

We move the earth
to a better place



**Royal
Boskalis Westminster nv**

International Dredging Contractors



Royal Boskalis Westminster nv worldwide

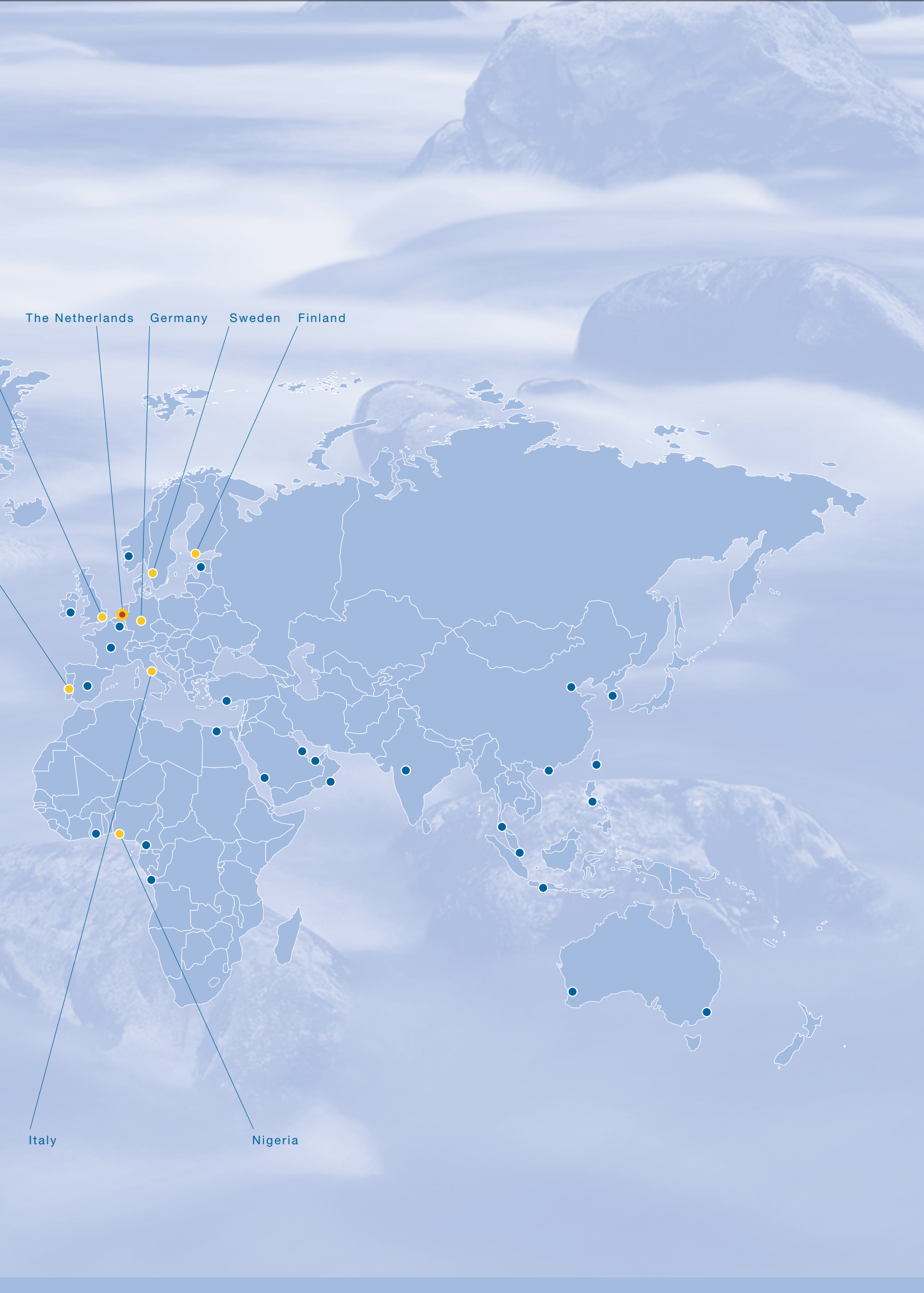
- Headoffice
- Home markets
- Offices of Boskalis

United States of America

Portugal

United Kingdom

Mexico



The Netherlands

Germany

Sweden

Finland

Italy

Nigeria

Index

| | |
|----|---|
| 3 | Royal Boskalis Westminster: We move the earth to a better place |
| 4 | Result-minded, result-driven <i>and</i> responsible |
| | Core activities |
| 6 | Construction and maintenance of harbors and waterways |
| 7 | Land reclamation |
| 8 | Coastal defense and riverbank protection |
| | ‘Dredging-Plus’ activities |
| 10 | Offshore |
| 11 | Environmental activities |
| 12 | Dry infrastructure |
| 13 | Gravel and sand trading |
| 13 | Tunnel building |
| 13 | Other activities |
| 14 | Organization |

Royal Boskalis Westminster nv:

We move the earth to a better place!

The world is on the move. The global population is expanding, international trade volumes are growing and mobility is on the increase. Infrastructural solutions must make a balanced contribution to prosperity and the environment. To progress and safety. To the future and to historical awareness.

Royal Boskalis Westminster nv is a leading international dredging contractor with the size, the capacity, the expertise and skills to make a global contribution. We have demonstrated this time and time again during the hundred years of our existence, almost everywhere in the world.

The core activities of Boskalis are:

- the construction and maintenance of harbors and waterways;
- the creation of land in water;
- coastal defense and riverbank protection.

Alongside these main areas, we are also involved in a wide range of related activities. Our organization is spread widely across the world, with activities in more than fifty countries in five continents.

The large area we work in, and the size and diversity of the projects, place stringent demands on people and equipment. More than 3,000 specialists of various nationalities work for Boskalis. They have at their disposal a large and versatile fleet of approximately 300 ships and auxiliary equipment that can be used in the optimal configuration for every specific project. With full technological support from the organization and with the most high-grade assets at their disposal, our people have the motivation to tackle every challenge. Innovative, competitive and aware of the world around us.

This awareness is also seen in our unceasing emphasis on the environment. Boskalis is strict in ensuring that the burden on the environment is kept to a minimum on every job. Concern for the environment is an integral component of quality control at Boskalis. The basic principles here are both the requirements of the client and the further professionalization of our organization. All of the quality systems used by Boskalis are certificated in accordance with ISO-9001.

The world is on the move and it wants responsible solutions for the ever-increasing demand for infrastructure. Boskalis is at home in that world.

We move the earth to a better place.

The bridge of the jumbo trailing suction hopper dredger Queen of the Netherlands.



'We move the earth to a better place'.



Land reclamation in Malaysia with the mega trailing suction hopper dredger W.D. Fairway.

Result-minded, result-driven *and* responsible

Boskalis is a global dredging contractor, carrying out assignments that vary widely in nature and size. The increasing scale and complexity of projects mean that the role of our company is developing more and more. From a traditional 'contractor' to a project partner.

*The jumbo trailing
suction hopper dredger
Queen of the Netherlands.*



Boskalis can provide total solutions for almost all infrastructural challenges. Our own engineering consultancy Hydronamic plays an important role here. Hydronamic is a think-tank of approximately 40 technical specialists, including civil engineers and experts in the area of hydraulics, morphology, the environment, geophysics, mining and geology.

The total solutions provided by Boskalis cover the full project cycle: from functional requirements through design and construction – but also financing and complex project management. This results more and more often in innovative contracts and financing structures, such as alliance contracts and public-private initiatives.



In 2002 the trailing suction hopper dredger Waterway was granted the 'Ship of the Year' award by the Royal Netherlands Association of Maritime Technicians.



This allows us, together with our clients, to control all project risks. The basis for collaboration is the shared interest in efficiency and profit.

Our works are often - literally - the foundations for sustainable social developments. For example, maritime infrastructure is for many countries a precondition for economic prosperity. Local government authorities make social and economic assessments, investing in the well-being and the prosperity of their people. Boskalis takes the responsibilities this involves very seriously.

We pay a lot of attention to the ecological impact of our work. We have the expertise to keep the environmental burden to a minimum and we also advise our clients in these matters. With our specially-developed systems, precise monitoring of the dredging work is possible, and we can inform clients about the environmental impact of the working methods used. It goes without saying that Boskalis also disposes of the work spoils correctly.

However large and complex a project may be, and whatever the type of contract: we always keep both feet on the ground, and in the mud if necessary. Because our job is dredging. And sand reclamation. And positioning protective stone layers where they are needed. The professionalism and precision we bring to that work have gained us an international reputation. But it is the interplay of know-how, skill and capacity that enables us to manage even the most complex projects. Result-minded, result-driven *and* responsible.



Cutter suction dredger Ursa.



Core activities

Construction and maintenance of harbors and waterways

Harbors and waterways are the lifelines of the economy. The construction of ports involves much more than just building on and in the water. The development of harbor facilities can have major implications for the balance between land and water, affecting for example a river regime.

Boskalis uses the expertise it has acquired throughout the world on port development projects. Makes a careful appraisal of usefulness and necessity, technology and feasibility. Carries out precise surveys, calculates the technical as well as financial conditions for success. Takes future maintenance into consideration as well as construction. And, of course, carries out maintenance work on waterways and ports. In this way, we bring even the most complex project to a safe haven.



Restoration of the waterflows in the Gorai river in Bangladesh.



Expansion of the Amazone Harbor in Rotterdam, The Netherlands.



*Deepening and expansion of
St. John's harbor, Antigua.*



*Land reclamation for the Sheikh Khalifa
Bin Salman Causeway, Bahrain.*

Land reclamation

Creation of land in water. The global population is still increasing and economic centers are congested and overpopulated. Boskalis has jumbo trailing suction hopper dredgers that make the construction of new land economically feasible. These ships can win sand – where necessary at large depths – and transport it over large distances. The cost price of new reclaimed land is favorable compared to the market price of existing land, so Boskalis can provide the room for economic growth, literally and figuratively.



Deepening of Tema harbour, Ghana.



*Land reclamation, Yau Ma Tei II,
Hong Kong.*

Core activities

Coastal defense and riverbank protection

Climate change and the expected rise in the sea level mean that coast management requires our full attention. Coastal erosion results not only in the loss of land to the sea, but also to the reduction of the freshwater reservoirs under the dunes and therefore an adverse impact on flora and fauna.

Boskalis offsets this process by means of beach and foreshore replenishment. In this way, we create a balance: a protective buffer for people and society.



Private financing initiative,
coastal defense project,
Pevensey Bay, United Kingdom.



Construction of breakwaters, inlet channel,
box culvert, sluice complex and directional
screen in Cienaga de la Virgen, Colombia.





Stone-dumping vessel Cetus.



Coastal protection in Singapore.



*Beach replenishment,
Cambura Beach, Brazil.*

Boskalis is also a specialist in protecting coastlines and riverbanks with breakwaters, groins, dams and dikes. Throughout the world, alongside many waterways and along the coast, the latest technology is being used to design and build coastal defenses and riverbank protection. The result of continuous research and a treasure-trove of experience.

*Coastal defenses in
Kerteh, Malaysia.*



‘Dredging-Plus’ activities

As a dredging company, we provide numerous related services in all conceivable sectors, from the civil sector to the offshore industry and from environmental projects to munitions disposal. Our know-how in the most varied fields – such as soil mechanics, hydraulics, morphology and soil cleanup– in combination with our capacity in the field, has established our name as an efficient project partner for government and industry.

Offshore

Boskalis Offshore provides a broad spectrum of services adapted specifically to the creation of optimal conditions for the production of oil and gas. We supply this branch of industry with a unique package for everything associated with offshore activities. From feasibility studies and technical design to actual work in the field, such as the dredging of trenches for pipelines, building landfalls and the positioning of sand and stone covering for protection and insulation.

Using precision dredging techniques, Boskalis Offshore also prepares the seabed for the installation of oil and gas extraction units. During this work, impressive records have been established, such as the dredging of ‘glory holes’ at a depth of 130 meters in the White Rose field near Canada, with tolerances of only a few centimeters.



*Grab on fallpipe vessel
Seahorse that can be used to
dredge down to 1,000 meters.*



Fallpipe vessel Sandpiper.





The specially developed environmental disc cutter Vecht, used for cleaning up the Ketelmeer.

Environmental activities

The strength of the Boskalis formula is the integrated approach to designing the optimal cleaning process. Precision dredging, processing, re-use and safe removal of the dredged material. These are indispensable elements in an environmental approach.

Boskalis Dolman, an operating company of Royal Boskalis Westminster nv, specializes in cleaning contaminated sediments. We treat contaminated dredging sludge in our own depots, clean the sludge in separation and processing plants and make it suitable for re-use. The cleaning techniques can be used anywhere in the world through the Boskalis network of offices and support desks.

Six million m³ of polluted sludge was removed from the Ketelmeer in The Netherlands and stored in a specially constructed depot in the middle of the lake.

Boskalis Dolman separation and processing plant.



‘Dredging-plus’ activities

Dry infrastructure

Boskalis prepares sites for building. We use our treasure-trove of expertise in soil mechanics and environmental technology. We carry out measurements and soil surveys, win sand in sea and from borrow lakes, and deliver it – either hydraulically through pipelines, or ‘dry’ by road. So we lay the foundations under major reclamation areas, as well as many infrastructure projects.

In the construction of foundations for roads, railways and other infrastructure, as in new building developments requiring strict timetables, soil improvement techniques and consolidation acceleration techniques are very important. Boskalis has developed patented techniques such as BeauDrain –a combination of vertical and horizontal drainage and vacuum technology– that achieves a spectacular reduction of the time needed for the consolidation of building land.



BeauDrain machine.



Construction of foundations for the Betuwe railway, Netherlands.

*Multipurpose pontoon
Stemat Scradeway.*



*Construction of Rostock tunnel under
the Warnow river, Germany.*

Gravel and sand trading

Boskalis is involved world-wide in large-scale sand production. We have concessions for the production of primary building materials, such as sand and gravel, in numerous locations.

Tunnel building

Boskalis is a specialist in the excavation of caissons for tunneling and, for example, for construction projects in highly built-up city centers. We also have special precision equipment for positioning tunnel elements and constructing foundations for them using the sand-flow method, as in the construction of the Rostock tunnel. The Scrader® method makes it possible to construct underwater foundations quickly, efficiently and precisely down to tens of meters, with a tolerance of only 25 millimeters.

Other activities

Numerous industries and development plans run up against subsoils that require specialist preparation or drastic steps. For example, Boskalis specialists are involved in underwater rock fragmentation, mining and munitions disposal. We have also developed activities associated with harbors, such as port and tug services.



Organization

Boskalis is a leading player in the global dredging market. Our leading position is largely a result of our unique home market strategy: a permanent presence in countries where the volume of work justifies it.

Our home market organizations are at home in the region. They have their own offices, their own fleet, local personnel and infrastructure, and they are supported by the global Boskalis organization. The home markets of Boskalis are: The Netherlands, the United Kingdom, Germany, Finland, Sweden, Portugal, Italy, Nigeria, the United States and Mexico.

In addition to the home markets, we also conduct dredging, coastal and riverbank projects on the international projects market. These are often large-scale works on which we also collaborate with third parties and our involvement in them means that our workplace is the entire world.

Boskalis' policy is to provide the entire workforce, including our sub-contractors and suppliers, with healthy and safe working conditions. 'Safety Matters' is therefore an important motto in all our activities.

Wherever we may be in the world: we see our workforce as the critical Boskalis success factor. They are the people who, in changing and often challenging conditions, justify our reputation and deliver high-quality work at a competitive cost level. To do that job, they have high-grade technical production resources and an organization which supports them on all fronts. Boskalis has an active human resources policy, with continuous training programs and knowledge transfer contributing to the high quality of our workforce.





Colophon

Coordination Communications Department Royal Boskalis Westminster nv

Design and layout The KEY Agency, Amsterdam, The Netherlands

Photography Van der Kloet Fotografie, Ben Wind, Norman Childs, Flávio Santos, Fotostudio Honing, Piet Mes, Dick Sellenraad, Roel Snoep, Erik Kuck

Printing PlantijnCasparie Capelle a/d IJssel, The Netherlands

CB/2003/51/K-PC/1.5

We move the earth
to a better place



 **Royal
Boskalis Westminster nv**

Rosmolenweg 20
3356 LK Papendrecht
The Netherlands

P.O. Box 43
3350 AA Papendrecht
The Netherlands

Telephone +31 (0)78 69 69 000
Fax +31 (0)78 69 69 555

E-mail royal@boskalis.nl
Internet www.boskalis.com

We move the earth to a better place