<sub>2</sub> emissions;
- 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%;

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#### **GELDERLAND PROVINCE, THE A348 MOTORWAY**

In 2021 Boskalis completed the reconstruction of a 12 kilometer stretch of the A348 motorway between the towns of Arnhem and Dieren in the Netherlands' Gelderland Province. The project's focus on circularity through the re-use of old asphalt and deployment of an electric asphalt plant led to a saving of 91% of  $CO_2$  emissions against the design reference.

A significant proportion of the  $CO_2$  emitted by conventional asphalt production comes from the gas used to heat the asphalt plant. In the reconstruction of the A348, for the first time, Boskalis deployed an electric mobile plant that it has designed and built with its joint venture partner ARP Engineering. The plant, which is known as "Helice", not only runs on electricity but also employs an innovative design that enables it to recycle a higher percentage of old asphalt than conventional methods. As a result, around 60% of the asphalt produced for the porous surface layer of the reconstructed A348 derived from recycled material.

In what was the first project of its kind, the plant produced asphalt at a rate of 15 tons per hour. However it is envisaged that, with further development and modifications to the process, this can be scaled-up to between 200 and 300 tons per hour, representing a significant potential reduction in emissions for future road-building projects.



#### OVERNIGHT MOORING SPIJK: A NEW HARBOR ON THE RHINE

On behalf of our client, Rijkswaterstaat (the executive agency of the Dutch Ministry of Infrastructure and Water Management), Boskalis has begun a EUR 40 million project to build a new harbor on the river Rhine in the Dutch province of Gelderland. The harbor, located near the town of Spijk, will have ten jetties with berths for 50 ships making the voyage to and from Rotterdam. On completion, scheduled for the end of 2023, the project will have made considerable savings in  $CO_2$  emissions compared to conventional construction methods.

Boskalis optimized the design of the embankment in the harbor's inner basin to lessen the tonnage of stones required. This resulted in a  $CO_2$  reduction of 49% (almost 10,000 tons) against the design reference. Meanwhile, with our partner Wezendonk, we are dredging two million cubic meters of sand using an electric dredger and earthmoving equipment run on biofuels. This is expected to save a further 6,000 tons of  $CO_2$ , or 72% against the use of fossil fuels. The use of the electric dredger has also cut emissions of nitrogen oxide (NoX) by 90% against the design reference. There will be two nature reserves to the west and east of the completed harbor providing biodiversity benefits to the local surroundings.



- The use of battery packs on certain offshore vessels to reduce energy consumption and emissions during dynamic positioning operations. This can reduce energy consumption and related emissions by up to 30% during dynamic positioning operations;
- 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;
- 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, more 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 (cubic meter 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 20% 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.

In December 2021, as a member of a broader maritime consortium, we launched a multi-year program of over EUR 35 million to conduct research into how to accelerate the use of methanol as an alternative fuel within the shipping industry. The program is entitled *Methanol as an Energy Step Towards Zero-Emission Dutch Shipping* and sponsored by the Dutch Government's Rijksdienst voor Ondernemend Nederland (Netherlands Enterprise Agency). The research project 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. This program is part of the Dutch Maritime Masterplan that seeks to identify the most suitable alternative fuel for each type of vessel and whether it is sufficiently scalable to meet the industry's needs.

#### **NEW ENERGY SOURCES**

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 eight 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.

Methanol as an Energy Step Towards Zero-Emission Dutch Shipping (MENENS): please see page 59.

**AmmoniaDrive:** a joint research program led by Delft University of Technology to further develop knowledge about the use of ammonia as an alternative fuel for zero-emission shipping. The program is investigating 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.

A Maritime Innovation Impulse Project (MIIP) - Enabling hydrogen for maritime dredging operations: a joint initiative led by Delft University of Technology under the Dutch Maritime Masterplan 2030 to explore the use of hydrogen as a fuel for dredging operations. The project delivered its final report in December 2021 which presents an overview of storage and handling systems for hydrogen from a materials and safety perspective. The findings inform the next steps in the development of hydrogen as a suitable fuel for dredging vessels.

**Dutch Coastline Challenge:** Boskalis is part of a joint initiative to advance sustainable methods for shoreline maintenance along the Dutch coast. The project – which is in partnership with Rijkswaterstaat, Vereniging van Waterbouwers, Deltares, Delft Technical University and the EcoShape foundation – focuses on developing carbon-neutral practices and equipment attributed to sand extraction and replenishment. For further details please see page 29.



## 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 have a positive impact on the environmental and social outcomes of our projects. Our innovation strategy is built on the priorities of our business units and has defined innovation themes that are directly 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.

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### SAFETY





#### THE 'GO-BARRY' - A SELF-MOVING TRAFFIC BARRIER

Following our earlier testing of the concept, in 2021 the 'Go-Barry' remote-controlled traffic barrier was granted a temporary licence by the Rijkswaterstaat (the executive agency of the Dutch Ministry of Infrastructure and Water Management). It was then successfully deployed on a five-week pilot at a Boskalis motorway maintenance project in the province of North Holland which demonstrated the abilities and readiness of the innovation.

The Go-Barry traffic barrier is designed for roadwork situations and is operated from a distance via a remote control. The design delivers substantial safety advantages for roadworkers, as well as improved traffic flow and time savings for motorists. In 2022 a larger version of the Go-Barry will be developed and deployed on a Boskalis road maintenance project near the town of Maasburg in the Netherlands.

#### **CLIMATE CHANGE MITIGATION**



#### INNOVATIONS FOR COASTAL MAINTENANCE PROGRAM -THE CABLEHOPPER

In partnership with Rijkswaterstaat, Boskalis is designing a low-carbon dredging vessel – the Cablehopper – to conduct maintenance and beach replenishment work along the Dutch coastline. The project is part of the Dutch Coastal Challenge program under which Boskalis is actively supporting Rijkswaterstaat's objective to develop zero-emission coastal maintenance equipment by 2030.

Innovative propulsion, a slow sailing speed and optimized suction production mean the Cablehopper uses substantially less energy per cubic meter of material than a conventional trailing suction hopper dredger. The vessel's economics, remote-controlled operation and low energy costs all compensate for its relatively low production rate, thereby creating a cost-effective, low-carbon solution.

Under the same program, a hydrogen-fueled trailing suction hopper dredger is being designed in collaboration with our partner IHC that has about 30% of installed power compared to a similar conventional vessel. We are currently reviewing the production rates and business case for the design compared with alternatives such as methanol-powered vessels.

#### A VIADUCT FOR A CIRCULAR ECONOMY

As part of the ViCi Consortium, Boskalis is developing an environmentally sustainable and fully re-usable viaduct for use within the Dutch road network. On average, viaducts in the Netherlands are replaced around every 50 years, before the end of their technical lifespan; but this design uses a recoverable modular concrete arch construction and substructure which enables the components to be dismantled and moved, and then rebuilt in another location.

The design reduces the use of primary raw materials by more than 50% and its use of sand and soil in place of concrete foundations cuts  $CO_2$  emissions by almost 60% compared to traditional designs.

The viaduct is currently in the design phase and the first prototype will undergo installation and testing in 2022. It is estimated that the technology could be applied in 40% of cases where viaducts are needed on local and provincial roads across the Netherlands.

#### MENENS (METHANOL AS AN ENERGY STEP TOWARDS ZERO-EMISSION DUTCH SHIPPING)

In December 2021, as a member of a broader maritime consortium, we 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 highpowered dredgers.

Methanol can enable significant reductions in  $CO_2$  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, a study supported by TKI Maritiem and the Dutch Ministry of Economic Affairs and Climate Policy.

#### PORTXL

Boskalis partners 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 actually proving their value when it comes to innovating our business.

During 2021 we selected four start-up and four scale-up companies. Selected scale-ups included Seaqualize and WaterInsight. Seaqualize has patented technology to support heavy lifting projects – such as floating installations for offshore wind – that could complement our operations. WaterInsight measures water quality in such a way that could provide complementary data to that which we currently gather on certain dredging projects around turbidity. For more details regarding PortXL and other sustainable innovations, please refer to our website.

#### BIODIVERSITY





#### GROW

Boskalis participates in several joint industry projects within the GROW consortium that initiates research and accelerates innovations in offshore wind. In 2021 we participated in the 'Bubbles' project aimed at the development of more efficient and effective bubble curtains for noise mitigation in offshore installation projects. Monopiles are the most commonly used foundations for offshore wind turbines and hydraulic impact piling or hammering – the dominant method for driving them into the seabed – can create substantial noise and disturbance for underwater marine life. More effective control of noise levels during piling activities supports compliance with specific project noise requirements.

#### **ARTIFICIAL REEFS**

Boskalis' Artificial Reefs Program (ARP) has undertaken pilot projects in Monaco and Panama and, during the year, launched a further pilot in Shimoni, Kenya. The ARP is exploring optimal designs to protect vulnerable coastlines and support the preservation and restoration of important marine ecosystems. See pages 68-71 for full details.

#### ECOSHAPE

Boskalis has been a leading partner in the EcoShape consortium for 13 years, developing and implementing innovative solutions for clients through the Building with Nature approach. See page 65 for full details on our activities during 2021.

# **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 further develop 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

#### 2021 Performance

- Extended collaborations with international biodiversity NGOs, laying the foundations for formal collaborations on specific projects in 2022
- Conducted systematic analysis of potential data indicators to measure our biodiversity impacts, in line with our Biodiversity Framework
- Designed and delivered training program to projectbased staff on international standards and guidelines around biodiversity and wider environmental issues
- Building with Nature program investment



Biodiversity, the diversity of life on earth, is critical for a healthy environment and is a priority for Boskalis. In line with the OECD Guidelines for Multinational Enterprises, the protection of biodiversity and the marine environment are central to our environmental and social risk management policies and procedures. For example, 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/water 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 Marker Wadden (see page 30) 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. A summary of the measures we take to help prevent, reduce or mitigate the impact of our activities on the environment is set out on the page opposite.

#### MAIN BIODIVERSITY PRESSURES

#### TURBIDITY

Our activities can create a sediment plume. The reduced light penetration and sedimentation may impact sensitive species or habitats in the footprint of the plume.

#### HABITAT LOSS OR DISTURBANCE

Dredging, land reclamation or installation of offshore structures typically removes or disturbs the seabed habitat or species living in and around the project footprint.

#### INTRODUCTION OF INVASIVE SPECIES

Many of our vessels carry ballast water to improve stability and balance. The discharge of ballast water can be associated with the introduction of invasive species that may impact the natural ecosystem and affect biodiversity.

#### WASTE AND SPILLS

Our activities produce waste and have the potential to release polluting effluents, such as fuel, into the environment.



#### **ENVIRONMENTAL MANAGEMENT OPTIONS**

#### **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.

### 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.

#### **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.

#### ENVIRONMENTAL TRAINING AND MANAGEMENT SYSTEMS

In addition to environmental management certifications for our businesses (see page 105), 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.

#### **TECHNOLOGICAL INNOVATION**

We continue to invest in research to bring leading-edge solutions to clients seeking an environmentally sustainable project. We have brought several solutions to market that contribute to protecting biodiversity. These include: modular artificial reefs, the Plumigator that significantly reduces turbidity on dredging projects, a seagrass transplanter system and green valves for our hopper dredgers.

#### **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, we are currently in the process of developing measurable indicators of our impacts on biodiversity. During 2021 we evaluated and tested potential data indicators across both our Dredging and Offshore Energy divisions. Following our earlier work with IUCN we have 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 full outcomes of the above analysis will be known in early 2022. The results of our assessment of turbidity demonstrated that, of the projects carried out during 2021 that contained a turbidity scope, there was only one turbidity exceedance incident. The severity of the exceedance against the agreed turbidity limits was limited.

#### **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:

<ul> <li>Providing effective, nature-based solutions and developing new technologies and ways of working</li> <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>				
Avoiding the introduction of alien invasive species				
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.





#### **PROTECTING SEA MAMMALS IN TAIWAN**

In 2021 we completed the first of three foundation installation campaigns for the Changfang and Xidao offshore wind project off the west coast of Taiwan. The Taiwan Strait is home to a range of rare sea mammals and cetaceans, including the Taiwanese white dolphin whose numbers have declined over the last decade.

In line with Taiwanese regulation and Boskalis' own biodiversity framework around priority species, we have adopted a number of safeguards to protect sea mammals from any negative effects of our activities below the water's surface.

To ensure their welfare throughout the project we have actively taken steps to reduce noise levels of the piling site and to ensure that we can cease our activities if any sea mammals enter the vicinity. We have deployed a host of noise monitoring equipment and a Marine Mammal Observation (MMO) program, consisting of trained and certified MMO-observers and the use of thermal cameras.

Four MMO vessels operate constantly at a radius of 750 meters from the piling site. We also deploy a Passive Acoustic Monitoring System (PAMS) below the surface of the water which is set to the specific frequency required to detect vocalizing marine mammals. If any sea mammal is detected or observed then our piling activities are instantly brought to a halt until it has left the area. Further measures are also in place to mitigate the level of noise emitted from the piling site to the marine environment. We create what is known as a Double Big Bubble Curtain (DBBC) around the piling site. The curtain is formed by deploying two perforated hoses along the seabed, 360 degrees around the site. The hoses are then fed with high-pressure air from a DBBC vessel on the surface, causing air bubbles to rise up from the hose forming a 'curtain' around the piling site. The 'curtain' absorbs the sound of the piling activities and vastly reduces noise distribution in the water.

The effectiveness of the DBBC is constantly monitored by four underwater buoys positioned on the other side of the 'curtain', 750 meters away from the piling site. The buoys measure the noise levels against permitted thresholds. In doing so they enable an approach known as 'active piling': real-time transmission of the decibel readings to both the MMO vessels and the Installation Vessel, allowing for direct curtailment of piling activities should the threshold be breached.

"Based on real-time monitoring of underwater noise levels we are pro-active in applying measures to mitigate the effects of our work on the natural marine environment," explains Project Director André Andringa. "It is vital that Taiwan's sea mammals are protected and using this combination of protective and noise-monitoring measures is highly-effective in minimizing the impact of our activities on the marine ecosystem and local biodiversity."

## 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 Artificial Reefs Program (see pages 68-71) is a good example of what can be achieved through this approach.

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 risks presented by complex project environments.

To this end, in 2021 we continued our formal partnerships with the global non-governmental organizations the International Union for Conservation of Nature (IUCN) and Wetlands International, as well as our contribution to the work of EcoShape.

#### WETLANDS INTERNATIONAL

Through the year we intensified our partnership with the global non-governmental organization, Wetlands International. Based on our memorandum of understanding signed in 2020 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. Together we are focused on the development of a low-carbon future for Boskalis, as well as broader efforts to facilitate the accounting, avoidance, reduction and in-setting of our carbon footprint.



In line with our agreement, during 2021 both parties have explored value propositions for Boskalis projects with regard to the promotion and mainstreaming of best practices to enhance the sustainability of our maritime and dredging activities. This process is set to result in detailed collaborations on various projects in the course of 2022.

As part of our ambition to become climate neutral across our operations, we are working with Wetlands International to conduct studies into the feasibility of developing 'blue carbon' opportunities with the potential to generate carbon credit that can be used to in-set Boskalis' residual emissions and to explore the creation of carbon-balancing options for clients. Our focus has been to combine our own expertise and knowledge with that of Wetlands International to identify locations with significant blue carbon wetlands. Based on this initial work we are currently exploring climate change policies and business case development opportunities in South East Asia.

Together with Wetlands International, we are in the process of recruiting for two positions to support the development of Building

with Nature Asia (see below). This is a groundbreaking initiative that promotes large-scale adoption of nature-based solutions across Asia, focusing on both rural and urban environments.

#### INTERNATIONAL UNION FOR CONSERVATION OF NATURE

In 2021 we continued our collaboration with IUCN in the development of best practices in biodiversity performance planning and monitoring. Following the establishment of our Biodiversity Framework during 2020, we worked closely with IUCN in 2021 to further implement their recommendations and make use of available online tools and data sources to advance our strategy on performance planning and monitoring. Our focus also remained on defining reliable core indicators for biodiversity that are appropriate across our projects and that we can communicate at the project (client) and corporate level.

Boskalis continued to provide an effective testing ground for the development of IUCN's Biodiversity Guidelines for Business. In the early part of the year we shared our feedback and insights with regard to this biodiversity toolkit and the Guidelines themselves were published by IUCN in their final form in March 2021.

After launching the first-ever international standard for nature-based solutions in 2020, during the year IUCN focused on the application of this standard to help users design, implement and verify such activities in line with recognized best practice. Through this initiative, Boskalis and IUCN have further deepened their collaboration based on Boskalis' innovative design approach, known as Building with Nature (BwN). BwN harnesses ecological engineering and nature-based solutions to deliver projects that incorporate a range of benefits for the environment, economy and society. Boskalis and IUCN tested the practical application of IUCN's Global Standard for Nature-Based Solutions™ against BwN projects completed by Boskalis, including the ecological landscaping (research) project in the sand extraction site for the Port of Rotterdam 'Maasvlakte II' project. This strong nature-based solution informed the showcasing of IUCN's work with Boskalis in infrastructure and biodiversity panels at the COP26 summit in Glasgow in November 2021 and the outcome of the assessment will be known in early 2022.

#### **ECOSHAPE AND BUILDING WITH NATURE**

Thirteen years ago Boskalis established the EcoShape Foundation which executes the 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.

During 2021, EcoShape's focus therefore shifted to an international context, with the aim of upscaling and mainstreaming BwN through a broad range of international and local partners. Through the year, using Boskalis' global network, three new initiatives were launched: Building With Nature Asia, Beneficial Use of Sediments, and BwN West Africa Coastal Areas. The initiatives build on existing projects in the Netherlands and Indonesia as they seek to establish the BwN approach for the delivery of nature-based solutions – such as natural environmental defenses, wetland development and climate-resilient water infrastructure – in other parts of the world.

#### MONITORING TURBIDITY IN THE BALTIC SEA

In July 2021, as part of a joint venture, Boskalis started dredging the trench for what is currently one of Europe's most important infrastructure projects – a tunnel under the Fehmarnbelt, a strait in the Baltic Sea that connects Germany and Denmark. At more than 18 kilometers, the Fehmarnbelt Tunnel will connect Puttgarden on the German island of Fehmarn and Rødby on the Danish island of Lolland. It will be the world's longest immersed road and rail tunnel, boasting a four-lane motorway alongside a twin-track electrified railway.

To avoid boring through hard soil layers under the seabed, it was decided to construct an immersed tunnel in a trench by removing 14 million cubic meters of material across the strait. To complete this work, Boskalis and its partner have deployed three types of dredging vessels: backhoe dredgers, grab dredgers and hopper dredgers.

The project is situated within an environmentally sensitive area which is home to marine mammals, including the harbor porpoise and seals. Turbidity from our vessels and reduced light penetration can affect the growth of seabed vegetation, with a potential negative impact on the mammals' food source. To prevent adverse effects to local flora and fauna we are undertaking a tailored turbidity monitoring program. This includes two survey vessels which are in constant operation around the dredging sites to measure the release of sediment into the environment and ensure we do not exceed prescribed levels.

The monitoring of turbidity is based on a model which predicts sediment release according to numerous factors such as location, geological formations in the seabed, and the type of vessel being used. Those predictions are then compared to almost real-time calculations of sediment release which are then monitored against designated limits. This kind of detailed oversight means that we can see in advance where turbidity levels are likely to be highest and ensure that we never exceed permitted levels at whichever location or time of the year we are working.

"We have developed numerous measuring techniques which enable us to distinguish natural turbidity levels – caused by currents, wind or waves – from any sediment discharge from our vessels. The latter is then closely monitored," explained Project Manager Arjan van der Weck. "Since the start of the project we have had zero turbidity exceedance incidents."

The monitoring process carries with it a significant level of transparency, and an independent third party conducts weekly audits on board our vessels. An online dashboard with traffic lights also provides the client with up-to-date data on sediment release, as well as a historical matrix that covers specific time periods and locations.





## BOSKALIS' ARTIFICIAL REEFS 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.

The ARP aims to develop and apply large-scale, modular artificial reefs for maximum positive impact. 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. Pilot studies have shown that artificial reefs can also function effectively as ecological scour protection. Example applications are the foundations of wind turbines, or to protect cables and pipelines on the seabed. As such, the ARP directly contributes to Boskalis' sustainability strategy in the areas of biodiversity and climate adaptation. The ARP supports the steady development of a diverse portfolio of artificial reef solutions which can be applied for a wide range of purposes on behalf of our clients.

The concept to invest in understanding the potential of artificial reefs was born out of Boskalis' Innovation Challenge six years ago. It led to the installation of 3D-printed reefs as part of what is known as the ReefVival project, off the ecologically threatened coast of Monaco. Based on extensive field research, the reefs have since shown to be biologically productive, providing a considerable boost to local biodiversity levels.

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updated designs and practical experience to us. Critically, these symbiotic partnerships provide the necessary experience and support the level of innovation required for the successful application of artificial reef technology." says Paul Peters, Program Lead of the ARP. "Engaging with local stakeholders, universities and organizations throughout the project lifecycle also plays a key role in creating value through scientific monitoring, capacity building and new collaborations."

One of our partners, the NGO Coralive, has perfected an approach known as Mineral Accretion Technology (MAT). This technique uses a low voltage electric current to increase coral growth rates and its resilience against environmental stressors such as high seawater temperatures. Different modular systems using MAT are currently being studied and compared to more traditional artificial reef designs in a pilot project in Panama.

"It has been a very constructive collaboration, with great support on all levels as we share the same visions and work ethics. Since the global network of locations where our work takes place overlaps, we have the ability to respond fast and accordingly to any local needs," says Ahmad 'Aki' Allahgholi, Managing Director of Coralive.

Another partner, Reefy, has developed a unique modular design called the Reef Enhancing Breakwater which consists of concrete blocks shaped to reduce the amount of wave energy in the water. This helps to protect coastlines, even in the most severe storm conditions, while also providing habitat and settlement opportunities for a variety of marine flora and fauna.

The ARP and its underlying partnerships enable Boskalis to deliver on fit-for-purpose designs with both global organizations and people working at the local level. This ensures an outcome-focused approach which is both locally supported and can be delivered successfully over the long term.

A drawback of 3D-printed reefs is that they cannot easily be scaled up, and production and installation costs are relatively high. This has led to the modification of designs and the creation of artificial reefs that are based on modularity. An example of the modular approach is our Endless Reef design, which makes it possible to produce unique solutions that can be dramatically scaled-up in terms of installation size. Modular designs are aimed at habitat restoration and coastal protection, thereby providing the scalability and flexibility required by different types of projects.

#### A STRONG PARTNERSHIP NETWORK

Through a number of strategic partnerships, the ARP harnesses the expertise and innovations of specialist non-governmental organizations, local institutions and other parties working at the cutting edge of modular engineering.

"We share our insights and technical design requirements for artificial reefs, and in return our partners pass on their insights,





"SYMBIOTIC PARTNERSHIPS PROVIDE THE NECESSARY EXPERIENCE AND SUPPORT THE LEVEL OF INNOVATION REQUIRED FOR THE SUCCESSFUL APPLICATION OF ARTIFICIAL REEF TECHNOLOGY"


#### **PILOT PROGRAMS**

The ARP is conducting pilot projects in Monaco, Panama and Kenya. The studies, which are all in progress, are testing the ecological results of different artificial reef designs in a range of environmental conditions. The results will inform the selection of the most effective reef type, material and shape to meet the specific project requirements of our clients.

#### Monaco Pilot (2017 - ongoing)

Like many European coastal resorts, Monaco's marine life is struggling with the impact of climate change, coastal development, seawater pollution and over-fishing, which has led to a decline in the numbers of fish and shellfish. In close collaboration with the Association Monégasque pour la Protection de la Nature (AMPN), DShape (a global mega-scale concrete and metals 3D printing company), and the Ecology of Marine Ecosystems and Responses to Stress Laboratory (ECOMERS) in Nice, we engaged in a pioneering, 3D-printed reefs pilot project. After careful design sessions, we successfully installed six printed reef modules in the Larvotto Reserve in Monaco, marking the start of the next important phase: extensive monitoring of biodiversity and abundance development. Divers from the ECOMERS laboratory and AMPN are inspecting the units on a frequent basis.

#### Panama Pilot (2020 - ongoing)

Boskalis is collaborating with the local NGO Reef2Reef, the international NGO Coralive, Commercial Diving Panama and the Maritime University of Panama to identify effective restoration techniques to counter the decline of coral reef habitats in Panama. This pilot study aims to compare four artificial reef types that are based on different design philosophies and use different materials: active (MAT) versus passive (non-MAT) systems, and modular versus non-modular designs. The study includes Boskalis' own Endless Reef modular units, minidomes developed by Coralive, Modular Sealife System (MOSES) units developed by the Dutch organization ReefSystems and round concrete units developed by the US-based ReefBall Foundation.

#### **REEFolution Kenya (2021 - ongoing)**

The ecologically rich coral reefs off the coast of Kenya support artisanal fishing and high levels of tourism. In recent years these reefs have been severely damaged by human activities such as blast fishing. We established the REEFolution Kenya initiative to restore the coral reefs and stimulate a more considered approach to the local marine environment. In close collaboration with Wageningen University and ReefSystems, Boskalis supported the purchase, transport and installation of 90 MOSES units in the coastal resort of Shimoni. The ecological performance of these modular concrete units will be monitored and compared to existing artificial reef structures already present, including MAT structures and bottle reefs, among others.

#### **ENGAGE WITH OUR PROGRAM**

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

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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 mean traditional community engagement approaches are 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.
- 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 2021 our consultation and stakeholder engagement processes in a number of locations continued to be affected by the pandemic, with face-to-face meetings or even travel to site being restricted. Where possible, other forms of (online) communication were implemented. 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 an on-site community liaison officer 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, including the communities where we work. 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 ran two targeted training programs during 2021.

- An interactive online sustainability and social impact training focusing on dredging projects that was developed and piloted in 2020 was rolled out for 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.
- A sustainability and environmental training for the international SHE-Q pool and business unit representatives within the Dredging and Inland Infrastructure 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.

Through the year we also expanded our Environmental and Social Management Team in the Netherlands and in South East Asia. 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.



### COMMUNITY CONTRIBUTION IN PRACTICE



### BRAZIL – ENGAGING COMMUNITIES THROUGH THE CIRCULAR ECONOMY

In 2020 Boskalis was contracted by Porto de Paranaguá in southern Brazil as part of a consortium of companies to remove a rock formation that sits in the port's main approach channel. The submerged rock created a navigational hazard and a bottleneck, limiting the load capacity and number of ships entering the port.

The project required the removal of 22,300m<sup>3</sup> of rock and was pivotal to the future development of the port which supports – directly or indirectly – 44% of local jobs. Working with the client, our consortium proposed an initiative to engage local stakeholders through the donation and re-use of the removed rock within local communities.

One important stakeholder in our activities were the local fishermen, who numbered approximately 3,000 and were spread across 14 communities situated up and down the coast. Early in the project the fishing communities were vocal in their opposition to our activities on account of their concerns about the impact on fish stocks and their livelihoods. This led our client to conduct face-to-face consultations with each community about the range of safeguards and environmental measures in place to protect the marine environment and their economic activities.

To help develop relations with the communities, the consortium proposed to the client that the removed rock, rather than being transported and discharged outside the project footprint in line with the original scope, could rather be loaded inside the port and crushed up. The resulting aggregate could then be distributed to city councils in the region and used to repair or construct roads and other local infrastructure. The benefits of this circular approach were threefold: it resulted in the efficient use of waste material, supported important local infrastructure and built stronger relations between the Port and local communities, who subsequently expressed their appreciation and support for the project.

#### **NETHERLANDS AND WORLDWIDE – BEACH CLEAN-UPS**

Boskalis organizes regular beach clean-ups in the vicinity of project locations around the world and along the Netherlands' coastline. Beach clean-ups are not just good for the environment, but often bring together volunteers, colleagues, subcontractors or other local companies and help strengthen our relationships in the communities where we operate. Due to COVID-19 restrictions many beach clean-ups were unable to take place this year. However, some were able to go ahead including in Taiwan where we collected 435 kilograms of waste along the Shimen Kite Coast in New Taipei city. Elsewhere, Boskalis colleagues in Panama marked the Month of the Oceans in September by taking part in a clean-up at Veracruz Beach which is home to members of the local fishing community. In the UK, Boskalis funded the installation of a Seabin at Hythe Marina on the south coast. The floating receptacle, which is made from recycled materials, is attached to a submersible water pump and is designed to collect debris from the water's surface as it moves up and down with the tide. The Seabin can gather up to 1.4 tons of litter each year.

In the Netherlands, Boskalis staff and their families took part in the annual clean-up of the Dutch North Sea coast organized by the Dutch North Sea Foundation (NSF). Boskalis has been the main sponsor of the event since 2013 and during two weeks in August a record number of 2,873 volunteers removed 4,641 kilograms of waste from the beaches.



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#### TAIWAN – OFFSHORE WIND TRAINING FOR UNDERGRADUATES

As part of its ongoing projects in offshore wind, Boskalis' local joint venture in Taiwan – BoWei – is leading a number of knowledge-sharing initiatives with five universities and maritime academies in the country. These include National Taiwan University in Taipei, and National Sun Yat-Sen University (which has a master program in OWF) and National Cheng Kung University which are both located in South Taiwan. The program includes more than 10 guest lectures each year covering topics such as engineering, procurement, construction and turbine installation, with a particular focus on laying the groundwork for students to join the offshore wind industry.

Internship programs are also run via the local BoWei office in Taiwan. In 2021, a student was selected from the National Cheng Kung University for a three-month remote internship within the Research and Development team based at Boskalis' headquarters in the Netherlands.

"When it comes to marine engineering, Boskalis is the pioneer in this industry and this internship was a golden opportunity for me," explained Hank Chen. "The experience was unique in Taiwan, and helped me learn from different perspectives whilst solving real problems."

During the year we also offered a permanent position to one of the interns in our Taiwan team while a National Taiwan University graduate also joined the Papendrecht office on a fulltime basis. In 2022 Boskalis plans to introduce its International Traineeship Program in Taiwan. This is an 18-month traineeship for which a specific selection process will be held with our university partners.

In 2021, BoWei's knowledge-sharing program, together with other local initiatives, saw it awarded the title of "Outstanding Foreign Business" at a ceremony organized by the General Chamber of Commerce of the Republic of China. We were also selected as one of three finalists for the Best Sustainable Energy Award at the British Chamber of Commerce's Better Business Awards.

### BAHRAIN – AL DAIR PUBLIC GARDEN AND CHILDREN'S PLAYGROUND

In early 2021 Boskalis completed the second phase of the Busaiteen project in Bahrain. Work for our client, the Bahrain Ministry of Works, involved the construction of a large sand causeway for a five-kilometer-long, six-lane motorway. The project placed a strong emphasis on community support and, as a gesture to the people living in the local vicinity, Boskalis funded the construction of a public garden and children's playground in the local Al-Dair village, at a cost of approximately EUR 250,000. The Al-Dair garden was identified by the community in Muharraq Municipality as something that would provide much-needed leisure infrastructure and is the first of its kind in the local area.

"We really wanted to support the Muharraq Municipality and provide something for residents to enjoy and that would serve all ages, especially since this area was lacking a shared space for the public," explained Boskalis Project Manager, Arjan van Bruggen. "It was also important to make sure the local economy benefitted from the initiative."

The playground was planned in close consultation with the community and municipal council, and its construction was outsourced to a landscaping company. During construction, community members formed a WhatsApp group with the municipal council to facilitate effective communication about the project.

"From the response we have seen, we understand that the community is taking great care of the garden and is ensuring it is kept free of rubbish and vandalism. They take a lot of pride in it," said Van Bruggen.

According to the chairman of the services and utilities committee at Muharraq Municipal Council, Mr. Fadel Al-Oud, the new facility has been extremely well received by both the council and the local residents. The chairman of Muharraq Municipal Council, Mr. Ghazi Al-Morbati, expressed his gratitude to Boskalis for the construction of the garden, remarking in a letter that it was a "wonderful example of community partnership" and a mark of Boskalis' "policy and commitment to social responsibility".



# **RESPONSIBLE BUSINESS CONDUCT**



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.

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#### **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 industryspecialized 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 an 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 2022.



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-learnings and targeted trainings are being organized to explain and train our people how the use them.

The full text of Boskalis Code of Conduct and its underlying policies as well as the Supplier Code of Conduct 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 2021, 88% of our strategic suppliers endorsed the Supplier Code of Conduct, compared to 85% in 2020.

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 pages 84-85 of this report.

#### **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 subcontractors.

#### **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, wellbeing 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 Guidelines 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.



### **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 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 the restrictions imposed on account of the pandemic, as in 2020, this year the Implementation Scans could not be carried out on site and were undertaken via online meeting platforms and digital tours.

Our central procurement office maintains relationships with approximately 1,500 direct suppliers. Of these, 82% are based in the Netherlands, 15% in other European countries and 3% outside Europe. The number of our suppliers varies from year to year based on the profile of our current projects. In 2021, a total of 202 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 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 strategic suppliers to accept and adhere to our Supplier Code of Conduct. In 2021, 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), and of central procurement contracts. On signing a contract, suppliers commit themselves to the Supplier Code of Conduct. In 2021, 88% 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;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 145 suppliers, with 53 visits to foreign suppliers located in Vietnam, China, Singapore, United Arab Emirates, Turkey, and Tunisia among others. Past experience suggests that this process contributes to improvements in the sustainability standards and processes adopted by our suppliers.

The scans comprize 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.

#### **2021 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 four suppliers had moderately or significantly improved their risk profile since the previous scan, while the performance of two suppliers had declined but remained within acceptable levels.

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 are taking to produce sustainable products or services themselves and how they are tackling the negative impacts in their production processes, such as their use of renewable energy. The reports also indicate how our business

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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 strengthen the full range of our supplier relationships 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 2021, Boskalis sold a number of vessels. During the year we recycled the Wadden 4 at a ship breaking yard in Gijon, Spain and the Smit Borneo at a yard in Dubai.

#### **IMPLEMENTATION SCAN 2021**



• 2012 - 2020 2021

• Dialogue necessary (1 and 2): constant coordination and continuous dialogue with the supplier with regard to 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

<sup>•</sup> Persuasive communication (3): focused on convincing the supplier to take measures in the area of sustainability

### ENGAGING OUR SUPPLIERS: DRIVING SUSTAINABILITY THROUGH THE VALUE CHAIN

HKV Ochten ("HKV") is a familyowned business founded in 1975 and situated in the Netherland's Gelderland Province, about 30 kilometers from the border with Germany. This work clothing and hardware company has been supplying Boskalis for more than a decade.

Over the last few years, Boskalis' active engagement with HKV through its supplier compliance program has helped the company to further develop its approach to sustainability and seek better social and environmental outcomes through its own value chain.

Formal dialogue on sustainability issues began in 2019 when Boskalis invited representatives of HKV to one of its regular 'Meet the Buyer' events. These are designed to create mutual awareness and understanding of Boskalis' sustainability strategy and improve performance through the supply chain. Back then, HKV had already brought a range of sustainable products to market, explored how to reduce its emissions through its warehouse design and the installation of solar panels, and was investing in its local community. Since the 'Meet the Buyer' event, the company has added more circular and environmentally-friendly products to its range and engaged its own supplier base on sustainability.

Today, several items in HKV's work clothing range are produced from reclaimed polyester, used clothing and recycled plastic bottles or 'PET'. It sells biodegradable road signs made from rice hulls, instead of the usual aluminium, and stocks traffic cone feet produced from recycled textiles.



#### "THE IMPLEMENTATION SCAN WAS A CHANCE FOR US TO TEST WHERE WE ARE, BECAUSE IT'S A VERY PROFESSIONAL PROCESS"

Environmental and social sustainability is embedded within HKV's thinking, however Business Controller Maarten Jansen admits that the company's approach has lacked structure and clear objectives. But this changed in June 2021 when Boskalis approached HKV to perform an Implementation Scan to assess the company's compliance with our Supplier Code of Conduct and as part of our regular engagement with our suppliers.

"The Implementation Scan was a chance for us to test where we are, because it's a very professional process," Jansen explained. "We were doing a lot of things, but not really in a formalized way."

On receiving the feedback from the scan, HKV took the decision to formalize its approach, beginning with documenting its own social and environmental policies. The company is now articulating its sustainability goals for the next five years, which centre on developing its circular clothing and hardware ranges and increasing the amount of waste that it re-uses in its products. During the second half of 2021 the company adopted its own supplier code of conduct which has enabled it to set out its social and environmental expectations for its own suppliers. While HKV promotes dialogue on labor practices and sustainability within its value chain, where problems were identified it had lacked a formal process for raising concerns or cutting ties with suppliers.

"The supplier code of conduct is really making a difference," Jansen said. "One of the goals for 2022 is that every supplier signs our code of conduct."

Jansen praised the regular dialogue with Boskalis and said that this year's Implementation Scan had been pivotal in helping the company further develop its sustainability strategy. It has also helped HKV engage with its suppliers and wider value chain.

"It would be nice to participate in the scan again in a couple of years' time to see how we are doing," he said. "Because it is a test, we're being questioned on what we do and being questioned is always a moment to think about what you are doing and what you can do better."

### CORPORATE GOVERNANCE

#### **APPLICATION AT BOSKALIS**

Boskalis operates 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 value creation as well 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 our stakeholders. The outcome of this assessment is used in the formulation of the company's strategy for the long-term value creation and in particular sustainable growth. Please refer to pages 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 realization of the long-term value creation. 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 Remuneration Committee and the Selection and Appointment Committee. For a summary of the activities of the Supervisory Board and its committees in 2021, please refer to pages 26-28 of our Annual Report.

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, which includes creating long-term value.

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 clear 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, operationaland 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.

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#### **ARTICLES OF ASSOCIATION**

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. The text of the Articles of Association is available on boskalis.com.

#### COMPLIANCE

The 2016 Dutch Corporate Governance Code (the "Code") applies to all Dutch companies listed on the stock exchange and comprises a code of conduct for governance best practice. This Code includes both specific principles and best practice provisions, as well as guidelines for their proper supervision. Boskalis subscribes to the notion that a sound and transparent system of checks and balances is key to maintaining confidence in companies operating on the capital market. Boskalis believes clarity and openness in accountability and supervision are the cornerstones of good management and entrepreneurship. The regulations of the Supervisory Board and its committees as well as the profile of the Supervisory Board are aligned with the principles and best practices of the Code. These regulations and the profile of the Supervisory Board are published on the company's website.

In accordance with the Code, Boskalis publishes an 'Apply or Explain' report that sets out how the principles and best practice provisions are applied at Boskalis. This report is available on the website and copies can also be requested from the company.

Boskalis subscribes to and applies all the principles and best practice provisions contained in the Code, with the exception of best practice 4.3.3. In deviation of this best practice, according to the Articles of Association, the General Meeting of Shareholders may pass a resolution to deprive the binding nature of a nomination for the appointment or a resolution for dismissal of a member of the Board of Management or a member of the Supervisory Board by a majority of at least two/thirds of the votes cast representing more than one-half of the company's issued share capital. The deviation of this best practice provision is justified in view of the long-term value creation. Maintaining



continuity at both the Board of Management and the Supervisory Board is essential for delivering such long-term value. The company is protecting its stakeholders against a sudden change in management and supervision by maintaining the qualified majority and voting quorum requirement, which is in accordance with Dutch law.

In applying the principles and best practices of the Code Boskalis pays among others attention to the topics 'long-term value creation', 'culture' and 'diversity'.

#### Long-term value creation

Boskalis focuses on its long-term value creation 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 long-term value creation is embedded within the strategy and the business plan. This Corporate Business Plan 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, governance and social matters and business ethics.

For a detailed description of Boskalis' view on long-term value creation and its sustainable growth strategy for the realization thereof, as well as the business plan, please refer to pages 10-16 of our Annual Report.

#### 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 responsibleness. 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 pages 42-47 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 a new elearning program 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 pages 80-82 of this report.

Our NINA safety program instils 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 responsibleness 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. For more information on Boskalis' safety culture please refer to pages 38-41 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 genderneutral. 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 has recently been adapted to take into account the new 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. The Diversity Policy is also available on www.boskalis.com.

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 predominately 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 2021 14% of the senior management team of Boskalis is female. Boskalis has decided to adopt a target to improve gender diversity of its 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 and the Code. Per ultimo 2021 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.

The Corporate Governance Declaration can be found on the website.

#### SUSTAINABILITY REPORT

The company's sustainability principles are set out in the Boskalis Code of Conduct and the underlying Environmental and Social Policy and the Human Rights and Labor Policy. The Board of Management is responsible for the company's sustainable growth strategy. It is supported in this role by the Energy Management and Eco-Engineering task forces. The SHE-Q manager reports to the Board of Management on safety-related topics. With regard to HR-related objectives, the HR director reports to the Board of Management. The business unit directors and the heads of the relevant staff departments report to the Board of Management on respective sustainability key performance indicators.

This Sustainability Report was drawn up under the responsibility of the Director of Investor Relations & Corporate Communications who also reports directly to the Board of Management. The report is reviewed by the Board of Management of Boskalis and is discussed in its entirety with the Supervisory Board.

For the reports of the Supervisory Board, the Board of Management, our corporate governance policy, terms of office and our organization – including the composition of the Supervisory Board and the Board of Management – please refer to our Annual Report 2021, the Remuneration Report and our corporate website.

## 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 public 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 principle 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. Included in this report is data from Rever Offshore which was acquired in late-2020. Please refer to our Annual Report for an overview of acquisitions and divestments in 2021.

#### **REPORTING PROCESS**

The Sustainability Report is compiled by a multidisciplinary team under the responsibility of the Board of Management. Its content was discussed in its entirety 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 2021. 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 the international reporting guidelines of the Global Reporting Initiative (GRI) standards. The GRI reference table is included on pages 98-99 of the report. 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 106 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, including the GRI technical protocols for indicators comprised in the guidelines. 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 of the former Dockwise vessels). For our detailed HR reporting, please refer to page 102.

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#### CO2 DATA

The  $CO_2$  data covers all fuel consumed by vessels of the Dredging & Inland Infra and Offshore Energy divisions. ISO and ISM standards are used for the conversion of fuel to  $CO_2$ . The following ISO and ISM standards are used for the conversion of fuel to  $CO_2$ :

- Conversion of MT of 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 CO2
  - HFO 3.114 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 conversions factor per MT of fuel:
- Biofuel 0.1863 MT CO<sub>2</sub>

The energy use and associated  $CO_2$  emissions from our offices in the Netherlands are from renewable sources and are therefore excluded from the  $CO_2$  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 105 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 202 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.

#### **PUBLICATION DATE**

The Sustainability Report 2021 was published at the same time as the Annual Report 2021 on 10 March 2022 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: csr@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, is expected to be published in 2022.

From 2022 onwards, non-financial undertakings falling under the EU Non-Financial Reporting Directive are required to start reporting 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. From 2023 onwards, these non-financial undertakings also have to 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.

In anticipation of the introduction of the EU Taxonomy, Boskalis has reviewed the eligibility of its activities under both the Climate Delegated Act as well as the draft Environmental Delegated Act. This first time application was conducted at a project level with the objective of assessing the eligibility of projects executed during 2021. The eligible 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 2021 that have been made towards activities included in the Climate Delegated Act. The table below summarizes the results from these evaluations.

CLIMATE DELEGATED ACT ELIGIBILITY	PROPORTION OF REVENUE	PROPORTION OF CAPITAL EXPENDITURES	PROPORTION OF OPERATIONAL EXPENDITURES
<ul> <li>A. TAXONOMY ELIGIBLE ACTIVITIES (CODES)</li> <li>Electricity generation from wind power (4.3)</li> <li>Renewal of waste water collection and treatment (5.4)</li> <li>Infrastructure for personal mobility, cycle logistics (6.13)</li> <li>Infrastructure for rail transport (6.14)</li> </ul>	20-25%	35-40%	20-25%
B. TAXONOMY NON-ELIGIBLE ACTIVITIES	75-80%	60-65%	75-80%
TOTAL (A+B)	100%	100%	100%

APPENDIX

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

Furthermore, it is expected that our coastal and river flood protection activities, salvage related services as well as certain marine transport services will be eligible under the Environmental Delegated Act. Due to the draft status of this delegated act, providing an exact overall eligibility-percentage is currently not possible. Nevertheless, we expect that between 45-60% of Boskalis 2021 Group revenue is eligible under the Climate Delegated Act or Environmental Delegated Act.

Estimates, including those from the European Securities and Markets Authority, set a relatively low level of Taxonomy-alignment for non-financial undertakings, not least because the design of the Taxonomy only recognizes the very highest performance levels. Based on our current understanding of the (draft) Regulation we expect also the degree of Taxonomy-alignment of our activities to be significantly lower than their level of eligibility. Furthermore, since the composition of our global project portfolio is continually changing, we anticipate that the degree of Taxonomy-eligibility and alignment of our activities will fluctuate over time.

### GRI TABLE GRI CONTENT INDEX

This report follows the GRI Standards, level core. The overview below lists the required disclosures we are reporting on along with the references to the sections where this information can be found.

#### **GENERAL DISCLOSURES**

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ORGANIZAT	IONAL PROFILE	
102-1	Name of the organization	Colophon
102-2	Activities, brands, products, and services	Boskalis at a glance: 8, 9
102-3	Location of the organization's headquarters	Rosmolenweg 20, Papendrecht the Netherlands
102-4	Number of countries operating	Boskalis at a glance: 8, 9
102-5	Nature of ownership and legal form	Corporate Governance: 88-91
102-6	Markets served	Boskalis at a glance: 8, 9
1020		Our business in a changing world: 10, 11
102-7	Scale of the reporting organization	Diversity and Inclusion: 48, 49
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100.0		Annual Report: Consolidated Statement of Profit or Loss
102-8	Information on employees and other workers	Diversity and inclusion: 48, 49 Appendix: HR Data: 102-104
102-9	Supply chain	Boskalis at a glance: 8, 9
102-7	Supply chain	Responsible sourcing: 84-87
102-10	Significant changes to the organization and its supply chain	Responsible sourcing: 84, 85
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102-11	Precautionary Principle or approach	Annual Report: Risk management
		Appendix: Boskalis Approach for managing potential adverse impact: 100
102-12	External initiatives	Boskalis at a glance: 8, 9
102-13	Manulandina of marcinting	Business principles: 80, 81
102-13	Memberships of associations	Boskalis at a glance: 8, 9 Managing our social impact: 74, 75
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102-14	Statement from senior decision-maker	Chairman's statement: 4, 5
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102-16	Values, principles, standards, and norms of behavior	Business principles: 80-82
102-16	Values, principles, standards, and norms of behavior	Business principles: 80-82 Responsible sourcing: 84, 85
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102-52	Contact point for questions regarding the report	Appendix: About this report: 94, 95
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102-54	GRI content index	Appendix: GRI table GRI content index: 98, 99
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201	Management approach disclosures	Annual Report: Report of the Board of Management
201-1	Direct economic value generated or distributed	Key Figures
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404-1	Average hours of training per year per employee	Appendix: HR Data: 103, 104
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### 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.



Based on OECD Guidelines for Multinational Enterprises.

### HOW WE ENGAGED

Engaging in regular dialogue with internal and external stakeholders is central to our ability to understand their expectations and interests. Stakeholder engagement is a core part of the biennial materiality process, while additional, regular dialogue also takes place across the business. Whilst we have a wide range of stakeholders, our key stakeholder groups are set out below. In 2021 our engagement continued to be affected by the global pandemic but was conducted through a combination of online platforms, written communications and in-person dialogue, as described below.

OUR STAKEHOLDERS	HOW WE LISTEN	WHAT THEY TOLD US AND WAS DISCUSSED	WHAT WE DID
Employees and future talent	<ul> <li>Works council</li> <li>NINA (Safety) meetings</li> <li>WoW (Quality) meetings</li> <li>Sustainability meetings</li> <li>Materiality assessment</li> <li>COVID-19 employee survey</li> <li>Website and intranet-based media</li> <li>Visits by management to vessels and projects Graduate recruitment days</li> <li>Family days</li> <li>Supervisory board workshop</li> </ul>	<ul> <li>Our engagement in 2021 identified that employees:</li> <li>Want more support with regard to career paths and opportunities within Boskalis</li> <li>Wish to be kept informed about Boskalis strategy, activities, and projects</li> <li>Seek updates on organizational changes</li> <li>Need more ways to exchange information and knowledge across the company</li> <li>Want more clarity and information around the company's sustainability objectives and strategy</li> </ul>	<ul> <li>In response to employee and wider dialogue Boskalis has:</li> <li>Grown the "Yourizon" internal news platform, publishing 266 articles with more than 130,000 readers in 2021</li> <li>Hosted a Human Excellence Week</li> <li>Developed the Mobility Desk to offer more comprehensive career guidance</li> <li>Launched the online Boskalis Academy</li> <li>Launched new Performance Management System</li> <li>Provided regular online updates from CEO and Board of Management</li> <li>Expanded the target beneficiaries of our sustainability and social/environmental training</li> </ul>
Clients	<ul> <li>Conferences and exhibitions</li> <li>Press releases and websites</li> <li>Materiality assessment</li> <li>Client meetings during project execution</li> <li>Meetings, personal contact, email, telephone</li> </ul>	Differs by client and is collected on an ad hoc basis. Sustainable offerings in tenders – such as alternative fuels and nature-based solutions – are increasing in importance. Meanwhile, safety and responsible business conduct remain prominent issues for our clients across the board. Addressing climate change and our focus on biodiversity and diversity and inclusion were also topics raised by our clients during the year.	42-47 of the report. We tailor our response based on feedback from individual clients.
Suppliers and subcontractors	<ul> <li>Materiality assessment</li> <li>Meet the buyer sessions</li> <li>Implementation scans around our Supplier Code of Conduct</li> <li>Meetings, personal contact, email, telephone</li> <li>Conferences and exhibitions</li> </ul>	Varies by organization and is collected on a structured and an ad hoc basis. For example, the areas of renewable energy and health and safety arise in discussions, as did the cascading of our Supplier Code of Conduct.	You can read more about supplier engagement on page 84.
Local communities, NGOs and civil society organizations	<ul> <li>Project level meetings with communities</li> <li>Grievance mechanisms on projects</li> <li>Materiality assessment</li> <li>Multi-stakeholder platforms</li> <li>Speaking engagements, conferences and exhibitions</li> </ul>	Biodiversity, social impact and climate change are key issues for Boskalis to address.	Furthered collaborations and internal processes to advance our approaches on these topics. See the following pages for more information. Climate change: 57 Innovation: 58-59 Biodiversity: 64-71 Social Impact: 74
Investors and shareholders	<ul> <li>Approximately 180 virtual investor meetings</li> <li>Virtual investor conferences</li> <li>Materiality assessment</li> <li>Press releases and website</li> <li>Webcast presentations Financial results</li> </ul>	<ul> <li>Business Strategy</li> <li>Financial results and outlook</li> <li>Developments in our end markets and project pipeline</li> <li>COVID-19 impact and updates.</li> <li>Opportunities presented by the energy transition</li> <li>Capital allocation including M&amp;A and divestments</li> </ul>	<ul> <li>Our updated Corporate Business Plan</li> <li>Evolved our approach to sustainability as part of key pillars within the new Corporate Business Plan</li> <li>Target CO<sub>2</sub> reductions in line with Paris Agreement</li> </ul>



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

	2021	2020
Boskalis	6,254	6,137
Anglo Eastern	1,618	1,347
Subtotal	7,872	7,484
Joint Ventures	2,378	2,429
TOTAL	10,250	9,913
		,

NATIONALITIES	2021	2020
Number of different nationalities	85	84
WOMEN/MEN RATIOS	2021	2020
Women	14%	14%
Men	86%	86%
TOTAL	100%	100%

#### **COMPOSITION OF WORKFORCE**

NUMBER OF EMPLOYEES BY COUNTRY	2021	2020
Netherlands	3,330	3,268
United Kingdom	729	812
Germany	270	209
Cyprus	217	209
Finland	140	158
United Arab Emirates	624	575
Lithuania	184	164
Belgium	109	95
Singapore	84	182
Mexico	11	33
Philippines	138	10
Russian Federation	34	22
Australia	13	11
Poland	20	52
Indonesia	20	20
Nigeria	14	37
Malaysia	33	8
India	14	7
Estonia	25	21
Latvia	31	20
United States	17	18
Thailand	17	0
China	15	12
Sweden	10	12
South Africa	28	7
Panama	12	19
Other	115	69
TOTAL	6,254	6,137

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TYPE OF CONTRACT BY GENDER	TOTAL 2021	FEMALE : MALE	2020
Fixed term/project based	<b>19</b> %	11% : <b>89</b> %	17%
Permanent/indefinite	81%	15% : 85%	83%
TOTAL	100%		100%

FULLTIME/PARTTIME RATIOS BY GENDER	TOTAL 2021	FEMALE :	MALE	2020
Fulltime	<b>9</b> 1%	11% :	<b>89</b> %	91%
Parttime	<b>9%</b>	45% :	55%	9%
TOTAL	100%			100%

AGE PROFILE BY GENDER	TOTAL 2021	FEMALE : MALE	2020
Age <30	14%	21% : <b>79</b> %	14%
Age 30 – 50	<b>58%</b>	14% : 86%	59%
Age >50	27%	10% : 90%	27%
TOTAL	100%		100%

COLLECTIVE BARGAINING AGREEMENTS BY GENDER	TOTAL 2021	FEMALE : MALE	2020
No	<b>62</b> %	18% : 82%	61%
Yes	38%	<b>8%:92%</b>	39%
TOTAL	100%		100%

#### TRAINING

TRAINING HOURS BY JOB CATEGORY AND GENDER	TOTAL 2021	FEMALE : MALE	2020
Management	861	90 : 771	769
Project staff	32,837	3,009 : 29,828	8,700
Office staff	13,040	3,298 : 9,742	16,698
Crew/yard staff	29,911	225 : 29,686	26,189
TOTAL	76,649		52,356

#### RECRUITMENT

INFLOW BY AGE BY GENDER	TOTAL 2021	FEMALE :	MALE	2020
Age <30	30%	20% :	80%	20%
Age 30 – 50	<b>56</b> %	14% :	<b>86</b> %	65%
Age >50	15%	<b>8%</b> :	<b>92</b> %	15%
TOTAL	100%			100%
OUTFLOW BY REASON BY GENDER	TOTAL 2021	FEMALE :	MALE	2020
Divestments	0%	0%:	0%	0%
End of project/contract	<b>47</b> %	11% :	<b>89</b> %	51%
Voluntary resignation	34%	23%:	77%	25%
Retirement/death	<b>9</b> %	<b>6%</b> :	<b>94%</b>	4%
Termination	<b>9</b> %	16% :	84%	21%
TOTAL	100%			100%

OUTFLOW BY AGE BY GENDER	TOTAL 2021	FEMALE	:	MALE	220
Age <30	17%	<b>25</b> %	:	75%	19%
Age 30 – 50	<b>58</b> %	15%	:	85%	58%
Age >50	25%	<b>9</b> %	:	91%	24%
TOTAL	100%				100%

#### **JOB CATEGORY PROFILE**

JOB CATEGORIES BY GENDER	TOTAL 2021	FEMALE :	MALE	2020
Management	3%	11% :	<b>89</b> %	3%
Office staff	31%	34% :	<b>66</b> %	31%
Project/Site Staff	33%	<b>8%</b> :	<b>92</b> %	31%
Workforce/Crew	33%	2%:	<b>98</b> %	34%
TOTAL	100%			100%

JOB CATEGORIES BY AGE	2021					2020	
	<30	30 T/M 50	>50	<30	30 T/M 50	>50	
Management	<b>2</b> %	50%	<b>48</b> %	2%	51%	46%	
Office staff	13%	61%	<b>26</b> %	13%	63%	25%	
Project staff	<b>19%</b>	61%	21%	17%	61%	21%	
Crew/yard staff	13%	54%	33%	12%	55%	33%	
TOTAL	14%	<b>58%</b>	<b>27</b> %	14%	59%	27%	

APPENDIX

### **SHE-Q DATA**



	2021				2020			
	TRIR	LTIF	HOURS (MILLION)	LTI'S	TRIR	LTIF	HOURS (MILLION)	LTI'S
Dredging and Inland Infra	0.26	0.02	17.44	1.5	0.50	0.08	14.80	6
Offshore Energy	0.19	0.02	18.03	2	0.19	0.04	16.92	3
Towage (Northwest Europe) & Salvage	0.40	0.00	0.75	0	1.28	0.00	0.78	0
Others	0.00	0.00	3.89	0	0.00	0.00	3.60	0
GROUP TOTAL	0.21	0.02	40.11	3.5	0.32	0.05	36.10	9

#### **OVERVIEW OF CERTIFICATIONS BOSKALIS**

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

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

SUSTAINABILITY REPORT 2021 – BOSKALIS

### INDEPENDENT LIMITED ASSURANCE STATEMENT

To the Stakeholders of Royal Boskalis Westminster N.V.

#### Introduction and objectives of work

Bureau Veritas Inspection & Certification The Netherlands B.V. (Bureau Veritas) was engaged by Royal Boskalis Westminster N.V. (Boskalis) to provide limited assurance over selected performance indicators to be presented in its Sustainability Report 2021 ("the Report"). This Assurance Statement applies to the related information included within the scope of work described below.

#### 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 2021 (the 'Selected Information'):

- Direct greenhouse gas (GHG) emissions (Scope 1);
- Fuel consumption of marine gas oil (MGO) 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; and
- Percentage of strategic suppliers who have signed the Boskalis Supplier Code of Conduct.
- EU Taxonomy

#### Reporting criteria

The Selected Information are reported according to the Boskalis "Reporting Principles", a copy of which is available in the Appendix of the Report. The EU Taxonomy section is reported according to the EU Taxonomy Regulation (EU 2020/852) and the Climate Delegated Act (EU 2021/2139).

#### **Limitations and Exclusions**

defined above.

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

- Eligibility percentage related to Environmental Delegated Act;
- 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

#### The following limitations should be noted:

- The review of EU Taxonomy alignment data is based on a risk sample of documentation for projects and capex to review the estimated range of eligibility under the Delegated Acts. This review does not include verification of financial data (revenue, capex or opex) which are audited separately by an external financial auditor. For capex the current projections and estimations for the next four years have been used to determine eligibility and as most assets can be used flexibly, as such these assets may be used for non-eligible projects in future years.
  This limited assurance engagement relies on a risk based selected
- 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 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;
- 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;
- Confirming the accuracy of a selection of the Selected Information to the corresponding source documentation;
- 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.

#### 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 and applicable legal and regulatory requirements.

Bureau Veritas has implemented and applies a Code of Ethics, which meets the requirements of the International Federation of Inspections Agencies (IFIA)<sup>1</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 Inspection & Certification The Netherlands B.V. Computerweg 2 3801 Amersfoort, 9th March 2022

<sup>1</sup> International Federation of Inspection Agencies – Compliance Code – Third Edition

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### 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.

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.

 $\mathbf{CO}_{\mathbf{2}}$  Carbon dioxide is an odorless and colorless gas that exists in the earth's atmosphere.

**COP26** The 26th annual United Nations climate change conference – or 'Conference of the Parties' – held in November 2021 in Glasgow, Scotland.

**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.

**Glasgow Climate Pact** An agreement reached at COP 26 and signed by 197 countries which, among other commitments, includes a pledge to reduce coal usage and to revisit climate plans in 2022 in light of the Paris Agreement.

**Global Commission on Adaptation** aims to inspire heads of state, government officials, community leaders, business executives, investors and other international actors to prepare for and respond to the disruptive effects of climate change with urgency, determination and foresight.

**Global Reporting Initiative** International organization that develops global standards for sustainability reporting.

**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.

**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.

**ISM Code** International Safety Management Code for the Safe Operations of Ships and for Pollution Prevention: an international standard for compliance with safety regulations and the prevention of pollution on sea-going vessels. The ISM Code requires ship managers to implement and maintain a safety management system.

**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.

LNG Liquefied Natural Gas.

**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.

**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 and 2 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.

**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.

 ${\small \textbf{Solvency}}$  Group equity as % of balance sheet total (non-current assets plus current assets).

**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.

**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.

Waste Shipment Regulation (WSR) EU regulation regarding the shipment of waste across borders. It includes a ban on the export of hazardous wastes to non-OECD countries, as well as a ban on the export of waste for disposal.

**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.

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#### **Compiled and coordinated by** Royal Boskalis Westminster N.V.

Royal Boskalis Westminster N.V. Corporate Communications Department Group Controlling Department

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