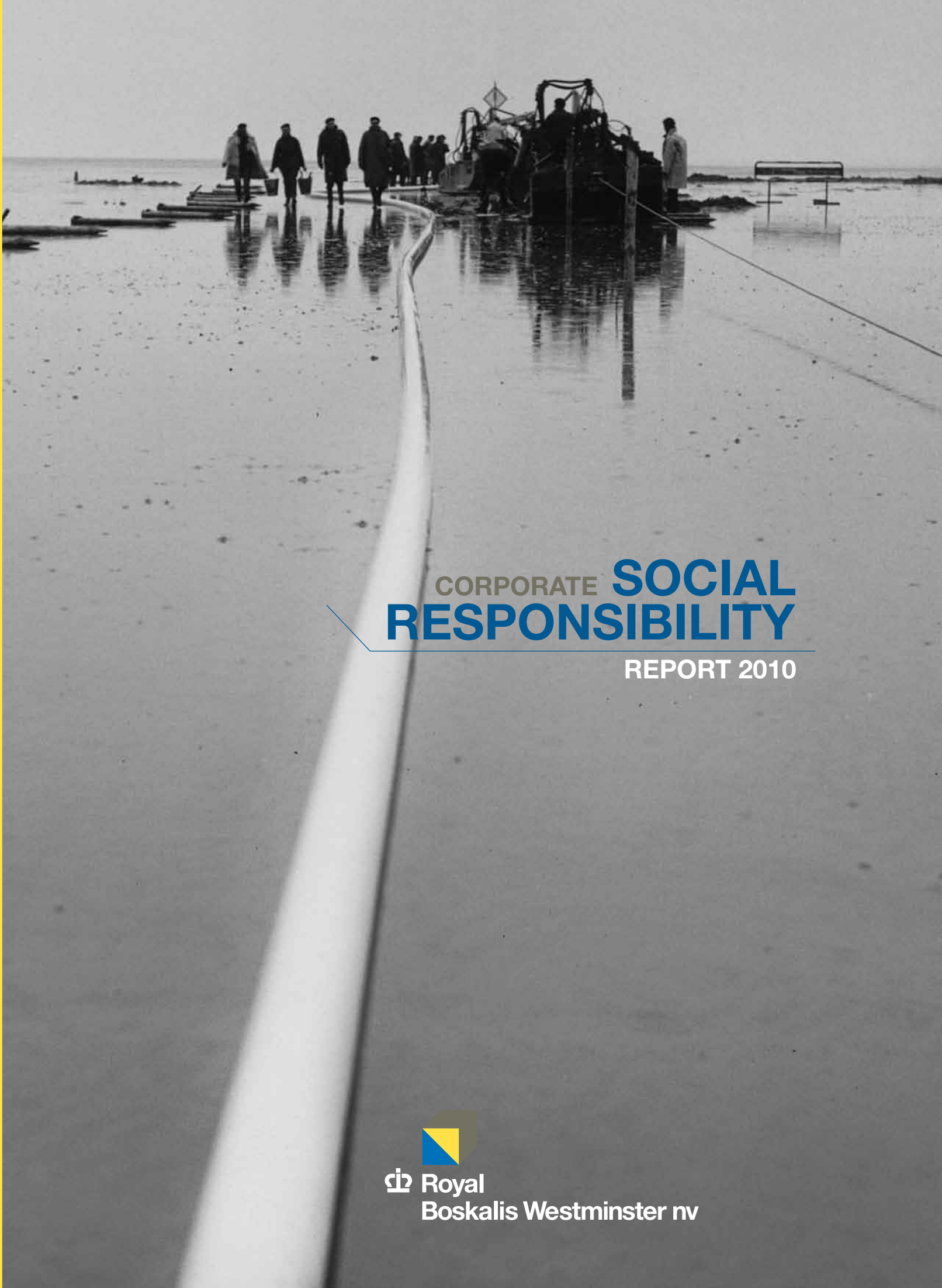

CORPORATE SOCIAL RESPONSIBILITY

REPORT 2010

Royal
Boskalis Westminster nv

Scope of report

Activity	Entity	Financial	Value chain	Society	Safety	Employees	Environment
Corporate	Boskalis	✓	✓	✓	✓	✓	✓
Dredging & Earthmoving		✓	✓	✓	✓	✓	✓
Harbour Towage	SMIT	✓	✓	✓			
Salvage, Transport & Heavy Lift	SMIT	✓	✓	✓			
Terminal Services	SMIT	✓	✓	✓			
Terminal Services	Lamnalco	✓	✓	✓	✓	✓	✓
Maritime Infrastructure	Archirodon	✓					

Sustainable and responsible business practice is an integral part of the way in which we operate. In our Corporate Social Responsibility (CSR) report we account for our economic, social and environmental performance in accordance with the international guidelines set out in the Global Reporting Initiative (version G3). Our first CSR report was published in 2009. This year we have broadened the scope in line with our ambitions.

Besides the activity Dredging & Earthmoving, to which our scope was limited last year, this report also includes the activities of our 50%-owned associate company Lamnalco (Terminal Services).

This year our attention has been strongly focused on preparing for the integration of the SMIT activities. With the foundations for this integration having been laid in 2010, implementation will commence in the year ahead when processes and systems will be coordinated. Nevertheless, where possible the qualitative data of the SMIT activities have already been included in this report. The quantitative SMIT data are only included in our financial reporting.

The activities of Archirodon (Maritime Infrastructure), in which we hold a 40% stake, are not taken into consideration and are only included in our financial reporting. Archirodon falls outside the scope of the CSR report owing to the size of the stake (minority shareholding) and the extent to which we are able to influence the company's CSR policy.

Structure of this report

- The section *'Who we are'* includes our profile and a summary of our financial performance. For a detailed explanation please refer to our financial annual report, which can also be found on our website.
- The *'Value chain'* section has been expanded compared to 2009 to incorporate the activities of SMIT and Lamnalco.
- The economic and ecological impact of our activities on the community is covered in the *'Society'* section, which also includes an account of how we displayed our social commitment during 2010.
- *'Safety'* is a prominent aspect of our social performance, forming an integral part of our activities. Which is why we once again devote a separate section to this subject, as we did in 2009.
- Our social policy is aimed at everyone who works for us. The *'Employees'* section contains a detailed report.
- In the section *'Nature & Environment'* we look at the measures we take to limit the impact of both our operational activities and our office organization on nature and the environment.

This CSR report was prepared under the auspices of the Board of Management of Boskalis. It was compiled by a multidisciplinary CSR team of representatives from across the organization.

This CSR report is based on relevant parameters appropriate to our strategy and activities as well as on available data. The GRI table on page 81 explicitly displays which indicators we report on.

This is a translation of the prevailing CSR Report in the Dutch language

This report was produced carbon-free and printed on 100% recycled FSC paper.

Mega trailing suction hopper dredger the Queen of the Netherlands at work in the Maldives. In 2010 work to raise four islands to protect the local population was successfully completed

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Chairman's statement

Dear reader,

We are pleased to present you with Boskalis' second CSR report. To a large extent the year under review was dominated by the merger with SMIT and preparations for integrating the SMIT activities. The merger with SMIT has created one of the largest maritime service providers in the world. We have worked intensively on the integration plans to ensure we can start reaping the benefits of our combined strength as soon as possible. It is a positive sign that, even ahead of the formal integration plans, our employees all over the world started seeking each other out and acting in concert in the market. In practice it has become clear that we are well-attuned to each other and complement one another. Thanks to our more comprehensive and complementary chain of maritime services and know-how we are able to offer our clients even more added value.

It goes without saying that the new constellation has consequences for the structure and composition of our CSR report. We have made a great effort to include the qualitative data of the SMIT activities in this report.
In addition to our Dredging & Earthmoving activity, to which our scope was limited last year, as of this year our reporting also includes the performance of our 50%-owned associate company Lamnalco.

We realize that these are just the first steps and that many more steps will be required to perfect our CSR reporting. The mutual alignment of processes, systems and reporting has proved to be a major challenge. It is our intention to achieve further progress in this respect in 2011 in order to enhance the reliability, simplicity and consistency of our reporting. Care will be a prime consideration given the complexity of the subject matter.

We pay due consideration to the interests of our stakeholders. We deliver high-quality services and innovative solutions to our clients, whilst taking their economic, social and environmental objectives into account.

Our employees are our main asset, with our joint success being dependent on their expertise and skills. That is why we set great store by a forward-looking staff policy with a key focus on development, health and safety, and a comprehensive pension scheme. It is in this light that the one-off voluntary contribution by Boskalis of around € 30 million to the SMIT pension fund should be viewed; this allowed the reduction in SMIT pension entitlements which would otherwise have been necessary from 1 January 2011 to be avoided.

We show our commitment to our shareholders by managing our reputation with great care and pursuing responsible value creation. It goes without saying that we have a role to play in the local communities in which we execute projects or have a permanent presence of staff and equipment. We are aware of our responsibility and wherever possible we contribute to the prosperity and welfare of the people at the relevant sites or communities, for example by providing them with accurate information about our activities in the area and the impact they may have on nature and the environment.

With regard to the long-term ambitions we formulated last year we have taken some important steps in a number of areas during this eventful year.

One of the objectives was to raise safety awareness. To achieve this, in 2010 we launched our new NINA safety program; you can read more about this in the Safety section. With NINA we are taking a crucial step towards achieving a structural and sustainable improvement in our company's safety culture.

In addition we have broadened the reporting on carbon emissions in our Dreging & Earthmoving activity from the central fleet to include the decentralized floating equipment. We also report on carbon emissions in the Lamnalco fleet. We are now also able to report on the energy consumption of the larger office locations around the world from our Dredging & Earthmoving activity and Lamnalco.

We engage in dialog with individual suppliers about increasing the sustainability of the chain. In certain cases this results in adjustments to the supplier's product range or to joint research into sustainable solutions such as SMIT's hybrid tug or the use of sustainable lubricants. We plan to give more shape and substance to this dialog in 2011.

Sometimes we don't make as much progress as we would like. Certainly in an internationally operating organization such as ours we encounter all kinds of obstacles both within and outside the company which have to be overcome. The absence of a uniform standard for carbon emissions, differences in legislation and regulations in the countries where we operate, but also cultural diversity are just a few examples. But it is positive to be able to note that - despite the challenging market conditions and all the attention that was devoted to the merger process with SMIT - we were able to make a lot of progress in our second year of CSR reporting, both broadening and deepening the scope. In doing so we laid the foundation for the sustainable expansion of our great company in the same year in which we celebrated our centenary.

Shortly after the date of this report the sad news reached us of the sudden passing away of our esteemed chairman of the Supervisory Board, Mr. H. Heemskerk. After his appointment to the Supervisory Board in 2006 Mr. Heemskerk made a major contribution to the development of our company through his broad managerial experience, great interest and enthusiastic involvement. As chairman of the Supervisory Board Mr. Heemskerk played an important, binding role in renewing, reinforcing and leading the Supervisory Board. We will remember him as a committed, inspiring and passionate person.

Peter Berdowski
16 March 2011

Who we are

Royal Boskalis Westminster N.V. ('Boskalis') is a leading services provider operating in the dredging, maritime infrastructure and maritime and terminal services sectors. Boskalis' activities are Dredging & Earthmoving, Harbour Towage (through SMIT), Salvage, Transport & Heavy Lift (through SMIT), Terminal Services (through SMIT and through our 50% stake in Lamnalco) and Maritime Infrastructure (through our 40% stake in Archirodon).

Boskalis concentrates on the oil and gas, ports, and land reclamation and coastal protection market segments. This spread gives us both a solid foundation and the flexibility to be able to take on a wide range of projects and contracts and means we have excellent prospects for balanced growth. Demand for our services is driven by growing energy consumption, growth in global trade, growth in world population and climate change.

Our main clients are oil companies, port operators, governments, shipping companies, international project developers, insurance companies and mining firms. We provide our clients with a broad range of services within the chain comprising design, financing, project management, execution and operation.

Boskalis has around 14,000 employees, including our share in partner companies Lamnalco and Archirodon, and is active in over 65 countries on six continents. Our versatile fleet consists of over 1,100 vessels and equipment. We are based in the Dutch city of Papendrecht. Royal Boskalis Westminster N.V. shares have been listed since 1971, and is currently in the main AEX index of the Amsterdam stock exchange, NYSE Euronext Amsterdam.

Activities

Dredging & Earthmoving

All manner of activities relating to wet and dry earthmoving traditionally form Boskalis' core business and include port construction and maintenance, land reclamation and coastal defense and riverbank protection. We also provide a range of specialist services including offshore services, dry infrastructure and soil improvement, underwater rock fragmentation, environmental contracting and engineering. Our multidisciplinary approach allows us to take on and execute large-scale, complex projects. Thanks to our global spread, high professional standards, versatile state-of-the-art fleet and our conscious focus on costs we are a world market leader in Dredging & Earthmoving.

Harbour Towage

We provide assistance to incoming and outgoing seagoing vessels - including ro-ro ships, oil and chemical tankers, container ships, reefers and mixed cargo ships - in some of the world's biggest ports. With a versatile fleet of over 200 tugs, SMIT has built up an excellent reputation in this area. SMIT operates tug services in countries including the Netherlands, Argentina, Belgium, Canada, Brazil, Indonesia, Malaysia, Panama, China, Taiwan, Singapore and the United Kingdom.

Salvage, Transport & Heavy Lift

The specialist activities we offer through SMIT include salvage, wreck removal, transport of heavy loads and heavy lifting work using floating cranes. Operating out of four strategic locations - Houston, Cape Town, Rotterdam and Singapore - SMIT is able to provide assistance to ships in distress anywhere in the world and at any time.

Wreck removal is required in situations where a wreck obstructs shipping traffic or presents a threat to the environment. SMIT has the advanced technology and expertise needed to remove hazardous substances such as bunker oil from wrecks in order

to prevent environmental pollution. In order to do so it operates a varied fleet of transport barges for the transportation of civil engineering constructions, cranes, offshore constructions and other heavy loads. SMIT also leases out large and small work vessels, in particular to the oil industry. In addition, SMIT carries out heavy lifting work in selected regions using floating sheerlegs with a lifting capacity ranging from 400 to 3,200 tonnes.

Terminal Services

Through SMIT and Lamnalco (in which we hold a 50% stake) we offer a full range of services for the operation and management of onshore and offshore terminals. Providing support for the berthing and unberthing of oil and gas tankers is the core activity in this segment. Additional support services include piloting services, subsea inspection and maintenance, coupling and uncoupling terminal connections, firefighting, escort services, transportation of crews and goods and operating bunker vessels. We also assist with the operational marine management of terminals. The instruction and training of local staff often forms an integral component of these activities.

Maritime Infrastructure

Archirodon, in which we hold a 40% stake, is our strategic partner in the field of maritime infrastructure. As a maritime contractor Archirodon has extensive experience in designing and constructing quay walls, jetties, breakwaters and oil and gas terminals. In addition, the company is an all-rounder in the civil infrastructure and industrial installations markets, building for example water purification plants, sewer systems, dams, bridges, power stations, desalination plants and pumping stations, particularly in the Middle East and North Africa. The company has an excellent track record when it comes to executing multidisciplinary projects. For the purpose of this CSR report Archirodon is only included in our financial reporting (see page 10 of this report).

Strategy Focus, Optimize, Reinforce, Expand

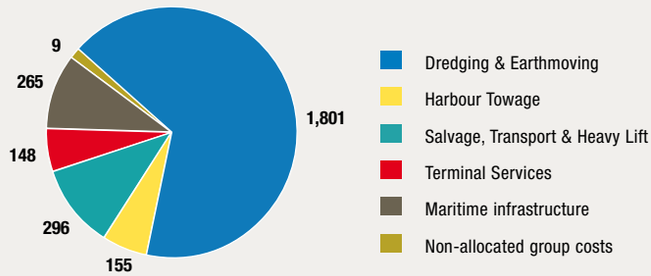
The merger of Boskalis and SMIT has created one of the biggest international maritime companies in the world. A new Corporate Business Plan has been drafted for 2011-2013 to give direction and cohesion to the company in this new composition, and to enable us to set the right priorities with regard to the various investment opportunities. We will use a considerable part of the period covered by the plan to optimize the organization's new structure, both internally and in the market. We wish to focus our joint activities, to optimize and reinforce our combined knowledge, strength and expertise. We will also pursue further growth and expand our activities when opportunities present themselves in the market. For more details on our strategy please refer to our financial annual report and our corporate website.

Key figures and results

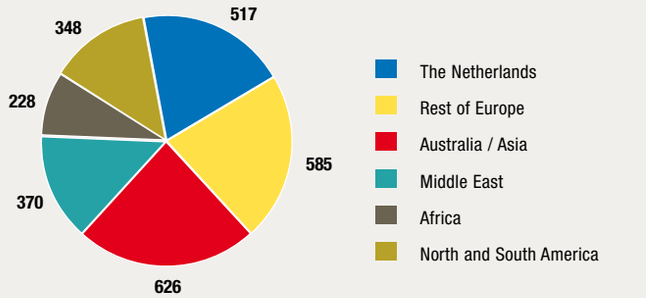
Royal Boskalis Westminster N.V. achieved a record result in 2010, with net profit rising 36% to an all-time high of € 310.5 million (2009: € 227.9 million). Revenue growth of 23% to € 2.7 billion represented another new record (2009: € 2.2 billion). This exceptional performance was partly attributable to a very strong operational year as well as the contribution from Smit Internationale N.V. following the acquisition. The operating result (EBIT) rose by 61% to € 401.9 million (2009: € 249.3 million). Our core Dredging & Earthmoving activities achieved an exceptionally strong result, partly thanks to the good quality of the projects in the order book, a successful operational year and the settlement of a number of projects. The result also included a pre-tax gain of € 33.6 million in connection with the settlement of a number of long-running insurance and other equipment-related claims. In addition, the operating result (EBIT) included a contribution from the SMIT business units of € 72.1 million, net of one-time acquisition-related expenses. The result from the SMIT activities was lower compared to the same period of last year.
The total order book, including the SMIT order book, stood at € 3,248 million at the end of 2010 (end-2009: 2,875 million).

Key figures *(amounts x € 1 million, unless stated otherwise)*	**2010**	2009
Revenue (work done)	**2,674**	2,175
Order book (work to be done)	**3,248**	2,875
Operating profit	**401.9**	249.3
EBITDA	**621.5**	445.0
Net profit	**310.5**	227.9
Net group profit	**312.9**	229.2
Depreciation, amortization and impairment losses	**219.6**	195.7
Cash flow	**532.5**	424.8
Shareholders' equity	**1,565**	1,296
Personnel (headcount)	**13,832**	10,514
Ratios (percentages)		
Operating result as % of revenue	**15.0**	11.5
Return on capital employed	**18.1**	20.2
Return on equity	**21.7**	21.1
Solvency	**37.1**	46.5
Figures per share (in €)		
Profit	**3.11**	2.58
Dividend	**1.24**	1.19
Cash flow	**5.30**	4.81

Revenue by segment *(x € 1 million)*



Revenue by geographical area *(x € 1 million)*



Organization and corporate governance

Boskalis operates a two-tier board model, with executive powers being vested in the Board of Management and supervision thereof being the responsibility of the Supervisory Board. The model is based on close and constructive collaboration between the Supervisory Board and its committees, the Board of Management and our stakeholders. Employees, shareholders and other financiers, suppliers and subcontractors, clients, education and knowledge institutions, the communities in which we operate and social and sector organizations are all considered to be stakeholders. Our holdings in Lamnalco and Archirodon are excluded from the description of the organization and from the corporate governance section given that they are participating interests in which Boskalis' stake is limited to 50% and 40% respectively. Lamnalco's terminal operations are included in the rest of the reporting.

Legal structure

Boskalis is a public limited company subject to the large company regime and is listed on NYSE Euronext Amsterdam. For more details on the legal structure please refer to the appendix to this report as well as our financial annual report.

Changes to the organization in 2010

In April 2010 the merger with SMIT Internationale N.V. was effected following a public offer by Boskalis for all the shares of SMIT. Recognized as a participating interest in the first quarter, SMIT's financial results were consolidated from the second quarter of 2010.

Corporate governance

The Board of Management and the Supervisory Board are responsible for looking after the long-term interests of our stakeholders and at the same time for creating shareholder value in the long term. At the beginning of the year under review the Board of Management consisted of three members. On 17 March 2010 the Supervisory Board reappointed Mr. Kamps to the Board of Management in the position of Chief Financial Officer for a period of four years. Furthermore, in connection with the merger with SMIT Internationale N.V., Mr. Vree was appointed to the Board of Management with effect from 1 April 2010, likewise for a period of four years. Once the integration of Royal Boskalis Westminster N.V. and SMIT Internationale N.V. had been completed, Mr. Vree resigned from the Board of Management on 31 December 2010. There were no other changes to the composition of the Board of Management during the year under review.

As at 1 January 2011 the Board of Management consisted of three members:

- dr. P.A.M. Berdowski, chairman (1957)
- Mr. T.L. Baartmans, group director International (1960)
- Mr. J.H. Kamps, Chief Financial Officer (1959)

The Supervisory Board currently consists of six members. During the year under review Mr. H.J. Hazewinkel was appointed as a member of the Supervisory Board. The appointment of Mr. Hazewinkel, formerly chairman of the SMIT Supervisory Board, is partly due to the merger with SMIT.

The current composition of the board is as follows:

- Mr. H. Heemskerk (1943), chairman
- Mr. M. van der Vorm (1958)
- Mr. H.J. Hazewinkel (1949)
- Mr. M.P. Kramer (1950)
- Mr. M. Niggebrugge (1950)
- Mr. C. van Woudenberg (1948).

All members of the Board of Management and of the Supervisory Board have Dutch nationality. They do not hold any shares or associated option rights in Royal Boskalis Westminster N.V.

Shareholders: At least one General Meeting of Shareholders takes place every year. The shareholders' meeting adopts the financial statements and holds authority with regard to the appointment and dismissal of Supervisory Board members. Material changes to the corporate governance structure are submitted for approval by the shareholders.

Employee representation: The Works Councils within Boskalis promote the interests of the employees and provide ongoing employee representation as required under the Dutch Works Councils Act. It is the task of the Works Councils to ensure that management objectives are in step with those of the employees.

A more detailed explanation of our corporate governance policy and more detailed personal information on the board members can be found in our financial annual report and on the corporate website.

The corporate website also includes the 'Apply or Explain' report, in which Boskalis sets out how the Corporate Governance Code has been implemented within the company. The regulations governing the Supervisory Board and its committees are also published on the website.

Integrity

We have 'Statements of General Business Principles' which govern the way we do business. The full text of the Boskalis general business principles can be found on our corporate website.
The statement sets out:

- Our commitment to society
- Our commitment and responsibility towards the environment
- Our responsibilities towards staff
- Our focus on quality assurance
- Our conduct towards clients
- Our commitment to investors
- Our conduct towards suppliers

Anyone who approaches us regarding compliance with our general business principles can expect a frank and open response.
All genuine requests, suggestions and complaints will be taken seriously. The Board of Management reviews the content of the Boskalis Statement of General Business Principles on a regular basis and at least once every two years. The most recent review took place in early 2010.

Regulations for the prevention of insider trading

Regulations are in place to prevent insider trading in Royal Boskalis Westminster N.V. securities. All employees must comply with these regulations. Employees who possess information that might reasonably be deemed to be price-sensitive may not trade in our shares or advise third parties to do so. The sharing of price-sensitive information with third parties and trading in our share during the closed period prior to the publication of annual or semi-annual results or regular trading updates are prohibited. These rules also apply to members of the Supervisory Board and the Board of Management.

Independent confidential counsellor

We provide employees with the opportunity to report any alleged irregularities of a general, operational or financial nature to an independent confidential counsellor, without jeopardizing their legal position.

Cross-pollination between Boskalis and SMIT gets underway

While 10 working groups have been looking into ways of maximizing market opportunities and cost synergy benefits for Boskalis and SMIT at a strategic level, the two companies already seem to be getting along well on an operational and tactical level. Leo Huisman, Managing Director of SMIT in Singapore, is enthusiastic about the efficiency benefits and commercial opportunities offered by the merger in their fields of activity. “We share the same objective of carrying out the work as cheaply and efficiently as possible.”

Southeast Asia is an attractive region to Boskalis as well as SMIT, which is why both companies have a regional office in Singapore. SMIT employs 160 office staff here, whilst Boskalis is more modest in size with an office staff of just 20. When the opportunity arose for Boskalis to move in with SMIT, both parties leapt at it.

On top of the news

Even before that time, Boskalis and SMIT regularly crossed paths, but since the merger contacts have certainly intensified. Huisman sees definite commercial and practical advantages. “SMIT has eyes and ears in many ports, we are closer to what’s going on. That’s important for Boskalis. We discuss clients more together now. For example, the fact that Boskalis had good contacts with a large client enabled us to put in for a tender. And it cuts both ways: if we need more knowledge about the seabed, we bring in Boskalis.”

Knowledge exchange

In the salvage of a car carrier which sank six years ago, a job being carried out by SMIT, Boskalis’ contribution of specialist knowledge is certainly helping to make the process more efficient. Huisman: “Boskalis knows all about seabed and soil conditions. That does not apply to the same extent for SMIT. Because the wreck has been down there for quite a few years, the salvage operation involves rooting around in the seabed. Boskalis already had knowledge of the seabed in the area. The SMIT project leader, Eric Kraan, knew this and wanted advice on how to gather further information on the conditions.”

Extra eyes on the job

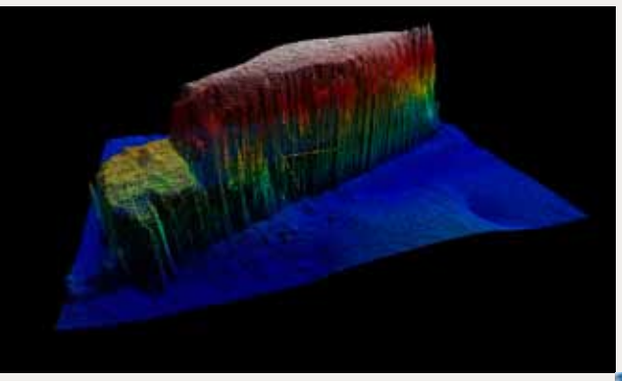
Huisman: “This salvage is a complex job because the ship is lying upside-down in fairly deep water. All 4,000 cars are either still in the ship or lying beside it on the seabed. Boskalis suggested using their

The office in Singapore with the logos of both Boskalis and SMIT

advanced multi-beam survey techniques to obtain an accurate picture of the underwater situation. By using this information in our preparatory work, we will avoid surprises later on. We will also be using Boskalis' advanced survey techniques during the actual salvage operation." Using a big grab mounted on one of its floating cranes, SMIT is going to lift the wreck after first using chains to saw it into sections. The grab will be fitted with a camera to provide a real-time image of where the pincher is in relation to the section of the ship that needs to be lifted. Huisman: "Being able to grab more accurately means that we can work more efficiently. That's significant. At the end of the day you often make your profit on the last 5% of the job."

Edge on the competition

Huisman sees practical advantages to both the merger itself and the integration of the Singapore offices. Not only because the professionals at Boskalis and SMIT enjoy talking about their work and exchanging ideas, but certainly also because it makes for easier access to one another's services. "When Boskalis needs tug services, it's their SMIT colleagues that they will go to first now. Previously they had to get three quotes and go for the cheapest one, now the first course of action is to seek an in-house solution. With Boskalis we get more of a chance to talk about the solution and the costs can be controlled because it's an internal service. We no longer have to try and get the most we can out of our subcontractor: it's all coming out of the same purse. Which means that we look together at how we can do something as efficiently and cost-effectively as possible. Of course, we still have different customer bases and core activities. But because it is easier to exchange information and learn from each other, it certainly allows us to get ahead of the competition."



Multi-beam photograph of the situation below the surface

One of the sawn-off sections of the sunken car carrier being brought to the surface

Leo Huisman

Value chain

Boskalis creates sustainable value through its activities. The infrastructure projects we carry out around the world as part of our dredging and earthmoving activities also have a positive impact on the economy or the safety of a region. Our harbour towage and terminal services allow us to play an important part in ensuring the best possible clean and safe usage of ports, offshore and nearshore infrastructure. Through our wreck removal and salvage work, involving for example the Transport & Heavy Lift activities, we contribute to safety and a cleaner environment.
We also seek to add value by supplying knowledge and expertise, as well as through our donations and sponsorship activities. You can read more about this in our Society section.

Responsibility throughout the chain

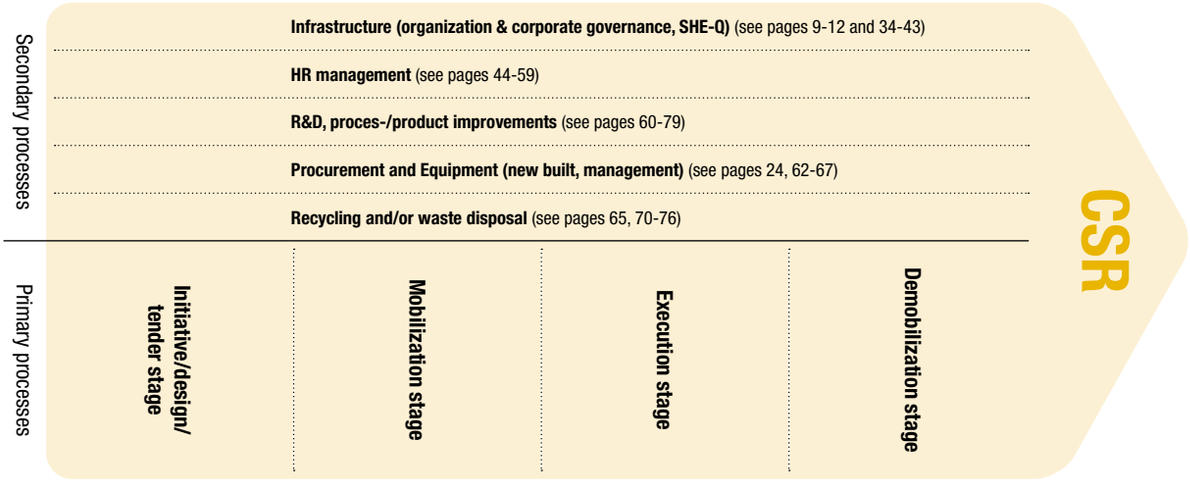
We describe our chain of activities using the value chain, whereby we distinguish between primary and secondary processes. Secondary processes are discussed elsewhere in this report. From the point of view of CSR, in the value chain below we identify three stages in the primary processes which apply to all our activities: the initiative/design/tender stage, the execution stage and the mobilization & demobilization stage.

Initiative/design/tender stage

The value we are able to add at this stage is mainly provided by Dredging & Earthmoving, Transport & Heavy Lift and wreck removal by Salvage. Together with the client we create the design and select the working methods that are best suited to the environmental permit and the economic objectives. At the design stage we go to great lengths to keep the disturbance caused by our activities to life on the seabed to a minimum and seek to minimize inconvenience to both regular shipping traffic and the fishing industry. We also pay extensive attention to safe working conditions at this stage.
In our Dredging & Earthmoving segment we also draw the customer's attention to the best practices under the Building with Nature program (see pages 72 and 73). The essence of this program is to minimize the impact on ecological systems and to apply designs in such a way that nature and human activities reinforce one another.

Execution stage

The physical impact in the value chain is greatest during the execution of our activities.
We seek to make a positive contribution to the local community through our activities wherever we can. We often hire local staff on our projects. In the regions where we have a virtually permanent presence, the share of local staff tends to be high.



Where possible we involve local subcontractors, and source goods and services from local suppliers. The safety of our own staff and that of the people working with us is always a top priority.

Our vessels operating in the Dredging & Earthmoving segment produce emissions and turbidity. Because the seabed is churned up during dredging activities, the incidence of light in the water is reduced by suspended particles. This is a temporary process which can however be detrimental to underwater animal and plant life. By using environmentally friendly working methods and techniques, advanced projection and monitoring techniques, specially designed equipment and cleaner engines we seek to minimize or mitigate the negative impact on nature and the environment.

Our Terminal Services involve escorting, berthing and unberthing oil and gas tankers at loading and unloading facilities. The environmental impact of these activities consists of the emissions produced by the tugboats. Wherever possible SMIT and Lamnalco tugboats use shore-side power during rest periods and are powered by low-sulphur marine gas oil (MGO). Moreover both organizations are involved in various studies aimed at designing a cleaner tug, running for example on hybrid power (see pages 66-67 of this report).

SMIT contributes both to safety and a cleaner environment through its wreck removal and salvage activities. The main priority for salvage operations - after saving or protecting human lives - is always to avoid environmental damage by preventing fuel or hazardous cargoes from contaminating the environment.

Mobilization and demobilization stage

The added value that we can provide at these stages is greatest on projects in particular. Projects involve the deployment of equipment that sometimes has to be mobilized over great distances (for example from Singapore to Australia). After completion of the project the equipment has to be demobilized again. For terminal and towage services, which tend to be of a permanent nature, mobilization of equipment applies only at the start of a contract; after that our staff and the equipment stay on location for relatively long periods of time. Our logistical operation on projects is aimed at deploying floating equipment as efficiently as possible. The principal objective is to limit mobilization distances and, for wreck removal, to ensure targeted scheduling of salvage equipment. This allows us to reduce fuel consumption and the associated burden placed on the environment by our vessels and other equipment.

Early Contractor Involvement: creating value at every stage of a project

Lyle Banks is the Manager Planning & Development of Fremantle Ports in Western Australia. He took the lead in implementing the Early Contractor Involvement (ECI) contract for Fremantle's Inner Harbour Deepening Project. In the following interview he talks of his experience of Boskalis' role in this project.

Fremantle Ports is the Western Australian Government trading enterprise responsible for strategic management of the Port of Fremantle. The Port of Fremantle provides modern deep-water facilities for handling container trade, break-bulk vessels, livestock exports and motor vehicle imports as well as accommodating cruise ships. Of Australia's five major ports, Fremantle is the closest to Europe and is very often the first or last port of call for global shipping lines operating between Australia and overseas destinations.

In recent years the trend towards bigger container ships has impacted ports worldwide, including Fremantle. Deepening the Inner Harbour was essential to enable the port to continue to accommodate these ships at full cargo-carrying capacity. The question was how to proceed in a cost-effective, environmentally responsible and sustainable way.

Lyle Banks: "Upgrading a port involves many unknowns in terms of costs and risks. Fremantle

On board the trailing suction hopper dredger Cornelis Zanen

Lyle Banks

Ports sought a way to have control over the budget as well as quality. Neither a traditional lump-sum contract nor an alliance contract was suitable. When an Early Contractor Involvement (ECI) approach was suggested, it seemed like an interesting way forward. So starting in early 2009, using the ECI concept, they spent six months preparing for the operation with three teams – from the port, from Boskalis and from our civil contractor. The teams all worked together in one office, examining the risks together, developing solutions and building relationships. Boskalis was able to add value by bringing its knowledge and expertise to the design process early on."

Working based on shared values

During the ECI period the parties jointly developed a project charter about what kind of behavior they expected. Lyle Banks continues: "Each organization had the opportunity to bring its corporate values to the table and these values were then codified in a project charter, which was made known both internally and externally. In fact the charter closely aligns with the Fremantle Ports' values as well as Boskalis's corporate values of trust, respect and honesty. Later on, the charter was written into the preamble to the contract between Boskalis and Fremantle Ports. In this way Boskalis was able to contribute towards values

Trailing suction hopper dredger Cornelis Zanen pumping ashore the dredged material for the extension of the Rous Head Container Terminal in the port of Fremantle

which were both achievable and measureable in real terms, as well as put them into practice during execution."

The ECI relationship-building process also had added value regarding the protection of nature and communicating with the community, as Banks explained. "Dredging was taking place on the doorstep of the capital of Western Australia, with more than 1.5 million residents. This also borders on beaches and the Swan River, a heritage icon site, and an area considered the playground of Western Australians as well as a distinctive marine life habitat for whales, dolphins and sea lions."

Dialog with the local community

In the preparation stage the parties together examined the issues and perceptions about dredging. "Here Boskalis brought its experience to bear, offering simulations and presentations to community groups and building up the picture and expectations of dredging before we even started work. By helping to keep communications clear, Boskalis definitely added value," Banks affirmed.

"As soon as concerns arose during the dredging, Boskalis had the skills, know how and past experience to provide information to the community quickly. Boskalis was more than only reactive; it was pro-active in assisting us to get the message out. 'Yes, you may see some cloudy water for a while but it is not going to cause any harm to anyone swimming in it or to the marine ecology.' Also, we had done extensive Environmental Impact Assessments and monitoring, information we were able to provide to people through our website, by publishing Fact Sheets and the results of monitoring on a weekly basis – and all of this was done in close cooperation with Boskalis."

Respect for nature

"Boskalis also helped by using the most modern equipment, for instance, dredgers with 'green' valves to reduce the environmental impact," said Banks. "And Boskalis continued throughout the job to consider how to minimize and mitigate dredging impacts. One aspect unique to Australia was the independent training course that was provided to our Port staff and Boskalis crewmembers to work together as trained 'whale observers.' ECI gave us the opportunity to teach everyone how to detect the presence of whales, identify the type of whale, predict the whale's behavior and determine what might need to be done if whales came too close to dredging vessels."

Exchanging knowledge and expertise

The ECI process also paved the way for Fremantle Ports to organize navigation simulation exercises with pilots and dredge masters early on, which made everyone much more confident in each other's skills. A full-scale simulator is located in the Port for pilot training and was used to familiarize dredge masters with what to expect when a multi-tonnage container ship entered the port. Lyle Banks continued: "Because Boskalis's crews were aware of the way the pilots maneuver, and the pilots were aware of the dredgers' activities, shipping and port operations were able to continue uninterrupted by dredging and vice versa. In this way Boskalis created value by making for a more efficient logistical process."

Trailing suction hopper dredger Gateway removing the limestone dredged by the cutter suction dredger Phoenix (in the background)

No environmental issues

A recent audit of the project, particularly of the dredging activities, confirmed what Fremantle Ports already knew: that there were no environmental or other issues. Lyle Banks: “The auditors attributed the high level of compliance to a number of factors including the high degree of transparency provided through information to the general public, for example by the regular posting of monitoring results and reports on the Fremantle Ports website, and the good communication between Fremantle Ports and Boskalis.”

The auditor also noted other significant factors contributing to the high level of compliance. For example, the vessel undertaking the dredging and spoil disposal, the new trailing suction hopper dredger Gateway, was equipped with a state-of-the-art computer, monitoring and navigational equipment, and the Boskalis crew were well trained and demonstrated good knowledge and professionalism during the execution of the dredging operations.

“We certainly have met all our project objectives – an expanded, sustainable port, created with community acceptance, and within a specified budget – and the joint venture partners have helped significantly in achieving this,” said Banks. “We had a great cooperation with Boskalis that most likely wouldn’t have happened if we hadn’t gone through the ECI process and built up those relationships. It’s been a positive learning experience and hopefully we have transferred some knowledge to Boskalis, just as they have to us.”

Changing the cutter teeth on the cutter suction dredger Phoenix

Cutter suction dredger Phoenix working in the entrance of the port of Fremantle

Society

From a GRI perspective Boskalis' primary activities contribute to a region's economic development, safety and sustainability. Operating within the legal frameworks we strive to achieve a good balance between the wishes and requirements of our clients, our own economic continuity and the interests of all the other stakeholders. We also offer our expertise beyond the scope of our regular projects and services in a bid to contribute towards keeping our planet sustainable and liveable. In this section we give a few examples of the direct and indirect influence we seek to exert.

Reporting scope

	Relationship with Stakeholders	Contribution to the Local community	Donations & Sponsorship
Dredging & Earthmoving	✔	✔	✔
SMIT (activities Harbour Towage/Salvage, Transport & Heavy Lift/Terminal Services)	✔	✔	✔
Lamnalco (activity Terminal Services - 50%)	✔	✔	✔

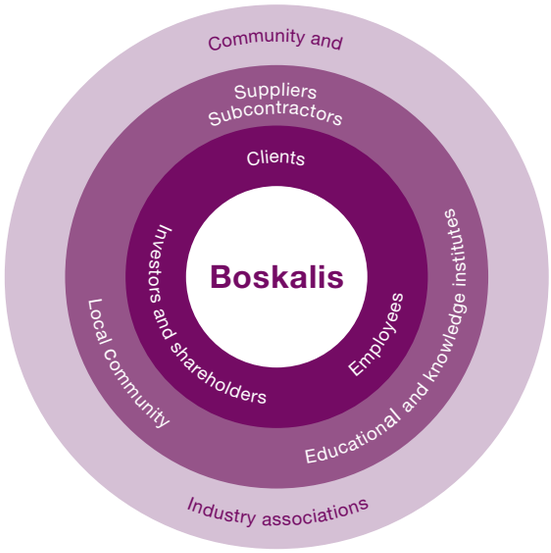
Our stakeholders

We consider a good, transparent relationship with our stakeholders to be very important. We understand stakeholders to mean those organizations and individuals which can be expected to be significantly influenced by the company's activities. Equally, stakeholders engage in activities which can be expected to influence our ability to successfully implement our management strategy and achieve the organization's objectives.

Dialog with our stakeholders

As well as communicating by means of this report we engage with our stakeholders for example through gatherings, consultation meetings, events and publications. The table on the next page shows only those activities which generate direct and indirect feedback on our CSR policy.

Our stakeholders are:



Employees

- Regular consultation meetings with works councils
- In 2010 special meetings with the Central Works Council in connection with the merger with SMIT
- Corporate strategy meeting (top 50) once a year
- Visits by Board of Management to projects and vessels
- Senior staff meeting (top 225) twice a year
- NINA safety program and incident reporting using SHOC cards (see Safety section)
- Fleet (staff) contact days twice a year
- SMIT: Fleet (staff) contact days. Frequency depending on line of work
- SMIT: Partner Days once every two years for all general managers of joint venture partners in Rotterdam

Investors and shareholders

- Shareholder meetings (twice in 2010)
- Meetings with investors and shareholders (approximately 270 in 2010)
- Site visits with investors and shareholders (twice in 2010)
- USPP investor meetings (86 in 2010)

Clients

- Coordinate on sustainable design, sustainable working methods, social situation, communication with local communities

Suppliers and subcontractors

- Develop environmentally friendly applications
- Hire and where necessary train local subcontractors on projects and contracts

Local communities

- Further on in this section we will give a number of examples which illustrate how we put our social responsibility into practice in our primary role as a contractor

Educational and knowledge institutions

- Participation in and financing of Building with Nature program (www.ecoshape.nl)
- Active contribution to knowledge forums such as the Delta Technology Steering Group and the Dutch Water Knowledge Platform
- Supervision of interns/graduates, doctorate students and a scientific officer at Delft Technical University
- Participation in research studies at institutions including Delft Technical University, MARIN, the Netherlands Organisation for Applied Scientific Research (TNO), Deltares, the Royal Netherlands Institute for Sea Research (NIOZ) and Imares

Community and industry organizations

- Frequent consultations with industry and sector organizations (such as Association of Hydraulic Engineers, EUDA, IADC, PIANC, CEDA, WEDA, Royal Association of Netherlands Shipowners, OCIMF)
- Dialog with class societies on various greening and other topics and developments in national and international regulations

Organizing structured dialog

In 2010 we looked into what further steps we can take to establish a structured dialog with the various groups of stakeholders about our CSR policy. In light of our chain responsibility we have given priority to establishing a dialog with our principal suppliers at corporate level. In 2011 we will invite a selection of corporate suppliers from the various product groups to the head office in order to further expand the dialog on sustainability.

Our social contribution

We also make our expertise available beyond the scope of our regular projects and services in a bid to help keep our planet sustainable and liveable. In this section we give a few examples of the direct and indirect influence we seek to exert on our markets, both by supplying knowledge and expertise and through our charity donations and sponsorship activities.

Contribution in our markets

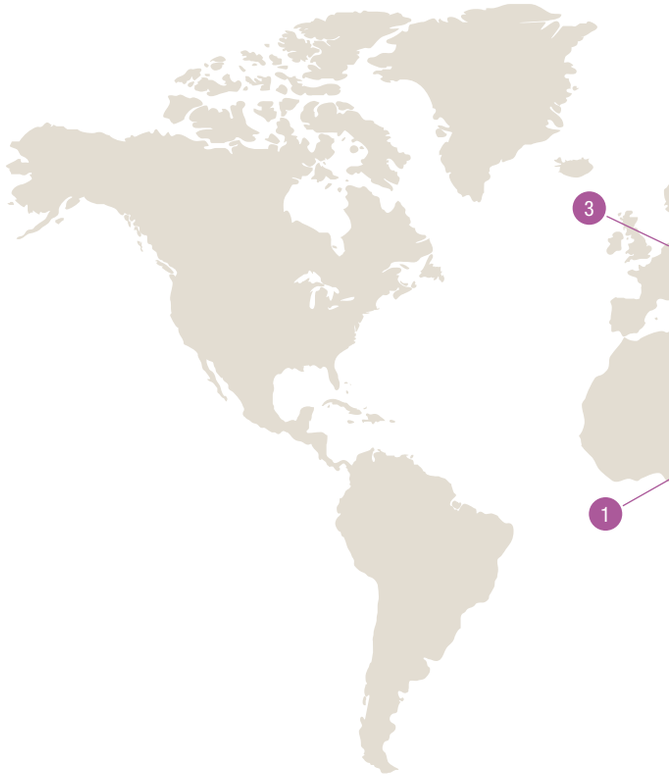
Our activities have an impact on the local communities in which we operate. It is our intention to deal responsibly with the interests of those communities and to act as a good citizen and guest. As an employer we contribute to the local economy in our markets. In addition we strive to contribute as much as possible to the welfare of the local community by providing healthcare, education and infrastructure support and by purchasing locally.

Placing of coastal defenses at the Nigerian fishing village of Ogulagha (see page 26)

Services and products are purchased both centrally (at corporate level) and locally (at project and contract level in the countries where we operate).

We exchange ideas at corporate level with a number of suppliers and pool innovations in the interests of shared cost reductions and sustainable product development. The section Nature and Environment examines this in more detail.

The examples on pages 26 and 27 illustrate how we put our social responsibility into practice in our primary role as a contractor in 2010.



Africa

1 Nigeria : Ogulagha coastal defense

In Nigeria Boskalis – with the Dredging & Earthmoving activity – completed the coastal defense project in the vicinity of the SPDC Forcados Export Terminal, the purpose of which was to protect the terminal from high tides. In order to contribute towards the local community at the same time, we also tackled the protection of the nearby fishing village of Ogulagha and involved local residents in executing the work. We were able to hire 35 local staff to perform various support tasks. Local subcontractors supplied tools and also carried out cement work, while the village community supplied basic materials such as sharp sand and rocks. In addition, some of the subcontractors and workers learned new technical skills which will improve their chances of securing work on future projects. This project has delivered economic benefits to the local community and will continue to do so given that the threat of flooding and erosion is now a thing of the past. A total of 2,300 meters of coastline was raised and reinforced, and all the land which had eroded away was reclaimed. Two mooring places for fishing boats were also realized. For pictures see pages 24 and 25.

2 South Africa: children and schools

Since 2010 Amandla Marine, SMIT's SED (Social and Economic Development) program in South Africa has been mainly focused on educational projects for children from the lower income groups. Another target group is formed by unemployed South Africans in Durban, Mossel Bay, Richards Bay, Port Nolloth and Cape Town. SMIT has entered into multi-year partnerships with a number of accredited educational and welfare institutions. SMIT also encourages the involvement of its own staff in numerous support activities in local communities. Results achieved in 2010 included:

- 55 scholarships were awarded to children of employees in the lower income groups;
- 20 unemployed residents of Port Nolloth completed their training as tug boat captains;
- 75 children under the age of five, who attend the Enozipho Educare center in Cape Town, were given better educational facilities;
- 45 students from the naval college took part in a three-day educational sailing trip from Durban to Cape Town;
- 8 Durban street children were trained as plumbers, carpenters, bricklayers, painters and plasterers.

Europe

3 Netherlands: voluntary work and donations

The Dutch volunteering project WorkMate sees SMIT staff rolling up their sleeves to help a wide variety of good causes in the Rotterdam region and

thus helping to make the city liveable. SMIT is also associated with Benefits 4 Kids and Het Atelier, Rotterdam-based initiatives which are aimed at children from troubled families and for example involve inviting the children for a company visit. Via the MORE network SMIT takes part in a 'jobs safari' for teenagers with an intermediate vocational qualification who are faced with choosing a continuation course. SMIT helps reduce the number of dropouts by giving them a better insight into the opportunities offered by various continuation courses.

In 2010 our homemarket organisation in the Netherlands continued its support of De Boei ('The Buoy'), a primary school for children with learning difficulties in Rotterdam. Boskalis helps the school by organizing excursions, lectures and providing support in kind. In addition, donations were made to various good causes in 2010.

4 United Arab Emirates:

Lamnalco supports The Mission to Seafarers
Lamnalco backs the Flying Angel, a support boat operated by The Mission to Seafarers, a charitable organization committed to the wellbeing of seafarers around the world. The Flying Angel operates seven days a week in anchorage off the east coast of the UAE, delivering services to an average of 75 seafarers a day (over 2,000 a month). The Flying Angel provides email and telephone facilities, a welfare officer to listen to and help solve seafarers' problems, book and DVD libraries, a medical clinic and a place to chat, relax and unwind.

Australia

5 Gorgon project

In October 2010 the crews of the Lamnalco Griffin and the Borderline, ships working on the Gorgon project, saw their excellent safety performance rewarded with a SHE-Q award and a safety bonus. They donated their cash reward to the Royal Flying Doctor Service of Australia and the Movember Foundation. Boskalis employee Michael Tait, who won the individual Best in Class safety award, also donated his bonus to charity.

6 Port of Melbourne:
Infrastructure Project of the Year

In March 2010 the Port of Melbourne project, in which Boskalis played a major role with the Dredging & Earthmoving activity, was presented with the National Infrastructure Award by the Australian Minister for Roads and Ports after being named best infrastructure project of the year. The project was held up as an example of outstanding public-private partnership and transparent dialog with the local community. You can read more about this in our 2009 CSR report on our corporate website.

Contributing through knowledge and expertise

For many years we have undertaken studies in conjunction with universities and knowledge institutions, and also share knowledge through lectures and presentations. We also supervise graduates and doctorate students and fund one scientific officer at Delft Technical University.

Contributing through donations and corporate sponsorship

The fact that we are aware of our responsibility to society is evidenced by our donations and sponsorship activities to social, cultural, sporting and educational causes. When undertaking donations and sponsoring at corporate level we seek to make a connection with our core activities on land or at sea. Our aim is to facilitate activities for individuals or groups with clear motives and passions. What connects us is the desire to make a difference. The type of people who appeal to us are self-willed, genuine and set on realizing their ambitions. We are pleased and proud to link our name to such people and their organizations.

Supporting KNRM

The Royal Netherlands Sea Rescue Institution, the KNRM (www.knrm.nl), is an enthusiastic, enterprising association of mainly volunteers which operates 42 rescue stations in the Netherlands. Boskalis has close ties with the Dordrecht rescue station and has entered into a multi-year agreement with KNRM Dordrecht. In 2009 the rescue station was given the resources to buy a new rescue boat. In addition, Boskalis and the KNRM invite each other to special gatherings to enable staff of both organizations to get to know about each others' work. This year we invited the KNMR volunteers to pay a visit to a new Boskalis ship, the Willem van Oranje, just before the vessel's completion.

Supporting top-class sailing:
Team Boskalis – catamaran sailors

Since 2007 Boskalis has given financial and sporting support to Team Boskalis, a catamaran masterclass which involves experienced sailors taking talented pupils under their wings. The goal is ambitious: we want to give young competitive sailors the opportunity to join the best in the world. Some of our pupils are recruited from technical universities, our company's future talent pool. Team Boskalis has proved highly successful so far, winning many national and international competitions.

In 2010 four Team Boskalis two-man catamaran teams competed in the F18 World Championships, with one of the teams winning the bronze medal. In 2010 the boats sported special sails to commemorate Boskalis' 100th anniversary. During races the team members use social media (Twitter and Flickr) to maintain contact with their supporters. Please go to www.teamboskalis.com for all our latest news.

Supporting the arts: sculptor Ruud Kuijer

Boskalis is supporting sculptor Ruud Kuijer's 'Waterwerken' (Waterworks) project right through to its conclusion in 2013. The project comprises seven huge concrete sculptures in the Lage Weide industrial zone along the Amsterdam-Rhine Canal in Utrecht, The Netherlands. The sculptures interrelate at different levels with water, sand, transport and industry.
In 2010 the sloping embankment between the sculptures of the 'Waterwerken' project was realized with the backing of Boskalis Nederland. Work also started on 'Waterwerk VI', which is scheduled for completion in the spring of 2011.

NED
66
THE FUTURE
F18
NACRA
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Boskalis
100 YEARS BUILDING THE FUTURE
delta lloyd

Less plastic in the oceans

Over the past decades vast quantities of plastic have ended up in our oceans. It is estimated that 80-90% of this waste comes from the shore. In addition to the 'floating garbage dump' in the Indian Ocean, there are four 'plastic soup' areas in the Pacific and three in the Atlantic. It is estimated that the total area involved is more than twice the size of the United States. Further research must be conducted into the consequences.

Representatives of Boskalis and waste processing company Van Gansewinkel Groep were invited by Dutch tv broadcaster VPRO to take part in a voyage on the Stad Amsterdam, with the clipper retracing the historic journey of Charles Darwin. The companies were asked to use their practical knowledge to explore realistic solutions to the waste problem. Boskalis' job was to look into whether the clean-up process could be carried out using specialist dredging or other equipment. Working with researchers from the American 'discoverers' of plastic soup, Algalita, and the Royal Netherlands Institute for Sea Research (NIOZ), a Boskalis employee fished samples of the plastic waste out of the waters of the Indian Ocean, between Australia and Mauritius, and analysed them. The findings were extensively reported, discussed with other scientists on board and regularly debated with colleagues in the Netherlands. Several groups of students, from Wageningen University amongst others, also made an active and valuable contribution to the study during the voyage. The findings, questions and responses are also detailed on the weblog kept during the voyage.

The clipper Stad Amsterdam

In the course of collecting samples, marine life such as small fish, jellyfish and algae was also brought to the surface, and in a much greater quantity than the plastic. The maximum quantity of plastic found on this route was around 200 grams per square kilometer, a fraction of the concentrations found elsewhere in the world. Factors such as UV radiation and the seawater cause the plastic to disintegrate into tiny particles. Algae form on these particles which are in turn eaten by the fish and shellfish. This is how toxic substances can make their way into the food chain.

The tests showed that the plastic particles are often so small that it would be very difficult to remove them, meaning that the amount of money and energy this would involve would be disproportionate to any ecological improvement achieved. Moreover, the unintentional by-catch of marine organisms would mean that the harm caused would outweigh the positive effects.

Boskalis and Van Gansewinkel Groep are convinced that solutions for preventing the harmful effects of the plastic soup should be sought at the product

Haico Wevers (Boskalis) and Arend Bolt (Van Gansewinkel) aboard the clipper the Stad Amsterdam

In the port of Perth with in the background the cruise ship Boskalis uses to accommodate staff on the Gorgon project in Australia

design stage. Smarter design and better material composition have the potential to drastically reduce the negative ecological effects of materials that end up in the sea. At the same time the researchers involved believe that absolute priority must be given to preventing even more non-degradable waste ending up in our seas and oceans, for example through education programs in countries where dumping of plastic waste in the environment still continues unrestricted. It is estimated that 80 to 90% of the plastic waste in the oceans originates on land and 10 to 20% comes from ships.

The 'trawler' being prepared for taking samples

Inspecting the catch

The findings were reported and discussed with parties including Plastics Europe, the sector association of European plastics manufacturers, and students from Wageningen University. Boskalis and Van Gansewinkel also conveyed their knowledge and experience in a workshop on waste in the oceans organized by the World Wide Fund for Nature.
Boskalis and Van Gansewinkel continue to collaborate on further explorations and potential solutions.

Sample-taking

Processing the data

The crew aboard the Stad Amsterdam

Safety

Boskalis has a strong focus on safety, which is inherent to the nature of our activities. Although all our different activities do not yet use the same safety management and reporting system, the objective is the same for everyone: no incidents, no accidents. This is clearly expressed by the name of Boskalis' new safety program: No Injuries, No Accidents (NINA). The purpose of this program is to develop a value-based culture in which people actively promote safety and discuss safety problems with one another. In 2011 our efforts will be targeted at opportunities for harmonizing our safety systems which will also pave the way for a more uniform management approach.

Reporting scope

	LTIF	Certification	Awards
Dredging & Earthmoving	✔	✔	✔
SMIT (activities Harbour Towage/Salvage, Transport & Heavy Lift/Terminal Services)		✔	✔
Lamnalco (activity Terminal Services - 50%)	✔	✔	✔

Safety targets

Each year we set a number of targets for safety, health, environment and quality (SHE-Q). In terms of health and safety the emphasis lies on constantly improving the safety performance.

In addition to the corporate targets, individual targets are set by the management of each Dredging & Earthmoving business unit. The business units report to the Board of Management once a quarter on the progress made towards the various targets. In addition (internal and external) audits take a critical look at whether and how the safety policy is being complied with.

In addition to starting the implementation of NINA, another Dredging & Earthmoving safety target for 2010 was to draw up a SHE risk assessment for all projects over € 5 million, based upon which specific risk-reducing measures can be taken. The target was met in 100% of the cases.

The second target for 2010 was for every Dredging & Earthmoving region to select a large project to work with SHOCs (Safety Hazard Observation Card). With this very simple, low-threshold system everyone, from the top down, is encouraged to fill in a SHOC card as soon as they notice anything unsafe. Good safety suggestions are also welcomed. The objective was met and applied on a much larger number of projects than had been targeted for 2010. The system produced around 1,800 observations (SHOCs) in 2010 and is now in standard use on our projects in the Middle East, Australia, Europe and within Offshore.

Until now SMIT targets have been based on lost time frequency rates (LTIF) and severity rates. The most important concern in 2010 was the security of SMIT vessels in the Gulf of Aden and the Indian Ocean. There were seven transits in 2010. The use of privately armed escort vessels has proven successful so far.

Each year Lamnalco's directors and SHE-Q management review the past year's SHE-Q activities and strive to continuously improve SHE-Q performance, both by making effective system improvements and by setting realistic targets (KPIs) for Operational Regions to achieve. Improvement of LTIF's and Total Recordable Injury Rates (TRIR's) and prevention of equipment damage were the targets in 2010. The Operational Regions provide a monthly report on SHE-Q performance to Lamnalco management.

In addition to this internal monitoring, Lamnalco's SHE-Q performance is also compared to the performance statistics published by ISOA (International Support Vessel Owners' Association) and IMCA (International Marine Contractors Association). Lamnalco is a member of these organizations and a top SHE-Q performer.

Certification

Boskalis' safety policy is backed by the following certificates: ISM, ISO 9001, ISO 14001 and OHSAS 18001 or VCA for our Dutch companies. For a list of the various certificates we hold, please refer to the appendix.

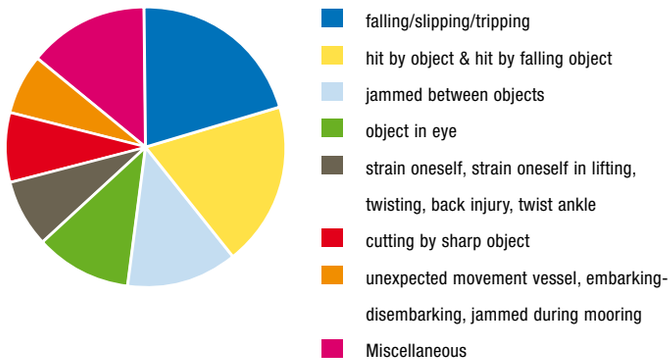
Incident reports

Reporting, recording and following up on incidents form an integral part of our activities. The SHE-Q departments coordinate this process and maintain contact on the subject with the management concerned. Following an incident or an analysis of incidents the department may issue an advice on possible measures to correct or improve the situation. The incident reports are conveyed as Lost Time Injury Frequency. The LTIF figure expresses the number of incidents resulting in absence from work for every 200,000 hours worked. Sadly, 2010 saw a fatal accident at one of Dredging & Earthmoving's subcontractors. Boskalis is one of the few market parties to include subcontractors in its LTIF statistics. In 2010 LTIF in Dredging & Earthmoving was 0.67 (2009: 0.74) and at Lamnalco 0.03 (2009: 0.04). For a detailed analysis of LTIF in 2010 and historical figures for the past five years, please refer to the appendix.

Accident analysis

Accident analyses are conducted annually and are used to further develop policy.

Accident analysis Dredging & Earthmoving



The analysis covers accidents, with or without absence from work

The Dredging & Earthmoving analyses over the past three years show that more than 50% of accidents are caused by:

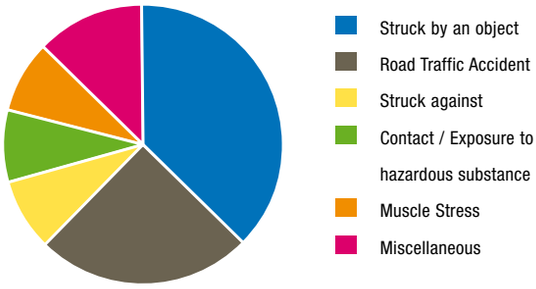
- falling, tripping and slipping
- being hit by an object
- getting jammed

It also transpires that working with cranes, cables and winches and with dry earthmoving equipment can result in relatively serious injuries. This prompted Boskalis to take appropriate measures. Extra attention may also be paid to these causes during audits and management inspections, and information on these subjects is supplied in our communications. As part of NINA, a technical standard for the dredging vessels was developed covering aspects such as the safety of steps and stairs, inspection of lifting and other equipment and non-slip gangways on board.

SMIT issues an annual SHE-Q Report comprising a detailed analysis of the nature of accidents. This is used to further develop safety policy. The analysis over the past year shows that almost 50% of accidents are caused by:
• falling
• being hit by an object.

Each Lamnalco operational region conducts a periodic review of incidents which have occurred and analyses them to determine their causes. The resulting statistics are used to set KPIs for the coming year, modify operational practices and establish training requirements. In 2010 the most frequently recorded causes of accidents involving staff followed the trend of previous years: 'struck by' and road traffic accidents at shore bases.

Accident analysis Lamnalco



The analysis covers accidents, with or without absence from work

Awards

In 2005 the Board of Management introduced the annual Boskalis Safety Award to increase our employees' involvement in the Dredging & Earthmoving activity with safety issues. The award goes to whoever has made the most practical suggestion for improving safety. In 2010 the award was won by Richard Sweeting and Mark de Bruin for their idea for improving safety on shore-based projects. Instead of having traffic regulators on the ground to direct the earthmoving equipment to the right place, we now use the bulldozer operators. Because they are high up they have a better view and are able to perform the task more efficiently and more safely. The method was successfully applied on the Khalifa Port project. Various - mainly relatively large - projects present their own awards for good suggestions or best practices.

In 2010 Dredging & Earthmoving received the following awards for safety performance:

- **IADC Safety Award** for the new working method on the Khalifa Port project (Abu Dhabi, UAE).
- **Safety bonus for Maasvlakte 2** (The Netherlands) for one million hours worked without an incident resulting in injury. It was the second time this bonus was awarded.
- **Certificate of Recognition** for the exceptional health and safety standards of the employee accommodation on the Khalifa Port and Industrial Zone project in Abu Dhabi (UAE) in the period September 2008 to July 2010.
- **DSE Certificate** from the National Petroleum Construction Company of Abu Dhabi (UAE) for our health and safety performance.
- **NCIG Coal Export Terminal** (Australia), award for achieving one million hours worked without an incident resulting in injury.
- **Safe Contractor of the Month.** Boskalis won the award in May 2010 for the Khalifa Port (UAE) project.

A SMIT Vessel Survey Award is issued each year to the best maintained vessel. The winner is decided by the management team in consultation with the vessel surveyors. The Vessel Survey Award winner of 2010 is the SKY 501 operated by SMIT Kueen Yang in Taiwan.

The SMIT Terminals and Harbour Towage divisions organized a slip, trip and fall Campaign. The award went to the SMIT Gabon vessel To Independence.

Lamnalco achieved a major milestone in SHE-Q excellence in December 2009 for 10,000 days (28 years) on contract to BP (Sharjah) Ltd without Lost Time Injury (LTI). In April 2010 our West Africa Region operations achieved 500 days without LTI, a performance matched by the Middle East Region in May 2010.

Tools for improving safety performance

Management systems

Boskalis reviews its SHE-Q management system for Dredging & Earthmoving every two years. Following the latest review the new version of the SHE-Q management system Q-Aid was introduced in mid-2010. The implementation and integration of NINA and harmonization of the home markets management systems are the most noticeable changes. Previously all home and niche markets had their own management systems, but over the past two years efforts have been put into a more harmonized approach. The aim is to achieve greater uniformity on projects throughout the organization. At the same time this will improve efficiency as it will allow more flexible deployment of staff and resources. This internal harmonization process in Dredging & Earthmoving will be completed in 2011.

The plant management system used by the Central Technical Department in Dredging & Earthmoving to manage the vessels also forms an integral part of Q-Aid. Q-Aid is a guideline for all managers on the projects they prepare and execute, with uniform management and universal compliance with the same high quality and safety standards being the guiding principles. Q-Aid considerably strengthens this uniformity. Incident reporting systems are another part of Q-Aid. In 2011 they will be offered as a web-based module which allows details to be entered and recorded on the spot. Q-Aid gives management better access to the extensive knowledge database which includes safety solutions for specific activities and situations.

SMIT's SHE-Q policy has been revised to increase the emphasis on security, environment and behavior. The new policy also reflects the change in the Management Team. A Safety Booklet has been published based on the Code of Safe Working Practices for Merchant Seamen. The pocket-sized booklet, intended for use on the workfloor, will come in handy in toolbox meetings, job safety analysis and safety courses.

Lamnalco is implementing several electronic management tools to improve the SHE-Q performance of its fleet. The Taproot tool helps pinpoint the root causes of incidents and accidents and identify areas which would benefit from systems improvements, so that corrective and preventative actions can be targeted effectively. In addition Bassnet, a best practice software tool for SHE-Q and maintenance reporting, recording and monitoring, is being installed on vessels to enable real-time interaction with regional offices.

Monitoring and reporting

Boskalis management ascertains whether its high standards of safety are actually being observed within our Dredging & Earthmoving projects and on board our dredging vessels. This is done in various ways and at various times:

- Sixteen comprehensive, multi-day SHE-Q audits on large projects to monitor aspects including project structure. Focal points of the audits include the management and QA structure of the project, management of the subcontractor or subcontractors, and owned and hired equipment.
- Local SHE-Q departments also conduct their own audits.
- Audits of ISM vessels and office organizations by certifying organization Bureau Veritas. In 2010 the bureau conducted 15 audits.
- International Safety Management audits. In 2010 45 of these internal and external audits were conducted on our vessels and at our offices.
- Senior management conducts safety inspections during project visits.

SHE-Q reporting forms an integral part of our operational reporting structure within Dredging & Earthmoving. As a rule the reports contain information on progress made towards meeting the SHE-Q targets, audit results, incidents and accidents. SHE-Q issues are on the agenda at the monthly management meetings. The Board of Management draws up a quarterly SHE-Q report for the Boskalis Supervisory Board.

SMIT completed in excess of 100 Vessel Surveys, based upon standard check lists. An internal scoring system is used to work out the scores for these surveys, which are based on IMCA's Common Marine Inspection Document. The minimum score level is decided each year by the management team.

Each year Lamnalco undertakes a full audit program of its vessels, operations, shore bases and offices to ensure that established management systems are in place and adhered to. The internal audits undertaken cover International Safety Management of vessels; ISO 9001 and ISO 14001 activities of both vessels and shore establishments. Last year, the Lamnalco SHE-Q department carried out 99 internal audits. Safety inspection activities also include 'safety walkabouts' by senior and contract management when visiting vessels.

Safety training

Training is one of the main tools used to prevent unsafe situations. Within Dredging & Earthmoving operational and fleet staff attend various compulsory and voluntary safety training courses based on a training matrix. Our personnel registration system keeps close track of which courses employees have attended or still need to attend for their specific role or position. Compulsory training courses include those based on local and international health & safety legislation and the Safety, Health and Environment Checklist for Contractors (VCA).

SMIT safety training courses are typically arranged by the respective business units. Last year saw the introduction of an online training package with Coastal Training Services, which is currently being used by the Terminals Division.

To ensure that there is a continued learning environment, Lamnalco employs Fleet Training Officers to sail on vessels and instruct masters and crews about ISM requirements and the company's quality management system. This one-on-one training is being further supported by the implementation of on-board computer-based learning and assessment systems in 2011.

Specialist training for ASD propulsion vessels is conducted using the Lamnalco Tug Bridge Simulator in Sharjah and on board ASD vessels by training officers.

Communication

Within Boskalis communication is a major cornerstone of an active safety policy. Ongoing communication on safety takes place via websites, such as the NINA website and SMITNET, regular internal safety bulletins such as Safety Matters, Safety Newsflash and Safety Alerts, and the staff magazines 'Cohesie', 'SMIT Intern' and 'Lamnalco in Focus'.

The crew of the SKY 501, winners of the 2010 SMIT Vessel Survey Award for best-maintained vessel

Boskalis launches NINA safety program

NINA was introduced to the Boskalis workforce in Dredging & Earthmoving in a large-scale internal campaign in July 2010. Developed in-house over the past year and a half, the program provides an answer to the question of how to structurally take safety to the next level.

A shared safety culture

The Dredging & Earthmoving's safety performance had already improved considerably over the past 10 years. LTIF, the figure which expresses the number of incidents resulting in sick leave, fell from 2.86 in 2000 to 0.67 in 2010. Procedures, rules and management systems are all in good order. Boskalis wants to raise the standard even further. An international culture survey amongst employees, interviews with clients and a large number of in-house workshops revealed which areas offer scope for further improvement.

The opportunities lie mainly in the field of building a shared safety culture which is based on a clear set of Values and Rules. In order to achieve this Boskalis staff need to clearly express to one another what they expect when it comes to working safely. The next step is to discuss this together and to approach each other on unsafe behavior.

The NINA safety program targets at achieving a shared safety culture.

NINA Values and Rules

NINA rests on five values and five rules which are vigorously communicated in both internal and external media.

With a strong personal slant, the values appeal directly to the employees' sense of responsibility for both their own behavior and that of others. Safety can be discussed openly, regardless of a person's position or standing.

The rules are mainly there to back up the values and are aimed at the prevention of incidents, primarily through risk management.

Peter Berdowski shows his commitment to NINA by signing the 'Values & Rules' poster

Peter Berdowski performs the worldwide kick-off of NINA at head office in Papendrecht

NINA NO INJURIES NO ACCIDENTS

SAFETY STATEMENT

Our people are our most valuable assets, making safety a core value. Our goal is: No Injuries No Accidents. This is embedded in our company's culture and supported through Values and Rules. All employees, including our sub-contractors, are expected to take these values and rules to heart.

VALUES

- I AM RESPONSIBLE FOR MY OWN SAFETY
- I APPROACH OTHERS ABOUT WORKING SAFELY
- I TAKE ACTION IN CASE OF UNSAFE OPERATIONS IF NECESSARY, I WILL STOP THE WORK
- I ACCEPT FEEDBACK ABOUT MY SAFETY BEHAVIOUR REGARDLESS OF RANK AND POSITION
- I REPORT ALL INCIDENTS, INCLUDING NEAR-MISSES, TO INFORM OTHERS AND BUILD ON LESSONS LEARNED

RULES

- PREPARE A RISK ASSESSMENT FOR EACH PROJECT, VESSEL OR LOCATION
- OBTAIN A PERMIT TO WORK FOR DEFINED HIGH-RISK ACTIVITIES
- MAKE A JOB HAZARD ANALYSIS FOR HAZARDOUS NON-ROUTINE ACTIVITIES
- BE INFORMED ABOUT RISK & CONTROL MEASURES
- BE FIT FOR DUTY AND WEAR THE PPE REQUIRED

WWW.BOSKALIS-NINA.COM

Royal Boskalis Westminster nv
International Dredging & Marine Contractors

Extensive training program

Boskalis offers an extensive program of courses and workshops to enable management and staff in Dredging & Earthmoving to familiarize themselves with the new values and learn to work with them. Boskalis' senior management, which broadly supports NINA, attended the first course prior to the roll out of NINA in the summer of 2010.

Next came other staff in management positions in Dredging & Earthmoving such as project managers, captains, chief engineers and office managers. In addition, all operational staff on the projects and on the vessels completed a NINA course.

The NINA program is based on shared values which management, supervisors and employees have to make a conscious effort to internalize. In light of this, the training concept for supervisors is based on an open discussion about safety in relation to those values. Each training session is attended by a higher ranked manager, who engages in discussion about the practical implementation of the NINA values and rules. The members of the group management have already attended a great number of training sessions in order to demonstrate and discuss their commitment to NINA. The training courses look at what dilemmas and challenges our supervisors face in the course of their work. They gain awareness of their role and learn how to take a credible approach to the NINA values. But they also learn how to create the right conditions to ensure a safe working environment for their staff.

Between September and the end of the year around 1,000 employees in Dredging & Earthmoving attended a NINA course or workshop at various locations around the world. Following the training courses, start-up meetings were held on projects and on board our vessels in order to translate the values and rules into everyday practice. One of the corporate safety targets in 2011 is for each project to kick off with a NINA start-up meeting.

Senior management participating in the first NINA training course in the summer of 2010

There's no avoiding NINA any more

NINA has a prominent presence at Boskalis. The dedicated website www.boskalis-nina.com is visited frequently after the world-wide launch in July 2010. Employees have been asked to post their own NINA statements on the NINA website.

All over the company there are posters displaying the NINA values and rules – on projects and on board the dredging vessels. Visitors to the head office in Papendrecht are introduced to NINA as soon as they report to reception. NINA lives and breathes!

Impressions of NINA courses

Employees

As a company with global operations Boskalis is home to a working community with an increasingly international character. In 2010 we employed 59 different nationalities. In our view our people are the decisive factor in the success of our business and their commitment is very valuable to us. The HR policy pursued by us actively supports the strategy which is aimed at maintaining our position as a leading maritime service provider and as a preferred employer in the industry.

Reporting scope

In this chapter Boskalis is synonym for the activity Dredging & Earthmoving, unless the context shows that we mean the group.

	Profile and size	Training	Diversity
Boskalis*)	✔	✔	✔
Dredging and Earthmoving	✔	✔	✔
SMIT (activities Harbour Towage/Salvage, Transport & Heavy Lift/Terminal Services)		✔	
Lamnalco (activity Terminal Services - 50%)	✔	✔	✔

*) corporate staff departments and Board of Management

Integration of Boskalis and SMIT

One of the most important developments for our organization in 2010 was the merger with Smit Internationale N.V. (SMIT) and there is great enthusiasm at both companies about the opportunities for cooperation this presents. The integration process between Boskalis and SMIT commenced at the end of May 2010. To maximize cross-pollination, 10 working groups of Boskalis and SMIT employees worked on the integration plan. The working groups were tasked with looking into joint market opportunities and synergies, identifying the best approach and ultimately drawing up integration plans for the selected activities. An interview with some of the working group members can be found in the theme text at the end of this section. The working groups presented their findings in mid-August and the integration plan was finalized in September.

Throughout the process both works councils and the staff at Boskalis and SMIT were kept informed of the progress. At the end of September both works councils issued a positive advice on the integration plan.

In early September a new SMIT management team was formed which, together with the Boskalis management, is responsible for the further expansion of the combined activities. The strong SMIT brand name will be retained.

HR organization

At the end of 2010 a start was made on integrating the Boskalis and SMIT HR organizations, a process which will be implemented in 2011. In this chapter we will examine the situation as it was in 2010. Boskalis' Human Resources policy is primarily

focused on employees with whom the company has signed an employment contract - at head office, at offices in our home markets, international fleet staff and employees who are sent out on projects. Our policy is increasingly aimed at developing the right knowledge and competencies all over the world and at attaching our staff to the company through international internal networks.

The Boskalis corporate HR department operates out of our head office in Papendrecht, with the home markets managing their own operational HR tasks. The corporate HR department assists the home markets with management development and remuneration policy, meaning it has both support and operational responsibility. In addition to regular HR tasks such as recruitment and selection, training, assessment and labor relations, the corporate HR department ensures optimal staffing on the projects and the vessels, and handles all the administrative and logistical tasks this involves.

Boskalis has set up a separate HR organization in Kleipeda, Lithuania, to cater to the 283 fleet staff (including Lamnalco) it employs in the Baltic States, Russia and Ukraine. Operating as a head office annex, it handles all relevant personnel affairs including employment terms, contracts, payroll accounting, crewing, and recruitment and selection. Our home markets, which include The Netherlands, the United Kingdom, Germany, Finland, Nigeria and Mexico, and important regions such as Australia also have their own decentralized HR organizations.

SMIT's HR organization is strongly decentralized to enable it to be close to the business. The more important locations around the world have their own HR departments. The general outline of the HR policy is established at head office and then put into practice locally within the framework of the relevant regulations and legislation and taking into account cultural differences. SMIT's corporate HR department has a supporting role and no operational responsibility. It is, however, responsible for regular HR duties and for crewing the ships at various strategic locations. The transition from HR administrative support organization to strategic business partner took further shape in 2010.

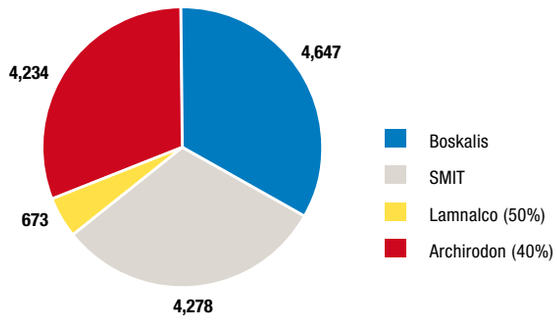
Operating out of head office in Sharjah (United Arab Emirates), the Lamnalco HR organization is responsible for policy development, advice, business support and guaranteeing compliance and quality assurance of decentralized HR activities within Lamnalco. Expat staff and crew are organized out of Sharjah, while local staff and crew are scheduled decentrally in line with local regulations and legislation. Depending on volume this is managed by the local HR department or – on smaller projects – by the project superintendent.

Composition of our work force

At the end of 2010, the total number of people employed by the Group was 13,832. (2009: 10,514 excl. SMIT / 2010: 9,554 excl. SMIT). Excluding SMIT, Lamnalco and Archirodon we employed 4,647 (2009: 4,858). This is a decline of 4%.

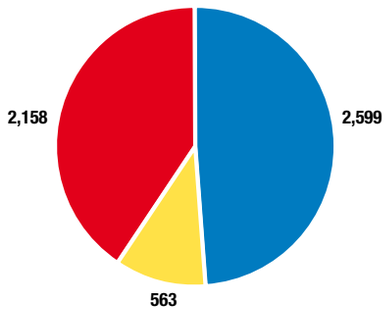
For a detailed account please refer to the HR tables in the appendix.

Workforce including our share in affiliated companies



Number of employees by country

Number of employees by country Boskalis en Lamnalco



Head office
Netherlands *(563)*

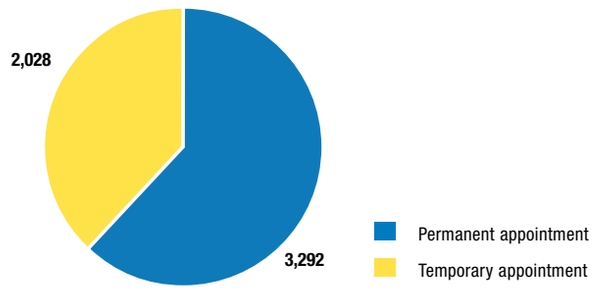
Home markets
Netherlands *(578)*
Germany *(165)*
Nordic (Finland + Sweden) *(270)*
UK *(167)*
Mexico *(567)*
Nigeria *(411)*

Fleet en international projects
Dutch International Pool *(768)*
Middle-East *(440)*
Australia *(651)*
Phillipines *(301)*
Baltic States *(127)*
Russia/Ukraine *(156)*
Other *(156)*

Type of contract

Of the 5,320 employees at Boskalis and Lamnaclo 62% have a permanent appointment. The number of permanent appointments fell compared to 2009. The percentage of temporary appointments gives us the degree of flexibility we need to respond to the constantly changing market developments.

Type of employment contract Boskalis and Lamnalco

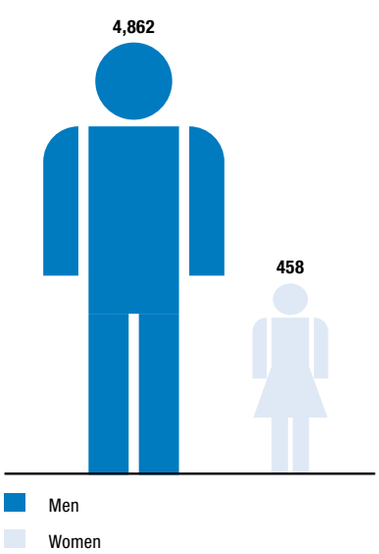


In countries where we are engaged in a lot of projects, such as Nigeria and Australia, the percentage of temporary appointments is higher at approximately 90%.

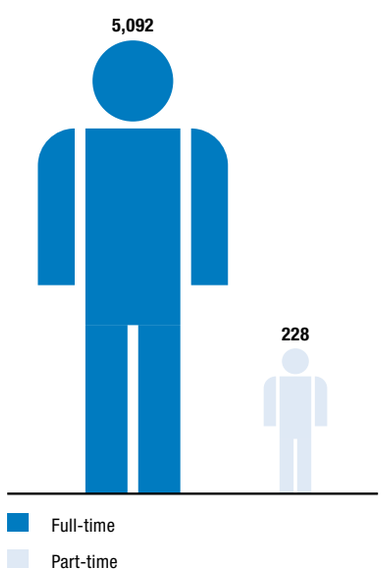
Men/women, part-time/full-time ratios

Boskalis and Lamnalco employ a relatively large number of men. Lamnalco and Boskalis employ

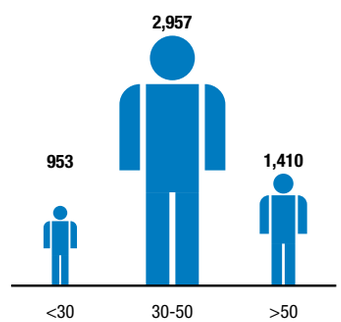
Men/women ratio
Boskalis and Lamnalco



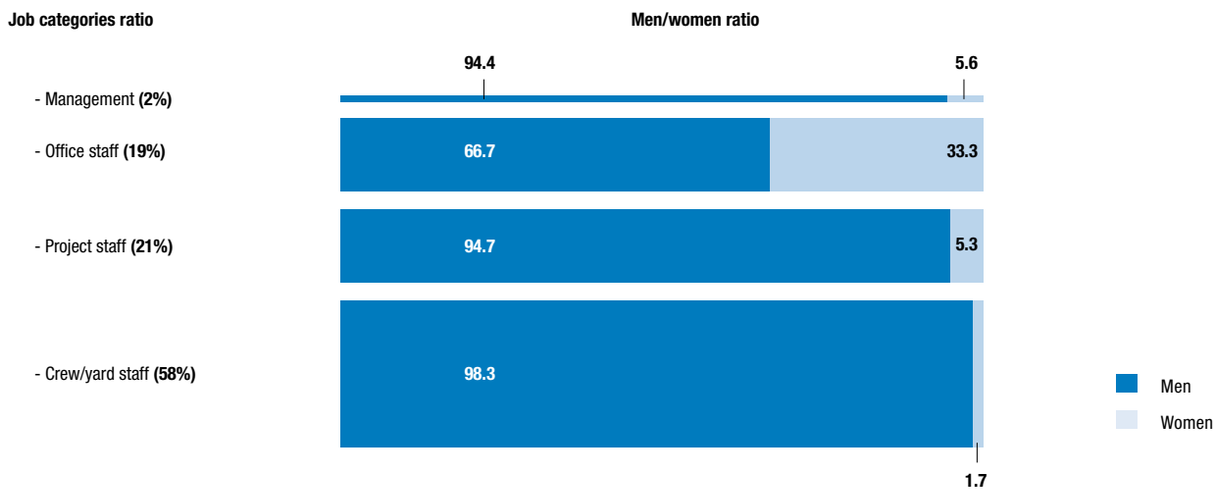
Part-time/full-time ratio
Boskalis and Lamnalco



Age profile at
Boskalis and Lamnalco



Job categories men/woman ratio - 2010 (in %) Boskalis and Lamnalco



relatively few part-time staff. The often long periods of time away on a project or contract make a job on the fleet or a project a less attractive option for part-time staff and women. In addition, only a small number of women come to us after completing a technical or maritime course. Overall, the percentages of men and women in 2010 were 91.4% and 8.6% respectively, comparable to 2009. There are, however, clear differences between the countries, with our head office and offices in our home markets in particular employing a relatively high percentage of women and part-time staff. In 2010 the percentage of part-time staff equalled 4.3% compared to 3.9% in 2009.

Age profile

Boskalis and Lamnalco have a balanced age profile. We have a relatively young workforce, three-quarters of whom are under the age of 50. More than half (55.6%) our employees are in the 30-50 age category.

Job categories

The ratio of operational staff (fleet, yards and projects) to office support staff and management remained stable in 2010. The ratio was 21%-79% (2009: 22%-78%).

Relatively the largest number of managers and support staff is to be found at head office in the Netherlands.

Training and staff development

The projects we take on are becoming increasingly complex. Instead of just being an executing party, our role is increasingly that of partner to the client or principal contractor, with all the responsibilities that entails. New and more complex types of contract are the result. Across the chain of design and financing to execution and maintenance, our clients expect us to have the right expertise in house. For us it is important that we are able to make an accurate risk assessment at every stage of a project.

We have both one- and two-yearly staff development cycle for all employees with whom we have signed an employment contract. Managers conduct a competency interview with all employees to discuss their performance and development options.

Our objective when it comes to personnel development and training courses aims for management and staff to mirror the development of the company. Over the past few years we have been strongly focused on developing the right staff competencies and management potential.

Boskalis sets itself apart with its training programs which are specifically geared to the changing role and broadening of the activities. Moreover, Boskalis is convinced that the way the training programs are

structured ('action learning': putting new knowledge straight into practice) allows international employees to be more strongly involved in our shared ambitions. In this way we want to encourage mutual knowledge exchange and internal network building. Most importantly, the theoretical knowledge they gain and the feedback they get from colleagues on the course enable them to do their jobs better.

Boskalis uses a specific training matrix which specifies mandatory safety and environmental courses for each operational job. This allows us to continually monitor whether we comply with the skill requirements across the board. In 2010 each member of staff received an average of 14 hours' training.

First joint initiative by Boskalis and SMIT

One of the first joint HR initiatives by Boskalis and SMIT was the design of a new Leadership Development Program. The program was launched for 20 talented (senior) managers from both companies on 1 January 2011.

NINA

In connection with the new NINA safety program (see Safety section) an extensive training and workshop program has been launched for Boskalis management and staff. A total of 1,000 staff already took part in this in 2010.

Management development

Boskalis aims for a broad-based style of leadership that goes with the company we want to be. In addition the company wishes to stimulate internal advancement through the ranks. For years Boskalis' specific management programs at various levels have made it an industry leader. As well as on-site office and project management, the programs devote considerable attention to improving leadership on our vessels.

Twenty-two participants completed the two-year *Boskalis Maritime Development Program* in 2010. The program focuses on reinforcing and supporting our vessels' managers: the captains and chief engineers. A new group of 14 participants started the program in November 2010.

The two new *Boskalis Operational Development Program* (BODP) advanced programs were also completed in 2010. The first BODP was launched in 2006. The advanced track is intended for young project managers with the potential to manage more complex projects in the future.

September 2010 saw the launch of the *Maritime Leadership Course*, an international program developed especially for first officers, onboard engineers and new captains. The 15 participants are mainly from the Baltic States and the Netherlands. The program focuses on personal effectiveness on board, leadership, communication and cooperation.

For (middle) managers, many of whom have broad operational responsibilities, we developed our *Boskalis Home Market Development Program*. In addition to leadership skills and operational practices, the program highlights commercial skills and contract management. By bringing together people from different countries Boskalis hopes to strengthen cultural similarities, mutual synergies and internal networks. Sixteen participants completed the program in 2010.

To complement the regular management courses Boskalis offers the *International Contracting Program*, which was developed for Boskalis by TiasNimbas Business School in the Dutch city of Tilburg. Besides Boskalis the program also includes participants from other internationally oriented companies such as Heerema and Ballast-Nedam. The course was launched in response to the shift in roles between clients and joint venture partners. The broader responsibility that Boskalis takes on makes tougher demands on employees' organizational, legal and contracting knowledge. The core module brings the participants up to speed on these aspects. Legal knowledge of unusual contract types and risk management are at the heart of two optional specialist modules. A major objective in all cases is to put the theory into practice. Following a successful start in 2009 another 40 Boskalis professionals followed one of these modules in 2010.

Development of operational staff

The *Survey Leadership Program (SLP)* which was launched in 2009 was completed in 2010. Surveyors are highly qualified professional specialists who use geometric and hydrographic surveys to chart the condition of the soil or seabed and what potential obstacles may be present. This information is essential to the proper progress of a project, because it determines the order of work. Boskalis would like to see surveyors play a strong advisory role in the project teams instead of them working as suppliers of information or as inspectors during the work. To allow them to grow in this new role, the SLP pays attention to leadership qualities, teambuilding and communication skills. At present eight surveyors are taking part in this two-year development program.

Shipbuilding for dredgers is another new course added to the program in 2010. Technical staff who are involved in designing, building or rebuilding a vessel or in its technical and operational side are introduced to a great many aspects of shipbuilding relevant to the floating equipment.

The spring of 2010 saw the launch of the new *International Dredging Academy* course for engineers and deck officers. This English-language course was developed by Boskalis 10 years ago together with the Shipping and Transport College in Rotterdam the Netherlands. The aim is to enable fleet staff to advance through the ranks quickly and responsibly. The content of the course was recently updated to reflect the latest requirements and bring theory and practice more into line. 'Training on board' is now part of the program, as are working visits and workshops. In 2010 28 employees took part in the course which is taught by captains and chief engineers.

It has always been one of our fundamental principles to create home-grown management talent within Boskalis through training and instruction. Boskalis wants to give top young graduates opportunities to advance towards a management position. We want to prepare talented young people so they are able to tackle the challenges faced by Boskalis. With this in mind Boskalis launched its completely new *two-year graduate trainee program* in 2010.

The trainees, will gain practical experience in the company during four six-month blocks. They will be coached by the management of the department they are working for at the time. The program also covers two weeks with theoretical aspects of project management, project finance, personal effectiveness and leadership.

In 2010 SMIT organized a course in *Contracting* to further improve the quality of the contracts it enters into. The emphasis was on the legal component of contract management.

With the *Tugmaster training program* it developed in-house (together with the Shipping and Transport College in Rotterdam) SMIT trains crew members from around the world to be fully-fledged tugboat captains. The practical modules of the program are largely carried out using SMIT's own bridge simulator.

In addition SMIT is actively involved in practical training of seafarers through its cadet programs. Young students at shipping colleges in South Africa and Singapore in particular join seagoing SMIT ships for relatively long periods in order to gain practical first-hand insight into the job of engineer or first mate. In Panama young cadets from the International Maritime University of Panama have been joining SMIT's tug boats for many years. Via the Royal Association of Netherlands Shipowners (KVNR) SMIT is also involved in a maritime school in Palompon in the Philippines.

SMIT makes targeted investments in the instruction and training of local crews and members of the onshore organization. To this end it has set up a special localization program for local employees for its Terminals division. At various international SMIT locations foreign staff support the local employees with the ultimate aim of enabling them to operate independently. This localization program is a fixed and integral component of all tenders for new terminal contracts.

SMIT takes a similar approach to training crew members in professional skills and safety. The matrix Boskalis uses for this is largely the same, given that the courses are the same ones required by law.

The Performance Management System is an important tool within Lamnalco which contributes to developing and optimizing the contribution made by all employees within the organization.

Lamnalco also offers a five-day training and introduction program for ASD Masters which involves several days' targeted training on our own in-house simulator.

WESTMINSTER
DREDGING
WESTMINSTER
DREDGING

SMIT

Lamnalco sponsors high-potential officers (in Indonesia and the Philippines in particular) to obtain a higher qualification in order to facilitate their internal advancement. Each year 6-8 officers receive financial backing in exchange for forming a long-term attachment to Lamnalco.

In Aqaba, Jordan Lamnalco is involved in a local training program for pilots. The nine-month course is followed by a dedicated period of 'on the job' training.

In Africa Lamnalco makes an active contribution to the development of communities by annually taking on cadets for training as well as sponsoring top cadets at the Nigerian Maritime Academy.

Through knowledge transfer and training Lamnalco contributes to local Nationalization Programs for various projects in Africa and the Middle East. The purpose of these programs is to ensure that local crew members and support staff are trained to work independently and take over jobs from expats.

Recruitment and staff turnover

We strive to be a preferred employer in every market or region where we operate and to offer competitive terms of employment. We can offer our employees both interesting and varied work and plenty of opportunities for development and advancement, both nationally and internationally.

Labor market communication

In spite of a cautious recruitment policy in light of the recent uncertain economic climate, we continue to showcase ourselves as a desirable employer on the international labor market. This is essential if we are to have access to sufficient highly qualified staff in the future. We are on good terms with reputable institutions and hold regular presentations at the following:

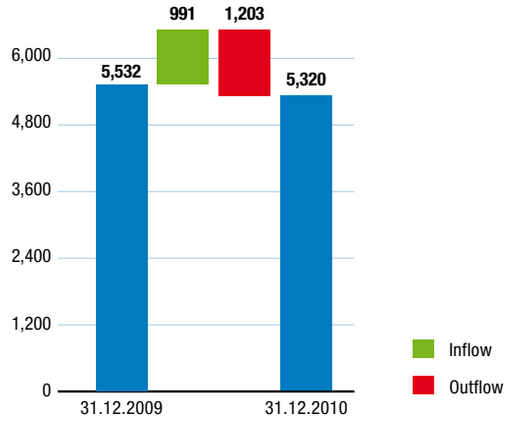
- Various (technical) universities and professional education institutions in the Netherlands
- University of Plymouth (UK)
- University of Cardiff (UK)
- University of Brest (France)
- Cebu Maritime University (Philippines)
- Lithuanian Maritime Academy
- Klaipeda Shipping School
- Admiral Makarov State Maritime Academy
- Baltic Fishing Fleet State Academy
- Rostov on Don Maritime College G.J.Sedova
- Odessa National Maritime Academy (and Technical Fleet College)
- International Maritime University of Panama

Boskalis and SMIT have moved part of their recruitment activities to internet. In 2010 Boskalis launched a social media campaign pilot in order to build 'talent pools' - talented students, newcomers and professionals who may have an interest in joining the company. Boskalis has also set up several (sub) groups on LinkedIn which are open to anyone who is interested in our company. News about Boskalis is regularly posted in the groups and members are able to contact one another and discuss various topics. In view of the fact that most responses we receive are digital, we have adjusted our recruitment systems accordingly. The same recruitment back office system is already used throughout the group.

Intake

Market conditions remained uncertain in 2010, prompting Boskalis to continue its cautious policy of only hiring staff if absolutely necessary. Vacancies resulting from attrition were filled.

In- and outflow at Boskalis and Lamnalco



In order to secure enough staff in time for the project team and crew for the ships on the CPC Project in Russia (Novorossiysk), Lamnalco launched an active local recruitment campaign in 2010. In addition to the deployment of crew members taken over from SMIT this involved a total of 170 staff.

Outflow

The fluid nature of the company (with projects being scaled up and then scaled down again) means that Boskalis aims for flexible deployment of employees in order to meet capacity demands. Lamnalco is characterized by longer contracts and less outflow. Total outflow equaled 1,203 employees. In 2010 61% of total outflow was due to project completion and the non-renewal of temporary contracts, 26% to voluntary redundancy, 7% to attrition.

Employment benefits

Our employment benefits include a good pension scheme. Both Boskalis and SMIT offer group pension plans which are based on Dutch pension legislation. Lamnalco is not subject to the same legal requirements and specifies pension plans on an individual basis.

Boskalis has various pension schemes. Some groups of employees make a formal pension commitment within a fund set up for that purpose, while others take out pension insurance (defined contribution scheme or a pensionable salary/service scheme). Employees in our foreign companies may also choose to have contributions paid into a national pension fund or to be granted an allowance for an individual pension scheme. All pension schemes are brought into line with the customary regulations and provisions in the country where Boskalis is based and tailored according to job category.

SMIT Nederland is involved in three pension schemes. Depending on the nature of their job, employees belong to either the industrial pension fund for merchant shipping (Bedrijfstakpensioenfonds voor de Koopvaardij) or the industrial pension fund for Rhine and inland shipping (Bedrijfstakpensioenfonds voor de Rijn- en Binnenvaart). Office staff belong to the SMIT Pension Fund Foundation (Stichting Pensioenfonds SMIT). In 2010 Stichting Pensioenfonds SMIT was instructed by the Dutch Central Bank to take additional measures to speed up the improvement of its financial position. A shortfall of around € 28 million had to be made up in order to meet funding ratio requirements. Despite the fact that there was no legal obligation to settle the shortfall, Boskalis decided to make a one-off voluntary contribution of around € 30 million to the SMIT pension fund. The contribution brought the SMIT Pension Fund to the required level to give it sufficient prospects for recovery within the period of the recovery plan. It also avoided the previously announced 13.2% reduction in SMIT pension entitlements with effect from 1 January 2011. Outside the Netherlands SMIT also operates a wide variety of pension schemes, both statutory and not.

Lamnalco does not operate its own pension fund. A resignation bonus as retirement provision is payable under local UAE employment legislation and a top-up scheme is available for senior (expat) positions. The size of the bonus is dependent on the length of service.

Wellbeing and vitality

Wellbeing

Part of being a good employer is to look after your staff's health and wellbeing. We have various ways of achieving this, including good accommodation on projects, a safe and healthy working environment, top-class equipment and good medical facilities.

Our operational employees on international projects often have to work at remote locations. They work long hours and are sometimes exposed to very variable weather conditions. Part of our responsibility as an employer is to provide them with good housing and recreational facilities, preferably on or close to the project site. We see to it that the facilities meet both our own requirements and legal standards. At the very least employees must have sufficient space and privacy. We also ensure they have access to good medical facilities, opportuni-

ties for leisure pursuits, internet connections and the ability to communicate with their families back home. Sometimes we go for unorthodox solutions, like on the Gorgon project in Australia where we hired a cruise ship to house the workers.

In addition to wellbeing we attach great importance to safety. It is a primary responsibility of the management to see to it that the safety of those who work in our riskier areas of operation is guaranteed at all times. This is an integral part of the overall wellbeing of our employees. We report on this in detail in the Safety section of this CSR report.

Vitality

A healthy, vital employee base is of the essence, especially in light of the nature of our activities. We therefore take good care of our people and respect their time off and working hours.

Following the merger with SMIT we opted to work with a single health and safety agency for all of the Dutch offices, in the interests of streamlining communication and coordination regarding health and vitality. Boskalis also enjoys good cooperation with Rotterdam's Havenziekenhuis hospital. Boskalis' operational staff get a full medical check-up once every two years. In addition, Boskalis social workers are on hand for anyone in need of help.

SMIT has a successful AIDS prevention program in South Africa, thanks to which the average percentage of local SMIT employees contracting the disease is considerably lower than the national average. In order to guarantee the vitality of employees in the Africa region Lamnalco organizes regular local information sessions for staff on topics such as AIDS awareness and corporate and personal security.

Integration of Boskalis and SMIT: Building a shared organization

The merger of Boskalis and SMIT has been the subject of much thought and discussion over the past year. The central question was how best to leverage the opportunities arising from this tie-up. To maximize cross-pollination, 10 working groups of Boskalis and SMIT employees, each with their own focus area, worked on an integration plan. The working groups were tasked with looking into joint market opportunities and synergies, identifying the best approach and ultimately drawing up integration plans for the selected activities. A challenging assignment for the people who each brought their own history, expertise and culture to the discussion table.

Gerard Keser, divisional director of SMIT Salvage, Transport & Heavy Lift, was a member of the working group which focused on 'Maritime Projects & Services'. "I was in an excellent mood throughout the integration process and am still feeling very positive. I had no doubts that the merger would provide plenty of opportunities. Together we are able to tackle a number of market segments where separately we are not that strong. For example, previously SMIT was only in a position to lease equipment to large contractors. Now we have the option of taking on those projects together. Our role is shifting and as a result we are seeing growth opportunities in various markets; the same applies to our staff, who now have broader opportunities for development within the company. "

Gerard Keser

Amalgamation to lead to something good

Learning from one another and learning to appreciate each other has also been part of the process. While Keser sees the differences between the companies, he certainly also sees Boskalis' strengths. "I think the commitment and hospitality shown by the Boskalis management to the new SMIT colleagues is really wonderful. They could have sought to protect their own positions or turn in on themselves. Nothing like that happened. I really admire them for that. Another strong point at Boskalis is that people in the staff departments and operational departments are really valued for their professionalism. If you're really good at your job, you're in the right place there. At SMIT the emphasis is more on commercial success. That amalgamation of SMIT's marketing drive and Boskalis' focus on service combined with that professionalism might just lead to something really good."

Taking purchasing to the next level

Joost Rijnsdorp, manager of Procurement, Logistics & Facilities at Boskalis, is also enthusiastic about how the integration process is developing. He was part of the Purchasing working group, along with his SMIT counterpart. 'Hectic', 'dynamic', 'constructive' and 'creative' are the key words he uses to describe the process.

Joost Rijnsdorp

SMIT Rebras tugs providing assistance to the fallpipe vessel Sandpiper in Brazil

Joost got along really well with his counterpart right from the very start. “We had a similar background and way of working and we hit the ground running. There was never any struggle about who would be in charge of the future purchasing organization and so we were able to devote our full attention to the integration process,” he explained. “Before long, both purchasing teams had got down to work together. At every level of the purchasing department, people are exchanging information proactively and that’s really great to see.

The atmosphere has been good all along. We formed teams straight away, with our senior buyers linking up with the SMIT buyers who had the most affinity with a certain purchasing group. Cooperation with our Belgian SMIT counterpart in Antwerp was also good from the word go. It was our intention to work together to take purchasing to the next level and we went looking for the best of both worlds. The great thing is that we were able to find the chemistry between the things that Boskalis does centrally and SMIT does locally. We have been able to combine the two, with the bottom line being that we are now getting better quality for a better price.”

SMIT divers providing assistance on the Magellan project in Argentina where Boskalis was involved in laying a 35 kilometer gas pipeline

Talking to each other and finding ways to cooperate

Hetty van der Hoeven, General Manager of HR at SMIT, considers that one of the greatest challenges lies in effectively aligning the two corporate cultures and working methods. She is aware of the fact that some people feel that the benefits of the integration plan are a long time in coming. “But care is more important than speed in a process like this. We spent a couple of days off site with the two HR departments and engaged in a variety of activities together. And that’s when you find out that we have a lot in common. Certain HR activities have to be organized in the same way in order to achieve the organizational objectives. This promotes mutual understanding. And what is more, you see that people are alike.”

Jan den Hartog, HR Director at Boskalis, sees things the same way. “An integration process like this is quite stressful for most employees. You’ve got to talk to each other and find ways of working together. Take the time to get to know each other a bit better and find out that there are more similarities than differences. Eighty per cent of our processes are essentially comparable and therefore suited to integration.

We have learned that you should first wonder why other people do things in a certain way, and allow yourself to be surprised in a good way. And also that the time that you invest in going over matters carefully at the front end of the process pays itself back several times over in terms of acceptance and implementation speed during the integration. This provides direction, energy and trust – the ingredients for a successful integration.”

Jan den Hartog

Hetty van der Hoeven

Nature & Environment

Caring for nature and the environment is central to Boskalis. The environmental measures that we take relate to the emissions and energy consumption of our fleet and the international office organization. Furthermore, our day-to-day routines are focused on working as cleanly and efficiently as possible and on either preventing or reducing to a minimum our negative impact on nature and the environment.

Reporting scope

	Emissions (CO_2)	Other measures
Dredging and Earthmoving	✔	✔
SMIT (activities Harbour Towage/Salvage, Transport & Heavy Lift/Terminal Services)		✔
Lamnalco (activity Terminal Services - 50%)	✔	✔

Emissions Taskforce and Sustainability sounding board

Established by the Board of Management in 2008, the Taskforce is led by a member of the Board of Management. The Taskforce studies ways of reducing pollutant emissions. SMIT has been represented on the Taskforce since the end of 2010. Our 50%-owned associate company Lamnalco is represented in the Taskforce.

The Taskforce met once in 2010. During this meeting at the end of the year it was decided to increase the frequency to four meetings a year. The possibility of establishing a 'Sustainablity sounding board' within the Taskforce will also be examined. By pooling knowledge and best practices the Taskforce can help to position Boskalis as a sustainable contract partner.

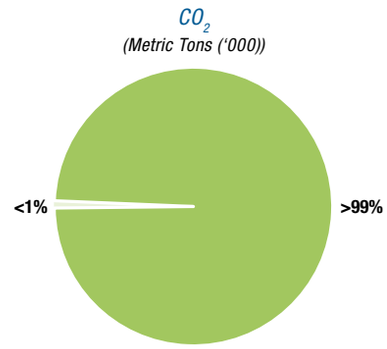
Carbon dioxide emissions

We measure and report on carbon dioxide emissions and subsequently takes mitigating steps such as using cleaner fuels and deploying more efficient vessels.

The tables below show the fuel consumption and CO_2 emissions of the dredging and Lamnalco fleet as well as the amount of energy consumed by our offices. This fleet comprises approximately 500 vessels.

Based on data currently available we only report on absolute fuel consumption and/or CO_2 emissions and not on the relative emissions of individual production units. A complex set of factors come into play here, both between and within our activities. For example, the fuel consumption of a large vessel operating within Dredging & Earthmoving cannot be compared to, for example, a tugboat operating in Terminal Services. Moreover, within the dredging activities it makes a difference whether older or newer vessels are deployed, what the capacity utilization is and whether work is taking place in hard or softer soil. At present there is no standard definition for CO_2 emissions by individual production units available which takes all these factors into account. However, both internally and as a sector we are working on establishing a method of calculating CO_2 emissions for various activities and types of vessel. In addition, our total emission of CO_2 continues to be an important parameter.

	Fuel HFO m³ ('000)	Fuel MGO m³ ('000)	Electricity KWh (million)	Gas Mj (million)	CO_2 Metric Tons ('000)
Boskalis fleet	104.3	113.3			633.9 **
Lamnalco fleet *		41.3			111.6
Offices Boskalis			7.8	9.9	5.0
Offices Lamnalco			0.2		0.1
Total	**104.3**	**154.6**	**8.0**	**9.9**	**750.6**



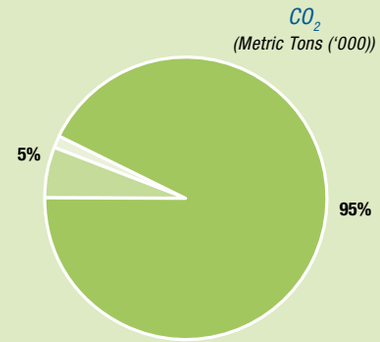
*) *According to our proportionate 50% share*

**) *In 2010 we broadened the reporting scope for the dredging fleet. In addition to the central fleet, which in 2009 produced 583 thousand tons of CO_2, we have now included the decentral fleet which in total leads to a production of 634 thousand tons of CO_2. The central fleet in 2010 produced 463 thousand tons of CO_2, a decline of 21%. This decline is primarily explained by a lower equipment utilization in 2010 relative to 2009.*

Maasvlakte 2

We conducted a case study on the Maasvlakte 2 project aimed at getting a clear picture of the materiality of the CO_2 emitted by our dredging fleet and dry earthmoving equipment and obtaining comparable figures. We consider the Maasvlakte 2 project to be representative of business in our largest activity segment - Dredging & Earthmoving - in terms of both size and diversity of activities (land reclamation, soil compaction, deepening work, construction of breakwaters) and types of equipment deployed (hoppers, cutters, backhoes). Having produced the data shown below, wich reflects our 50% share of the total project, the case study led to the conclusion that carbon emissions from the fleet account for the vast majority (95%) of total emissions. Consequently, the carbon emissions produced by our dry earthmoving equipment are not included in our reporting.

	Fuel HFO m³ ('000)	Fuel MGO/Diesel m³ ('000)	Electricity KWh (million)	CO_2 Metric Tons ('000)
Fleet	35.0	3.6		119.3
Dry earthmoving equipment		2.5		6.7
Offices			0.1	0.1
Total	**35.0**	**6.1**	**0.1**	**126.1**



Measures to prevent or mitigate the negative impact on nature and the environment

Measures concerning our equipment

We comply with international legislation and regulations for the maritime sector. At the same time when building and deploying our vessels we anticipate the increasingly strict international legislation and regulations aimed at encouraging fleet owners to take measures to reduce emissions. The International Maritime Organization (IMO) has set regulations aimed at further reducing SOx emissions by cutting the acceptable sulphur content of ship fuel in several stages. The stricter rules for SOx emissions already apply in certain designated Sulphur Emission Control Areas, which include a large section of the North Sea and Baltic Sea. The United States is also set to tighten the rules pertaining to its coastal areas. At the same time a number of large ports are introducing the Environmental Ship Index, which involves rewarding cleaner ships by offering them discounted port dues. The European Union's Marine Strategy Framework Directive will also include various measures to mitigate ships' emissions. We are in consultation with the authorities about this through the national and international industry associations and are contributing technical knowledge aimed at reducing vessels' emissions. In this way we are seeking to secure realistic regulations for our industry which are broadly supported.

Measures are being taken in relation to both the fleet and the dry earthmoving equipment aimed at reducing their impact on nature and the environment.

In 2010 Boskalis became the first company in Europe to take a hybrid bulldozer into service in the Dredging & Earthmoving activity. The machine was deployed on works including the building of the N50

Sustainability was a major feature in designing the trailer hopper suction dredger Willem van Oranje. Ballast water is cleaned before being pumped overboard and space has been reserved for equipment to clean the exhaust fumes even more effectively

highway in the Netherlands and the beach replenishment project on the Dutch island of Ameland. Equipped with both an electric and a diesel engine, the Cat D7E uses 25-30 per cent less fuel than a conventional, diesel-powered bulldozer. Driven by electrical components rather than traditional moving parts, the hybrid bulldozer has lower maintenance costs and is more sustainable - as well as being less noisy.

Furthermore, the following measures were taken in 2010 in relation to the vessels listed below:

- In 2010 an industry-wide study was launched by Dutch research institute MARIN aimed at adapting the trim on trailing suction hopper dredgers. The aim is to do this in such a way as to minimize resistance when sailing empty, which will have a positive impact on both fuel consumption and emissions.
- The cutter suction dredger Taurus II underwent considerable modification to enable it to operate more efficiently, safely and sustainably. The vessel was broadened with float compartments on either side which considerably increased both its buoyancy and its storage capacity. These so-called blister tanks can be used as both fuel and waste water tanks. In addition, certain parts were cleared of grease and made watertight and the vessel was fitted with extra oil skimmers, modifications which will prevent harmful substances from ending up in the sea.
- The new fallpipe vessel currently under construction for Boskalis also meets strict environmental requirements. With diesel-electric powering the vessel will be cleaner and easier to maintain than one with a diesel direct engine, in addition to which it will allow for the regulation of pollutant emissions. With its ability to operate on gas oil as well as heavy oil, the vessel will comply with the strict environmental standards which apply in most European ports.
- A study revealed that it was possible to increase the load capacity of the trailing suction hopper dredgers the Prins der Nederlanden and the Oranje - within the prevailing legal and safety regulations - by changing the so-called Plimsoll mark. The Prins der Nederlanden was modified in November 2010 and the Oranje will be ready in March 2011. As a result, both hoppers will be able to transport more cargo per cycle. The resulting fuel saving will have a positive impact on the vessels' emissions.
- Wherever possible SMIT tugs use (green) shore-side power during standby periods. It is not necessary to have auxiliary generators in operation during these periods, allowing reductions to be achieved in fuel and emissions of harmful substances as well as noise.
- Wherever possible low-sulfur fuel is used for on-board engines. In the port of Rotterdam agreements have been reached with other service providers on this subject in a bid to reduce sulfur emissions on tugs ahead of regulatory requirements.
- New tugs are designed and built in such a way that ballast water tanks are no longer necessary. This minimizes the risk of potentially harmful substances being dispersed via ballast water.
- While undergoing its life time extension, the floating sheerlegs Taklift 4 was fitted with a diesel-electric propulsion system in order to optimize the energy balance on board and reduce emissions.
- Lamnalco produces monthly reports on the fuel consumption of its fleet. Sailing speeds are adapted as much as possible in order to reduce emissions and wherever possible ships use shore-side power during rest periods.
- Lamnalco has received ISO 14001 certification. In order to ensure that all requirements pertaining this accreditation are fulfilled, Lamnalco's operations management system (OMS) stipulates various work practices which directly influence effective control and conservation of energy wherever possible.

Research with suppliers

Boskalis and a number of its suppliers exchange ideas and pool innovations in the interests of sharing cost reductions and sustainable product development:

- Boskalis is testing several weather routing programs for determining the best navigational routes when mobilizing dredging equipment. These programs are made available by commercial meteorological companies which

The cutter suction dredger Taurus II at the yard in Singapore where the vessel underwent an overhaul to enable it to sail more efficiently, safely and sustainably

provide global information about the weather, conditions at sea and other relevant information. The captain can enter his preferred route and the program will make recommendations for avoiding certain weather conditions or heavy seas. This can considerably reduce both voyage times and carbon emissions.

- Boskalis has conducted a theoretical study into Exhaust Gas Cleaning (EGC) technology on trailing suction hopper dredgers, which involves exhaust fumes being cleaned using a so-called scrubber before they are emitted. In particular Boskalis looked at whether limitations apply to these scrubbers when fitted to a hopper. Based on the findings it looks likely that these limitations can be solved.
- Together with ExxonMobil Boskalis looked at how the use of lubricants and therefore the emissions could be reduced on the trailing suction hopper dredgers the Oranje and the Prins der Nederlanden. They also looked at the type of lubricant used by the modern heavy oil engines. This resulted in a recommendation to use a lubricant with a lower TBN level, and consequently lower emissions, on four vessels.
- In cooperation with Wärtsilä the pilot involving the installation of a conversion kit for reducing lubricating oil consumption on cutter suction dredgers was completed. The conversion kit has since been installed on the cutter suction dredger the Taurus II and will produce an annual lubricant saving of 55%.

- Most of the large cutter suction dredgers have now been fitted with the new lubrication system developed by Boskalis in cooperation with TrustLube. The advanced technology means that less (around 50% - 15,000 kg) lubricant is used in addition to which the system ensures that excess lubricant does not end up in the sea. We also continued our research with TrustLube into biologically degradable lubricants and are seeking to further perfect the lubricants to make them even more resistant to seawater and heavy loads.
- In 2010 the scrap management program set up in conjunction with the foundries resulted in some 1,000 tonnes of waste material being recycled. The material originates from pump casings, impellers and cutter teeth of our dredging fleet.
- Together with various industry stakeholders SMIT is conducting in-depth research into options for reducing the impact of ballast water and to comply with upcoming regulations in relation to this.
- SMIT is involved in various research projects aimed at optimizing on-board propulsion systems in line with a tug's - location-dependent - operational profile (see inset text about the Hydrogen Tug, E3 Tug, LNG Tug in this section).
- In conjunction with the classification agencies SMIT is looking into possibilities for providing part or all of the fleet with certification which emphasizes the green character of its ships (Clean Ship, Green Passport and Green Award certification).
- In conjunction with suppliers SMIT is studying the feasibility of an exhaust after-treatment system as a retrofit solution to reduce the environmental impact of the existing fleet in terms of NOx and fine particles.
- From its office in Rotterdam SMIT is actively involved in exchanging experience in the field of reducing environmental impact with stakeholders in the port, including the Port Authority, rowers' association KRVE and the Dutch national shipping organization (Rijksrederij).

The Smit Panther, one of SMIT's new tugboats

SMIT: Hydrogen tug, E3 Tug and LNG Tug

SMIT participates in (and is often the driving force behind) collaborative alliances aimed at conducting targeted research into reducing the environmental impact of tugboat operations.
Such projects frequently involve leading partners from the maritime industry and research institutes. Research into alternative propulsion configurations is centered on three main areas: hybrid propulsion (researched in the E3 Tug project which won the KVNR Shipping Award), the use of hydrogen as an energy source (researched in the Hydrogen Tug project) and the use of LNG as fuel (part of the LNG Tug project).

The Smit Elbe was fitted with measuring equipment in order to make a standard profile of a tugboat for the E3 TUG project

E3 Tug

Partners: Damen Shipyards and Alewijnse, with the support of Imares, MARIN, Delft Technical University and Rotterdam Port Authority.

2010 status: supporting evidence has been provided for all three Es (Environmentally Friendly, Economically Viable, Efficient in Operations) for the various concepts (i.e. an impact, cost and efficiency analysis has been conducted), and the reports are being finalized. A preliminary choice has been made based on the analysis. The research will be completed in 2011.

Hydrogen Tug

Partners: Iskes Towage, Offshore Ship Designers, with the support of Bakker Sliedrecht, MARIN, Nedstack, Bureau Veritas.

2010 status: This feasibility study was completed in 2010 and resulted in a draft design with hydrogen application and an enhanced ship design for tugboat operations.

LNG Tug

Partners: Pilot Study initiated by TNO, in conjunction with parties including engine suppliers (Wärtsilä, PON Power, Rolls Royce, GE), shipping companies (Anthony Veder), gas producers (Vopak, Shell, GasUnie, Gate Terminal), the Port of Rotterdam, Damen Shipyards and others. SMIT subsequently initiated a follow-up study; it is not yet known which partners will be involved.

2010 status: The Pilot Study is nearing completion and talks have already taken place with possible partners. The project is set to continue in 2011.

These projects result in a broad knowledge base with regard to the operation, design and environmental impact of tugboats. The aim is to ensure that the design of each tugboat is tailored to its operations without functionality being compromised. This will enable SMIT to deliver solid advice and solutions to its clients when it comes to design and operation vis-à-vis environmental impact.

Lamnalco: Hybride Tug

Lamnalco is also involved in a study aimed at designing a hybrid tug using LNG as fuel. It is only recently that operators and manufacturers have turned their attention to the offshore and tug markets as potential candidates for this technology, which has already proven its worth in shore applications and more recently in deep-sea fleets around the world. The objective of the study is to establish the detailed design and outfit of an LNG powered / hybrid tug that will improve the environmental performance of the marine terminal support fleet at future terminals and elsewhere, by significantly reducing emissions of NOx, SOx and PM whilst also cutting CO_2 emissions.

The study will also assist Lamnalco in addressing other issues of concern to its stakeholders in that it (i) obviates the need for storage of persistent oils and other hazardous and noxious substances on site (ii) seeks access to suitable marine grade diesel oil as a source of fuel and (iii) reduces price volatility in the marine bunker fuel market during the contract term. In some modes of operation hybrid technology can result in zero emissions to air and much reduced noise levels during operation – particularly useful in sensitive ecological areas.

The Lamnalco EGRET, one of Lamnalco's regular tugs

Measures involving the supply of knowledge and expertise

Dreging & Earthmoving draws on the expertise of both the Research & Development department and over 60 engineers at our own engineering consultancy Hydronamic to prevent or mitigate the ecological impact of dredging activities. Boskalis is known in the market for our advanced predictive models and monitoring, as well as our considered selection of working methods and equipment.

In-house environmental monitoring to combat turbidity

Environmental monitoring is mainly focused on turbidity of the water as a result of dredging. Because the seabed is churned up during dredging activities, the incidence of light in the water is reduced, which may have a temporary detrimental effect on underwater animal and plant life. By developing a sophisticated monitoring system, complete with standards and procedures, Boskalis has earned itself a leading position in the market. At any given time Boskalis is able to analyse the turbidity caused by a job, adjust the execution of the work accordingly and by doing so minimize the ecological impact.

Large-scale relocation of corals in Jamaica

Within the scope of the project to build the Falmouth Cruise Ship Terminal in Jamaica Boskalis is responsible for deepening and widening the access channel. After the final dredging activities were completed in June 2010, water quality measurements revealed that the work had not led to any substantial changes in the quality of the water at the fixed monitoring sites.

The unusual thing about this project was that it involved relocating the large coral reefs on either side of the channel by order of the Jamaican government. Over a period of eight months trained divers relocated over 140,000 coral colonies from an area greater than 11 hectares. This unique work, which requires great expertise and careful planning, had to be carried out with scrupulous attention to detail. During the work surrounding the corals as well as the seagrass beds we maintained intense contact with experts in these ecosystems. These contacts were perceived as very positive and will be put to good use on future projects. The success of the relocation will only be able to be judged in the long term and is subject to constant monitoring.

Satelite picture of the new offshore Khalifa Port in Abu Dhabi

Khalifa

Boskalis was involved in designing and building the new Khalifa Port in Abu Dhabi. The offshore port, completed in 2010, is situated close to one of the largest coral reefs in the Persian Gulf. Comprehensive environmental measures, including a sophisticated monitoring program and continuous hydrographic surveying by Dutch research institute and consultancy Deltares, as well as the construction of a 7 km long environmental breakwater, ensured maximum protection of the coral reef.

The project, which won the 2010 'Environment Protection Award,' allowed Boskalis to demonstrate that it is possible to perform large-scale dredging work in the vicinity of a coral reef.

Measuring emissions to air

In 2010 Boskalis together with Delft Technical University started taking measurements of emissions to air such as CO_2 , NOx and SOx on board the trailing suction hopper dredger the Oranje.
The measurements will give both parties an understanding of the emissions produced by a dredging vessel and how these can be measured. Delft Technical University will develop the measuring arrangements and perform the measurements, while Boskalis will provide the vessel. This test will help scientists gain a fundamental understanding of what an engine emits when in actual operation as opposed to under test conditions.

Optimum use of dredged material

Boskalis aims to use as much as possible of the material it dredges up for land reclamation. This includes material that would previously have been considered to be of sub-standard quality. To this end Boskalis conducts constant research into the composition of the dredged material, its post-dredging quality and how the material behaves after it has been deposited. The company then relates this data to the criteria set for the carrying capacity of the new soil structure. The knowledge and understanding thus accumulated enables Boskalis to put all the material to the best possible use, which in turn reduces the number of shipping movements needed. This has a positive effect on both efficiency and CO_2 emissions.

Soil remediation

Remediation of contaminated sediment is the area of expertise of our subsidiary Boskalis Dolman.
The company has developed a technology which maximizes the amount of material which can be reused after cleaning. This technology is currently being used to clean contaminated sediment from the Fox River in the United States.

The four-island project in the Maldives

In the Maldives Boskalis has increased the size and safety of four islands; without the new coastal defense they were under threat from erosion and rising sea levels. Preserving the valuable corals was an important aspect of this work. In doing so we drew on the knowledge we gained on two earlier projects in the Maldives and on the Falmouth project in Jamaica. Our own engineering company Hydronamic supplied both the experts and the expertise. The government of the Maldives and the financier granted their approval in first half of 2010, citing care for the ecological systems as an important condition. Careful research was conducted to find the best locations for sand-winning. The choice eventually fell on existing current channels as that is where dredging operations have least impact on the environment and they also turned out to contain suitable sand. Monitoring to date has shown that work has been carried out within the strict environmental parameters. Ultimately around 25,000 island inhabitants will benefit from the changes.

The island of Hinnavaru in the Maldives. One of the four islands which was enlarged and made safer, with the newly reclaimed land clearly visible in the picture

Building with Nature

Building with Nature is an innovation program focused on taking hydraulic engineering to the next level: hydraulic engineering projects which make use of natural forces and form an extension to the natural dynamics of the immediate environment. Boskalis is one of the initiators and investment partners of Building with Nature. The program is aimed at establishing internationally-accepted sustainable design standards, which will provide clients with an independent appraisal framework.

What sets Building with Nature apart from traditional research projects is the fact that it uses knowledge development to realize innovations in real-life situations. To do so it links up with existing or forthcoming projects, as was the case with the creation of an ecological sand-winning area for the Maasvlakte 2 project. You can read more about this in the theme text at the end of this section.

The development of the sand motor, a new, innovative form of coastal defense, is a good example of the Netherlands as a testing ground. This sand motor is aimed at large-scale accretion of the coast of the province of Zuid-Holland by depositing a huge mound of sand off the coast and leaving its distribution up to nature. This will be taken care of by the tide, current and wave action: all the work will be done by natural forces alone. A multidisciplinary team from Building with Nature went to work, focusing on the knowledge development needed to create the best possible design for the sand motor. The team included morphologists, ecologists, hydrologists, modellers and policymakers, as well as a doctoral student who focused on the political and administrative process. At the end of 2010 the contract to realize the sand motor and further elaborate the design was awarded to a group of contractors including Boskalis.

Following the example of this ‘large sand motor’ in Zuid-Holland, a pilot project is also looking at the possibilities for a so-called ‘small sand motor’ in the northern Dutch province of Friesland. Again, this would involve depositing a large quantity of sand off the coast and leaving nature to do its work. The ultimate aim is to use the method to enable the growth of the Friesland coast to keep pace with any rises in the level of the IJsselmeer lake.

Building with Nature also researches other innovative kinds of coastal and riverbank protection. For example, oyster banks are being used as a possible solution to the crumbling of riverbanks due to the shortage of sand in the Eastern Scheldt in Zeeland province. These so-called living oyster reefs are a feature of pilot projects in Zeeland to test whether riverbanks can be reinforced in this way. In Singapore knowledge is being developed with regard to soft coastal and riverbank protection using mangroves, corals and seagrass.

The vitality and vulnerability of corals is another area of research for Building with Nature, with a workshop on the subject having been organized in Singapore during 2010. The workshop was attended by the participants in the

Building with Nature program as well as scientists from Singapore, Europe and the US. The purpose was to bring the knowledge and experience of SECORE, an international network of marine aquariums and coral scientists, on this subject to Southeast Asia. Once more is known about the natural reproductive behavior of corals it can be translated into eco-design guidelines and taken into account when developing maritime infrastructures.

A common theme in all the activities of the Building with Nature program is the creation of a manual for the application of 'eco-dynamic designs'. Topics range from boosting the level of support to design tools and standards, and from project management to infrastructure maintenance. The manual will contain generic guidelines which can be applied anywhere in the world. This information is currently gathered and shared using a wiki.

To ensure that the knowledge resulting from Building with Nature and the underlying ideology is also made available to the engineers of the future, universities and higher vocational colleges are kept informed and involved in the program. Various readerships, guest lecturers and post-academic and other courses are the result. In the future the program aims to further professionalize the exchange with the education system.

Artist impression of the Sand Motor

SMIT can rely on its SMIT Engineering department for expertise in the field of engineering, risk assessment and innovation. The broad portfolio of innovation projects is aimed at improving operational safety, optimizing ship design, feasibility forecasting, and reducing environmental impact and Total Cost of Ownership. This department plays an extremely important role in the priority of developing, retaining and sharing knowledge. The various ways of proactively sharing this knowledge with stakeholders include factsheets, customer and other presentations, brochures and project evaluations at working group level.

As part of the E3 Tug project SMIT took measurements relating to propulsion as well as emissions to air of CO_2, NOx, SOx and fine particles on board the tug the SMIT Elbe. The experience and knowledge gleaned from the measurements, which were conducted in cooperation with project partners Damen and MARIN and several subcontractors, will be applied to other initiatives and shared with stakeholders both inside and outside the company.

In addition SMIT is increasingly being asked to participate in and contribute expertise and knowledge to ambitious, large-scale Joint Industry Projects (JIPs). These often include representation from clients, government bodies, suppliers and other maritime service providers as well as knowledge institutions. The importance of these projects to SMIT lies in learning and sharing industry best practices, as well as using the knowledge and tools developed to increase operational safety, improve services and reduce environmental impact.

Examples include:

- the SafeTug JIP: study of the interaction between ship and tug in terminal situations
- SafeTrans JIP: assessment of risks and forces on overseas transports using model simulation,
- RoPES JIP: research of passing effect of ships on berthed vessels in order to optimize moorings and port design, and the
- OBELICS JIP: development of a real-time transport and heavy lift simulator in order to close the gap between engineering and operations and increase operational safety.

In addition we look at the possibilities for automating on-board systems, with the aim of working more safely and efficiently by providing technology in support of on-board staff and their work. Research is also ongoing into the Total Cost of Ownership and standardization of the fleet in order to then apply this knowledge to the services we provide, to improve ship design and to equipment maintenance.

Lamnalco supplies knowledge and expertise by:

- participating in OCIMF (Oil Companies International Marine Forum) committee meetings dealing directly with such things as improvements in standards of living and working conditions or environmental stewardship.
- participating in clean beach and shoreline campaigns in the countries and communities in which Lamnalco operates.
- being involved in JIP's aimed at improving the living and working conditions of our staff – an objective which formed part of the SafeTug JIP.

SMIT Heavy Lift installing a 220 meter long section for the Brandangersund Bridge in Norway. Taklift 4 and Taklift 7 used a tandem lift to successfully place the 1,860 ton section of the arch bridge

Rotterdam Port Authority in eco-design effort

Sustainability is of key importance in the construction of Maasvlakte 2. Boskalis executes the project in a joint venture called PUMA. According to Tiedo Vellinga, head of monitoring at the client (Rotterdam Port Authority) and Assistant Professor at Delft Technical University, PUMA met this requirement proactively thanks to clever adaptation of the design.

The hard seawall is a good example of eco-design and cost savings, according to Vellinga. “I consider reuse of the stones from the Maasvlakte 1 seawall for the hard seawall to be a great asset. For the connection with the beach our original design featured a solid seawall, made up of blocks with a top layer of asphalt. However, PUMA was convinced that there was a cleverer and environmentally friendlier way.” The connection between the hard seawall and the dune area will now be formed by pebble beach, a so-called ‘movable’ flood barrier.

Ecologists over the moon with sustainable design for Maasvlakte 2

“Ecologists are wildly enthusiastic,” said Vellinga. “They are in favor of an open defense which is able to provide a habitat for animal and plant life. This seawall will consist of large blocks, which will provide great hiding places for fish. And of boulders where plants and flowers are much more likely to take root than on a layer of asphalt. This adaptation is good for the economy, because it is cheaper, and good for nature, too.”

Deeper sand-winning area also to be used for ecological research

Together with PUMA, Rotterdam Port Authority is one of the participants in the Building with Nature program (for more information see pages 72-73 of this report). “It is of great importance to this program that we obtain good examples of eco-design. This was a good opportunity,” said Vellinga. The sand is not being suctioned off to a depth of two meters, as is customary for sand winning in the

The ‘blockbuster’, a specially developed crane used to place the large blocks to construct the ‘movable’ flood barrier

Tiedo Vellinga, head of monitoring at Rotterdam Port Authority

open sea. Normally this would require a ground area of 11 by 30 kilometers, from which a two-meter layer of sand would be won. Instead, the seabed is being deepened in half-meter steps, in some places to a depth of 20 meters. From an average of 20 meters it can extend to 40 meters below sea level. The overriding argument in favor of this modus operandi is that most life is situated in the top meter of the seabed, making extensive deepening of a small area less damaging than removing the top layer from a large area. The MER commission allowed us to look into what would happen if we were to win sand at this depth. It transpired that the through flow in the sand-winning area is sufficient and that it does not lead to oxygen deficiency." During the dredging work PUMA builds relief into the ecological sand-winning area, creating opportunities for new marine eco systems

Artist impression of relief in an ecological sand-winning area

Artist impression of rich biodiversity in an ecological sand-winning area

and greater biodiversity. “We were ultimately able to include this Building with Nature project in the existing licence. Now all parties involved are very enthusiastic,” said Vellinga.

Archaeological finds part of our cultural heritage

During dredging work in the sand-winning pit PUMA discovered an unexpected quantity of paleontological finds. Rotterdam Port Authority had allowed for the possibility of archaeological material being found and also mapped the area. A budget of € 3 million had even been reserved for recovering and preserving any finds. “We had considered the possibility of very early animal life in this area, but were surprised at the quantity of mammoth bones and other species that were found,” explained Vellinga. Agreements had been made with the Rotterdam Natural History Museum on what would

The trailer hopper suction dredger Oranje at work on the Maasvlakte 2 project

happen to any finds. But there was also great interest amongst amateur paleontologists and from Leiden University and the National Museum of Natural History Naturalis. The Port Authority brought all these parties together. “We have already spent four Saturdays fishing with paleontologists aboard a fishing boat in the sand-winning area. They were also keen to explore on the Maasvlakte 2 beach. We didn’t think that was such a good idea so we deployed a beach cleaner which sifts large remains out of the top layer of sand. These remains were then delivered to the paleontologists in big bags. PUMA cooperated in every possible way and are making a lot of people and a lot of scientists very happy in the process,” said Vellinga.

Presentation to children about the archaeological finds

The big bags delivered to Naturalis

Mammoth teeth from the sand-winning area

Amateur paleontologists sift through the dredged-up material

Ambition

Just as in 2009 our ambition in 2010 was to create sustainable value through our operations. In light of this we have continued the reporting line from the 2009 CSR report in full in this report. We have put a lot of effort into broadening the scope and improving both the internal reporting and the quality of the data. For the coming years it will remain our ambition to retain the C level we achieved in 2009.

Reporting scope

In a year in which the merger was completed and the first steps towards the integration of Boskalis and SMIT were set, a process wich demanded a lot of attention from all the staff, we also managed to broaden the CSR report with the qualitative data from SMIT and the complete data from Lamnalco. With time, it is our ambition to include the complete data from SMIT in our CSR report.

Within this new scope (broadening) we have also reported more on existing sections (deepening). For our Dredging & Earthmoving activity we now report on fuel consumption and on the CO_2 emissions of our entire (central and local) fleet. We also expanded our scope by adding the energy consumption of our larger office locations. In addition we looked into whether it was meaningful to report on the fuel consumption of our dry earthmoving equipment. Following analysis of this on one major project (Maasvlakte 2), the CO_2 emissions from this equipment turned out to be insignificant compared to those of our vessels. We have therefore decided not to give priority to reporting these data in the next few years.

Quality of data

In 2010 we worked on improving our internal (data) reporting lines. In order to achieve this we took the first step towards compiling a reporting manual. One of the results was a marked improvement in the Boskalis HR data.

Deepening and setting objectives

This year we achieved our targeted material deepening in the realm of safety. With the large-scale rollout of the NINA program, safety and safety awareness in our Dredging & Earthmoving activity have been brought together under a single Safety Standard, with behavior and behavior change forming a major new component. This puts us at the forefront of our industry.

However, there are certain aspects for which we were unable to achieve a substantive deepening. This applies for example to the setting up of a dialog with stakeholders and, following on from that, a dialog with our partners in the chain. Internally, awareness of this issue has continued to grow and we intend to take further steps during 2011.

As we said before, on the subject of the environment we aimed to broaden the scope. We explored the possibilities for reporting on SOx and decided not to proceed. We will first concentrate on developing a meaningful way of measuring fuel consumption. Also when it comes to HR and, to a lesser extent, SHE-Q data our initial focus will be on increasing the reliability of the data and the clarity of reporting and assuring the consistent use of definitions. Only then will the data be meaningful and manageable for our core business. Only then can we look look at how broadly we should report on these issues and whether it is useful and feasible to set objectives.

Global Reporting Initiative Index

This report is based on the GRI system. The table below lists the sections and page numbers of references to the general GRI indicators that we are reporting on.

GRI Index	Chapter	Page
Strategy and Analysis		
1.1 Chairman's statement	Chairman's statement	6, 7
Organization profile		
2.1 Name of the organization	Who we are	8-12
2.2 Products and services	Who we are	8-12
2.3 Operational structure	Who we are	8-12
2.4 Location headquarters (Papendrecht, The Netherlands)	Who we are	8-12
2.5 Operating countries	Who we are	8-12
2.6 Nature of ownership and legal form	Who we are	8-12
2.7 Markets	Who we are	8-12
2.8 Scale of reporting	Who we are	8-12
2.9 Changes in organization	Who we are	8-12
2.10 Awards	Safety	36, 37
Reporting Parameters		
3.1 Reporting period	Scope of report	inside cover
3.2 Previous report	Scope of report	inside cover
3.3 Reporting cycle	Scope of report	inside cover
3.4 Contact point	Colophon	inside cover
3.5 Process defining report content	Scope of report	inside cover
3.6 Boundary	Scope of report	inside cover
3.7 Limitations on scope or boundary	Scope of report	inside cover
3.8 Basis for reporting on joint ventures	Scope of report	inside cover
3.10 Re-statements	Scope of report, Ambition	inside cover, 80
3.11 Changes in reporting	Scope of report	inside cover
3.12 Standard disclosures	Scope of report	inside cover
Governance, Commitments and Engagement		
4.1 Governance structure	Who we are	8-12
4.2 Chair of the highest governance body	Who we are	8-12
4.3 Independency	Who we are	8-12
4.4 Mechanisms for shareholders and employees	Who we are	8-12
4.14 List of stakeholder groups	Society, Nature & Environment, Ambition	22, 23, 63-67, 80
4.15 Identification and selection of stakeholders	Society, Nature & Environment, Ambition	22-24, 63-67, 80
Economic Performance Indicators		
EC 1 Direct economic value	Who we are, Value chain, Society	8-12, 16, 17, 22-28
EC 8 Investments in local infrastructure and services	Value chain, Society	16, 17, 22-28
Nature & Environmental Performance Indicators		
EN 3 Direct energy consumption by primary energy source	Nature & Environment	61
EN 4 Indirect energy consumption by energy source	Nature & Environment	61
EN 12 Significant impacts on biodiversity	Value chain, Nature & Environment	16, 17, 60-74
EN 13 Habitats protected or restored	Value chain, Society, Nature & Environment	16, 17, 24-27, 60-74
EN 14 Strategies, current actions and future plans for managing impacts on biodiversity	Value chain, Nature & Environment	16, 17, 60-74
EN 16 Greenhouse gas emissions	Nature & Environment	61
Social Performance Indicators		
LA 1 Workforce profile	Our workforce, Appendix	44-55, 83-85
LA 2 Employee turnover	Our workforce, Appendix	44-55, 83-85
LA 4 Percentage of employees covered by collective bargaining greements	Appendix	83
LA 7 Injuries, diseases and absenteeism	Safety, Employees, Appendix	35, 36, 44-55, 84, 85
LA10 Average hours of training per year per employee by employee category	Appendix	84
LA 11 Internal training and (pre-)pension schemes	Safety, Employees, Appendix	38-43, 44-55, 84
LA 12 Employees receiving regular performance and career development reviews	Our workforce	44, 45
LA 13 Gender composition of governance bodies	Who we are	11
SO 1 Programs assessing the impacts of operations on communities, including entering, operating and exiting	Value chain, Society, Nature & Environment	16, 17, 24-27, 44, 45, 60-74

HR tables

Number of employees

Boskalis	**4,647**
Lamnalco (50%)	**673**
Smit (excl. =<30% affiliated companies)	**4,278**
Archirodon	**4,234**
Total	**13,832**

Composition of workforce

Number of employees by country	**2010 Boskalis + Lamnalco**	**2010 Boskalis**	2009 Boskalis	%
Netherlands corporate	**563**	**563**	556	1.3%
Netherlands home market	**578**	**578**	582	-0.7%
Germany	**165**	**165**	172	-4.1%
Nordic (Finland + Sweden)	**270**	**270**	287	-5.9%
UK	**167**	**167**	185	-9.7%
Mexico	**567**	**567**	593	-4.4%
Nigeria	**411**	**232**	249	-6.8%
Dutch International Pool	**768**	**768**	786	-2.3%
Middle East	**440**	**76**	238	-68.1%
Australia	**651**	**649**	462	40.5%
Phillipines	**301**	**301**	435	-30.8%
Baltic States	**127**	**127**	140	-9.3%
Russia/Ukraine	**156**	**70**	80	-12.5%
Other*	**156**	**114**	93	22.6%
Total	**5,320**	**4,647**	4,858	-4.3%
**Other*				
Cyprus	**53**	**53**	39	
France	**13**	**13**	12	
Italy	**6**	**6**	6	
Portugal	**9**	**9**	4	
Spain	**9**	**9**	6	
Singapore	**24**	**24**	26	
Vietnam	**4**			
Equatorial Guinea	**1**			
Angola	**4**			
Cameroon	**25**			
Ivory Coast	**8**			
Total Other	**156**	**114**	93	

Head office
Home markets
Fleet and international projects

Type of contract	2010 Boskalis + Lamnalco		2010 Boskalis		2009 Boskalis	
Temporary appointment	**2,028**	**38.1%**	**1,695**	**36.5%**	1,268	26.1%
Permanent appointment	**3,292**	**61.9%**	**2,952**	**63.5%**	3,590	73.9%
Total	**5,320**	**100%**	**4,647**	**100%**	4,858	100%

Women/men ratios	2010 Boskalis + Lamnalco		2010 Boskalis		2009 Boskalis	
Women	**458**	**8.6%**	**424**	**9.1%**	384	7.9%
Man	**4,862**	**91.4%**	**4,223**	**90.9%**	4,474	92.1%
Total	**5,320**	**100%**	**4,647**	**100%**	4,858	100%

Part-time/full-time ratios	2010 Boskalis + Lamnalco		2010 Boskalis		2009 Boskalis	
Part-time	**228**	**4.3%**	**204**	**4.4%**	189	3.9%
Full-time	**5,092**	**95.7%**	**4,443**	**95.6%**	4,669	96.1%
Total	**5,320**	**100%**	**4,647**	**100%**	4,858	100%

Age profile	2010 Boskalis + Lamnalco		2010 Boskalis		2009 Boskalis	
Age <30	**953**	**17.9%**	**865**	**18.6%**	870	17.9%
Age 30 - 50	**2,957**	**55.6%**	**2,510**	**54.0%**	2,754	56.7%
Age >50	**1,410**	**26.5%**	**1,272**	**27.4%**	1,234	25.4%
Total	**5,320**	**100%**	**4,647**	**100%**	4,858	100%

Collective Bargaining Agreements Yes/No	2010 Boskalis + Lamnalco		2010 Boskalis	
No	**3,290**	**61.8%**	**2,783**	**59.9%**
Yes	**2,030**	**38.2%**	**1,864**	**40.1%**
Total	**5,320**	**100%**	**4,647**	**100%**

Nationalities	2010 Boskalis + Lamnalco	2010 Boskalis
Number of different nationalities	**59**	**41**

Development

Job categories	2010 Boskalis + Lamnalco		2010 Boskalis		2009 Boskalis	
Management	**107**	**2.0%**	**85**	**1.8%**	97	2.0%
Office staff	**1,024**	**19.3%**	**938**	**20.2%**	991	20.4%
Project staff	**1,103**	**20.7%**	**1,049**	**22.6%**	952	19.6%
Crew/yard staff	**3,086**	**58.0%**	**2,575**	**55.4%**	2,818	58.0%
Total	**5,320**	**100%**	**4,647**	**100%**	4,858	100%

Job categories women/men ratios	2010 Boskalis + Lamnalco		2010 Boskalis		2009 Boskalis	
	Women	Men	Women	Men	Women	Men
Management	**5.6%**	**94.4%**	**3.5%**	**96.5%**	4.1%	95.9%
Office staff	**33.3%**	**66.7%**	**33.6%**	**66.4%**	31.4%	68.6%
Project staff	**5.3%**	**94.7%**	**5.3%**	**94.7%**	5.3%	94.7%
Crew/yard staff	**1.7%**	**98.3%**	**1.9%**	**98.1%**	0.6%	99.4%
Total	**8.6%**	**91.4%**	**9.1%**	**90.9%**	7.9%	92.1%

Job categories by age ratios	2010 Boskalis + Lamnalco			2010 Boskalis			2009 Boskalis		
	<30	30 - 50	>50	<30	30 - 50	>50	<30	30 - 50	>50
Management	**0.5%**	**46.7%**	**52.8%**	**0.0%**	**41.2%**	**58.8%**	0.0%	48.0%	52.0%
Office staff	**15.3%**	**60.2%**	**24.5%**	**15.7%**	**59.6%**	**24.7%**	14.9%	61.9%	23.2%
Project staff	**27.7%**	**53.0%**	**19.3%**	**28.8%**	**52.4%**	**18.8%**	23.5%	56.2%	20.3%
Crew/yard staff	**15.9%**	**55.3%**	**28.8%**	**16.2%**	**53.1%**	**30.8%**	17.5%	55.4%	27.0%
Total	**17.9%**	**55.6%**	**26.5%**	**18.6%**	**54.0%**	**27.4%**	17.9%	56.7%	25.4%

Training

In 2010 we report in hours instead of days, making a comparison with 2009 not possible.

Training hours	2010 Boskalis
Management	**1,381**
Office staff	**13,044**
Project staff	**18,461**
Crew/yard staff	**33,068**
Total	**65,954**

Recruitment

Inflow by age	2010 Boskalis + Lamnalco	2010 Boskalis	2009 Boskalis
Age <30	**365**	**363**	339
Age 30 - 50	**443**	**427**	393
Age >50	**183**	**179**	104
Total	**991**	**969**	836

Outflow by reason	2010 Boskalis + Lamnalco		2010 Boskalis		2009 Boskalis	
Voluntary resignation	**317**	**26.4%**	**301**	**25.5%**	183	16.2%
End of project/contract	**736**	**61.2%**	**734**	**62.2%**	755	66.8%
Dismissal	**69**	**5.7%**	**65**	**5.5%**	119	10.5%
Retirement	**81**	**6.7%**	**80**	**6.8%**	74	6.5%
Total	**1,203**	**100%**	**1,180**	**100%**	1,131	100%

Outflow by age	2010 Boskalis + Lamnalco	2010 Boskalis	2009 Boskalis
Age <30	**329**	**328**	366
Age 30 - 50	**575**	**564**	562
Age >50	**299**	**288**	203
Total	**1,203**	**1,180**	1,131

SHE-Q tables

Overview certifications Dredging & Earthmoving, SMIT and Lamnalco

Dredging & Earthmoving

	ISO 14001	OHSAS 18001 of VCA*	ISO 9001
International projects	✓	✓	✓
Home markets			
The Netherlands	—	✓	✓
United Kingdom	✓	✓	✓
Germany	✓	✓	✓
Nordic (Finland, Sweden, Estonia, Lithuania	✓	✓	✓
Mexico	2011	2011	✓
Nigeria	—	—	✓
Niche markets			
Rock Fall	✓	✓	✓
Boskalis Offshore	✓	✓	✓
Cofra	—	✓	✓
Boskalis Dolman	✓	✓	✓

VCA) Only for projects and activities carried out in the Netherlands, instead of OHSAS 18001*

SMIT

Divisions	ISO 14001	OHSAS 18001	ISO 9001
Habour Towage	✓ (11%)*	✓ (11%)*	✓ (44%)*
Terminals	✓ (32%)*	✓ (32%)*	✓ (32%)*
Salvage	—	—	✓
Transport & Heavy Lift	✓ (20%)*	✓ (50%)*	✓ (70%)*

**) percentage of units certified*

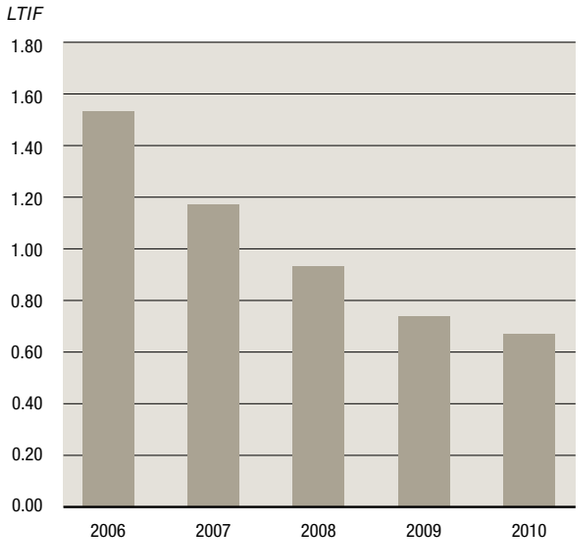
Lamnalco

Regions	ISO 14001	OHSAS 18001	ISO 9001
Middle East and India	✔	2011	✔
West Africa	2012	2012	2012

Lost Time Injury Frequency (LTIF) 2006-2010 Dredging & Earthmoving and Lamnalco

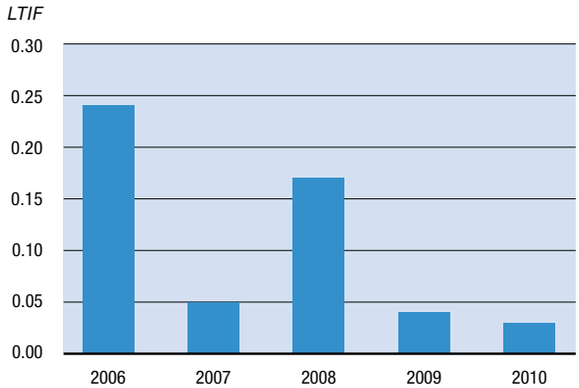
(number of incidents resulting in absence from work for every 200,000 hours worked)

Dredging & Earthmoving



2010	LTIF	Hours (million)	
Europe	0,98	5.57	33.9%
Offshore	0,00	1.35	8.2%
East	0,51	2.35	14.3%
Middle (incl. Nigeria)	0,15	1.34	8.1%
West	1,26	2.71	16.5%
Middle East	0,12	1.69	10.3%
Other (PPD office & CTD)	0,42	1.44	8.7%
Total	0,67	16.44	100.0%

Lamnalco



2010	LTIF	Hours (million)
Vessels and onshore locations	0.03	5.84

Ten years Boskalis (1) (14)

(amounts x € 1 million, unless stated otherwise)		2010	2009	2008	2007	2006	2005	2004	2003(2)	2002	2001
Revenue (work done)		**2,674**	2,175	2,094	1,869	1,354	1,156	1,020	1,046	1,035	1,083
Order book (work to be done)	(3)	**3,248**	2,875	3,354	3,562	2,543	2,427	1,244	1,202	1,273	1,224
EBIT	(5)	**401.9**	249.3	339.1	245.5	150.3	82.3	47.5	69.6	99.6	97.7
EBITDA	(6)	**621.5**	444.9	454.6	348.1	236.8	162.5	136.5	148.9	166.2	159.9
Net result		**310.5**	227.9	249.1	204.4	116.6	62.7	33.9	70.9	82.1	77.7
Net group profit	(7)	**312.9**	229.2	250.1	207.1	117.0	63.3	34.1	70.9	82.1	77.7
Depreciation, amortization and impairment losses		**219.6**	195.7	115.4	102.5	86.6	80.2	89.0	79.3	66.6	62.2
Cash flow		**532.5**	424.8	365.6	309.6	203.6	143.5	123.1	150.2	148.7	139.9
Shareholders' equity	(3)	**1,565.0**	1,295.8	860.1	768.1	618.6	542.9	467.9	455.2	413.0	376.0
Average number of outstanding shares (x 1,000)	(8)	**99,962**	88,372	85,799	85,799	85,799	85,254	83,307	79,890	77,847	77,700
Number of outstanding shares (x 1,000)	(9)	**100,974**	98,651	85,799	85,799	85,799	85,799	84,522	81,768	77,910	77,751
Personnel (number of persons)	(4)	**13,832**	10,514	10,201	8,577	8,151	7,029	7,033	3,186	3,285	3,119
Ratios (percentages)											
Operating result as % of the revenue		**15.0**	11.5	16.2	13.1	11.1	7.1	4.7	6.7	8.9	9.0
Return on capital employed	(10)	**18.1**	20.2	29.1	27.7	19.1	12.0	7.0	16.0	20.3	21.4
Return on equity	(11)	**21.7**	21.1	30.6	29.5	20.1	12.4	7.2	16.3	20.8	22.1
Solvency	(3) (12)	**37.1**	46.5	34.0	35.3	39.4	41.3	38.1	42.5	41.6	38.4
Figures per share (x € 1.00)											
Profit	(8) (13)	**3.11**	2.58	2.90	2.38	1.36	0.74	0.41	0.89	1.05	1.00
Cash flow	(8)	**5.30**	4.81	4.26	3.61	2.37	1.68	1.48	1.88	1.91	1.80
Dividend		**1.24**	1.19	1.19	1.19	0.68	0.37	0.25	0.35	0.42	0.40
Share price range (x € 1.00)											
(Depositary receipts of) ordinary shares		**23.16**	13.25	15.30	21.06	14.67	8.58	6.02	5.50	5.93	8.38
		36.58	28.45	42.45	46.25	25.48	18.75	8.33	7.72	11.85	12.38

(1) Figures taken from the financial statements. As from 2004 all amounts are in accordance with EU-IFRS.

(2) Results on work in progress from 2003 onwards based on work done and up to and including 2002 based on completed contracts.

(3) As at December 31, 2003 amended for EU-IFRS.

(4) As at December 31, 2004 amended for EU-IFRS.

(5) Consists of earnings before share in result of associated companies, finance income and expenses and taxation.

(6) Consists of earnings before share in result of associated companies, finance income and expenses, taxation, depreciation, amortisation and impairment losses.

(7) As from 2004: net result + net profit attributable to minority interests.

(8) Weighted average number of outstanding shares less the number of shares owned by the company.

(9) Number of outstanding ordinary shares less the number of shares owned by the company as at December 31.

(10) Net result + interest paid on long-term loans as % of the average capital employed (shareholders' equity + long-term loans).

(11) Net result as % of the average shareholders' equity.

(12) Group equity as % of the balance sheet total (non-current assets + current assets).

(13) The dilution effect was practically nil up to the financial year 2010.

(14) On May 21, 2007 Royal Boskalis Westminster N.V. effected a share split on a three-for-one basis (three new shares for one old share) in order to increase the liquidity of the Boskalis share. For comparative purposes the data regarding the number of shares and figures per share of all the periods has been recalculated to the situation after the split of the ordinary Boskalis shares in 2007.

Legal structure

Royal Boskalis Westminster N.V.

Boskalis Westminster Dredging B.V.

Holding and service companies
A selection of operating companies and participating interests

Boskalis Holding B.V.

Baggermaatschappij Boskalis B.V.
Aannemingsmaatschappij Markus B.V.
A.H. Breijs & Zonen B.V.
Baggermaatschappij Holland B.V.
Boskalis B.V.
Boskalis Dolman B.V.
Cofra B.V.
Hydronamic B.V.
J. van Vliet B.V.

Boskalis Westminster International B.V.

Boskalis Westminster Ltd
Boskalis Zinkcon Ltd
Irish Dredging Company Ltd
Rock Fall Company Ltd
RW Aggregates Ltd (50%)
Westminster Gravels Ltd
Westminster Dredging Company Ltd

Boskalis International B.V.
Adreco Serviços de Dragagem LDA (49%)
Beijing Boskalis Dredging Technology Ltd
BKI Gabon SA
Boskalis Australia Pty Ltd
Boskalis International Egypt for Marine Contracting SAE
Boskalis International (M) Sdn Bhd (30%)
Boskalis International (S) Pte Ltd P.T.
Boskalis International Uruguay SA
Boskalis Guyana Inc.
Boskalis Taiwan Ltd
Boskalis Zinkcon B.V.
Coastal and Inland Marine Services Inc.
Dragamex SA de CV
Dravensa CA
Koon Zinkcon Pte Ltd (50%)
Boskalis International Indonesia
Riovia SA
Zinkcon Marine Singapore Pte Ltd

Others
Archirodon Group N.V. (40%)
Atlantique Dragage SARL
Boskalis Canada Dredging & Marine Services Ltd
BKW Dredging and Contracting Ltd
Boskalis Dredging India Pvt Ltd
Boskalis Italia S.r.l.
Boskalis Polska Sp. z o.o.
Boskalis Sweden AB
Dredging & Contracting Belgium NV
Heinrich Hirdes Kampfmittelräumung GmbH
Nigerian Westminster Dredging & Marine Ltd (60%)
OOO Bolmorstroy
OOO Mortechnika (50%)
Soc. Española de Dragados SA
Stuyvesant Dredging Company
Terramare Oy

Others (continued)
Boskalis Westminster (Oman) LLC (49%)
Dragapor Dragagens de Portugal S.A.
UAB Boskalis Baltic

Boskalis Offshore B.V.
Sandpiper AS
Boskalis Offshore AS

Boskalis Westminster Middle East Ltd
Lamnalco Ltd (50%)
Lamnalco (Sharjah) Ltd (35%)
Lamnalco LLC (50%)
Boskalis Westminster Al-Rushaid Ltd (49%)

BW Marine (Cyprus) Ltd

Boskalis Finance B.V.
Boskalis Maritime Investments B.V.

Smit Internationale N.V.
Smit Internationale Beheer B.V.
Smit International Overseas B.V.
Smit Nederland B.V.
Smit Holding Singapore Pty Ltd
Smit Shipping Singapore Pty Ltd

Harbour Towage
Smit Harbour Towage Argentina S.A.
Smit Harbour Towage (U.K.) Ltd.
Smit Harbour Towage (Panama) Inc.
Smit Harbour Towage Rotterdam B.V.
Smit Taiwan Holding Investment Co Ltd
Smit Marine Canada Inc.
Unie van Redding- en Sleepdienst Belgie N.V.
Keppel Smit Towage Pte. Ltd., Singapore (49%)
Rebras Rebocadores Do Brasil S.A. (50%)
Towmar Smit Baltic UAB (50%)
Smit Marine Australia Pty Ltd

Terminals
Smit Internationale (Gabon) S.A.
Smit Terminals Europe B.V.
Smit Terminals Sonagas S.A. (64%)
Adriatic Towage S.R.L. (50%)

Salvage
Smit Salvage B.V.
Smit Salvage Ltd.
Smit Salvage Americas Inc.
Donjon-Smit LLC (50%)

Heavy Lift & Transport
Smit Amandla Marine Pty. Ltd. (70%)
Smit Transport Europe B.V.
Smit Transport Belgium N.V.
Smit Heavy Lift Europe B.V.
Smit Marine Projects B.V.
Smit Subsea Europe B.V.
Smit Subsea Africa Ltd.
Smit Subsea Middle East L.L.C. (49%)
Ocean Marine Egypt S.A.E. (50%)
Asian Lift Pte. Ltd. (50%)

Glossary

Backhoe A large hydraulic excavating machine positioned on the end of a pontoon. The pontoon is held firmly in place using spuds. Backhoes can dredge in a range of soil types with extreme precision.

Ballast water Ballast water in ships is used to improve depth, stability and strength in case the ship is not fully loaded.

Building with Nature Innovation program focused on the development of new design concepts for river, coastal and delta areas. The aim of the program is to investigate the best approach to strengthen the interaction between human activities and nature.

Cashflow Group net profit adjusted for depreciation, amortization and impairments.

Central Fleet The central fleet comprises those ships that are managed (technically) by the head office in Papendrecht, The Netherlands and encompasses the main production units.

CO2 Carbon dioxide is an odorless and colorless gas and exists in the Earth's atmosphere. Carbon dioxide is a greenhouse gas (source Wikipedia).

Cutter suction dredger A ship that dredges while being held into place using spuds and anchors. This technique combines powerful cutting with suction dredging. Cutter suction dredgers are mainly used where the bed is hard and compact. The dredged material is loaded into hoppers but is generally pumped to land through a pressure pipeline.

EBITDA Group earnings before the result of associated companies, interest, tax, depreciation, amortization and impairments.

GRI Global Reporting Initiative. An international organization that develops global standards for annual social reporting. The aim of GRI is to make sustainability reporting as routine and comparable as financial reporting for all organizations - regardless of size, industry or location.

HFO Heavy Fuel Oil.

Home market Boskalis distinguishes itself from its competitors by the use of a home market strategy. The home market organizations have local marketing profiles, as well as their own fleet and infrastructures. They can rely on the support of the financial and technical resources of the global Boskalis organization. Home markets provide a stable flow of assignments and opportunities to generate additional margins through associated activities.

IMO The International Maritime Organization is a specialized agency of the United Nations. The IMO's primary purpose is to develop and maintain a comprehensive regulatory framework for safe and substainable shipping.

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 of the International Organization for Standardization; the global federation of national normalization organizations that issues standard requirements for, amongst other things, quality management systems (ISO-9001) and environmental management systems (ISO-14001).

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

MDO/MGO Marine Diesel Oil/Marine Gas Oil.

NOx Nitrogen oxide is a generic term for mono-nitrogen oxides (NO and NO2). These oxides are produced during combustion, especially at high temperature. NOx is a component of smog and are greenhouse gasses (source Wikipedia).

Particulate matter Tiny particles, smaller than 10 microns, in the air. Increased levels of fine particles in the air are linked to health hazards.

Return on capital employed Net result + interest paid on long-term loans as percentage of the average capital employed (shareholders' equity + long-term loans).

Return on equity Net result as % of the average shareholders' equity.

SHE-Q Safety, Health, Environment-Quality

SOx Sulfur oxide (SOx) is the combined name for sulfur dioxide (SO2) and sulfur trioxide (SO3). It is a combustion product consisting of sulfur and oxygen that is mainly emitted in the combustion of sulfur-containing fossil fuels including some types of crude oil, brown coal or hard coal. It is one of the key components of air pollution and smog (source Wikipedia).

Trailing suction hopper dredger A self-propelled unit that loads its well or hopper using centrifugal pumps and pipes that trail over the bed as the ship sails. Trailing suction hopper dredgers can operate independently of other equipment and can transport material over long distances. The dredged material is dumped through flaps or bottom doors, by rainbowing, or pumped onto land using a pipeline

Turbidity Turbidity is caused by dredging up the seabed. This temporarily reduces the amount of light reaching the underwater flora and fauna.

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

Colophon

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The year 2010 marked 100 years of Boskalis history. To celebrate this unique anniversary Boskalis commissioned the book 'Verdiept Verleden. Een eeuw Koninklijke Boskalis Westminster en de Nederlandse baggerindustrie' ('Deepening the past; a century of Royal Boskalis Westminster and the Dutch dredging industry') (in Dutch). Researched and written by (corporate) historians at Utrecht University, the book describes how our company was able to grow into the leading maritime services provider it is today. The cover picture has been borrowed from the book.

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