With safety as our core value we provide innovative, sustainable and all-round solutions for our clients in the ports market. Under brands such as Boskalis, SMIT and Smit Lamnalco we offer more services than any other company in our industry, making us your one-stop solutions provider.

**Feasibility studies, (pre)design and construction of:**
- (greenfield) ports
- waterways
- breakwaters
- quay walls
- roads and railways
- bridges and tunnels.

**Operational services including:**
- (long-term) maintenance dredging
- harbour towage
- salvage
- terminal services
- inspection, repair and maintenance.

Since our founding in 1910 our clients have relied on us to find cutting-edge solutions to meet their specific requirements. Our track record includes a wide variety of demanding port projects and contracts that have established our name in the ports market.
OUR WORLD

WHAT SETS US APART
- GLOBAL PRESENCE
- 14,000 EXPERTS
- OUR ABILITY TO MANAGE COMPLEXITY
- WIDE RANGE OF INTEGRATED SERVICES
- INNOVATIVE AND SUSTAINABLE SOLUTIONS
- COST LEADERSHIP
- COMMITTED TO SAFETY
- OVER 1,100 MODERN AND FLEXIBLE VESSELS

OUR SOLUTIONS FOR THE PORTS MARKET

PORT DEVELOPMENT
PORT PROTECTION
PORT INFRASTRUCTURE
PORT SERVICES
SAFE AND SUSTAINABLE

Our work goes beyond providing services. Safety has been uncompromisingly embraced within our culture and is the essence of ‘NINA’, our No Injuries, No Accidents safety program.

Boskalis is known for its environmental expertise and commitment to the environment. Our clients benefit from our vast experience in preparing environmental impact assessments and environmental management plans. Our state-of-the-art monitoring programs and environmentally-friendly techniques, working methods and equipment will enable you to fully comply with environmental regulations. We are also able to offer the very best cost-effective solutions for the cleaning or containment of contaminated sediment.

By building with nature, we help preserve and even strengthen environmental assets such as coral, seagrass and benthic fauna, without compromising economic benefits.

STANDARDS OF EXCELLENCE
• ISO 14001 International environmental quality
• OHSAS 18001 Occupational health and safety
• ISO 9001 Business management
• IMCA Offshore operations
A TEAM BUILT AROUND YOUR NEEDS

‘BOSKALIS HAS THE RESOURCES TO BUILD A GLOBAL TEAM AROUND THE CHALLENGES YOU FACE’

Our 14,000 experts are focused on achieving the best result. In addition to a dedicated fleet crew, you can rely on our experts from a wide range of disciplines. These include hydraulic and civil engineering, ecology, finance, morphology, geology, geophysics and marine biology.
OUR ABILITY TO MANAGE COMPLEXITY

‘INVOLVE BOSKALIS EARLY ON AND WE CAN IMPROVE YOUR PROCESSES, MITIGATE RISKS, MINIMIZE UNCERTAINTIES AND DELIVER THE SOLUTIONS YOU SEEK’

- In the **pre-design** phase we can help determine the feasibility of your project.
- During the **design phase** we will create a solution that fits your requirements.
- As your **main contractor**, we build your port and streamline execution by managing sub-contractors and communicating with stakeholders.
- We can provide **cost-effective (long-term) operational services** under brands such as Boskalis, SMIT and Smit Lamnalco.

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**PORT SOLUTIONS**

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- **KHALIFA PORT, ABU DHABI**
  Design and construction of a greenfield port near one of the largest coral reefs in the Persian Gulf. Comprehensive environmental measures ensured maximum protection of the coral reef.

- **MELBOURNE, AUSTRALIA**
  Channel Deepening Project. In an alliance contract with the Port of Melbourne Corporation Boskalis tailored innovative solutions to meet the demanding technical and environmental requirements. The project won the National Infrastructure Award in 2010.

- **ROTTERDAM, THE NETHERLANDS**
  Maasvlakte 2 Port Expansion. Innovative Design, Construction and Maintenance project. Creation of 2,000 hectares with 240 million m³ of sand, 1 km of sea defence, 3 km of quay walls, 14 km of railways and 13 km of roads. Numerous interfaces, strict design, environmental and safety challenges were successfully met.
OUR SOLUTIONS FOR THE PORTS MARKET

- Port Protection
- Port Development
- Port Services
- Port Infrastructure
PORT DEVELOPMENT

OUR SOLUTIONS
1 Land reclamation through rainbowing
2 Environmental monitoring
3 Land reclamation through pump ashore
4 Dredging access channel through shore
5 Soil improvement by compacting and vertical/horizontal drainage
6 Soil remediation by separation and dewatering plant
7 Land reclamation through bottom doors discharging
8 Dredging access channel/turning circles/berth pockets
9 Drilling, blasting and dredging of hard rock
Developing a port starts with a (pre)feasibility and design study and involves evaluating a complex matrix of interrelated parameters and uncertainties. The size and complexity of these projects mean that numerous disciplines and contractors are involved. In addition, the time-consuming nature of the design and planning phases mean that the construction phase often becomes time-critical. Greenfield facilities in remote locations, with limited access and infrastructure and a heightened environmental focus, are especially challenging.

Our track record includes a wide variety of demanding EPC projects. Our vast experience and expertise enable us to assist you with the economic and environmental assessment of your port.

We design and build ports, mitigate risks and streamline execution by managing subcontractors, communicating with stakeholders, eliminating interfaces and/or acting as a specialist subcontractor. We can even provide financing assistance thanks to our close relations with financial institutions.

FOR MOST OF OUR CLIENTS BUILDING A PORT IS A ONCE IN A LIFETIME EXPERIENCE, FOR US IT IS EVERYDAY BUSINESS’
PORT PROTECTION

OUR SOLUTIONS
1 Quarry management
2 Concrete blocks fabrication
3 Design, construction and maintenance of revetment
4 Transportation of rock to site
5 Design, construction and maintenance of breakwater
6 Design, construction and maintenance of detached breakwater
   a Seabed preparation
   b Rock installation
7 Clearance of unexploded ordnance
WE DESIGN, CONSTRUCT AND MAINTAIN COST-EFFECTIVE AND SUSTAINABLE BREAKWATERS AND REVETMENTS’

Breakwaters and revetments are essential to protecting your port from the open sea and to providing safe transshipments. They have to be able to withstand the most severe wave and weather conditions and must be constructed with minimal impact on the environment. As they constitute a large part of the port investment a cost-effective solution is essential.

Our engineers employ state-of-the-art numerical wave modeling techniques, computer simulations and physical models in laboratories to identify critical points and deliver cost-effective and sustainable solutions.

Our expertise in quarry management, logistics and in-situ production of concrete elements enables us to optimize a cost-effective construction process.
PORT INFRASTRUCTURE

OUR SOLUTIONS
1. Design, construction and maintenance of combi-wall
2. Design, construction and maintenance of retaining wall
   a. Dredging out toe
3. Land reclamation
4. Design, construction and maintenance of blockwall
   a. Foundation preparation and installation of scour protection
   b. Installation of blocks
5. Construction of (rail)roads, tunnels and bridges
Shipping companies and agents continuously re-assess their shipping and distribution networks in pursuit of traffic volume, cost efficiency, manageable risks and increased routing flexibility. Outstanding connections with the hinterland depend on a wide variety of port infrastructure constructions.

We are able to deliver integrated solutions for a fully operational port. Our expertise includes the design, construction and maintenance of quay walls, roads, railways, tunnels and bridges. We streamline execution by managing subcontractors, communicating with stakeholders, eliminating interfaces and/or acting as a specialist subcontractor.

ROTTERDAM, THE NETHERLANDS
Design and construction of a retaining quay wall on the Maasvlakte 2 project. The project encompasses the construction of two innovative deep-sea quay walls, each 1.2m thick and 40m deep, and two quay walls for inland shipping vessels.

VUOSAAARI, FINLAND
Design and construction of 3.5km of quay walls, using the special slip form technique which is developed for ground conditions of glacial origin.

BARROW ISLAND, AUSTRALIA
Design and construction of a material offloading facility, a roll-on-roll-off facility and 200m of quay walls.
PORT SERVICES

OUR SOLUTIONS
1. Inspection, Repair and Maintenance of quay walls, piers and buoys
2. Terminal services
3. Harbour towage services
4. Wreck removal including oil and cargo transfer operation
5. Salvage of grounded vessel
6. Maintenance dredging
In order for your port to retain its place in the premier league it has to meet the rising demands of the global maritime industry. Maximizing safe and efficient ship handling is key in this respect.

**Ensuring continued accessibility** for ever larger ships is essential. We provide cost-effective (long-term) maintenance dredging services including sustainable disposal of dredged material. If you involve us in the design phase of your port we can optimize the maintenance process by including future maintenance requirements.

**Ships calling at your port have to arrive and depart on schedule.** SMIT harbour towage services provide the vital link between ship and berth. Experienced crews on our state-of-the-art tugs assist thousands of ships in the world’s most prominent ports. Through Smit Lamnalco we offer a full range of terminal services with berthing and unberthing support of oil and LNG tankers being the core activity.

**Wrecks** must be removed when they pose a threat to safe navigation or obstruct access. Ports must have a plan for preventing, containing or cleaning up oil spills. SMIT’s highly trained and experienced salvage teams are geared up to provide instant 24/7 response, in case of an emergency anywhere in the world, delivering cost-effective compliance in accordance with OPA’90 requirements.
For over 100 years, Boskalis has helped clients meet some of the toughest challenges.

How can we help you? Give us a call and tell us about your challenges. Or look at our portfolio on www.boskalis.com. You can download our corporate brochure and our other solutions brochures for Infra and Energy.