



UK Trade  
& Investment



# THE UK PORTS SECTOR

A Showcase of World Class Expertise



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## Contents



UK Ports  
Overview  
09



Showcasing UK  
Excellence  
Internationally  
19



Planning &  
Design  
25



Financial &  
Professional  
Services  
31



Port  
Management  
37



UK  
Capability  
in Action  
43



Safety & Security  
51



Education & Training  
57



Port Equipment  
63



Software & Solutions  
69



Here to Help  
75



Useful Contacts  
79

# The Commercial Opportunity



Trade is an essential measure of economic prosperity, the physical movement of capital goods is a catalyst to growth. This presents a commercial opportunity.

Why the UK Ports sector?

## 1 Unique Port Infrastructure

## 2 Specialist Companies Tailored to the Ports and Maritime Sector

UK PORTS OVERVIEW

SHOWCASING UK EXCELLENCE INTERNATIONALLY

PLANNING & DESIGN

FINANCIAL & PROFESSIONAL SERVICES

PORT MANAGEMENT

▶ Extensive network of UK ports

▶ A global presence

▶ World class Design & Architecture

▶ Financial & Professional Services geared specifically to the Ports and Maritime sector

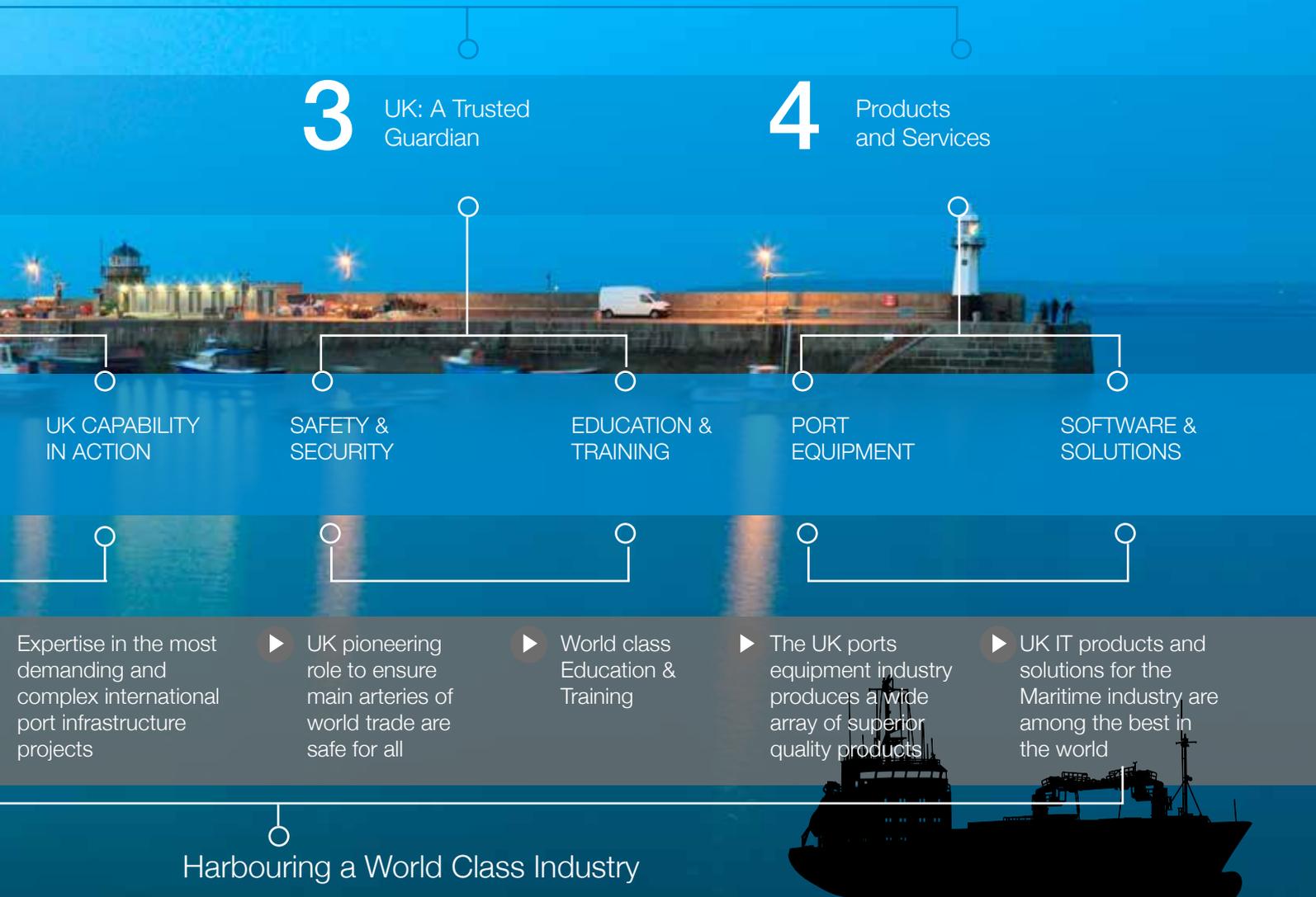
▶ Privatisation and Port Management

To ease your navigation through the document the illustration below visually explains the proposition. This brochure is broadly divided into four sections:

1. Unique Port Infrastructure
2. Specialist Companies Tailored to the Ports and Maritime sector
3. UK: A Trusted Guardian
4. Products and Services

The graphic below encapsulates the whole narrative of the document on one page.

How do you capitalise on market trends which are influenced by supply and demand for goods fluctuations due to regulation trade agreements and currency movements and optimise the commercial opportunities.



# Unique Port Infrastructure

**Features:**

UK Ports Overview

Showcasing UK Excellence Internationally



1

ONE





# UK Ports Overview

## Features:

Belfast Harbour  
Port of Bristol  
Port of Felixstowe  
Harwich International Port  
London Gateway  
Scotland  
Wales

# UK Ports Overview

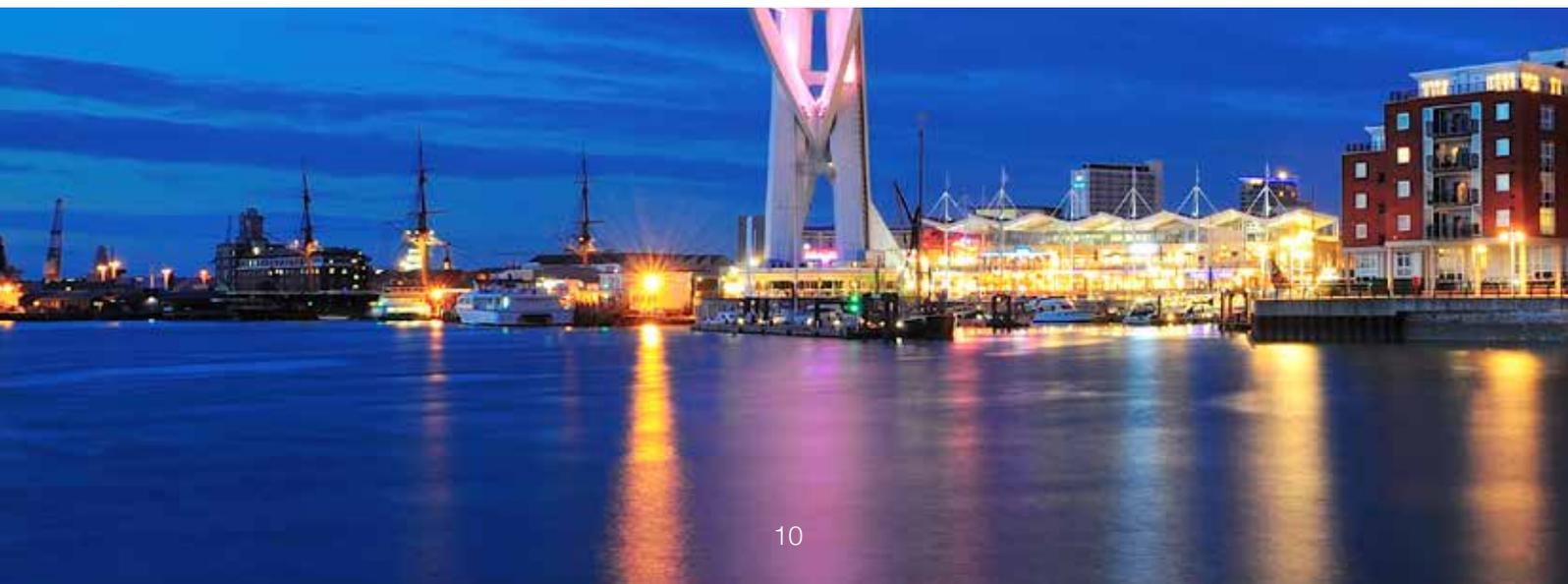
The UK ports industry, by virtue of our long coastline and maritime history, is the largest in Europe. The scale of diversity of port operations in the UK is impressive ranging from all purpose facilities to container ports along with bulk, ferry and cruise terminals.

The UK depends on its ports for trade. Approximately 96% of the volume of all UK import/export trade enters the UK through its ports. In addition, some 32 million international passengers use UK ports every year while another 38 million use them for domestic journeys. The ports industry makes a valuable contribution to the UK economy and is critical to the growth of the regions it serves. The UK ports industry has undergone a successful transformation. The UK Government has allowed ports to be independently or privately run and this initiative has set a benchmark for the global ports industry.

The private sector operates 15 of the largest 20 UK ports by tonnage and around two-thirds of the UK's port traffic. Much of the tonnage handled is concentrated in a small number of ports, with the top 15 ports accounting for almost 80% of the UK's total traffic.

Many countries across the globe are now demanding the services of the sector to help repeat the recent successes of the UK ports.

Portsmouth



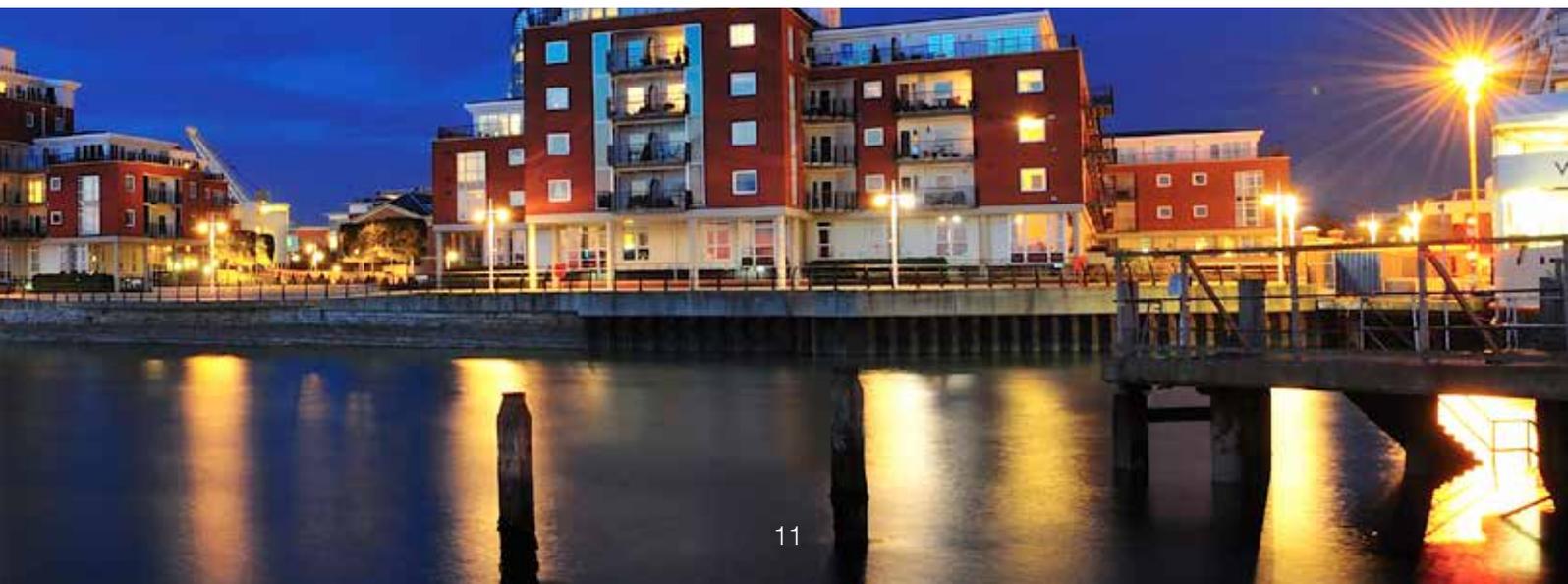
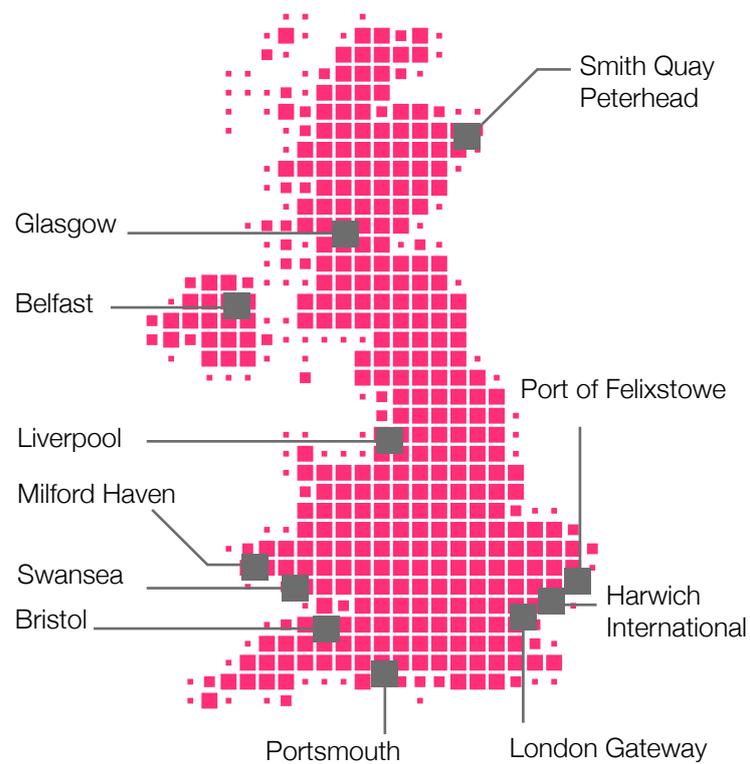


Smith Quay, Peterhead

From the development of ideas and models through to planning, management, financial services, information systems and management, education, training, equipment, design and maritime security; UK companies are now exporting specific skills in all of the component areas of the sector to all corners of the world.

Domestically, the ports sector directly employed an estimated 117,200 persons in 2011. The majority of those employed in the ports sector worked in either transport or a transport-related activity, with a further 16% in cargo handling and storage, and 10% in maritime insurance and related activities.

It is estimated that the ports sector contributed approximately £7.9 billion in value to UK GDP in 2011. Despite the turbulent economic climate as a result of a global recession, the direct value contribution of the UK ports sector has increased by 6.4% in real terms since 2009.

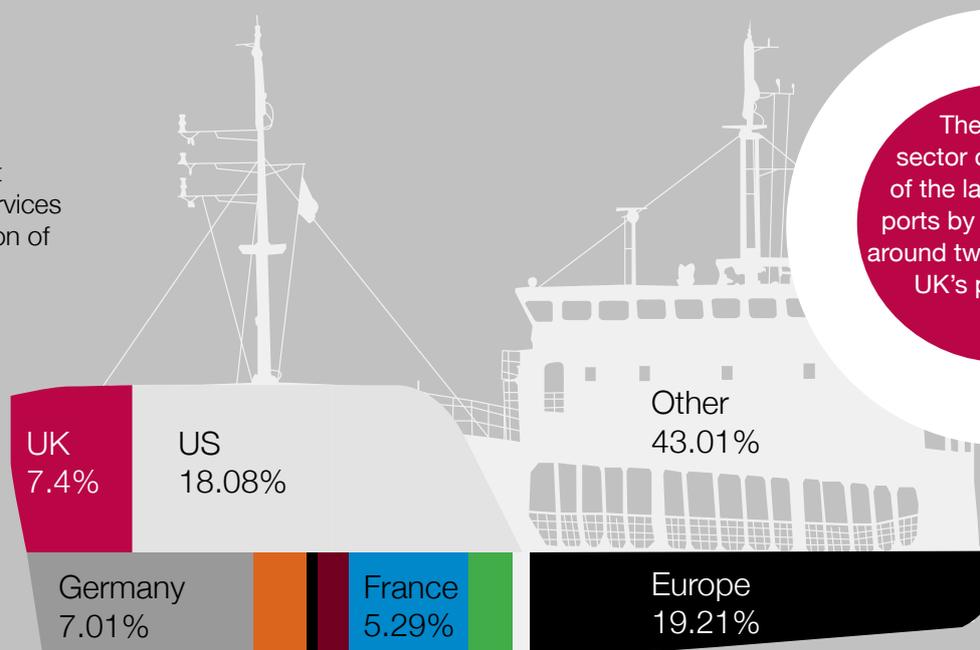


# At a Glance

The UK is the 2nd biggest earner worldwide from services and income as a proportion of world exports with

**7.4%**

Source: Economist World in Figures 2013



The private sector operates 15 of the largest 20 UK ports by tonnage and around two-thirds of the UK's port traffic

**£7.9 billion**  
in value added to UK GDP in 2011

**96%**  
of the volume of all UK import/export trade enters the UK through its ports

Domestically, the ports sector directly employed an estimated  
**117,200**  
persons in 2011

# £7,900,000,000

in value added to UK GDP in 2011



The direct value added contribution of the UK ports sector has increased by 6.4% in real terms since 2009

32 million international passengers use UK ports every year

38 million use UK people for domestic journeys

## Belfast Harbour

### Irish Sea's Renewable Energy Hub

[www.belfast-harbour.co.uk](http://www.belfast-harbour.co.uk)

Northern Ireland has a good infrastructure of ports. There are five commercial ports in Northern Ireland – the four Public Trust Ports of Belfast, Londonderry, Warrenpoint and Coleraine and one in private ownership (Larne). Between them the ports provide some 150 fast ferry and freight sailings per week to Great Britain, Europe and beyond. They serve as vital gateways to the UK and mainland Europe and handle 95% of external trade for Northern Ireland. The Port of Belfast is the busiest port in Ireland. All of the ports have had or are undergoing substantial investment in facilities.

Northern Ireland's leading port, Belfast Harbour boasts the UK's first offshore wind logistics terminal.

Belfast Harbour is leading the UK in developing port facilities for the Offshore Renewables sector. It has recently invested £50 million to create a bespoke logistics facility for DONG Energy and its partners. Covering some 200,000m<sup>2</sup>, the heavy duty infrastructure has a 480m long deepwater quay capable of berthing three installation vessels alongside. Further waterfronting development land is available which is well suited to locate a manufacturing site for wind, wave or tidal companies.

It is one of the UK's largest ports in term of tonnage and it manages the largest single port estate in the UK. Covering an area of 2,000 acres Belfast Harbour is Northern Ireland's major logistics and distribution hub providing direct shipping links to other major UK and European ports.

Belfast Harbour



## Port of Bristol

[www.bristolport.co.uk](http://www.bristolport.co.uk)

Bristol Port is closer to the centre of the UK than any other port. With land available for development and excellent motorway and rail connections Bristol has been at the heart of the UK energy supply chain for 20 years. Over £195 million has been invested in bulk handling and storage facilities at The Bristol Port Company and the investment continues with plans to adapt and build new biomass facilities for the changing energy market.



The ports industry makes a valuable contribution to the UK economy and is critical to the growth of the regions it serves.



Port of Bristol





Harwich International Port

## Port of Felixstowe

[www.portoffelixstowe.co.uk](http://www.portoffelixstowe.co.uk)

Over 40% of the UK's containerised trade passes through the port. Its optimal location, scale advantage and operational excellence, coupled with unrivalled connections to the domestic and global market, ensures the Port of Felixstowe delivers best on the real needs of industry.

The Port of Felixstowe is the industry's productivity leader, regularly achieving vessel exchange rates beyond any previous productivity records set in Britain. With over 3km of operational quayside and 35 ship-to-shore gantry cranes, the port's ability to handle any ship size, from European feeders to the market's mega vessels, is second to none.

Close to London, but away from the most congested parts of the UK road and rail networks that surround the capital, Felixstowe is ideally located for distribution throughout Britain, be it by road, rail or coastal feeder.

Ongoing enhancement is always at the forefront of the port's agenda, with the new North Rail Terminal due online in 2013, and Berth 10, the final phase of the Felixstowe South Reconfiguration, ready to commence as soon as customer demand dictates, no-one has invested more in future-proofing the industry's needs. The new North Rail Terminal will eventually double rail capacity at the port which already offers 29 daily rail services to 17 different inland destinations.

Port of Felixstowe

## Harwich International Port

[www.harwich.co.uk](http://www.harwich.co.uk)

Harwich international Port is one of the UK's largest cruise and multi-purpose ports. Located in the fast-growing Haven Gateway sub-region, on the east coast of England, customers benefit from the undoubted advantage of lock-free, fast access to the North Sea and European Ports, in one of the country's most sheltered natural harbours.

The port has long been established as an important gateway to Europe and benefits from excellent rail and road connections, with close proximity to major London airports.

A steady stream of investments and developments over the past decade, including new double-deck linkspan and major upgrades to the Cruise Terminal, has created modern facilities across all of the different businesses served, from cruise and ro-ro to break-bulk.

Open 24 hours a day, seven days a week, the port operates in partnership with its customers to ensure that they consistently receive the quality of service they expect.





Perth, Scotland

## London Gateway

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

The major new terminal incorporating state-of-the-art design solutions is London Gateway.

The port will have an annual capacity of 3.5 million TEU. URS Infrastructure & Environment UK Limited has been lead designer for contractor Laing O'Rourke/Dredging International JV, on behalf of owner – Dubai Ports World.

It will handle the world's largest deep-sea container ships along with smaller short-sea/feeder vessels. The project involves large scale dredging, reclamation, quay wall and yard formation, as well as adjacent rail intermodal and 227 hectare Logistics Park.

London Gateway

## Scotland

[www.sdi.co.uk](http://www.sdi.co.uk)

Scotland's ports are a vital part of the Scottish economy. Over 67 per cent of Scotland's total exports go out via Scottish ports, equating to 74 million tonnes each year. As well as goods, ports in Scotland handle 10.5 million passenger movements each year. The Port of Grangemouth is Scotland's largest container port and approximately 9 million tonnes of cargo are handled through the dock facilities each year. Of this, 2.5 million tonnes is dry cargo representing incoming raw materials for Scottish industry and outgoing finished product. Aberdeen Harbour is a world class port supporting the Oil and Gas sector, handling annually around 5 million tonnes of cargo, valued at approximately £1.5 billion, for a wide range of industries.

Domestic services and links to Northern Ireland are vital to communities and the economy. Recent investment by Stena Line has created a dedicated new ferry port at Loch Ryan to serve the Northern Ireland market. Other recent investment in Scottish ports includes Smith Quay at Peterhead, Torry Quay at Aberdeen and development of the Fife Energy Park at Methil. Scotland ports are central to delivering the Scottish Government's goal to develop a globally competitive offshore renewables industry. The National Renewables Infrastructure Plan provides a strategic focus to infrastructure investment and is supported by a development fund of £70 million designed to strengthen port and manufacturing facilities and supply chain provision for manufacturing offshore wind turbines and related components.





This is in addition to over £80m investment in port and harbour development across the Highlands and Islands over the last three years. The Scottish Government, and its development agencies together with other public sector partners are working closely with port owners to develop the capacity of Scotland's ports to support the offshore renewables industry.

## **Wales** **Windfarm Capability Utilising Port Infrastructure**

[www.wales.gov.uk](http://www.wales.gov.uk)

The Welsh Government is committed to developing renewable energy, as laid out in Energy Wales: A Low Carbon Transition launched by the First Minister in March 2012. Wales has strong assets in virtually every energy source, but especially significant wind resources, both onshore and offshore, along with excellent wave and tidal energy potential.

The region possesses the key infrastructure to make the most of the energy opportunity in terms of its roads, railways, deep ports and transmissions grids.

Wales led the way in offshore wind with North Hoyle, the first to be built anywhere in the UK, developed off the North Wales coast, followed by other projects. The 576MW Gwynt y Mor project is under construction off North Wales with a further 5.7 GW planned with the Irish Sea and Atlantic Array windfarms.

In all, Wales has established the potential for some £50 billion of investments in low carbon electricity projects by 2025 across the Ports of Mostyn, Swansea, Milford Haven & Pembroke, Mostyn, Holyhead and Newport.

The government have also invested heavily into Wales' £34 million Low Carbon Research Institute (LCRI) and the £23.6 million Sustainable Expansion of the Applied Coastal and Marine Sectors (SEACAMS) initiative.

Wales offers great opportunities now and in the future for offshore wind. Unlocking this potential will create a strong platform for economic prosperity.





# Showcasing UK Excellence Internationally

## Features:

- Planning and Design
- Financial Services
- Port Management
- UK Capability in Action
- Safety & Security
- Education & Training
- Port Equipment
- Software & Solutions



# Showcasing UK Excellence Internationally

Increases of capacity, the threats of terrorism, smuggling and stringent carbon emission targets placed on ports by governments has created more demands on ports than ever before. If they are to meet the needs of their customers and remain competitive ports need both industrial stability and a high level of investment in infrastructure, people and technology.

Today UK companies have substantial expertise in all areas of port development and operation and are helping overseas government, ports and port developers to deliver the right port for their country and their customers.

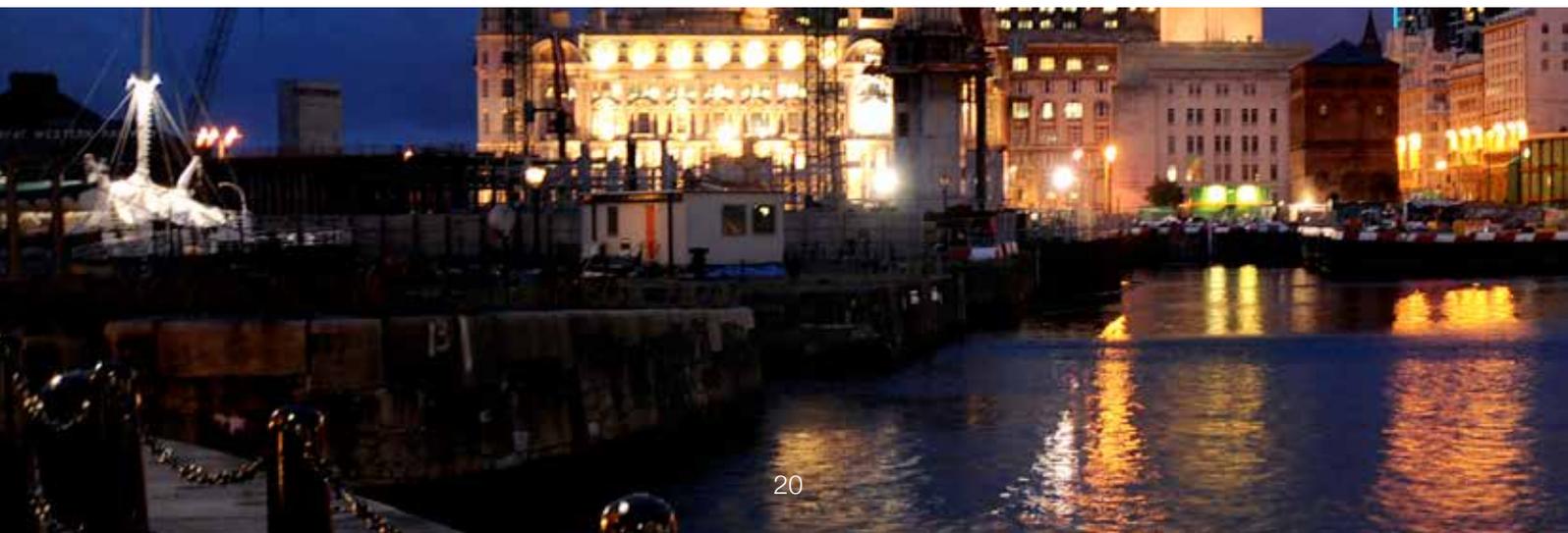
Port operations under UK management include both privatised ports and state-owned facilities. UK companies have gained great understanding of the operation and management of ports in the private sector and these skills are now being deployed overseas, assisting other countries in private sector port management.

With a proven history in delivering world-scale port projects, UK planning and design firms and niche maritime consultants are among the best in the world in drawing all of these different strands together. The UK has some of the world's leading multi-disciplinary consultancy firms who have gained a reputation for excellence in planning, designing and project managing some of the world's biggest and most complex port projects.

The transformation of the global ports industry today could not have taken place without the expertise of the UK's financial, legal and insurance industries. Working in partnership with port clients and sometimes governments, they analysed the viability of raising finance of port investment programmes, questioned the corporate constraints and devised financial models and corporate structures that could best meet the growing demands of the shipping industry.

The UK has a pioneering role to play to ensure that the main arteries of world trade are secure and safe for all. UK companies are playing a vital role in protecting ports and their personnel around the world, with a range of specialised companies offering products from high technology tracking and monitoring equipment, through to access control systems, container scanners and security planning.

Albert Dock, Liverpool



The UK's training industry is synonymous with quality and excellence blending innovation with tradition seamlessly. The UK's historic and world renowned maritime universities and private training companies are helping to deliver the port sector workers of the future. The UK with its extensive expertise in the ports sector, training services operate to the highest standards, providing staff with state of the art facilities and using the latest teaching techniques.

All around the world UK Ports sector companies are making an impact by working in partnership with governments to arrange city, financial and legal participation, regenerating outdated systems, designing solutions with imagination and building them to a standard and quality that will stand the test of time.

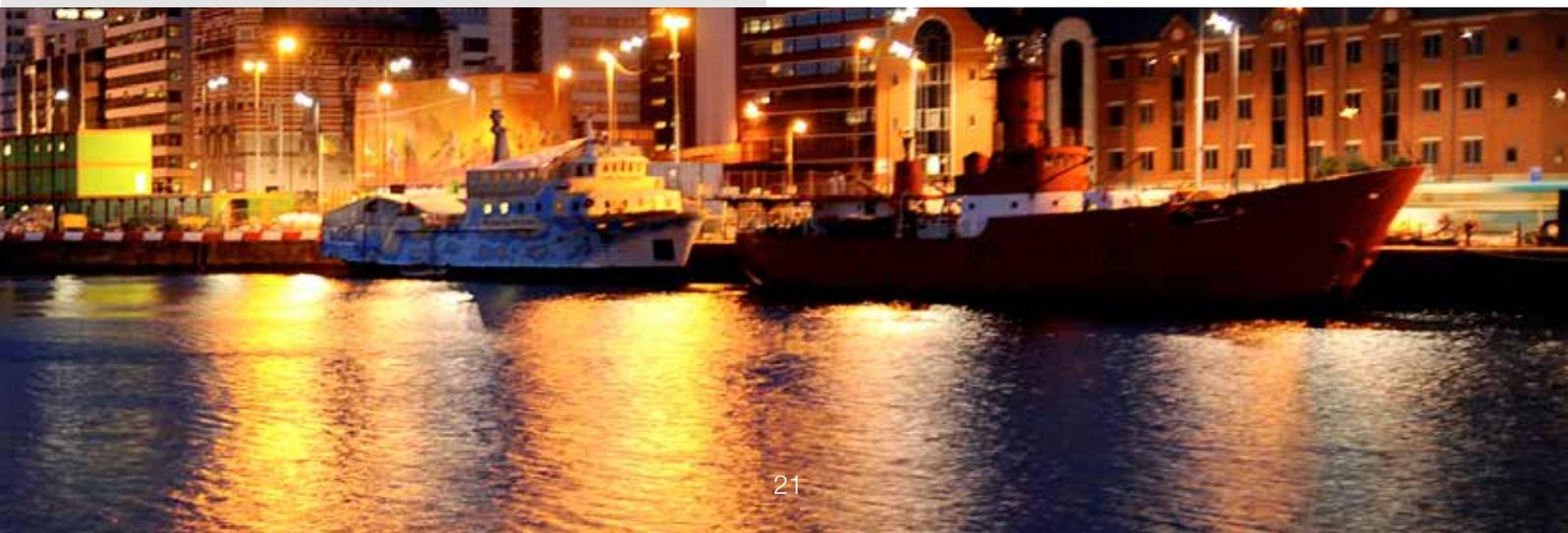
Local people have a real stake in the future by being trained in the skills necessary to manage and operate these international businesses.

The UK is leading the way to develop greener more sustainable ports and is embracing the latest technology to make ports safe, secure and efficient.

From operators to equipment suppliers, security companies to engineering consultants and from lawyers to bankers, the UK represents the ideas and vision, the engineering ingenuity and the fiscal and management skills that can develop and deliver port projects across the world.



Today UK companies have substantial expertise in all areas of port development and operation and are helping overseas government, ports and port developers to deliver the right port for their country and their customers.



# Specialist Companies Tailored to the Ports and Maritime Sector

## Features:

- Planning & Design
- Financial & Professional Services
- Port Management
- UK Capability in Action



2

TWO





# Planning & Design

## Features:

Beckett Rankine

HR Wallingford

Royal HaskoningDHV Oman

URS Infrastructure & Environment UK

# Planning & Design

Port and terminal owners and operators are faced with a wide range of complex factors when deciding on the type, location and capacity of facilities to meet future demands.

The broad spectrum of maritime infrastructure encompasses any number of disciplines, ranging from construction and engineering to financial and other professional services.

With a proven history in delivering world-scale port projects, UK planning and design firms and niche maritime consultants are among the best in the world in drawing all of these different strands together.

UK consultants are the first port of call for many overseas companies developing port projects looking for initial planning, design and conceptual work. Beyond this, the UK has expertise in the construction, engineering and management of port projects.

No other country in the world can boast the same pool of consultancy expertise that the UK has to offer, ranging across all port disciplines from Greenfield developments and expansions through to security enhancements and environmental audits. These and other areas are routinely covered by the country's professional services firms in projects worldwide.

## **Beckett Rankine** **Isle of Grain, Kent**

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

To help secure a constant and diverse source of gas supply to the UK, a new LNG import terminal with an overall investment of £1 billion was developed by National Grid in the south east of the UK on the Isle of Grain.

Beckett Rankine was heavily involved on this project for several years through the various stages of development from a brownfield site into two fully operational berths and then planning facilities for re-loading LNG to smaller vessels for bunkering.

The LNG terminal is the largest in Europe and has the capacity to receive and process up to 15 million tonnes of LNG a year equivalent to 20% of UK gas demand. Capable of unloading the biggest LNG carriers in the world the Qmax vessel, the terminal is now capable of storing 1 million cubic metres of gas with four new full containment LNG tanks.

Beckett Rankine. Isle of Grain Kent





Royal HaskoningDHV. Port of Duqm,

## HR Wallingford

### Mubarak Al-Kabeer Port, Kuwait

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

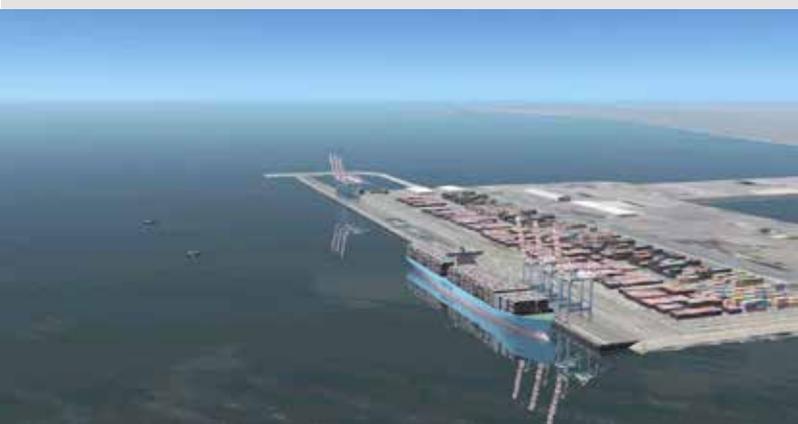
The Mubarak Al-Kabeer Port project (Boubyan Island, Kuwait) brought together many of HR Wallingford's core activities for port studies: navigation, ship motion, siltation and dredging. HR Wallingford worked on the detailed design studies for phases one and two of the port and the confirmation of the design concept of subsequent phases, supporting the main contractors Hyundai and their design and environmental consultants.

The company provided a programme of modelling and assessment services for the port design and environmental impact assessment looking into siltation, dredging and metocean studies as well as specific, key issues for the operation of the port, such as vessel movement at berth, wave overtopping of the quay and flushing of the small vessel harbour. The mix of studies linking numerical and physical modelling was the strength of HR Wallingford's approach.

HR Wallingford also provided an innovative solution to the training of port staff by setting up a real time navigation simulation facility to represent phase one of the development.

HR Wallingford first became involved in the Mubarak Al-Kabeer port project in 2006, supporting the development of the port master plan.

HR Wallingford. Mubarak Al-Kabeer Port



## Royal HaskoningDHV

### Port of Duqm, Oman

[www.royalhaskoning.co.uk](http://www.royalhaskoning.co.uk)

In 2001 the Government of the Sultanate of Oman selected Duqm in the Al Wusta region as the location for a new shipyard and port complex. Royal Haskoning as the lead partner in a joint venture with Khatib & Alami and Partners and Al Baraka Economic Consultancy, (RHDHV-KA JV) has been involved in the project since 2002. Its maritime engineers carried out the preliminary work involving a feasibility study, site investigation, environmental assessment, conceptual design, and master planning necessary to set in motion the Government's vision to create one of the largest ports in Oman, covering an area of 52 square miles. The marine works for the project, which has been designed and supervised by Royal HaskoningDHV are nearing completion and will be the gateway to new industrial development in this region of Oman.



No other country in the world can boast the same pool of consultancy expertise that the UK has to offer, ranging across all port disciplines from Greenfield developments and expansions through to security enhancements and environmental audits.



## Royal HaskoningDHV Port of Sohar, Oman

[www.royalhaskoning.co.uk](http://www.royalhaskoning.co.uk)

Royal HaskoningDHV was commissioned in 2008 to carry out a reference design and prepare contract documents for the design and construction of a new bulk iron ore jetty in the Port of Sohar, Oman. The jetty provides berthing facilities for ships importing the iron ore from Brazil, and for ships exporting the iron ore and steel pellets to the Middle and Far East. It has overseen the tender assessment and has worked on-site to supervise completion of construction works.

The structure is almost 1.4km long. It comprises a 780m long access trestle, and a main jetty, 600m long and 64.5m at its widest point. The jetty is built from steel piles with a steel superstructure and reinforced concrete deck.

## URS Infrastructure & Environment UK

### Colombo Port Expansion, Sri Lanka

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

After helping to improve the existing port efficiency, URS is supervising the delivery of a nine berth expansion to cater for the Indian subcontinent trade growth.

The capacity of the existing Port of Colombo was increased by some 50% through a series of improvements. Plans were then developed and are now under construction for a nine berth expansion enclosed by 5km of new breakwater.

The expansion will reinforce Colombo's position as a dominant player in the South Asia container trade, with consequential economic benefits.

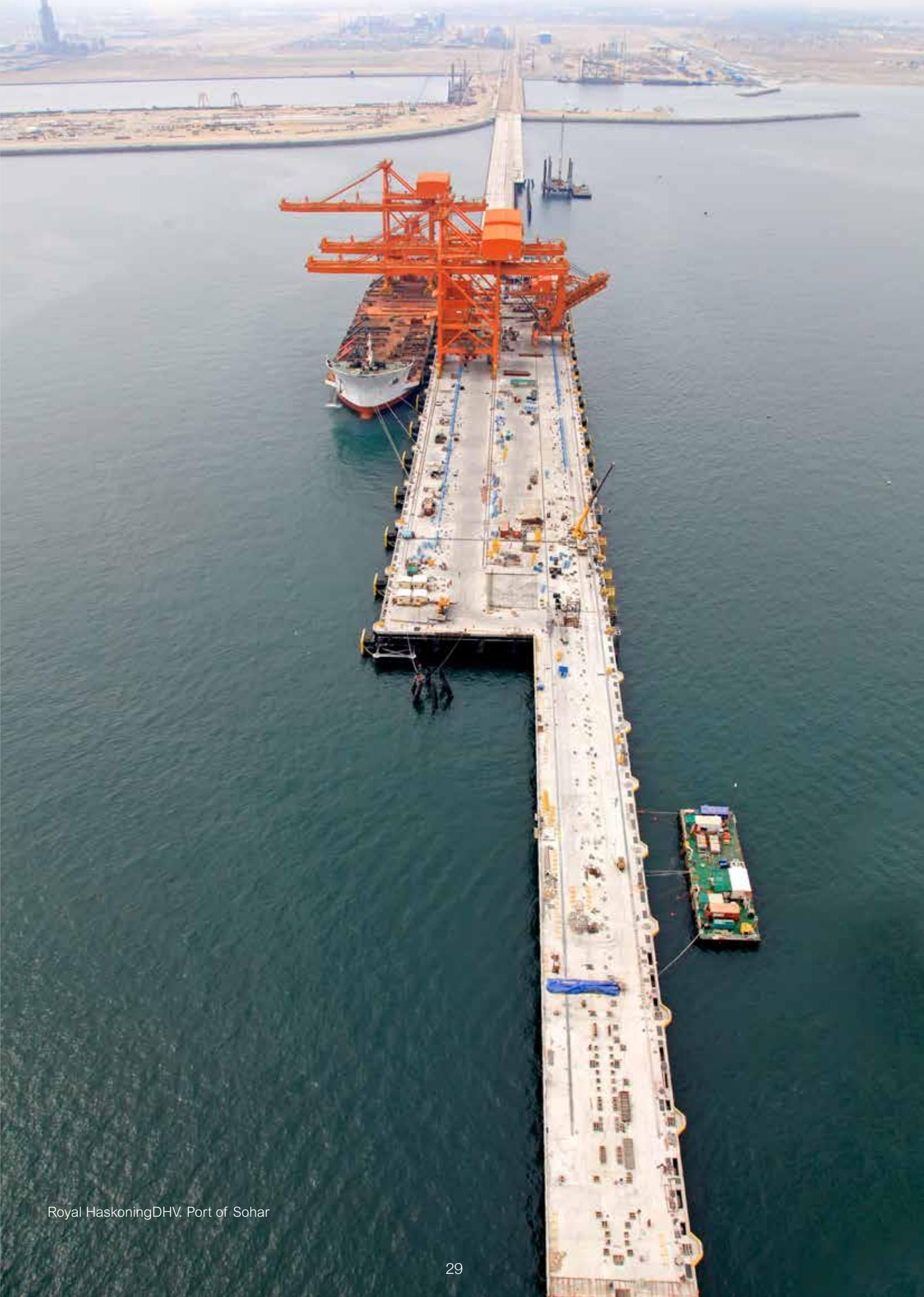


Royal HaskoningDHV's understanding of maritime design has been a vital contribution to the success of the project. As mediators between the client and the contractor, they played an important role in solving the problems and issues at hand. This has been done in a very professional way.



URS. Port of Colombo









# Financial & Professional Services

## Features:

Port of Liverpool

JLT Specialty

Ernst & Young

Trowers & Hamblins

Holman Fenwick Willan

Drewry Maritime Advisors

Lawrence Graham LLP

# Financial & Professional Services

Within the financial services industry there is a wealth of professional expertise and talent readily available in the UK, geared specifically to the ports and maritime sector.

London is now the number one financial centre for the global maritime industry, home to Lloyds of London and the world's biggest insurance sector. Specialist institutions serving the maritime industry include the Baltic Exchange, the only established and self-regulated global marketplace for shipbrokers.

Beyond this, the UK's leading bankers, accountants and lawyers have all played a key role in the transition of the industry from a state-owned model to a privately-owned one. These institutions have evolved with the times, learning new skills and techniques, and are now in high demand for port projects across the world. Many, such as HSBC, are household names worldwide.



The UK is the number one financial centre supporting the global ports industry.



## Ramboll

### Cruise Liner Facility – Port of Liverpool

[www.ramboll.co.uk](http://www.ramboll.co.uk)

In 2007, working alongside Balfour Beatty, Ramboll was involved in the completion of a new £18 million cruise liner facility for Liverpool, UK on the River Mersey.

The 250m long x 25m wide floating facility has a Reception Building, Pilot Boat building, covered walkway and area to marshal a number of large coaches which will serve cruise liners such as the Queen Mary II and take passengers to their stop-off destinations.

The floating platform is constructed of four reinforced concrete pontoons each 60m long x 5m deep with a freeboard of just over 2m. Each pontoon weighs approximately 3000 tonnes.

The floating facility is serviced by two new linkspans; a main 90m long 2-way vehicle linkspan and an emergency pedestrian linkspan. Onshore, works are also being undertaken to create a new marshalling area for the Isle of Man Ferry which will also use the facility.

An innovative floating structure (as opposed to reclaiming a new quayside) was chosen to ease ship-to-shore access over the 10m tidal range and minimise environmental impact.

Ramboll. Port of Liverpool,





JLT Specialty, Port of Workington (images supplied courtesy of the Port of Workington)

## JLT Specialty

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

JLT Specialty provide specialist insurance broking, risk management and claims consulting services to medium enterprises through to large and international companies.

JLT Specialty works with a varied and diverse set of clients from Port Operators to national government agencies to develop programmes of insurance that are appropriate, cost effective and forward looking in order to cope with the challenges of the future. Company focus is on delivering quality and tailored service at all stages of a project. JLT have always been at the forefront of innovation within the Port insurance field and have recently developed a product with a major insurer to cover all of the risks which are faced by small to medium sized ports in the UK – from company cars to corporate responsibility. On the world stage working with their extensive network of owned and partner offices JLT are responsible for many reinsurance programmes for local insurers who need to place their risks in the London market to take advantage of the expertise that resides here and also provide advisory services to many port developers who look towards the company for support in developing high quality risk transfer strategies to enable their business to trade in uncertain areas.

## Ernst & Young

### Corporate Structure of Trust Ports

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

In 2009 Ernst & Young (EY) were engaged in four separate mandates to undertake a review of the corporate structure of four UK Trust Ports. The four ports in question were:

- Milford Haven – based in South Wales, Milford Haven is the third largest port in the UK
- Harwich Haven – located in South East England Harwich Haven had revenues of £23 million in 2011
- Port of Tyne – located in the North West 2011 revenues reached £59 million in Tyne, primarily generated from bulk cargo, logistics, car terminals and ferries
- Shoreham Port – the smallest of the four, Shoreham Port (on the south coast) generated revenues of £10 million in 2011

In their assessment of the corporate structure of each of the ports, EY found that the structures currently in place were best suited to meet the objectives of the port authorities and the Department for Transport (DfT) and therefore a privatisation at this moment in time should not be carried out.

The three reasons for this assessment were as follows:

1. **Limited opportunity to generate efficiency savings** as the ports were believed to be operating efficiently already
2. The implemented commercial initiatives are likely to increase the **future value** of the ports
3. Privatisation is likely to receive **political pressure** as the ports currently have a strong working relationship with the local and regional government bodies

JLT Specialty, JLT Vessel Stoc Marcia (images supplied courtesy of the Port of Workington)



## **Trowers & Hamblins** **Port of Salalah Container Terminal** **Sultanate of Oman**

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

Trowers & Hamblins LLP (T&H) is a City of London-based law firm with a specialist international focus on the Middle East, a part of the world with which the company has been closely connected for over 50 years. Though their office network across the region, T&H have developed significant expertise on the development and management of regional port and marine sector projects.

Since the mid-1990s, the firm has advised the private sector participants on the negotiation and financing of a Concession Agreement for the management of the Container Terminal at the Port of Salalah in the south of Oman. The concession is held by Salalah Port Services Company SAOG (see [www.portofsalalah.com](http://www.portofsalalah.com)), and Salalah is now one of the world's fastest-growing and most advanced transshipment hubs.

T&H are presently acting for SPS on the formalization with the Government of Oman of supplementary concession arrangements relating to the addition of further berths to the original container terminal. These arrangements will bring the new berths within the overall concession, and will also affect the grant of associated land interests and sub-management rights.

By way of background, Trowers & Hamblins drafted the original concession agreement and related documentation for the container terminal. The structure of the public private partnership used for the project is now regarded as one of the institutional formats for green-field port development by the World Bank in its published Port Reform Toolkit.

Trowers & Hamblins. Port of Salalah



## **Holman Fenwick Willan** **Santos, Brazil (Container)**

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

Holman Fenwick Willan (HFW) Ports & Terminals team advised on this transaction which saw APM Terminals acquire a 50% stake in a new container terminal with an initial capacity of 1.2 million TEU, being built in Santos, Brazil. The terminal with a 15m water depth is expected to be fully operational by mid-2013.

Brasil Terminal Portuario (BTP) will serve the state of São Paulo and its hinterland, attracting more shipping activity and improving supply chain efficiency by making Santos more competitive in world markets. Roughly 50% of Brazil's gross domestic product is generated in the areas served by the port of Santos and more than 25% of Brazil's trade passes through the port.

HFW negotiated the share purchase agreement, shareholders' agreement and long-term terminal service agreements with major container shipping lines. One major attraction for the Santos joint venture was that major container line Mediterranean Shipping Co. agreed to move a substantial number of its boxes through the new hub. APM Terminals and Terminal Investment Limited reached agreement to jointly manage the Santos facility, being the first time the two companies had worked together.

Holman Fenwick Willan. Port of Santos





## **Drewry Maritime Advisors** **Port of Gothenburg Restructuring**

[www.drewry.co.uk](http://www.drewry.co.uk)

Gothenburg is the largest port in Scandinavia, with over 11,000 vessel calls each year connecting Sweden with destinations around the globe. Almost 30% of Swedish foreign trade passes through the port.

The city's municipal government accepted Drewry's recommendation to restructure the port authority company into the landlord-tenant model. The project was successfully achieved over a 3-year period.

As a first task, Drewry was commissioned to analyse and advise on the best strategy for Gothenburg Port Authority, assessing various institutional models worldwide, from fully privatised to landlord models.

Drewry restructured the tariffs for port dues, and then designed and drafted concession agreements with three newly created terminal companies to reflect the separation of authority and cargo-handling functions.

The next phase was to act as commercial advisor in the sale of these terminal companies to the private sector. Drewry provided advice on potential buyers, evaluation criteria, data room content, concession negotiation and general commercial strategy in the bidding and sale processes.

The Gothenburg Port Authority was restructured with three newly formed terminal-operating companies successfully put through a competitive sale process, introducing private owners on long-term concessions.

## **Lawrence Graham LLP** **Deep Sea Container Terminal –** **Port of Bristol**

[www.lg-legal.com](http://www.lg-legal.com)

International law firm Lawrence Graham LLP advised on a £600 million project to expand the UK's deep sea container capacity through the development of the Bristol Deep Sea Container Terminal in the Severn Estuary. The works will include land reclamation, the construction of new quays and other infrastructure and capital dredging.

The role included:

- drafting and promoting harbour legislation to authorise the development and advising on associated applications under other applicable laws;
- assisting with the definition/scope of the scheme and reviewing and advising on the environmental impact assessment in the context of the requirements of domestic and European legislation;
- working closely with the port's team to devise its stakeholder engagement process, supporting them in the subsequent consultations and responding to objections made;
- project managing preparation for a public inquiry which did not proceed because all objections to the development were withdrawn.

The 1.5 million TEU facility, which will have four estuary berths capable of receiving vessels of 16 metre draft at all states of the tide and links to the port's existing rail and road connections, will be able to handle the largest container vessels currently in operation, as well as future Ultra Large Container Ships of up to 14,000 TEUs.

The development site is subject to national, European and international environmental designations and the work also involved negotiations with regulators and nature conservation bodies for the protection of marine and avian species and natural habitats during construction, deep dredging and future operation and the provision of large scale compensatory habitats.





# Port Management

## Features:

Port Evolution Management  
Izmir Greenfield Port  
Nectar Group  
PORTIA

# Port Management

The UK's unique experience in port privatisation means that it has an unprecedented understanding of this strategic area.

Formerly state-run ports in the UK are now successful and profitable commercial entities in their own right, for instance the ports of Liverpool and Felixstowe, the latter being the world's 15<sup>th</sup> largest container port and the fourth biggest in Europe.

As well as improving operations at these ports, this process has also reduced the burden of capital investment by the government.

As more ports around the world experiment with alternative ownership structures, the UK ports industry stands well placed to provide advice on key management areas such as privatisation and commercial financing. Port operations under UK management include both privatised docks and state-owned facilities.

UK companies have gained great understanding of the operation and management of ports in the private sector and these skills are now being deployed overseas, assisting other countries in private sector port management.

## Port Evolution Management Rupayan Inland Container Terminal

[www.port-evo.com](http://www.port-evo.com)

In December 2012, Port Evolution Management (Port-Evo) entered into a joint venture deal with Rupayan Port & Logistics Services Ltd (RPL) to develop Bangladesh's first private inland container terminal. Port-Evo will manage the RPL container terminal in Narayanganj for 15 years under a joint venture terminal management contract and manage the terminals development from a brown field site to operations later in 2014.

The terminal will be equipped with the latest container handling facilities, container-tracking systems, fumigation area for customs and other regulatory agencies, agro-inspection and quarantine facilities.

The terminal is designed to handle 300,000 (TEU) containers a year and will primarily work as a barge operated supply chain inland feeder for Chittagong and Mongla ports with Dhaka-based importers and exporters improving the current transit time from Dhaka to vessel from two weeks to 24 hours.

Port Evolution Management. Bangladesh





Nectar Group Coal Terminal. Mozambique

## Port Evolution Management Izmir Greenfield Port

[www.port-evo.com](http://www.port-evo.com)

Port-Evo has also agreed a joint venture to build and operate a large greenfield port North of Izmir Turkey. The new port facility will feature a 1.2 million teu capacity container terminal, coal or LNG imports serving the burgeoning industrial hinterland in the Izmir region.



The UK is the country of choice in port management for new port developments across the world.



Izmir. Bostanli, Turkey

## Nectar Group Coal Terminal – Mozambique

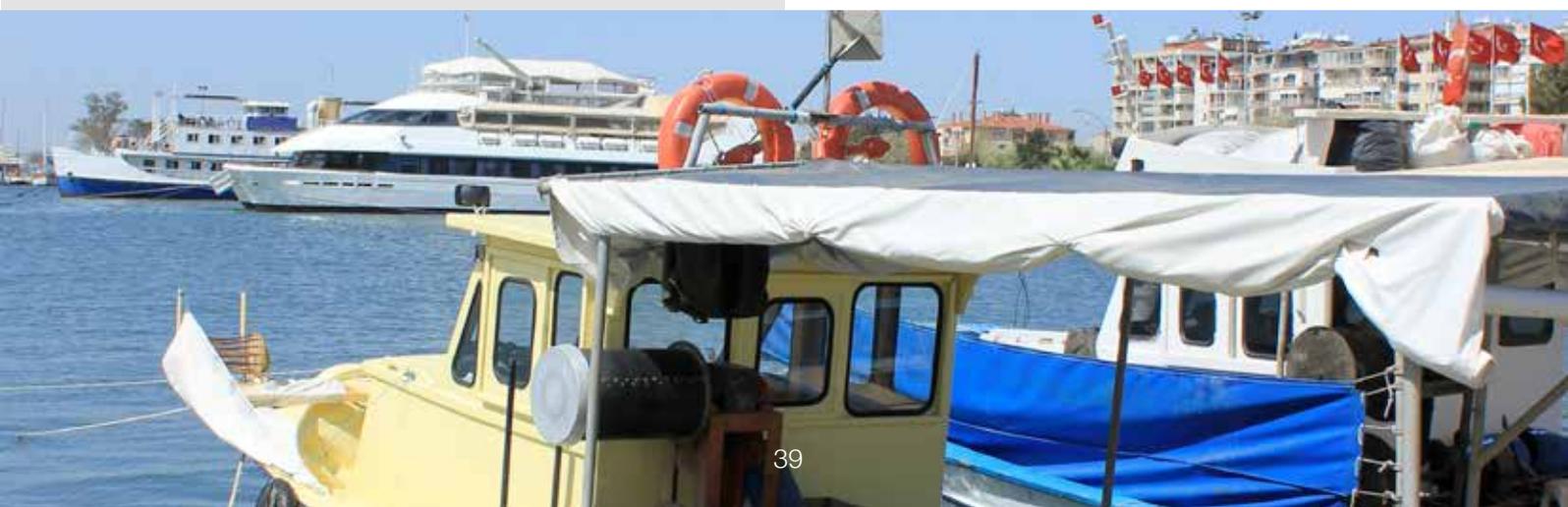
[www.nectargroup.co.uk](http://www.nectargroup.co.uk)

Nectar Group has been active in Mozambique since the 1980's. They have over the years worked in close co-operation with the Port Authority and the Concessionaire Company.

The company has been appointed to manage the first coal export terminal in Mozambique. The project involved building a brand new terminal on the site of an old installation. The terminal has 300,000mt stacking capacity. Reclaiming of the coal is done by a fleet of front end loaders utilising hoppers and conveyor systems transferring the coal to two ship loaders on the quayside. The terminal has a design loading capacity of 2,400 metric tons per hour.

Nectar Group manages all activities within the terminal from unloading of coal from the trains up to loading of the vessels including maintenance of all terminal equipment. During the process of taking over the management of the terminal, Nectar has formed a local company employing and training around 180 local personnel.

With Nectar Group's highly skilled and dedicated technical and management team, they have successfully handled over 3 million tonnes of coal since operations began in 2011.



## PORTIA

### New Port Project – Qatar

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

PORTIA have advised the New Port Project (NPP) Steering Committee on the development of the New Port, Qatar; considered one of the World's largest Greenfield port developments. The New Port forms part of the Qatar Vision 2030. The Port Megaproject is located south of Doha, close to the industrial city of Mesaieed; the port will cover 26.5km<sup>2</sup>, and is an estimated £27 billion QAR development. Forecast to be operationally ready by 2016, the New Port will provide Qatar with a modern logistics gateway with terminals handling, containers, general cargo, grain, livestock, off shore supply, vehicles, and a Coast Guard Base; also part of the New Port Project is a New Naval Base and an Economic Zone Canal.

PORTIA were selected as the NPP Port Operations Consultants, and have guided the NPP Team on key areas of the Port's operational development, to ensure the end result is a world class operation. PORTIA's team provided advice, recommendations and strategy, covering operations and maintenance for various NPP terminals; the integration of terminal systems, cargo handling equipment, operational building specification, and customs facility strategy.









# UK Capability in Action

## Features:

Beckett Rankine

Fugro GEOS

Olive Group

# UK Capability in Action

To demonstrate how UK companies have the capability to be equipped with the necessary expertise in the most demanding and complex international port infrastructure projects, we have selected the recent development of the LNG Port of Ras Laffan (Qatar).

Opened in 1996, at 56 square kilometres, with six Liquid Natural Gas (LNG) berths operational, the Ras Laffan Port complex is the world's largest LNG terminal, the largest LNG exporting facility in the world and the world's biggest man-made port based in one of the world's most expansive industrial cities.

Since the initial planning and design through to the continued expansion and maintenance of this modern port, UK companies have been at the forefront of its development. The demand for UK capability on such a large project demonstrates the leading position that many UK companies have in the global ports industry. The masterplanner for the port was Halcrow, now CH2M Hill. Other UK companies include Beckett Rankine; Fugro GEOS and Olive Group.



Images supplied by Beckett Rankine





Images supplied by Beckett Rankine

## Beckett Rankine

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

The current development phase of Ras Laffan will ensure it remains the largest LNG export port in the world. Beckett Rankine was responsible for preparing a Masterplan for the entire port together with the design and preparation of technical aspects for the tender documents for construction. The projected throughput of LNG is about 80 million tonnes per year as part of a total annual throughput of some 250 million tonnes. Other cargoes include products from gas-to-liquids plants, sulphur exports and containerised solid downstream products. The company's role on this project has covered all maritime aspects needed for the development of an LNG port.



## Fugro GEOS

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

Fugro GEOS, is the world's leading supplier of meteorological and oceanographic (metocean) services and systems for offshore and coastal engineering applications. The specialist company supplied the initial metocean monitoring system and its extension to the Ras Laffan Port and continues to support the system.

To enable Qatar Petroleum, the operator of Ras Laffan Industrial City, to maintain safe control of all port operations and to monitor the marine environment within port limits, they required a comprehensive network of meteorological and oceanographic sensors.

Specialists from Fugro GEOS installed a metocean monitoring system in the port in 2004. Since then it has been successfully recording meteorological data and measurements of tides, waves and current profiles at various locations within the port. Information is provided in near real-time to the pilots responsible for movement of some of the world's largest vessels, loading LNG and other hydrocarbon products in the port complex.

Since installation the monitoring system has been expanded to include three multi-parameter Fugro OCEANOR Wavescan buoys that provide near real-time assessment of water quality and other environmental data in the port.

Fugro GEOS

## Olive Group

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

On reaching the Operations and Maintenance phase of this project's 6-year lifecycle in 2012, Olive Group had provided Ras Laffan port with the most technologically comprehensive security solution applied to any oil & gas port infrastructure anywhere, through which tens of thousands of people, vehicles and containers can now pass safely and securely every day.

In 2008 the client sought a premier systems integrator to facilitate and secure a massive port expansion project to accommodate dramatic growth in cargo traffic through the mega-site over the next two decades.

The export terminal's strategic importance as a critical resource conduit to the east and west defined its need for a state of the art security and surveillance solution. To that end, Olive Group was awarded a \$120 million contract to provide turnkey, future-proof services including consultancy, engineering, implementation, commissioning, training, and warranty to the project.

2012 saw Olive Group enter the final integration phase of the project lifecycle, where the Access Control and Closed Circuit Television systems were integrated into the existing nationwide systems.





The Wavescan buoys at Ras Laffan are capable of monitoring current profiles and measuring physical, chemical and biological parameters and detecting oil spills. They use state-of-the-art sensors to detect underwater particles in real-time.

James W. Garney, Offshore Systems Director at Fugro GEOS



# UK: A Trusted Guardian

## Features:

Safety & Security  
Education & Training



3

THREE





# Safety & Security

## Features:

Digital Barriers  
Exis Technologies  
G4S  
Rapiscan Systems

# Safety & Security

As a leader in the global fight against terrorism, the UK has a pioneering role to play to ensure that the main arteries of world trade are safe for all.

In the ports sector, the UK is drawing on decades of experience in the development of transport security solutions.

UK companies now play a vital role in protecting ports around the world, with a range of specialised companies offering products from high technology tracking and monitoring equipment, through to access control systems and security planning.

These companies are highly valued for their expertise in compliance with international security regulations.

Safety is another area of high importance in any modern port set-up. UK know-how in this area is being deployed for the benefit of port traffic and personnel, as well as the surrounding port environment. UK ports operate in strict compliance with industry and government guidelines.

## Digital Barriers

### CCTV – Port of Singapore

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

The Port of Singapore Authority (PSA) operates the largest container transshipment hub in the world, handling close to a fifth of the world's container transshipment volumes. PSA had a requirement to undertake a comprehensive upgrade and expansion of their CCTV network, including coverage at four main terminals and their associated control centres. Digital Barriers was awarded a major contract to design and build a hybrid infrastructure to maximise the use of existing fibre optic networks and integrate new IP technologies.

The solution uses Digital Barriers' video servers, video management system and intelligent video analytics for content analysis, supporting a 1,100 camera network in a 24x7 operation. The solution integrates disparate technologies, whilst utilising the existing infrastructure. The approach was to digitise the existing analogue camera network, enhancing functionality and recording capacity and facilitating future expansion. Intelligent video analysis has been integrated across the site to enhance both security and the efficiency of logistical operations.



The UK's maritime security services and equipment sector is a world leader delivering the best security solutions for any requirement.



CCTV image





Exis Technologies

## **Exis Technologies Safety in the Ports**

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

80% of the top 20 global container lines and many of the UK's ferry operators use Exis' Hazcheck Systems to check that dangerous goods shipments are being transported in compliance with the IMDG (International Maritime Dangerous Goods) Code.

Hazcheck Toolkits are dangerous goods databases and a library of routines for incorporation into cargo booking, handling and planning systems. These provide dangerous goods validation functionality for integration into an existing or planned system or product, including those used by ferry operators, container shipping lines and ports.

Stena Line selected Hazcheck Toolkits for the database of IMDG Code regulated cargoes behind its booking procedures. In addition to reducing IT project development time and cost, incorporating Hazcheck Toolkits data and programs means that Stena's systems are continuously updated by Exis Technologies in line with the most current IMDG Code Amendment.

Exis have also developed IMDG Code e-learning in collaboration with the International Maritime Organization to train shore side staff in accordance with the mandatory training requirements required by the IMDG Code.

## **G4S California (Long Beach)**

[www.g4s.com](http://www.g4s.com)

The Port of Los Angeles, California, is located in San Pedro Bay, just 20 miles south of downtown Los Angeles.

G4S Technology designed and deployed an access control, CCTV and a video content analysis system through two separate contracts at numerous facilities for the Port of Los Angeles. They also designed, built and integrated additional cameras into the Port's current security system. The cameras were strategically placed, providing a higher level of video protection to key areas within the Port complex. In addition to expanding the video analytics system, G4S Technology added sensors, access control and system monitoring capabilities.

The Port of Long Beach, California, is one of the America's premier seaports and a trailblazer in goods movement and environmental stewardship.

G4S Technology was selected to perform a three-phase contract with the City of Long Beach to enhance security for the Port of Long Beach. Phase 1 was an optimization of the existing system, recommendations, implementation and commissioning of an integrated system. Phase 2 encompassed development and implementation of a program for the integration of a scalable System Management Software Component, which has the capability to manage a combination of control, data, communication and detection devices/systems. Phase 3 was development of a program for the implementation of a 5-year integration plan linked to a multi-agency/regional communications and data network.

G4S. California, Long Beach



## Rapiscan Systems

### Defeating Nuclear Smuggling

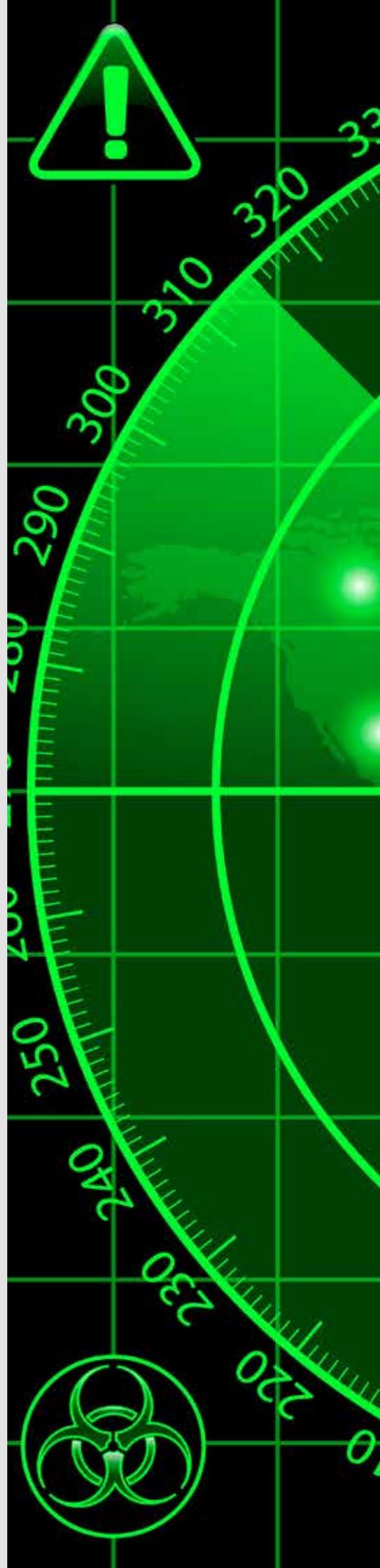
[www.rapiscansystems.com](http://www.rapiscansystems.com)

Rapiscan Systems Cargo and Vehicle Inspection (CVI) division has developed the Eagle Radiation Detection device; to effectively identify gamma or gamma neutron radiation emitted from containerised or vehicle-borne cargo.

The new device integrates gamma-neutron radiation detection during a high energy x-ray inspection scan, providing simultaneous surveillance.

This technology distinguishes between the materials used in nuclear weapons, medical radiation sources and naturally occurring radio-active materials. It senses such radiation and automatically generates alarms when materials of particular intensity or significance are detected.

The Queens Award for Enterprise in Innovation 2012 was awarded to Rapiscan Systems for the development of its Eagle Radiation Detection solutions, for its threat detection ability in the most complex of security scanning environments.







Source: Punchstock



# Education & Training

## Features:

Liverpool John Moores University  
Hull University Business School

# Education & Training

The UK is renowned for the quality of its educational system all over the world, with its famous university cities attracting thousands of overseas students and offering both academic and industry courses.



UK education and training is synonymous with quality and excellence, and blend innovation and tradition seamlessly.



UK universities are synonymous with quality, excellence and blend innovation with tradition seamlessly.

Specialist training and educational establishments in the UK help to train the port sector workers of the future.

Investing in people is a good idea in any business but in the ports sector it is absolutely vital to have well-trained personnel to perform to the best of their ability. In areas such as safety and security this can literally be a matter of life and death.

Training for the ports sector spans a wide range of disciplines. Highly-skilled machinery operators require specialist training, while management personnel require the latest business skills from human resources to marketing and financial planning.

In the UK, with its extensive expertise in the ports sector, training services operate to the highest standards, providing staff with the latest techniques and support.

Liverpool John Moores University





## Liverpool John Moores University Simulation Facilities

[www.ljmu.ac.uk](http://www.ljmu.ac.uk)

Liverpool John Moores University is a modern university based in the city of Liverpool in the North West of England. It is a leading maritime university with an established international record of providing education and training to marine personal, managers, and engineers. The University also contributes to the modernisation and productivity of the sector delivering world class research and development in port operations and logistics.

The University's ship handling simulation facilities are amongst the most advanced in the world. It has the only facility in the UK with a 360-degree field-of-view visual system. The flexibility of the system has enabled the University to undertake specialist projects for port developers to assess the impact of proposed river terminal extensions and harbour facilities on port operations.

A good example is manoeuvring and mooring risk assessment for the new Cruise Liner Terminal in the Port of Liverpool. Once a detailed model of the new terminal and cruise ships had been developed various what-if scenarios (involving realistic weather and tidal stream conditions) were then undertaken. The end result was a set of recommendations for the safe berthing and un-berthing of Cruise Liners. More recently the system has been involved in conducting navigational risk assessments to identify and assess the hazards to shipping arising from the proposed development of offshore wind farms.

## Hull University Business School Logistics Institute

[www.hull.ac.uk](http://www.hull.ac.uk)

Anticipating advances in port logistics and engaging with industry are central to research at Hull University Business School's Logistics Institute. Combining academic expertise with commercial knowledge, the Institute offers insight into emerging technologies and trends.

The concept of port-centric logistics was developed at the Institute, which offers world-class resources and is internationally recognised. Research includes supply chain, nearporting, modern-day piracy and port/shipping security.

The Institute is strategically-placed in Hull, on the banks of the Humber with a natural gateway to Europe. The HumberPort conurbation is the UK's largest, handling over 70 million tonnes annually. Siemens' plans to build Britain's first major offshore wind turbine manufacturing plant in Hull and the development of Greenport Hull, are also significant.

The HumberPort organisation, bringing together major players on the estuary – Associated British Ports, Able UK, Danbrit and DFDS Seaways PLC – has based its activities at the Institute.

The Business School is one of only 15 schools in the UK – and just 1% globally – to hold triple-crown accreditation from AMBA (Association of MBAs), EQUIS (European Quality Improvement System) and AACSB (Association to Advance Collegiate Schools of Business).

# Products and Services

## Features:

Port Equipment  
Software & Solutions



4

FOUR





# Port Equipment

**Features:**

CU Phosco  
HYSTER®  
Nectar Group  
Portpack

# Port Equipment

The UK produces a wide array of equipment for use in the ports sector. Its main strength in this area is the production of superior quality products that are built to last, within the tough ports environment and operate to the highest standards.

The cost of major items used inside a port complex means that investing in higher quality equipment is essential. UK companies deliver this added value in what they produce, from heavy trucks and goods handling equipment, through to control systems and security lighting. These products, large and small, offer both a robust and high-performance solution to port industry clients.

This level of quality has been recognised by many overseas port clients. With ports playing a key strategic role within an economy it is good to know that the best equipment will be reliable and will last for years.



The UK ports equipment industry produces quality products that are built to last within the tough ports environment and operate to the highest standards.



CU Phosco. Dover

## CU Phosco High Mast Lighting at Dover Eastern Docks

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

After extensive surveys of the new layout at Dover Eastern Docks, CU Phosco's lighting designers produced a new lighting design for the designated areas that was approved by Dover Harbour Board.

The new approved lighting scheme consisted of the refurbishment of 22 of the existing high masts and the installation of three new high masts; five of the existing high masts were refurbished and repositioned in order to meet the optimum lighting levels required and seven new foundation bases with associated cabling were constructed.

CU Phosco also replaced the 400 existing flood lights, reducing the fittings by over the 40% required. In addition, only 600watt fittings were required for the new scheme. This led to a total reduction in energy consumption of about 50%.

In addition CU Lighting Ltd also undertook other works including the installation of building mounted lanterns and the erection of 12 metre standard columns.

As main contractor CU Phosco were responsible for the entire project from start to finish; initial survey, lighting design, specifications details and drawings, project management and works associated with the installation including cabling, trenching work and installation.

The project has reduced energy consumption and the port's carbon footprint. In addition, the design of the FL500 fitting has achieved a noticeable reduction in the light pollution from the Eastern Docks. The reduction in the number of masts and fittings has reduced the maintenance requirement, further reducing operating costs.





**HYSTER®**  
**Nacco Materials Handling Group**  
**Hyster Trucks – Jabail, Saudi Arabia**  
[www.hyster-yale.com](http://www.hyster-yale.com)

A fleet of 32 Hyster® trucks is being provided to the port of Jabail, Saudi Arabia, together with maintenance, training and service support to S.A. TALKE, part of the German ALFRED TALKE Logistic Services group.

The Hyster® equipment, which includes counterbalance forklift trucks, forklift trucks with Push-Pull attachments and Reachstackers, is required across the site for loading, picking, palletising, storing, transferring goods, and stacking the containers.

Hyster worked closely with its local distribution partner to supply tough, dependable trucks sustained by a reliable service to support a 24/7 operation. The Hyster® equipment was provided on a full service contract, which included standby replacements, training and a team of technicians to ensure the 95% availability target at S.A TALKE is achieved.

Efficiency has been increased at S.A. TALKE thanks to reduced lifting equipment costs at Jubail Commercial Port and faster handling capabilities featured on the Hyster® equipment. Enhanced performance and reduced downtime is delivered thanks to the 24 hour, on-site maintenance crew, which helps S.A. TALKE to effectively manage the equipment and improve overall efficiency.

HYSTER® Nacco Materials. Jabail, Saudi Arabia

**Nectar Group**  
**Bulk handling (bagging) – Somalia**  
[www.nectargroup.co.uk](http://www.nectargroup.co.uk)

Established in 1972, the aim of Nectar Group has remained simple, that is to provide effective and innovative solutions to the bulk handling market across the world. Over the past 40 years Nectar Group has been providing logistical solutions often in challenging circumstances and in difficult conditions. A recent development of the Group has been its involvement in the discharge and bagging of the first bulk vessel to berth in Mogadishu since 1990. The vessel was completed successfully at the beginning of December 2012 and was heralded as the beginning of a new era in Somalia. Nectar Group along with a number of local stakeholders has now opened the way for cheaper and cost effective handling of many commodities in countries such as Somalia.

By providing their global expertise on a local scale and overcoming many of the hurdles, Nectar Group has contributed towards lowering the total cost of delivering goods to the country, and it is hoped that this will assist with promoting a new wave of bulk shipments brought into Somalia. Nectar Group also commenced training for a number of Somali nationals in the use of the equipment and in turn this will develop the talent base and personal development further as the operations continue.



## Port Pack

### Mobile Bagging

[www.portpack.biz](http://www.portpack.biz)

For more than a decade, Portpack UK Limited has provided solutions for direct discharge operations in ports throughout the world. Portpack design and manufacture containerised Mobile Bagging systems for the direct discharge of bulk carriers in the port of arrival.

The Mobile Bagging system is positioned alongside the vessel where free-flowing, dry bulk materials such as food grain and granular fertiliser are unloaded directly from the vessel, via clamshell grabs into a material feed hopper which is situated on top of the Mobile Bagging system. The materials are then weighed and discharged into 25Kg or 50Kg open mouthed bags, which are then stitched. Via Incline Conveyors the filled sealed bags are loaded directly onto trucks for onward distribution or delivery.

Portpack engineers erect and commission the equipment, as well as providing on-site training to both technicians and operators of the equipment.

The highest population of Portpack equipment can be found in Apapa, Lagos Port, Nigeria; Karachi Port, Pakistan; and Port-au-Prince Port, Haiti. Recently, Portpack has provided equipment into Freetown Port, Sierra Leone.









# Software & Solutions

## Features:

Central Systems & Automation Ltd  
Guidance Navigation Ltd  
Inchcape Shipping Services  
International Terminal Solutions  
Ledwood Technology

# Software & Solutions

The UK is a knowledge-driven economy with a rich talent in the ICT world, which has produced a strong and thriving industry.

UK companies have applied this know-how to the ports sector, among many others, with software and solutions to help track cargo, bolster security and take the strain out of processing activities.

UK IT products and solutions for the maritime industry are among the best in the world.

Ports in the UK and overseas are quietly enjoying the benefits of these advanced solutions, which can help improve productivity rates and competitiveness. UK-built systems are also assisting shipping companies around the world to improve the flow of global trade.

As a world leader in the area of technology, the UK's manufacturers survive and thrive through innovation. This forward thinking, in an area in which the ports sector, like other industries, has come to depend, is priceless. Using the right technology can make all the difference on the ground.

Central Systems Automation Ltd. ABP Containers

## Central Systems & Automation Ltd Autostore Streamlines Operations for ABP (Hams Hall Intermodal Railfreight Terminal)

[www.central-systems.co.uk](http://www.central-systems.co.uk)

As one of the UK's premier inland rail freight terminals, ABP owned Hams Hall spans 11 hectares (110,000m<sup>2</sup>), is Channel Tunnel SACTIFF security-approved, has 6,000 TEU of secure storage, four railway sidings and two reception lines. Located near Birmingham, the terminal is adjacent to the Nuneaton-to-Birmingham railway line and handles deep-sea and short-sea traffic to and from ports like Southampton, Tilbury and Felixstowe – as well as traffic via the Channel Tunnel and domestic traffic from Scotland.

The key business driver for Hams Hall is efficient use of resources, space optimisation, minimising non-productive activity and maintaining truck/train turnaround times, in order to ensure customer service levels are maintained and costs are correctly matched to activity levels. At the heart of this efficiency drive sits Autostore, developed by leading intermodal supply chain integrators Central Systems & Automation. Proven worldwide, Autostore is the market-leading software solution of choice for the UK's inland container terminals. For the Hams Hall Team, the central advantage of Autostore is the real-time visibility and fingertip control it delivers.

The installation of a state-of-the-art terminal management system at Hams Hall has improved the efficiency of the terminal's internal operations and provides customers with reports detailing load status, terminal performance, container movements, and road traffic activity.





## Guidance Navigation Ltd Container Handling Sensors

[www.guidance.eu.com](http://www.guidance.eu.com)

Guidance Navigation Limited (GNL) design and manufacture navigation and automation control systems using multiple technology platforms for applications on land and at sea.

Their port automation group develop container-handling solutions for port equipment suppliers. Guidance Navigation's Psi Navigator™ is a land based navigation system for Autonomous Guided Vehicles (AGVs). This family of systems is used by leading equipment manufacturers to satisfy a wide range of challenging automation requirements. Land navigation customers include global material handling corporations Daifuku, Dematic and Schaefer and specialist AGV makers such as John Bean Technologies in USA and BAE Systems in Europe.

Guidance Navigation is also an international supplier of position reference sensors for Dynamic Positioning (DP) and other sophisticated vessel control systems for the marine sector. Guidance Navigation's CyScan™ is the laser sensor of choice for all major DP manufacturers and RadaScan is a novel advanced radar position reference sensor product for long range positioning operations of up to 1000m. Global customers in the marine sector include Kongsberg, Converteam, Rolls Royce, L3 and Marine Technologies.



The forward thinking of the UK's technology companies has provided ports with excellent solutions to improve efficiency and productivity.



## Inchcape Shipping Services A World of Local Expertise

[www.iss-shipping.com](http://www.iss-shipping.com)

Inchcape Shipping Services (ISS) is one of the oldest names in British Shipping.

Headquartered in the UK and covering every key port worldwide, ISS has almost 290 offices in 65 countries and employs over 3,800 people.

ISS provides the shipping industry with port agency services, handling over 70,000 port calls per year worldwide to over 2,500 customers. In addition to this core business, ISS provides an extensive range of innovative maritime, cargo and supply chain solutions to ship-owners and operators who span all geographies, market segments, vessels and asset types.

Forming strategic partnerships, ISS will create solutions to meet all customers' needs. From providing ship operators with innovative voyage management systems, to supplying bespoke offshore project logistics solutions for the oil and gas industry, to supporting the UN Nations in Somalia with the supply of provisions, ISS truly reaches every segment of the maritime industry and beyond, to an ever-growing pool of clients.

ISS's extensive global network, innovation culture and guarantee of compliance to international industry standards, ensures that ISS is achieving its vision to be the world's leading maritime services provider.

GNL Container Handling Sensors



## International Terminal Solutions APM Terminals – Algeciras, Spain

[www.terminalsolutions.co.uk](http://www.terminalsolutions.co.uk)

APM Terminals Algeciras, located in southern Spain at the Gibraltar Strait, is one of the most important and modern transshipment terminals in the world.

International Terminal Solutions (ITS) have considerable experience in the field of RFID, GPS, automation and remote data systems for ports, terminals and logistics operations. ITS offer a range of services, from consultancy and product development, through to system support and maintenance.

Working with this major transshipment terminal, ITS engineers have been implementing systems designed specifically to optimise operations and achieve maximum utilisation from the terminals assets. For this particular contract at APM Terminals Algeciras, ITS were to provide APM Terminals Algeciras with the following electronic systems:

- Position Determination (GPS);
- RTG based VMTs;
- Graphical Vessel interface;
- Equipment Status Reporting;
- User Card ID Authorisation.

The system benefits gained by APM Terminals from the implementation of the ITS devices include container movements automatically identified, real-time planning automatically linked with real-time operations, automatic position reporting of any container moved and a full audit trail for process compliance and damage control.

International Terminal Solutions. Algeciras, Spain

## Ledwood Technology Port of Liverpool

[www.ledwoodtechnology.co.uk](http://www.ledwoodtechnology.co.uk)

Handling 15,000 vessel movements and 40 million tons of cargo each year, the Port of Liverpool is the largest container port on the west coast and fourth largest in the UK overall.

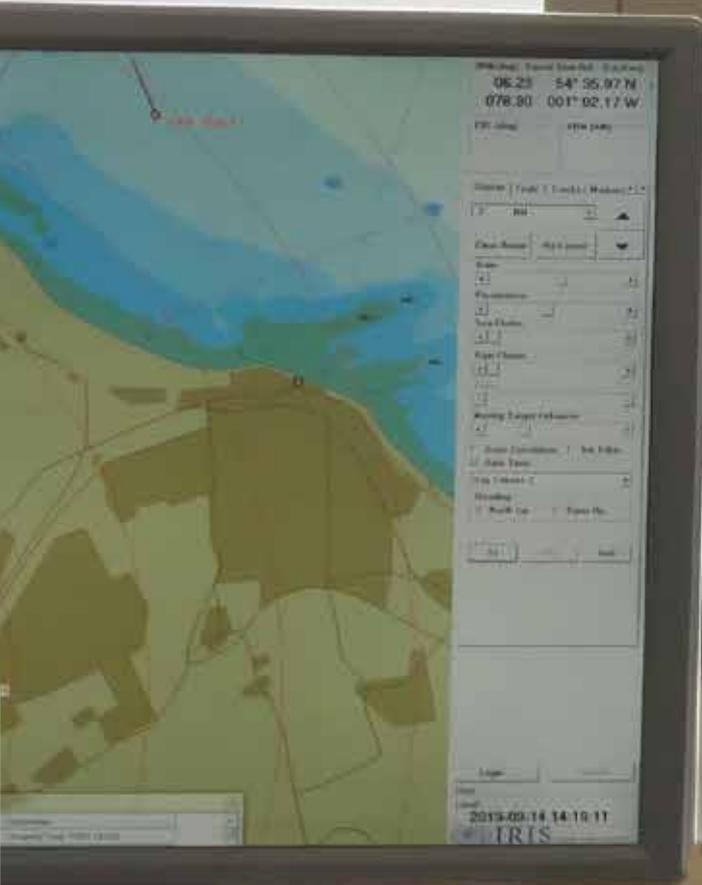
Part of the Port of Liverpool, Point Lynas is a pilot boarding area for vessels entering the port. When a replacement for the Point Lynas monitoring system was required, the Peel Ports Group (port operators) approached Ledwood Technology for a solution.

Teesport VTS handle around 35 million tonnes of cargo, the fifth most in the UK, and over 5,000 vessels each year. Acting as a gateway to Europe; bulk, minerals, containers, oil and gas flow through Teesport all year round. With excellent transport links to all of the north, a number of expansion projects have been running in recent years to deal with their increased demand for vessel turnaround.

The company required an extension to their existing vessel traffic management system which was unable to provide up-river coverage; Ledwood Technology were selected to provide a new state-of-the-art radar sensor system. To be deployed in a suitable location covering the required region of the river, the system included: Radar, CCTV, AIS, Data Recorder, Master Display with traffic monitoring features, and a license exempt microwave link utilised to minimise recurring operational costs.



15:11  
3/14/14





Source: Punchstock



# Here to Help

# Here to help

## **Sourcing from the UK**

This brochure illustrates just some of the expertise held by UK companies that support port solutions globally.

If you require further information on UK Port products and services please refer to the useful contacts page for the Ports and Terminals Group trade association and the individual companies and associations highlighted.

## **Assisting investors**

With unrivalled local access and knowledge, UK Trade & Investment can offer overseas investors unique assistance with regulatory issues, access to industry networks around UK centres of excellence, as well as introductions to sector leaders and business contacts. It can also act as a voice of government for business interests and offer continued support through the in-house investor development network which provides assistance to companies once they have established a presence in the UK.

UK Trade & Investment supports overseas businesses seeking to establish a presence or expand in the UK by providing the necessary support and contacts.

## **Contact us:**

To discuss how the UK can help with your port development contact the British Embassy or Consulate General within your country and speak with a UKTI representative. Alternatively please visit the UKTI website at [www.ukti.gov.uk](http://www.ukti.gov.uk).

"Talk to UKTI, because wherever you're looking at, they'll have a specialist in that area...there's always someone with the answers you need"

*Graham Cartledge CBE, Chairman, Bepo*



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# Useful Contacts

## **Features:**

Ports & Terminals Group  
The British Ports Association  
The United Kingdom Major  
Ports Group  
British Expertise  
The British Security Industry  
Association  
The Association of Police & Public  
Security Suppliers  
The Department for Transport  
The Chartered Institute of Logistics  
and Transport

# Useful Contacts

## **Ports & Terminals Group**

The Ports & Terminals Group (PTG), Society of Maritime Industries, represents the export interests of the UK ports industry sector.

[www.maritimeindustries.org](http://www.maritimeindustries.org)

**The British Ports Association** represents the interests of UK ports, terminal operators and port facilities, all of varying size, location and nature.

[www.britishports.org.uk](http://www.britishports.org.uk)

**The United Kingdom Major Ports Group** is the trade association which represents most of the larger commercial ports in the UK.

[www.ukmajorports.org.uk](http://www.ukmajorports.org.uk)

**British Expertise** is the trade association which represents United Kingdom consultants and construction companies working in a range of sectors including ports.

[www.britishexpertise.org.uk](http://www.britishexpertise.org.uk)

## **The British Security Industry Association**

(BSIA) is the trade association for the professional security industry in the UK.

[www.bsia.co.uk](http://www.bsia.co.uk)

## **The Association of Police & Public Security Suppliers**

(APSS) is the trade association for UK companies manufacturing goods and supplying services (including training and consultancies) to public security agencies worldwide, including port authorities.

[www.appss.org](http://www.appss.org)

**The Department for Transport** determines the government's policy framework for the ports sector as part of its overall responsibilities for safe and sustainable transport.

[www.dft.gov.uk](http://www.dft.gov.uk)

## **The Chartered Institute of Logistics and Transport**

in the United Kingdom is the professional body for those individuals and organisations in the logistics and transport sectors.

[www.ciltuk.org.uk](http://www.ciltuk.org.uk)





# A-Z Case Study Quick Reference

	Page
Beckett Rankine – <a href="http://www.beckettrankine.com">www.beckettrankine.com</a>	26, 45
Belfast Harbour – <a href="http://www.belfast-harbour.com">www.belfast-harbour.com</a> <a href="http://www.investni.com">www.investni.com</a>	14 14
Central Systems & Automation Ltd – <a href="http://www.central-systems.co.uk">www.central-systems.co.uk</a>	70
CU Phosco – <a href="http://www.cuphosco.com">www.cuphosco.com</a>	64
Digital Barriers – <a href="http://www.digitalbarriers.com">www.digitalbarriers.com</a>	52
Drewry Maritime Advisors – <a href="http://www.drewry.co.uk">www.drewry.co.uk</a>	35
Ernst & Young – <a href="http://www.ey.com/UK/en/home">www.ey.com/UK/en/home</a>	33
Exis Technologies – <a href="http://www.existec.com">www.existec.com</a>	53
Fugro GEOS – <a href="http://www.geos.com">www.geos.com</a>	46
G4S – <a href="http://www.g4s.com">www.g4s.com</a>	53
Guidance Navigation Ltd – <a href="http://www.guidance.eu.com">www.guidance.eu.com</a>	71
Harwich International Port – <a href="http://www.harwich.co.uk">www.harwich.co.uk</a>	15
Holman Fenwick Willan – <a href="http://www.hfw.com">www.hfw.com</a>	34
HR Wallingford – <a href="http://www.hrwallingford.com">www.hrwallingford.com</a>	27
Hull University Business School – <a href="http://www.hull.ac.uk">www.hull.ac.uk</a>	59
Inchape Shipping Services – <a href="http://www.iss-shipping.com/">www.iss-shipping.com/</a>	71
International Terminal Solutions – <a href="http://www.terminalsolutions.co.uk">www.terminalsolutions.co.uk</a>	72
JLT Specialty – <a href="http://www.jltgroup.com">www.jltgroup.com</a>	33
Ledwood Technology – <a href="http://www.ledwoodtechnology.co.uk">www.ledwoodtechnology.co.uk</a>	72
Lawrence Graham LLP – <a href="http://www.lg-legal.com">www.lg-legal.com</a>	35
London Gateway – <a href="http://www.londongateway.com">www.londongateway.com</a>	16
Liverpool John Moores University – <a href="http://www.ljmu.ac.uk">www.ljmu.ac.uk</a>	59
HYSTER® – <a href="http://www.hyster-yale.com">www.hyster-yale.com</a>	65
Nectar Group Ltd – <a href="http://www.nectargroup.co.uk">www.nectargroup.co.uk</a>	39, 65
Olive Group – <a href="http://www.olivegroup.com">www.olivegroup.com</a>	46
Port Evolution Management – <a href="http://www.port-evo.com">www.port-evo.com</a>	38, 39
Port of Bristol – <a href="http://www.bristolport.co.uk">www.bristolport.co.uk</a>	14
Port of Felixstowe – <a href="http://www.portoffelixstowe.co.uk">www.portoffelixstowe.co.uk</a>	15
PORTIA – <a href="http://www.portiamanagement.com">www.portiamanagement.com</a>	40
Portpack – <a href="http://www.portpack.biz">www.portpack.biz</a>	66
Ramboll – <a href="http://www.ramboll.co.uk">www.ramboll.co.uk</a>	32
Rapiscan Systems – <a href="http://www.rapiscansystems.com">www.rapiscansystems.com</a>	54
Royal HaskoningDHV – <a href="http://www.royalhaskoning.co.uk">www.royalhaskoning.co.uk</a>	27, 28
Scotland – <a href="http://www.sdi.co.uk">www.sdi.co.uk</a>	16
Trowers & Hamlins – <a href="http://www.trowers.com">www.trowers.com</a>	34
URS Infrastructure & Environment UK – <a href="http://www.scottwilson.com">www.scottwilson.com</a>	28
Wales – <a href="http://www.wales.gov.uk">www.wales.gov.uk</a>	17





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