



September 2010 Vol 55 No 5

PORTS HARBORS

Official Journal of the International Association of Ports and Harbors

Retailers' reality

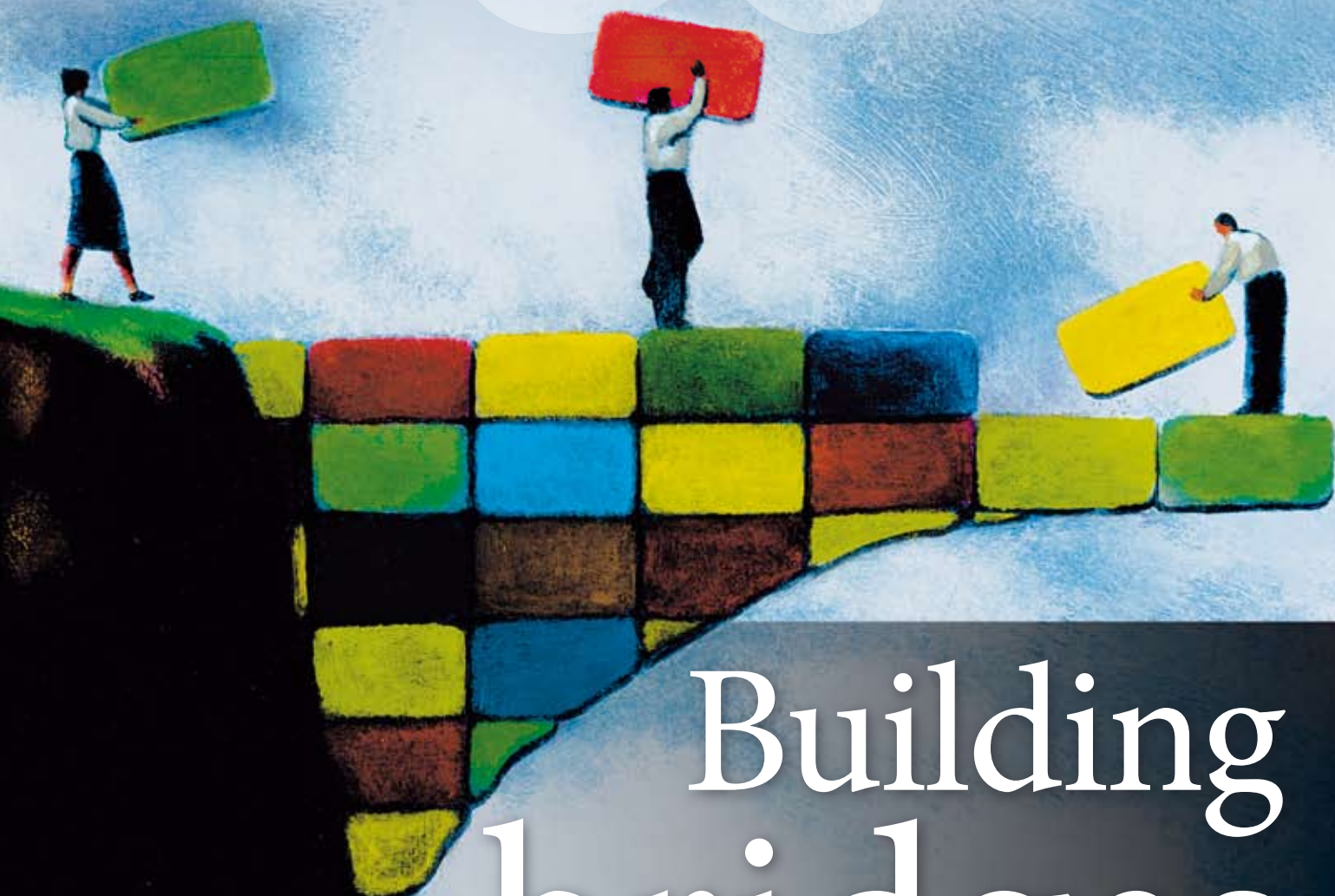
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Putting together a relationship with local people is a good investment for ports

Photo: Corbis

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PUBLISHER

Susumu Naruse
Secretary General, IAPH
info@iaphworldports.org

EDITOR

Penny Allen
penny.allen@ihs.com

SUB-EDITOR

Stephen Spark

ADVERT SALES MANAGER

Daniel Gonçalves
daniel.goncalves@ihs.com

DESIGN & PRODUCTION

Hannah Kidd
Matt Ramsdale
Sarah Treacy
Rebecca Bailey

PICTURE EDITOR

Kelly Bundy

EXECUTIVE EDITOR

G. Paul Gunton
paul.gunton@ihs.com

EDITOR-IN-CHIEF

Tony Slinn
tony.slinn@ihs.com

ASSOCIATE EDITOR

Aya Fujinami
IAPH
ph@iaphworldports.org

EDITORIAL & PRODUCTION

IHS Fairplay
Lombard House, 3 Princess Way
Redhill, Surrey RH1 1UP, UK
Tel: +44-(0)1-737-379-000
Fax: +44-(0)1-737-379-001
Web: www.ihsfairplay.com

SUBSCRIPTIONS

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7th Floor, South Tower,
New Pier Takeshiba
1-16-1 Kaigan, Minato-ku
Tokyo 105-0022, Japan
Tel: +81-3-5403-2770
Fax: +81-3-5403-7651
Email: ph@iaphworldports.org
Web: www.iaphworldports.org

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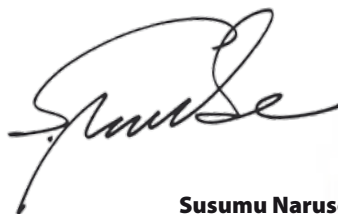
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Gathering momentum

Members should actively encourage shipping lines to adopt ESI, as well as show their support in the fight against piracy



Susumu Naruse
Secretary General – The International Association of Ports and Harbors



“World recovery continues, but risks increase,” is the way the International Monetary Fund sees the world economy. The IMF forecasts growth to rise 4.5% this year, balancing strong prospects for 1H/2010 with the adverse impact of increased financial turbulence. Growth will fall to 4.3% in 2011, but figures differ by region and country, IMF notes. With this in mind, ports should keep pace with the economic recovery and put measures in place now to meet any future demand recovery brings.

The International Maritime Bureau reports good news: there has been a relative decline in pirate attacks in the first half of 2010. It recorded 196 incidents, including 31 hijacked vessels, worldwide. This compares with 240 incidents in the same period of 2009. IAPH adopted a resolution on piracy at our board meeting this year, but members should also support other maritime organisations' efforts until these vicious acts against shipping and seafarers are no more.

Ships and ports should be encouraged to participate in ESI

The Environmental Ship Index (ESI, a WPCI project), is nearing completion, and this month its database of environmental details of registered ships – the engine that drives the ESI system – will be in operation. Once completed, IAPH needs to encourage ships and ports to participate in the scheme.

IMO is also developing the Energy Efficiency Design Index for new ships and a management tool, the Ship Energy Efficiency Management Plan. It may, however, take some time for these mandatory instruments to take effect. While these legal instruments are being prepared, ESI can be used to reduce greenhouse gas emissions from the maritime industry, albeit on a voluntary basis.

The final programme outline for our World Ports Conference in Busan next year was revealed when IAPH conference VP and president and CEO of Busan Port Authority, Ki-Tae Roh, visited Tokyo for the annual IAPH Japan Seminar (see p 5). On 20 September, we will hold an Americas Regional Meeting in Halifax, Canada, in conjunction with an AAPA meeting. The Africa/Europe regional meeting will be in Arusha, Tanzania, in early December along with the 8th Pan-African Association of Ports Cooperation meeting. I look forward to seeing you at these events. PH

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Port updates

JNPT SURCHARGE

Serious port congestion has obliged shipping lines in India to levy a surcharge of \$150 per teu and \$300 per feu on all inbound containers shipped through Nhava Sheva terminals in Jawaharlal Nehru Port. Carriers are refusing to issue delivery orders to importers until they have paid the surcharge.

CROSS-CONTINENT DEAL

Marseille-Fos Port Authority is among 18 French and Tunisian partners that have signed an agreement extending ro-ro traffic between Marseille and Tunis-Rades. This is the first such deal to link Europe and North Africa under the European Union's Mediterranean Motorways of the Sea project MedaMos. The agreement is intended to serve as a blueprint for other 'Motorways of the Sea'.

MED EMISSIONS INITIATIVE

Marseille has hosted the launch meeting of a project to reduce atmospheric pollution at five Mediterranean city ports. The others are Barcelona, Genoa, Thessaloniki and Venice. The French port has already started to investigate shoreside power for ferries under its 2009–2013 strategic plan.

HUMBER WIND

Able UK has unveiled its £400M vision for the UK's leading Marine Energy Park at its Able Humber Port facility north of Immingham, northeast England. The park will include quayside facilities purpose-built for the construction and installation of wind turbines and the development of biomass energy generation.

CHANGING STAKES

Operator APM Terminals and container line CMA CGM have announced new terminal agreements in Dunkirk, northern France, and Mobile, Alabama. CMA CGM's subsidiary Terminal Link has increased its take in Nord France Terminal International in Dunkirk from 30% to 91% through the acquisition of APM Terminals' 61% share. The remaining 9% is owned by the Port Authority of Dunkirk.



Photo: CMA CGM/O. Jardon

Rail freight progress is being impeded by elderly infrastructure and poor cross-border compatibility

Europe's rail lags behind road

Europe's rail freight customers are warning that both ports and railway authorities have much to do to make rail competitive with road haulage. "None of the partners between the port and the hinterland destination is currently making any money," Erich Staake, CEO of German intermodal hub Duisport, told a recent intermodal conference held in Rotterdam. "Rail has to become cheaper and operators have to make a profit."

As an example, he said, current costs of the shunting that is necessary at the port of Antwerp to create enough volume for a viable trainload are 50% of the total cost of rail freight between Antwerp and Duisburg. Antwerp Port Authority is now liberalising its port operations to bring costs down.

The infrastructure at some European ports is inadequate, the

secretary-general of the European Rail Freight Association, Monika Heimig, told *Ports & Harbors*. "In some ports you only have one rail line in and out, and that causes bottlenecks, so some port authorities are considering upgrading their infrastructure."

The relative inefficiency does not end at the port gates, either, according to Heimig. In general, she added, European railways have higher fixed costs than road haulage. "For a start, rail has dearer rolling stock than road plus higher

infrastructure charges: if you want to use rail you have to book a path across Europe and pay for it. Then there are diesel or electricity charges. And where railways are state-owned there is also a lack of competition," Heimig continued.

Europe's railways are still decidedly national in their outlook and infrastructure – for example in signalling and electric power supply – which can restrict the distance and routes on which individual locomotives can travel.

"Physically you cannot put more than four different signalling systems on a loco; there isn't the space for it," Heimig stated. "And currently it can cost you €0.5M [\$645,000] to change locomotives between countries," she added.

The freight corridors being developed by the European Commission's TEN-T executive agency (see *Maritime Update*, p41) will be equipped with an integrated European signalling system called INESS, but it is likely to be a long time before the secondary lines are similarly upgraded. "The corridors will be equipped for this by 2030, but it could take another 20 years for the rest of the rail network to catch up," Heimig said.

Heimig: rail links at some European ports are inadequate



Photo: ERFA

Clean and clear winners

Five maritime and cargo companies won awards on 29 July as part of the San Pedro Bay Ports Clean Air Action Plan Air Quality Awards scheme.

The winning companies are all local to San Pedro, California, USA, and were described as having "taken extraordinary steps to improve air quality".

The organisations honoured were a haulage company, a scrap metal recycler, a marine terminal operator, a tugboat operator and

a port-pilot service provider.

"It's this kind of forward thinking that has helped our ports significantly reduce air emissions, modernise facilities and cultivate new technologies that help ensure good jobs and a brighter future for millions of people," said Port of Los Angeles executive director Geraldine Knatz.

Port of Long Beach executive director Richard Steinke, also commented: "These companies are joining in the ports' vision of a

modern, green seaport complex that reduces its environmental impact while improving its services." He continued: "Together, we are accomplishing the goals of achieving dramatically cleaner, healthier air while continuing to provide jobs to the region."

The Clean Air Action Plan was established in 2006. At the same time, the ports involved called for other port-related industries to commit voluntarily to the same environmental ideals.

Looking forward to meeting in Busan

Embracing Our Future – Expanding Our Scope, is the theme of the 2011 IAPH World Ports Conference in Busan, South Korea, in May next year. Conference vice-president Ki-Tae Roh, who is also the president and chief executive of Busan Port Authority (BPA), announced the outline at the 23rd IAPH Japan Seminar on 22 July, which is organised by the Japanese Foundation for IAPH.

The theme will provide a backdrop to the conference programme, which consists of four working sessions spanning a three-

day period. Speakers have been invited from a wide range of maritime industries and organisations. Topics include: globalisation after the crisis, climate change and ports, port logistics and community systems, and the city and the port.

"The 2011 conference will also provide a unique opportunity to introduce delegates from all over the world to the rich culture of Korea and the Port of Busan, which is the fifth-busiest container port in the world," BPA told *P&H*. Online registration



President and CEO of BPA, Ki-Tae Roh, invites all IAPH members to Busan

starts in October and BPA reminds all IAPH members to make use of the 'early bird' discount. For more information, go to www.IAPH2011.kr.

Port updates

CRANE CLEAN-UP

Georgia Ports Authority has been awarded a government environmental grant of \$2.72M to retrofit 17 of its rubber-tyred gantry cranes with higher-tier engines to reduce air emissions. The retrofit will reduce diesel emissions by one-third over the lifetime of the 17 cranes and will also reduce fuel use.

MALLAIG RENEWAL

Scottish integrity, inspection and corrosion specialist IICORR has successfully completed a £0.5M (\$780,000) project for Mallaig Harbour Authority in the northwest of Scotland. The protection system will prolong the life of the harbor and minimise the effects of corrosion on the steel piles, extending their lifetime by about 25 years.

TAMPA PARKING

Tampa Port Authority has opened a 730-space garage to increase parking capacity and to help with the provisioning of ships docked at nearby cruise terminals. "Large trucks will benefit from the 18ft [5.5m] clearance, ensuring a smoother process of servicing cruise ships," said the port's CEO, Richard Wainio.

BOXES BIG AT TEESPORT

PD Ports has announced that it will channel significant investment into container handling in the first phase of its expansion plans at Teesport, which will ultimately involve an outlay of some \$45M. "The port's overall strategy is to expand port-wide capacity, including ro-ro traffic, to at least 650,000teu," said Frans Calje, MD of Unifised at PD Ports.

FISH FOR PROVIDENCE

A new fishing port constructed on reclaimed land was opened in late June on Providence, Seychelles. Built with \$11.5M of Japanese finance, the facilities include a 110m-long quay with 2.5m depth alongside, an administration building and an unloading shed. Phase 2, which is to be developed as a public-private partnership, will include a fish processing plant.

27th IAPH World Ports Conference

Conferences and meetings

	Morning	Afternoon	Evening
Sun 22 May		Officers' meeting	Cocktail reception
Mon 23 May	Technical committee meetings	Meetings continue	Welcome dinner
Tue 24 May	Pre-conference board meeting/ Opening ceremony	Working session 1	Dinner – beautiful Korea
Wed 25 May	Working session 2	Working session 3	LA night
Thur 26 May	Working session 4	Post-conference board meeting/Plenary session	Gala dinner
Fri 27 May	Optional boat tour		Optional banquet

Registration fees

	Until 31 January 2011	From 1 February 2011
IAPH member	\$2,000	\$2,200
IAPH non-member	\$2,400	\$2,600
One accompanying person	included	included

Port updates

GOING COASTWISE

The Mauritian government is to study the feasibility of returning commercial shipping to the southeastern town of Mahébourg. Apart from a little local fishing and a wartime seaplane base, Mahébourg's seen little maritime activity for 250 years and has no quayside infrastructure. The proposal – which might include coastwise shipping by shallow-draught vessels – has been prompted by chronic road congestion in the capital, Port Louis, but may prove contentious given the sensitive lagoon environment. Phase 2 of Mahébourg's waterfront development, with hotel, retail and leisure facilities on reclaimed land, is due for completion by 2014.

DOGS OF WAR

In preparation for the construction of a new port at Barra do Dande, north of Luanda, some 160ha of land has been cleared of mines left over from the Angola's civil war, according to the National Demining Institute. The mid-year tally represents one-sixth of the eventual target – mine-detecting dogs are to be introduced to speed up the process. The work at Barra do Dande follows refurbishment at Namibe, where a box terminal's planned. The country's railway system is also being upgraded, with Indian investment.

ERITREA EFFICIENCY

A need for more efficient handling of imports and exports is behind a major campaign of refurbishment for the ports of Massawa – linked by rail to the capital Asmara – and Assab, near Eritrea's southern border with Djibouti. Quays are to be extended, facilities repaired and equipment renewed. A new fuel jetty will also be built at Hirigio next year, at a cost of \$33M.

INDIA PORTS BOOM

APM Terminals CEO Kim Fejfer has met government officials in India to discuss terminal and port development projects in one of the world's fastest-growing economies. Fejfer also reviewed progress at APM Terminals' facilities at Gateway Terminals India in Jawaharlal Nehru Port Trust, Port Pipavav in Gujarat and Mumbai.



A retrofit for shoreside power technology at Keppel Shipyard

APL introduces cold ironing

APL is the latest container line to retrofit vessels that use the Global Gateway Central terminal in the US port of Oakland, to reduce emissions while containers are loaded and unloaded. It said that modification of five of its box ships for shoreside electrical power had been carried out with the support of a \$2M grant from the San Francisco Bay Area Quality Management District. A further \$2.8M in state government funding is being used to help electrify the terminal's berths. The project is expected to be completed by early 2011.

The retrofits were undertaken in Singapore by Keppel Shipyard and included the installation of a transformer, housing for shoreside power cables and 8,000m of cabling. The five C-11 class vessels will make 52 calls at Oakland a year, and APL hopes it will cut nitrogen oxide (NOx) emissions by an estimated 23 tonnes annually and particulate matter by an estimated 680kg.

According to Port of Oakland's executive director Omar Benjamin: "Our goal at the Port of

Oakland is to reduce the health risk from diesel pollution from seaport sources by 85% by the year 2020. Shore power is a valuable, new technology that will help clean up the air and promote a healthier community. We are pleased that APL has already started retrofitting their ships to significantly reduce diesel and other emissions from their vessels while docked at our port."

The port told *Ports & Harbors* that at the moment shoreside power is in the preliminary conceptual design phase. Staff are scheduled to go to the Oakland Board of Port Commissioners for approval to accept a grant to move forward to the design phase in September, the port explained.

California is leading US efforts to combat air pollution, including moves to reduce ship emissions at its ports, particularly those in the San Francisco Bay and Los Angeles/Long Beach area. Onshore power will become mandatory in the state in 2014.

On the west coast of the USA this technology was pioneered by the Port of Los Angeles in 2004;

China Shipping was the first ocean carrier to retrofit its container ships and electrify the berths at the LA terminal it leases.

In 2008, Los Angeles' twin port of Long Beach introduced shoreside power at "K"-Line's ITS facility, and the line has completed the retrofitting of five container ships that use the port.

Since then, Matson Navigation, another Long Beach user, has voluntarily retrofitted three of its ships so that it can plug into shoreside power once the electrical berth infrastructure at its Pier C terminal is in place later this year.

The air quality programme has already paid off at Long Beach: in 2009 air pollution fell for a third year in a row. In particular, there were declines of up to 50% for key pollutants such as NOx and particulate matter, according to a report released in June 2010. While some of these reductions in pollution can be attributed to the drop in cargo volume handled as a result of the recession, the port's air pollution levels have fallen far faster than its trade volumes.

Biomass for Rotterdam?

The Port of Rotterdam is discussing the feasibility of locating a biomass trading centre in Rotterdam with the Anglo-Dutch energy exchange APX-ENDEX. The exchange operates spot and derivatives markets for electric power and natural gas in the Netherlands, the United Kingdom and Belgium.

APX-ENDEX will provide the trading platform as well as clearing and settlement services for exchange traders. The Port of Rotterdam will contribute its expertise and know-how with regard to shipping, storage and distribution of biomass products.

Biomass is material used for energy generation that is derived from renewable natural

organisms such as plant matter.

Once details of the market structure have been fixed, major biomass market players will be lobbied, probably in the third quarter of the year – their input will be crucial for the successful launch of this new market. The first commodity traded is likely to be wood pellets.

A biomass exchange is expected to facilitate wider use of biomass products to generate renewable energy. A recent survey among APX-ENDEX members and bio-energy market players indicated that there is a need for standardised, exchange-traded bio-energy products, facilitated by an independent and secure platform.

Quick cap on second Gulf spill

More oil leaked into the Gulf of Mexico when a barge collided with a wellhead on 27 July. The incident follows April's explosion and subsequent capsizing of the BP-leased *Deepwater Horizon* rig, which ruptured the Macondo well, causing a massive oil spill.

The dredger barge *Captain Buford Berry*, being pushed by tug *Pere Ana C* – both said to be owned by Cvitanovic Boat Service of Louisiana – collided with the CEDYCO-owned wellhead in Barataria Bay, next to the Southwest Pass shipping channel leading to Port of New Orleans. The tug captain said the wellhead lights were not working.

Capping operations began the following day to plug both an oil and gas leak. "One of the positive things about having this [BP spill] response is we have a significant amount of resources in Barataria Bay," said national incident commander Thad Allen about the response to this latest spill – estimated to amount to 7,000 gallons (26,500 litres).

That response has included 22.5km of containment boom, 150 workers and more than 30 vessels, including skimmers, boats and barges, according to the US Coast Guard.

Initially, the USCG estimated that it would take about 10–12 days to cap the well. However, Houston-based Wild Well Control completed the closure on 1 August by pumping drilling mud through the wellhead.

Ballast water managed on China-bound car carries

Ballast water systems are being installed on four of Toyofuji Shipping's China-bound vessels, said the shipping company. The first vessel, *Trans Future 8*, went into service in May, and the other three are scheduled for service for this month, October and next April. Toyofuji said it will provide increased capacity and service, in "response to transportation needs such as the increasing numbers of complete vehicles headed for China, and also general cargo".

Other features are said to include a wind wall to reduce wind resistance, hull specifications designed for minimal resistance and "propulsion designed with the latest fluid technology".

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SAVANNAH SUCCESS

Container business at the Port of Savannah grew 25.3% year on year in May, its sixth consecutive month of double-digit growth. Overall tonnage at the terminals operated by the Georgia Ports Authority (GPA), which include Savannah and the port of Brunswick, increased by 12.4%. GPA executive director Curtis Foltz said May was the sixth-busiest month ever for container throughput.

ANTWERP HANDLES MORE

The container volume handled by Antwerp terminals in the period January–June 2010 was up by nearly 20% in comparison with the same period last year, rising from 42.9M to 51.3M tonnes. During the same period, Belgium's major port handled 86.8M tonnes of freight overall, an increase of 12.7% compared with the same period last year.

CHINA BOOSTS BOTANY

For the eighth consecutive month, Port Botany has recorded record growth, largely thanks to growing China–Australia trade. Recently released trade statistics showed performance for the financial year to May 2010 of 1.75M teu, up 5.6% on the same period last year. Chinese traffic represented more than 60% of all volume into and out of the port.

VIRGINIA RECOVERS

Box imports at the US port of Virginia jumped 21% year-on-year in June, but results still lag a little behind 2008 figures. Container imports at terminals owned by the port authority rose to 75,585 teu in June, slightly below the 76,204 teu recorded in June 2008 when the US economy began to decline.

ZEELAND BULKS UP

In the first six months of 2010, Zeeland Seaports showed an increase in throughput, transshipping almost 16.5M tonnes, compared with 13M tonnes in 2009. The growth at the southern Dutch ports occurred largely in liquid and dry bulk. This 25% increase signifies a return to levels similar to the throughput for the first six months of 2008.



Investment in US transport infrastructure is required to meet expected rise in freight demand

US transport needs attention

Port and freight transport infrastructure in the United States needs investment well beyond current levels to maintain its performance, according to a report by the American Association of State Highway and Transportation Officials (AASHTO).

The report, the second of three aimed at “re-booting America’s most essential operating system”, identifies projects in 30 states that would improve the reliability of freight delivery systems. It provides a plan to relieve freight congestion, generate jobs and improve productivity.

AASHTO said the transportation system, which supports the movement of freight into and across the USA, is facing a crisis. Highways, railways, ports and waterways all require investment well beyond current levels to “maintain – much less improve – their performance”. Millions of jobs and the nation’s long-term economic health are at risk, the report’s authors concluded.

They predict that total US freight demand will double from 15Bn tonnes in 2010 to 30Bn tonnes by 2050. Freight carried by trucks is expected to increase 41% and rail volumes 38%.

The widening of the Panama

Canal locks could cause a significant shift of goods from ports on the west coast to those on the Gulf of Mexico and the Atlantic coast – but these ports may not be deep enough for larger vessels or may not have adequate road or rail capacity to meet greater cargo demand.

The findings were endorsed by American Association of Port Authorities’ president and chief executive Kurt Nagle. He told *Ports & Harbors*: “The transportation system that supports America’s freight movement is already facing a crisis, and our highways, railroads, ports, navigable waterways and airports all require investments well beyond current levels to improve efficiency. The addition of the Panama Canal expansion, and the need to accommodate more and larger ships at America’s ports, highlights the requirement to deepen and widen navigation channels.”

The report focuses most strongly on expanding the interstate highway system and also recommends funding a multi-state national freight programme and increasing investment in intermodal connections.

At the AASHTO annual conference, the organisation’s

president, Larry Brown, said that the US Congress “must invest in all transportation modes, from waterways to roads and rails, to get us where we need to be as a competitive nation. Millions of jobs and our nation’s long-term economic health depend on it.”

AASHTO vice-president and Minnesota DoT commissioner Thomas Sorel pointed to the example of the Port of Duluth–Superior, one among hundreds of freight hubs in desperate need of greater investment.

“It’s one of the largest inland seaports in the world, moving iron ore, coal and grain, with specialised cargo facilities lining the industrial waterfront of Duluth and Superior. Yet the infrastructure is currently deficient in terms of capacity, physical condition and safety,” he said.

Speaking from a nationwide perspective, Nagle commented: “The bottom line is that world-class transportation infrastructure has become a competitive imperative, and even though the US has the most fully developed, efficient and productive transportation system on the planet, it’s losing ground due to age and capacity constraints, and needs to be improved.”

Cranes on the move

Conley Container Terminal in South Boston is to be furnished with a pair of secondhand low-profile cranes and four rubber-tyred gantry cranes that Massachusetts Port Authority (Massport) hopes will help meet the challenges of the Panama Canal expansion. The equipment comes from APM Terminals at Port of Oakland in California. The \$1.5M crane purchase is, said Massport, part of its "port modernisation strategic plan for growth and greater economic benefit for the region".

On 2 August the cranes embarked on a month-long, 10,100km journey that will take them through the Panama Canal to Conley Terminal, where they are expected to arrive by mid-September.



Leaving Oakland for Boston... together, the six cranes weigh almost 2,500 tonnes

Piracy attacks dropping

A "relative decline" in piracy figures has been reported by the International Maritime Bureau. IMB stated: "A total of 196 incidents around the world were recorded by the IMB's 24 hour Piracy Reporting Centre, compared to 240 incidents in 2009. This includes 31 vessels hijacked, 48 vessels fired upon and 70 vessels boarded."

Certain countries have been proactive in prosecuting suspected pirates. In the first European trial of Somali suspects, a Dutch court found five pirates guilty of piracy and sentenced them to five years in jail. The men were convicted in June of attacking the 3,254dwt general cargo ship *Samanyolu* in the Gulf of Aden in January last year.

Intertanko commented: "This could turn out to be a landmark case, since apparently the crew did not attend to give evidence in person but provided written testimony, and also since the pirates apparently threw their weapons over the side, but evidence from the frigate's crew that they had used them prevailed." The pirates, who were aged between 25 and 45, were captured by a Danish patrol vessel during their hijacking attempt.

A special court to try Somali pirates was opened in the port of

Mombasa, Kenya, on 24 June. The court was set up at Shimo la Tewa prison after an agreement by several donors, including the EU, Australia, Canada and the UN Office on Drugs and Crime.

The funds are part of a \$9.3M package recently announced by the donors to enable Kenya and the Seychelles to improve their criminal justice systems and deal with pirates in custody.

Kenya has more than 120 pirate suspects awaiting trial, and the government has previously protested that its justice system is not properly equipped to deal with them. Earlier this year, the Kenyan government refused to prosecute any further piracy cases, but restarted cases in May after receiving assurances from the EU.

Mauritius has also announced

that it will build a new court and prison for 50–60 pirates near Pointe-aux-Sables. An agreement with the EU on high-seas pursuit and imprisonment of pirates is due to be signed in October.

The strong international naval presence in known pirate areas is also believed to have had an impact. IMB director Pottengal Mukundan noted that the raiders employ mother ships, from which smaller craft set out to launch attacks. The naval forces patrolling sea lanes are now targetting these mother ships and skiffs.

"The actions of the navies in the Gulf of Aden have been instrumental in decreasing the number of attacks there," said Mukundan. "The Indian Ocean poses a different challenge. Nevertheless, naval initiatives to target and disrupt pirate groups in the Indian Ocean should be applauded and sustained. It is vital that the naval presence continues. The other important factor in the number of attacks being brought down is the actions taken by vessels themselves and the adoption of the best management practices."

An example is Version 3 of the UK Department for Transport's *Best Management Practices to Deter Piracy off the Coast of Somalia and in the Arabian Sea Area*. The guidance can be obtained from www.dft.gov.uk.



Mukundan... applauds naval initiatives

Dredging

DIRECT TO THE DOOR

Infrastructure upgrades are in sight for the main port of Rodrigues, a dependency of Mauritius. Dredging to increase alongside depths at the quay will allow container ships to call at Port Mathurin for the first time – currently, goods have to be transhipped at the Mauritian capital, Port Louis. It's among a variety of port sector improvements included in the five-year work programme announced by the new Alliance of the Future coalition government.

CHRISTOPHE'S ELBE ROOM

Hamburg politicians and businessmen want to see the deepening of Hamburg's Lower and Outer River Elbe. For example, CMA CGM's 13,800teu container ship *Christophe Colomb* can enter Hamburg only when part-loaded and during a certain tidal window. CMA CGM Germany's MD Reinhard Peschel, called for "greater docking flexibility," at the port. He added: "Hamburg offers ideal hinterland traffic connections to central and eastern Europe, including Russia, and productive container terminal operations."

FLUSHING WORK AWARDED

New York City waterway's six-year, \$21M dredging management has been awarded to AECOM Technology and HydroQual. The joint venture will provide dredging design, engineering and permit services to the city's environment department. Work is scheduled to start in Q4/2010 and has been confirmed at Flushing Creek, Flushing Bay, Paerdegat Basin, Bergen Basin, Thurston Basin and Fresh Creek, an AECOM spokesperson said.

MILFORD TO BE DREDGED

Connecticut's Milford Harbor has been sanctioned to carry out a \$35,000 dredging survey. The amount will cover a hydrographic condition survey, sediment sampling and laboratory testing fees. The harbor has not been dredged in over 10 years and the depth has deteriorated from 8ft to 5.5ft (2.4m to 1.6m). Total cost of removing sediment – which will be placed on central Long Island if the material is clean – is estimated at \$160,000.

People

AIRPORT CHIEF TO ADPC

Tony Douglas was announced as CEO of Abu Dhabi Ports Company on 27 June. Previously he was COO and group CEO of UK construction company Laing O'Rourke, as well as chief executive of London Heathrow Airport. In his new role, Douglas will steer development of the company's projects including Khalifa Port and Industrial Zone.

SAME CHAIR FOR HOUSTON

Thomas T Edmonds was reappointed as chairman of the Port Commission of the Port of Houston Authority in June. He was appointed to the position in 2000 following two terms as a commissioner. Under his leadership the port has "implemented some of the most innovative environmental, security and operations initiatives" during a time of growth and expansion, the port said in a statement.

INTERNAL RECRUIT

Port of San Diego's new director of maritime operations is Joel Valenzuela, who previously managed the Maritime Industry and Trade Relations Department. In his new position, which he started on 19 July, Valenzuela is responsible for the direction of the port's maritime facilities and infrastructure, including the cargo and cruise terminals, public piers, wharves and docks.

DAMCO'S NEW CCO

Maersk forwarding and logistics subsidiary Damco has hired Australian-born Wade Thompson as CCO for the Middle East region. He joins the Danish group from CEVA Logistics, where he was director for contract logistics and sales and marketing. Thompson has 15 years' experience in freight, logistics and supply chain management.

PSA CHAIRMAN

Cunard Line managing director Peter Shanks became the 18th chairman of the Passenger Shipping Association in July. He has succeeded Lars Olsson of Stena Line, who is now vice-chairman. Shanks has taken on the role of chairman at a time of sustained growth in the cruise industry and renewed interest in ferry travel.



Photo: US Customs and Border Protection

Free US chassis service phased out

This summer, ocean carriers using US ports have been phasing out the provision of free chassis to hauliers for import and export cargo. US importers and exporters have been warned that the phase-out may increase haulage rates and affect their logistics plans.

The chassis is an undercarriage used to transport containers by road; the US is the only major country where carriers have hitherto managed these chassis.

Some carriers, such as Evergreen and ACL, are phasing out the service completely,

shifting the responsibility of providing chassis to the haulage operators themselves. Others, such as Maersk, have started chassis rental programmes or are committed to chassis pools.

A spokesman for Evergreen explained that it was no longer efficient or economical for the carrier to provide a chassis service to haulage operators, who were fully qualified to manage and maintain their own chassis fleets. Other reasons related to freeing up terminal space, improving operational efficiency and

Chassis services are being phased out by many US carriers

reducing pollution in port areas.

"Burgeoning world trade is impacting valuable waterfront terminal space and projected growth of commerce makes the ongoing storage of chassis no longer viable," Evergreen said in a statement.

A spokesman for Maersk Line told *P&H* that Maersk Equipment Supply Company had formed Direct Chassislink (DC), which now owns, leases and maintains the chassis fleet in North America. "This division of the company is a separate entity from Maersk Line," the spokesman explained.

DC said it would expand its chassis programme to the southeast and Gulf inland regions from early this month. Locations include Jacksonville, Charlotte, Tampa and Fort Worth. About 2,000 drayage (haulage) companies have previously participated in the programme in the southeast, Gulf and Pacific northwest port areas and the northeast, Ohio Valley and Chicago/Midwest areas.

The Maersk rental programme began in 2009, charging hauliers \$11 daily rental per chassis. Operators balked initially at being charged for something that had previously been offered free, but sources familiar with the programme told *Ports & Harbors* that the industry is slowly adapting to the new regime.

Vancouver's Blue Circle of cleanliness

A new award programme has been launched by Port Metro Vancouver to honour the cleanest oceangoing vessels using the port. The Blue Circle Award for the EcoAction Program – formerly known as the Differentiated Harbour Dues Program for Shipping – is described as a user-friendly financial incentive.

"Long-term sustainability is a top priority for Port Metro Vancouver," said president and CEO Robin Silvester. "Our EcoAction Program for Shipping is a unique way of encouraging cleaner ships to our gateway. The Blue Circle Award is in recognition of the EcoAction Program participants' commitment to environmental stewardship," he said.

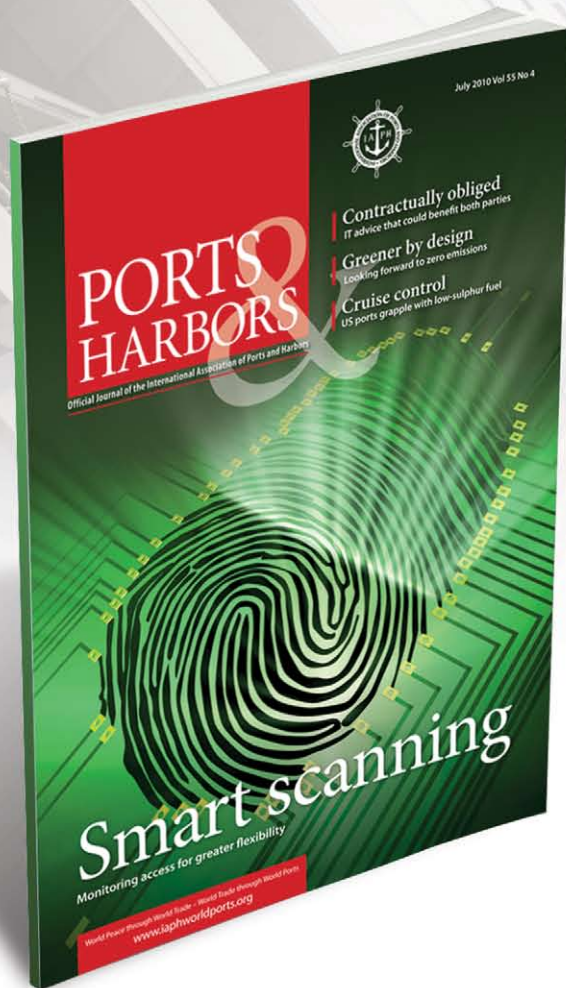
The Blue Circle Awards comprise gold, silver or bronze honours and are awarded according to the

shipping line's efforts to reduce air emissions – "depending on the quality of fuel used and overall emission reductions". Vessel operators can apply for the programme at each call or provide an annual declaration for their vessels, the port explained.

This year's award recipients are:

- Holland America Line
- Hapag-Lloyd (Canada)
- "K" Line Canada
- Maersk Canada
- Princess Cruises
- Regent Cruise Line
- Seaboard International Shipping Company
- SilverSea Cruises
- Westwood Shipping Lines.

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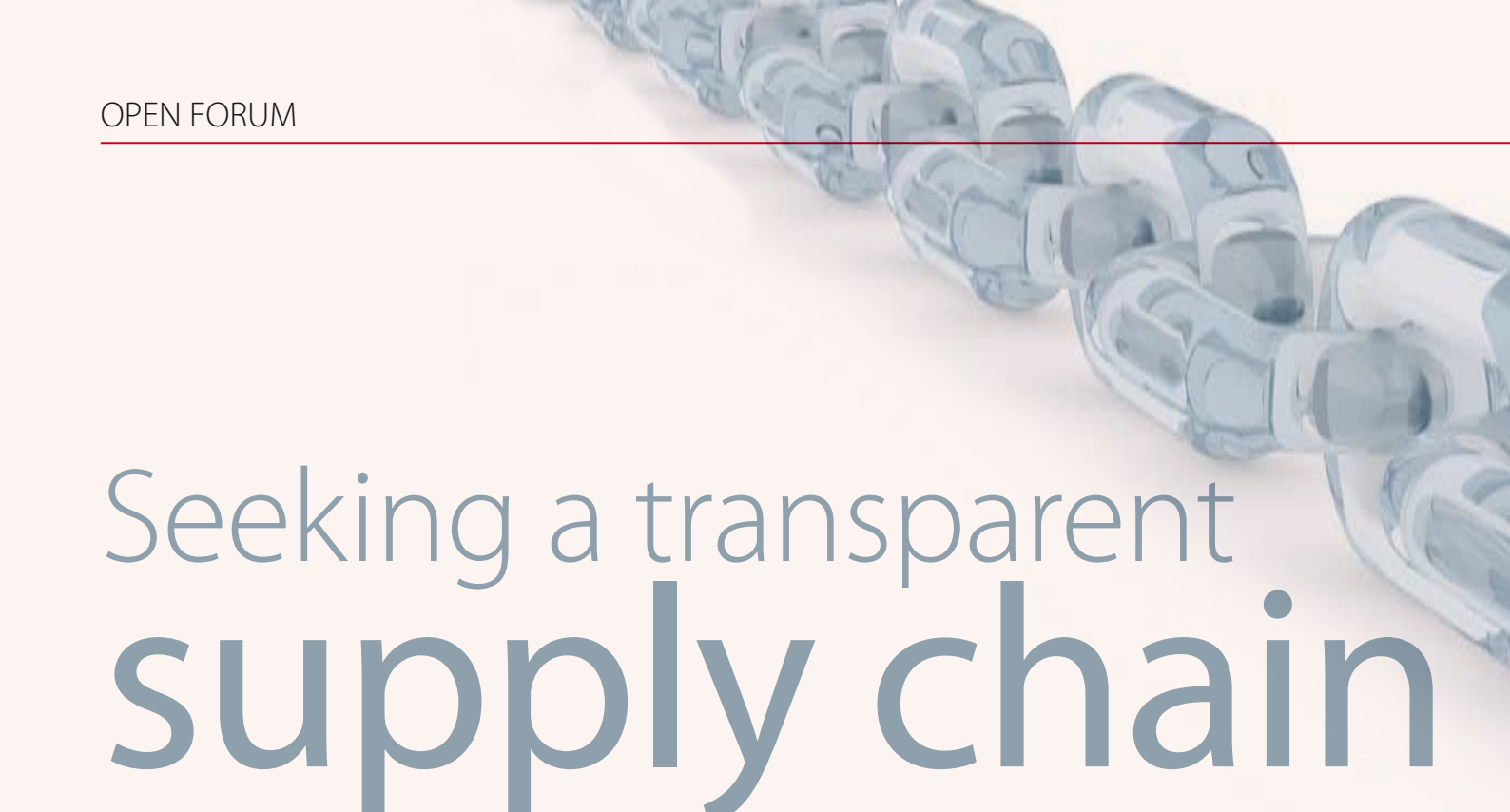
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Seeking a transparent supply chain

Retailers want more visibility in the supply chain and ports should talk to their customers to see how they can help, says **Casey Chroust**, EVP retail operations at RILA

Today's retailers are very different from those of 20 years ago. The challenges of yesteryear no longer apply. In the past, retailers' chief concern was that merchandise got to the shelf; today, visibility and transparency into the process by which they arrive are greater priorities. These concerns go ever further upstream, spreading to ports and the wider supply chain.

Incidents that occur in ports, or indeed in any part of the supply chain, have a tremendous impact on retailers. Delays, for example, greatly affect 'in-stock percentages' – a benchmark by which retailers judge their success. Retailers must have the product on the shelf ready for the customer.

It is crucial, therefore, for retailers to continue to communicate and collaborate with their trading partners. To stay competitive, ports should maintain an open dialogue with retailers and shippers to understand their needs.

As the supply chain evolves, so does its complexity, and the more complex it becomes

the harder it is for retailers to know the status of their goods at any given time.

Today, with the majority of manufacturing taking place overseas, the monitoring process from factory to the shelf has become ever more challenging. Retailers are finding the need to take more control over the movement of goods. In a similar way to ports, they have to be assured of product safety, environmental performance and supply chain security, not only to meet the demands of their customers but also to remain proactive in the policy-making process with lawmakers and other stakeholders.

Retailers therefore share similar challenges to ports as they strive to maintain their position as environmental leaders. They have been quick to realise the associated benefits that can be achieved by optimising performance and the ways in which environmental sustainability can help improve operations and reduce costs. They too have stakeholders and customers that expect to see environmentally responsible business

practices incorporated into their operations.

They want to work with ports to find mutually beneficial ways to collaborate on these issues. They feel the most effective way to meet environmental goals is to work with shipowners and carriers to set targets together. This model has been used successfully in the USA by the Coalition for Responsible Transportation (CRT), which works with ports to improve operations from an environmental standpoint, with an emphasis on reducing carbon emissions without disrupting the critical flow of commerce.

There is no one formula for persuading retailers to use a specific port. The starting point and end destination are important, but retailers look at the supply chain holistically and it becomes a matter of cost, service and value added with other offerings. These additions may include in-port and hinterland infrastructure and warehouse distribution availability or proximity to an inland port.

In today's economic climate, port costs and service levels are big drivers in the choices that


Common ground for sustainable transport

Casey Chroust, executive vice-president of RILA, believes that the Coalition for Responsible Transportation (CRT) is an excellent forum that enables all players in the US supply chain industry to collaborate. It was set up in 2007 and brings together importers, exporters, road hauliers, clean truck companies and ocean carriers.

The CRT Clean Truck Initiative is working alongside US ports and putting money into

equipment to support clean truck programmes. Los Angeles and Long Beach were the first to implement a comprehensive programme, with Seattle, Tacoma, Oakland, New York and New Jersey now also working with Coalition for Responsible Transportation.

"Through CRT ports can establish a framework and set goals to tackle carbon emissions in partnership with other players," said Chroust.



“Time is money for retailers and the order cycle time, of which ports are a part, is crucial”

Casey Chroust: *RILA*



shippers are making. When considering cost, time is money for retailers, and the order cycle time, to which ports contribute, is crucial.

Any shipping option that can streamline operations, increase speed and efficiency, offer environmental solutions and prove cost effective is sure to be well received by the retail industry. Retailers are keen to use all modes of transportation as creatively as possible and to explore the use of modernised corridors.

The use of shortsea shipping, barges and inland waterways is meeting with approval. But for these options to be effective, and to take advantage of the high levels of efficiency made possible by 21st-century technology, major transport corridors need to be updated. Congestion, which causes bottlenecks for shippers, is a significant challenge in the USA and many other parts of the world. In some cases this is because of infrastructure, in others, however, it is because populations grow, change and move.

The corridors that worked 20 years ago don't necessarily operate efficiently today, so new corridors need to be identified and modern infrastructure, such as roads and bridges, built. We have to move forward and find options that suit today's needs.

Retailers can make contingency plans for delays, but maximum efficiency depends on transparency within the supply chain. The better a retailer can manage and control shipments the more proactive they can be when a disruption arises. More efficient modes of monitoring

inventories are here and becoming increasingly necessary.

The retail industry is all about understanding trends and getting merchandise to the consumer on time. To do this, retailers need to collaborate with their supply chain partners and work in concert to plan ahead. There are interesting dynamics to be seen in the manufacturing industry. Maturing manufacturing markets in countries such as China are offering add-on services and increased quality to offset the rising prices of traditionally low-cost labour, therefore other developing countries are emerging as new players in the low-cost space. With these new sourcing opportunities, cargo routes are subject to change and affect the flow of goods through various port locations.

The Panama Canal expansion is expected to create a dramatic shift in the flow of goods through the United States, and ports need to prepare themselves for these changes. The expanded shipping lane will have an impact on cargo movements, with shippers currently opting to ship overland from the west to the east coast, rethinking their routes.

Ports are doing a great job in meeting their environmental regulations and resourcefully reconsidering their options during this period of economic uncertainty. To stay ahead within the logistics chain they should collaborate and talk to shippers, asking the question: "What can I do to better meet your needs."

Not all ports are created equal or have the same characteristics, but open dialogue with retailers could go a long way. **PH**

*The Retail Industry Leaders Association (RILA) is a US trade association
More info: www.rila.org*

Photo: iStockphoto

Coastal ports face a constant battle with sand build-up caused by littoral drift. But with careful planning and the right advice it needn't drag them down, writes **Stephen Cousins**

Few could have anticipated the devastating impact the construction of two breakwaters were to have on the city of Puducherry (Pondicherry) on India's east coast. Erected in 1989 to protect fishing boats from cyclones, the structures severely disrupted the natural movement of sand along the coast, causing heavy beach erosion to the north and the creation of a huge area of land to the south through sand accumulation.

The subsequent installation of numerous rocky groynes, intended to protect the buildings along the coast, combined with a lack of dredging, compounded the problem so that today a total of 8km of beach has disappeared north of the breakwaters, villages have been washed away and the city's once booming tourist trade has fallen into decline.

Scenarios as extreme as this are rare, but littoral drift, also known as longshore drift, remains a serious ongoing problem for coastal ports worldwide. Littoral drift can cause sediment to bypass breakwaters and build up in access channels, which can prevent ships from entering and is costly to remove. Meanwhile, obstructing the movement of sand can cause serious beach erosion downdrift of the port, which most ports are compelled to mitigate or compensate for under environmental legislation.

Various solutions are available to deal with the effects of littoral drift, each of which has different practical implications. These include maintenance dredging, dredging sand traps, the use of land-based plant and excavators, and the installation of permanent mechanical sand bypassing structures. But most ports still fail to manage littoral drift effectively, maintained

Erik de Haas, deputy general manager at Hydrodynamic, the engineering consultancy of Dutch dredging contractor Boskalis.

De Haas told *P&H*: "Too often port authorities request a very narrow scope of work from the dredging contractor, asking them to dredge a certain number of cubic metres of sand from a certain location in the channel, but this only addresses the symptoms of the problem." In his view, by working with a consultancy company the problem can be tackled at its source by finding a sustainable, long-term solution that will benefit the environment as well as reduce the port's total cost of ownership. "In some cases this will mean gains of only a few percent, but in other cases the rewards will be considerably more," he said.

Littoral drift is a global phenomenon and its impact on ports is most severe on the west coast of Africa, the east coast of India, in the eastern Mediterranean and on Australia's west coast. It is defined as the transport of sediments – generally sand, but also coarser sediments such as gravels – along a coast at an angle to the shoreline. The scale of the impact will depend upon the prevailing wind direction and the swash and backwash along the beach.

Structures built within the surf zone significantly affect the natural deposition and erosion of sediments, and entrances to ports on the coast can cause extensive accumulations of sand updrift, against breakwaters and in entrance channels, plus heavy erosion downdrift. The problem is increasing as port developers target coastal locations to take advantage of natural deep draughts.

The extent to which a port influences littoral drift varies according to the port's size within the sand sediment transporting zone, the properties of the sediment, the port's position on the coast, the position and layout of breakwaters, the tidal range, and the direction and strength of the prevailing wave climate. In some cases the effects can be hard to predict, said Tim Chesher, group manager of the Coasts & Estuaries Group at research and engineering consultancy HR



Wallingford: "The east coast of India is affected by north-northeasterly monsoons that push sand toward the south, whereas south-southwesterly monsoons come around Sri Lanka and push sand northwards. Sand build-up around ports in this area will therefore reflect both seasonal effects and the general trend of erosion and deposition."

Removing sedimentation is vital to maintain access channel depths and therefore prevent operational downtime, but the costs can soon escalate. Dredging can cost several dollars per cubic metre of sand and in the worst-affected harbors hundreds of thousands of cubic metres have to be removed each year. The Port of Esbjerg, for example, on Denmark's west coast, has a natural depth of 3–5m, but must be dredged to more than 10m to allow access by container, bulk and offshore ships. Over 1M m³ of sediment has to be removed each year with a dredger mobilised constantly.

The measures ports choose to manage sand build-up will have different practical implications. Permanent mechanical sand bypassing structures are a common feature of Indian ports including Chennai, Paradip and Visakhapatnam. Typically these comprise a trestle housing a pipe and pump, by which the sand and water mixture is sucked up from an updrift area and pumped around the port to a placement site. The systems reduce the need for regular maintenance dredging, but they are expensive and have limited influence, said de Haas. "Coastal morphology is notoriously hard to predict, so placing a permanent structure is problematic, as it can easily be installed in the wrong place. We recommend a 'no regret' solution such as dredging, which can adapt to changes in morphology."

Another expensive, but permanent, option is to extend the length of the updrift breakwater, which can delay or even eradicate the need to dredge the access channel because sand takes much longer to accumulate against the breakwater, perhaps never circumventing the end and entering the channel. There are drawbacks, however, warned Chesher: "This is a dangerous proposition, as creating a 100% blockage to

littoral drift can cause major coastal erosion downdrift, which must be mitigated for, with the updrift coastline building out to a similar extent."

Regular maintenance dredging using trailing suction hopper dredgers is a typical solution to removing sand accumulation in access channels, but these vessels create an obstruction to port traffic. One alternative is to dredge sand traps – large pockets in the seabed – along the updrift side of the breakwater, which trap sand before it enters the channel. Although sand traps will not alter the overall volume of sand that has to be removed, they provide a more convenient location for vessels to dredge, which will not hamper port operations.

A similar measure is to dredge a wider entrance channel to allow sand to accumulate on the updrift side of the channel rather than in the centre. This buffer zone buys ports some time and also means a dredger need only access the side pocket of the channel.

Depending on a port's specific requirements, one of these measures, or a combination of them, could provide an effective and economic solution, but many ports still fail to adopt this kind of joined-up approach to littoral drift, said de Haas. "Ports should instead ask themselves questions like: what measures can we take that work with nature and at the same time reduce the cost of ownership of the port?" he told *P&H*.

De Haas also recommends that ports develop long-term service agreements with their dredging contractor to cut costs.

No single piece of advice can be given when it comes to solving the complex problems caused by littoral drift, but expert advice is at hand to help ports tackle it. Some consultancy companies specialise in physical modelling to predict coastal processes and their impact on new and existing port structures, while large dredging contractors can provide specialist advice based on their extensive experience of dredging ports around the world. "We're challenging ports to ask us to come up with creative and innovative ideas to help them tackle littoral drift. You can be sure we will surprise them!" concluded de Haas. **PH**

Photo: iStockphoto

Restoring faith and depth in Itajaí

Dredging has been a major component in the recovery of this flood-ravaged port, *P&H* learns

Photo: Itajaí Port Authority

Where ocean and river meet... a breakwater helps to protect the port situated at the mouth of the river

Every 20 to 30 years the Port of Itajaí in Brazil experiences heavy floods caused by rainfall. In November 2008 it suffered flooding that killed 130 people in the state of Santa Catarina and severely damaged the port. Two of its four public berths were washed away, resulting in temporary closure of the port and forcing shipping lines to use other ports nearby as Itajaí rebuilt itself.

Now, through two dredging programmes – one shortly after the flooding to restore depth and a comprehensive capital dredging project – and reconstruction of the two damaged berths to provide a total length of 582m, the port is steadily revitalising itself so that it can receive larger container ships and

more readily withstand flooding in the future.

It has taken some time for the port to move forward on these plans. In July last year, Brazil's national audit court, the TCU, investigated the original tender and contract to rebuild the berths, which led to another contract being drawn up. Funding issues also delayed emergency dredging to bring the approach channel depth from 6.5m back to its usual 11m and another contractor was brought in to complete the work. Antonio Ayres dos Santos, Itajaí Port Authority (IPA) president, said at the time: "We urgently need this dredging completed, as the lack of draught is costing container carriers millions of dollars in lost revenues every month."

"Some setbacks due to technical and government paperwork [of a] bureaucratic nature had greatly delayed the reconstruction process in a first stage," the port authority's commercial director, Robert Grantham, informed *Ports & Harbors*, although he also noted that projects are now moving ahead at "full steam". He added: "The conclusion of the berths' reconstruction is scheduled for the upcoming 4 October [2010] if everything runs as smoothly as planned by the Special Secretariat of Ports [SEP]."

The most recent maintenance dredging project involves keeping a 9km stretch of river at a depth of 9m, "so that the water can flow better and thus reduce the flooding," Grantham said. A bonus for the

Rain damage

A number of rivers run through the state of Santa Catarina, southern Brazil, in which Itajaí is situated. The port is located at the mouth of the Itajaí-Açu river, which runs into the Atlantic Ocean. The region has a long history of flooding following heavy rainfall. According to the Japan International Cooperation Agency (JICA), records show that between 1852 and 1985 the area experienced 58 incidents of serious flooding.

Heavy rains from November 2008 to January 2009 were responsible for the most recent major flood, which resulted in 153 deaths, six missing persons and 27,236 damaged buildings. The total number of people affected is estimated at more than two million, according to JICA.



private terminals upriver will be improved draught and the consequent ability to receive larger ships. Van Oord, through its Brazilian subsidiary Somar Serviços Marítimos, was the successful bidder and started dredging in May; it expects to conclude the work towards the end of October.

The more important of the two dredging projects, in Grantham's view, will see the access channels and turning basin deepened from 11m to 14m. It is being funded by federal government under its Growth Acceleration Programme. SEP, which was put in charge of the port's redevelopment in January 2009, issued an invitation for bids in July from three companies selected from the first round of the process. The dredging work, worth \$35.5M, should start by November this year. The port has confirmed that it foresees no problem with environmental compliance, adding that all environmental licences have been issued.

Grantham said: "This project not only contemplates deepening the river, but also envisages widening the channels, so, as to that extent, it will improve the water flow, further reducing the effects of possible floods in the future." But, he added, enabling the larger, third-generation vessels that will be able to access the port complex "is definitely the dredging programme's ultimate goal".

IPA's international media correspondent, Wander Agassi, told *P&H* that the past two years have seen a substantial reduction in long periods of heavy rain. "We've experienced some periods of heavy showers, but fortunately not long-lasting and not sufficient to cause flooding," he said. The local university's weather forecasting service has predicted a much drier season for the next six-month period, in comparison with the previous two very wet years.

Nonetheless, technical experts from the Japan International Cooperation Agency (JICA) are working with Santa Catarina state officials and the GTC (Technical Scientific Group) to create a flood control management programme. They are carrying out a feasibility study within the Itajaí river basin and other vulnerable areas to identify an efficient, low-cost solution to prevent severe flooding in the Santa Catarina area in future. JICA's technicians first visited Itajaí Valley after the 1983 and 1984 floods and proposed a plan that included construction of a flood

Itajaí in figures

Itajaí Port Complex throughput

2007	
Containers	681,852teu
Overall tonnage	7,309,884
2008	
Containers	693,580teu
Overall tonnage	7,008,621
2009	
Containers	593,359teu
Overall tonnage	6,063,152

Source: Itajaí Port Authority

diversion channel, but it was not acted upon due to environmental and financial restraints.

Today, however, IPA is optimistic that changes are on the horizon. Regional development secretary Gilberto Antonio Gadotti told *P&H* that, with JICA's "vital and active role at the forefront of a flood management project, a definite solution to the flood problems that have ravaged the state is closer than ever before".

In the past, IPA has also considered several other options, such as flood control dams situated at various locations along an 80km stretch of river, sand traps to retain sand and other fine particles carried in currents, and flood barriers, river jetties and wood piling structures along the river banks to minimise erosion.

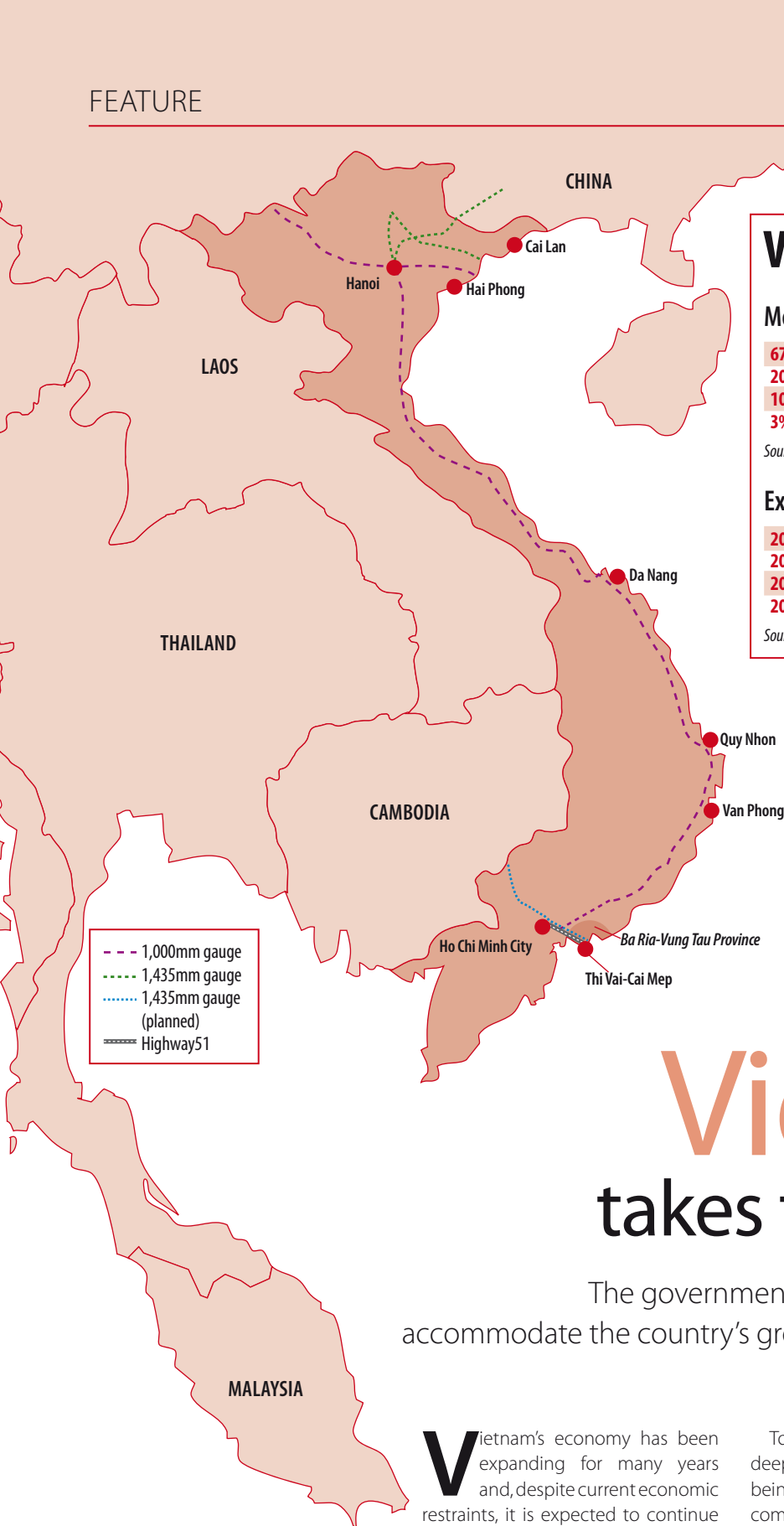
Now, though, the port believes that one of the most effective ways of reducing the likelihood of flooding is improved land use and better spatial planning along the river. One aim of the flood control management programme is to engage local organisations and authorities in natural disaster prevention approaches, calling on their joint efforts to mitigate flood risk and preserve the ecosystems effectively.

IPA also told *P&H*: "Maintenance dredging along [the] Itajaí Port Complex waterway has been highly effective in keeping the navigable depths (11–12m) in check". This will continue, because it allows for larger volumes of water outflow – and, as the authority concluded, it is "also a wise flood prevention measure". **PH**

Reconstruction of the berths is well under way



Photo: Itajaí Port Authority



Vietnam in figures

Moving freight through Vietnam

67%	by road
20%	by inland waterway
10%	by coastal shipping
3%	by rail

Source: Jetro

Expected TEU for southern Vietnam

2011	4,548,000
2012	5,340,000
2013	6,279,000
2014	7,361,000

Source: CMIT

Vietnam takes the highway

The government plans go inland in an effort to accommodate the country's growing import and export trade

Vietnam's economy has been expanding for many years and, despite current economic restraints, it is expected to continue on that upward path. Given that economists link economic growth to import and export volumes, cargo business through the country's ports is likely to see strong growth as well. While world gross domestic product is set to register an average annual growth of just under 3% between 2005 and 2013, the equivalent change in Vietnam is estimated at slightly below 6.5%, according to *Ports & Harbors* calculations based on information from the IMF World Economic Outlook Database.

To facilitate the movement of this cargo, six new deepwater terminals, and a possible seventh are being developed as part of the Thi Vai-Cai Mep port complex 50km south of Ho Chi Minh City (Saigon). Situated on the southeast coast, it is one of five major ports in Vietnam. 66% of the country's imports and exports are handled in this region, according to the Vietnam Ports Association (VPA).

VPA suggests that Ho Chi Minh City is likely to gain the greatest benefit. The association's secretary general, Ho Kim Lan, said that the city will be boosted by its proximity to the Mekong Delta, which sends agricultural products such as rice and seafood to the capital, Hanoi, in the north of the country. It is also at

the centre of a major manufacturing belt, he noted.

Cai Mep International Terminal (CMIT) – a joint venture of APMT, Saigon Port and national carrier Vinalines – is investing in a single-berth facility, as are several other companies. The added capacity takes care of cargoes on the sea side of the port, but the infrastructure to get boxes to and from the port by land is not yet adequate.

As much as 90% of existing containerised cargo is moved by barge between Thi Vai-Cai Mep and its hinterland, Malcolm Gregory, head of commercial at Cai Mep International Terminal, told *P&H*. "At the moment cargo is going by barge to inland ports where it is offloaded and delivered to the factory."

According to Gregory, 55 barge calls are needed to support four vessels a week. The sheer number of barges required is severely reducing capacity at seaports because they take up valuable berths that could otherwise be occupied by oceangoing vessels. Barges alone will not be able to handle the volumes expected, so plans are in place to build and improve the region's roads and bridges.

Thi Vai-Cai Mep is linked to Ho Chi Minh City by a four-lane road, Highway 51. But one lane in each direction is full of motorcycles, squeezing all the other traffic, including port-bound trucks, into a single lane each way.

This in turn means that truck drivers can only make one trip a day, Gregory explained. If, as planned, the road could provide four lanes in each direction, truck drivers would be able to complete two round trips a day, bringing the cost of trucking in line with the cost of barging, Gregory said. Work on the highway started in May 2009 and should be completed by November 2011. Once the road developments are complete, Gregory believes that an equal balance of road and barge transport will be used.

Gregory is optimistic about the commitment that is being shown towards improving the infrastructure in and around Ho Chi Minh City. That view is shared by Barry Akbar, managing director of APL-NOL: "There have been big steps here in the last few years; already you can see it. If you take the highway, they are making a lot of progress."

Gregory added that a motorway, from which two-

Looking deep

The Thi Vai-Cai Mep port complex is taking shape and three facilities are already open. In the upper Thi Vai river, the SP-PSA terminal has been operational since June 2009, along with Saigon New Port's Tang Cang Cai Mep container terminal. North of it, the SITV facility is complete, but has no customers as yet.

In the lower Cai Mep region dredging is still taking place to bring depths at the terminals to 12–14m. Three facilities are under construction in this area:

■ **SSIT:** a joint venture between Saigon Port, SSA International Holdings and national carrier Vinalines

■ **ODA-Cai Mep:** a joint venture between Japan's Official Development Assistance programme and Vinalines

■ **CMIT:** a joint venture of APM Terminals, Saigon Port and Vinalines, due to open in January 2011.

Malcolm Gregory, head of commercial for CMIT, explained that tidal considerations mean that not all of the terminals in this area will enjoy the same depth.

"Our depth is anything between 14m and 20m," he told *P&H*, but other terminals' depths are very tide-bound.

wheel vehicles will be banned, is also planned for the city. Work on the \$850M project is expected to begin in August 2012.

Other types of infrastructure are being addressed too. On a bridge built last year there is an air draught of 45m, which allows larger ships to pass underneath, explained Akbar. By contrast, the low clearance of many of Vietnam's bridges hinders the passage of even small barges. The industry operates a mix of smaller, older barges and larger, newer models of up to 120teu – which is still "not very big", as Gregory noted. The bridge clearance problem generally limits barge capacity to 96teu. There is "not a lot more that they can do without new bridges," Gregory told *P&H*.

The national railway network is also being upgraded, reported Akbar. At the moment only 3% of the country's cargo is moved by rail (see box, left). Most of the network is metre gauge (1,000mm between rails), but the government is considering converting some of the system to standard gauge (1,435mm), which would allow containers to be double-stacked and ought to improve logistics to and from the deepwater ports that are being built. Gregory is not optimistic about the impact that this will have at Thi Vai-Cai Mep, however. He told *P&H*: "I don't think it will help container movement to Cai Mep-Thi Vai, as the distance from the main manufacturing areas is not enough for rail movements to be cost-effective".

The Vietnamese government has looked into various forms of funding, such as from the World Bank, as well as public-private partnerships and build-operate-transfer options.

A masterplan for ports through to 2030 was detailed last year, although not published in full for security reasons. One of the main elements is to build Van Phong International Transshipment Terminal, in Khanh Hoa Province, which would be able to accommodate container ships of 9,000–15,000teu. The gateway port development near Ho Chi Minh City is also part of this strategy. **PH**



Proximity prompts activity

P&H's Asia Pacific editor, **Jim Wilson**, considers China's impact on two South Korean ports

One change in circumstance, but two wholly different responses: for Incheon on the west coast, near the South Korean capital Seoul, and Busan, on the southeast coast, the impacts are entirely different. The change in business environment has been brought about by the return of China as a powerful economy. For northeast Asia, it is the rise of Bohai Bay and Rim area that has had the most effect. "China's economy is better understood more as a collection of disparate economic regions rather than as one

cohesive whole... The capital Beijing and its port city Tianjin are the two most important cogs in the Bohai Rim, a third economic region that prospers from trade with nearby Japan and South Korea," stated economic and information consultancy China Intelligence Online (CIO). In its July report on China's logistics industry, CIO wrote that Tianjin has suffered less than its neighbours from falling throughput over the past couple of years precisely because of its focus on northeast Asian trade.

Driving that business, said CIO, is the local economy in Bohai Bay, where trade accounts for about 9% of national GDP. That's a considerable sum, given that China's GDP was estimated by the IMF at just shy of \$5Trn in 2009.

With state investment, better logistics (including airport expansion and new railways), cheap labour and a free trade zone, the area has attracted processing companies. In turn, these developments are driving imports and exports of raw materials, commodities and both semi-processed and finished goods.

This international processing centre is forcing the two South Korean ports to rethink their businesses.

Incheon is about 440nm from Tianjin in a straight line, so it is an obvious destination for Bohai Bay's exports, and *vice versa*. The port and city of Incheon are just 40km from the centre of Seoul, which is a 60–90-minute bus ride away – they almost form a conurbation. Seoul is, of course, a major economic centre in itself and its population stood at around 10.5M people at the end of 2007. The city's GDP amounted to \$193.7Bn at end 2006 (regional government figures), accounting for 22.6% of the national GDP of \$856.1Bn. "When the city's metropolitan areas are included, the figure increases to US\$408.59Bn or 47.7% of the nation's GDP," the local government website states.

Incheon Port sits within a super-metropolitan region of major economic importance and is not far by sea from another super-metropolitan region of major economic importance. So it would be logical for Incheon to take advantage of this fact and seek to capture the volumes

Busan New Port

Location: A little to the southwest of the existing port.

Construction period and cost: 1995 to 2015, \$10.6Bn.

Planned throughput: Annual capacity of 15M teu.

Economic effects: Income estimated at \$4.24Bn.

Logistics park: 11M m² area, with road and rail links. Connected to Gimhae International Airport in Busan.

Multi-purpose terminal: In operation now.

New Port North Container Terminal: 10 berths, 4,300m quay length. Can accept vessels up to 12,000teu.

New Port South Container Terminal: 11 berths, 3,600m quay length. Can accept vessels up to 12,000teu.

New Port West Container Terminal: five berths to open 2011–2015, 1,750m quay length. Will be able to accept vessels up to 12,000teu.

Source: Busan Port Authority

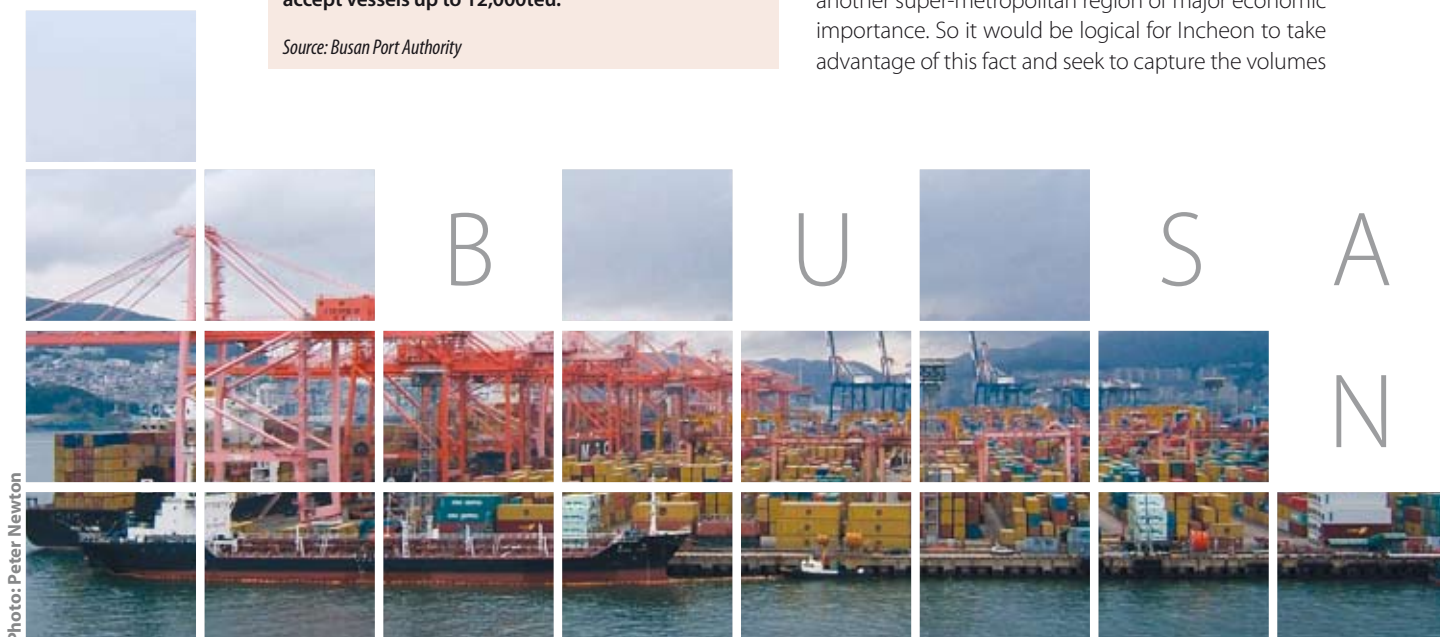
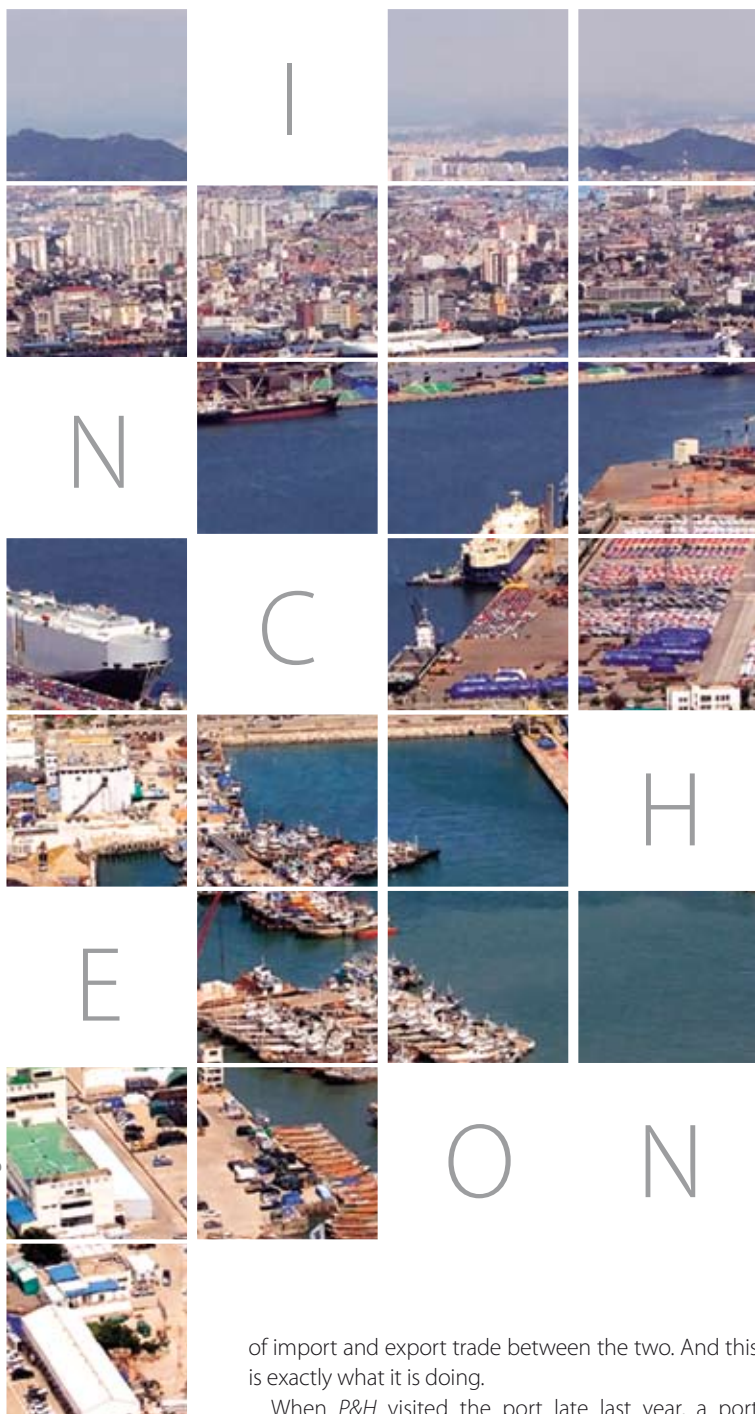


Photo: Peter Newton



of import and export trade between the two. And this is exactly what it is doing.

When *P&H* visited the port late last year, a port spokesman gave information about a \$79Bn investment plan. Plans included dredging turning basins and access channels, building breakwaters and undertaking general development. "We are leasing the hinterland, we are leasing everything," the spokesman enthused and added: "Because China took off, it became important to redevelop."

In the south of the country it is a very different story. Incheon is closer to Tianjin (straightline distance) than to Busan, which is 530nm away by sea. Some 810nm separates Tianjin from Busan, and the port is on the coast that faces away from China.

Running import and export cargoes on a Busan–Bohai Bay route does not make as much sense as an Incheon–Bohai Bay route. Taking, for example, a 2,000teu

Tianjin in numbers

Annual throughput (in thousand teu)

2006	5,950
2007	7,003
2008	8,503
2009	8,700

Source: China Ports and Harbours Association. The 2009 throughput figure is an estimate, cited by China Intelligence Online

box ship with a service speed of 20kt, the extra distance adds about a day's sailing time. With high bunker prices (at time of writing, about \$443 per tonne of IFO 380), considerable extra cost would be involved.

Busan has recognised that both the rise of northern China and the growth of other Korean ports have reduced the competitive advantage that it once enjoyed as South Korea's primary import and export port. It has rethought its options accordingly.

Fortunately, Busan is ideally located to take advantage of the trans-Pacific transshipment trades. "Basically, our strategy is to increase our transshipment volumes," a spokesman told *P&H*. "Transshipment is critical to the Port of Busan. The Grand Alliance is using Busan Port for trans-Pacific shipments from northern China; it has really contributed to shoring up transshipment," he said.

There is substance to this refocusing of Busan on transshipment. Busan Port Authority is in the process of building a whole new port, a little to the southwest of the existing port at a cost of \$10.6Bn. In line with the authority's plans to develop into a logistics hub, the majority of the terminal will be devoted to handling the box business. The three container terminals – north, south and west – will offer 30 box ship berths and will have a combined annual capacity of about 15M teu. The berths will be capable of handling ships of up to 12,000teu. Backing up that capacity will be several logistics parks covering 11M m² which will be well connected to the rail and road network of South Korea. Those parks will also be connected to Busan's International Airport, Gimhae.

He added that carriers choose hubs based on four criteria: location, network, local services and cost. Continuing economic troubles in both the world macro-economic environment and the shipping industry mean that cost is a critical factor.

The spokesman conceded that Busan cannot compete on equal terms with Chinese ports for transshipment cargo, because the latter are 40% cheaper. Fortunately for Busan, cost is not everything, and the spokesman pointed out that his port can compete on the other three criteria. "So we are upgrading our facilities, augmenting our networks by incentivising smaller feeder companies and the terminal operators." And, he added, as Busan is located at the southern tip of the country, there is no deviation. "Also, there is our network. We have about 300 connections per week. We have a connection to 60 Japanese ports and 30 Chinese ports. We are hoping to become the hub for northeast Asia." **PH**



Photos: London Gateway, Jem Newton

Work on the wild side

Jem Newton reports on the meticulous environmental approach that DP World is taking during the early stages of London Gateway's development

Since the start of the summer, migrating birds have been resting and feeding on a new wildlife reserve created by the UK's London Gateway on the River Thames as part of its environmental management programme.

In early July, contractors of port developer DP World breached 300m of seawall just upriver of the proposed deepsea container port, flooding a 30ha area to create new intertidal mudflats. It was the culmination of two years' preparatory work at the former Shell Haven oil refinery on the north bank of the river.

The reserve will compensate for mudflats lost in front of the port site, where dredging and reclamation work have been under way since March. It provides feeding areas for thousands of birds flying south away from the northern hemisphere winter. New habitats will also be created for adders, newts, lizards and water voles, which are being relocated as part of the development work.

Environmental scientists said the reserve would provide sheltered areas that should encourage fish growth and diversity. Creation of the wildlife reserve is part of the port's Mitigation, Compensation and Monitoring Agreement with the government.

London Gateway believes that its overall habitat management programme, which was initiated after it took over the site from Shell in 2000, will set a standard for new port development in the European Union, which has some of the strictest environmental regulations in the world. "We believe we are setting

best practice examples of marine management and that the port will be constructed in balance with its surroundings," said London Gateway chief executive officer Simon Moore.

"The experience we have gained by conducting such a detailed and painstaking project will serve other port construction work," London Gateway's environment manager Marcus Pearson told *Ports & Harbors*. "We're using this as a template for other DP World ports in the Europe region and it has been reviewed by our peers in Dubai."

Pearson added: "I certainly think this is a groundbreaking project in terms of wildlife monitoring and careful relocation; we have looked at other estuarine port wildlife projects current and past and we haven't seen anything as big or technically developed as this."

In April, the operator restarted the wildlife relocation programme that was initiated when DP World acquired the site, inducting 80 workers from two ecology consultancies to work on animal capture and relocation. The work has been conducted under licence from national environment manager Natural England, which described the clearance of wildlife from the logistics park area as the largest such operation it has ever licensed in England and Wales.

"We are now fully operational regarding the trapping of reptiles, water voles and great crested newts. We estimate we could have relocated up to a quarter of a million animals by November when construction work needs to start," said Pearson.



Marcus Pearson:
"The experience we have gained by conducting such a detailed and painstaking project will serve other port construction work"

Many species of local fauna have been found new homes as DP World's London Gateway makes progress

Further compensation habitat for wildlife – Site X – is planned on grazing land on the southern river bank opposite the port.

The riverside area has already been cleared of fauna and contamination, and archaeology monitoring has been completed. "We are ready to do work on the port landside area, but obviously we need to do the reclamation work first," he said. The reclamation will extend the stacking area outwards, positioning the proposed 2.7km-long quay next to the river's deepwater channel.

To minimise any risks during dredging, London Gateway has contracted Geotechnical Engineering and Marine Surveys, an independent company providing meteorological and oceanographic services, to monitor the operation with multi-instrument buoys. The buoys measure oxygen and silt levels and will be placed in environmentally sensitive areas such as commercial cockle beds. The data collected – including water salinity, temperature and speed – will be used to manage dredging activities around the clock.

Environmental management at London Gateway is concerned not only with husbandry of the physical site but also with the creation of software tools to monitor the port's development process. For example, DP World is developing interactive terrain mapping technology that will benefit other modern port operations. Geographical Information System (GIS) software has applications for both the construction phase and port operations. "It's a powerful tool that

London Gateway statistics

Terminal area: 175ha in a 600ha site

Behind the port there is space to develop Europe's biggest logistics park

Capacity limit: 3.5M teu

Quay length: 2,700m

Number of berths: 6

Depth alongside: 14.5m guaranteed at lowest tide

Opening date: subject to market demand; full dredging programme expected to take three to four years

can drive new efficiencies in how we manage our resources," Pearson said.

GIS systems in general have become an essential tool in the last decade for spatial resource planning and environmental management, allowing many types of data to be layered over a local map. It's interactive, so data can be added over time and users can interrogate it and conduct searches.

Pearson explained: "For example, London Gateway has used it to help compile our six-monthly reports for different stakeholders. There is a raft of things being trialled that will hopefully be beneficial to the operating port." He added: "We can make it more efficient for our group managers to look at all the ports in their portfolio and check their status at the touch of a button. That will save time and resources in the long run." **PH**

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Pollution prison – Tromsø will gain a new promenade when these steel cells and the contaminated material they contain are sealed

Sound thinking

A major environmental clean-up operation will rectify decades of abuse to Norway's Tromsø Sound, simultaneously creating new port facilities and re-establishing a people's ancient connection to the sea. **Stephen Cousins** and **Scott Berman** report

Resting in calm, blue waters, surrounded by snow-covered mountains that stretch out majestically as far as the eye can see, the island city of Tromsø in northern Norway must be one of the most idyllic spots in the world. But this city, known as 'The Paris of the North' conceals a dirty secret. Deep beneath its waters, buried in the sediment, lies a century's-worth of contamination caused by shipping and industry.

The Port of Tromsø is now the focus of a major €29.8M clean-up operation. Hailed as the biggest environmental project in northern Norway, the scheme will see around 100,000m³ of polluted material removed from the harbor and sealed up in steel cells that will form the foundations of a new quay.

It's hoped that, once completed, the project will revitalise local residents' historic relationship with the Tromsø Sound, allowing them to bathe in unpolluted

waters once more and eat locally caught fish without fear of being poisoned. Meanwhile, dredging to remove the contamination will permit much larger vessels, including cruise ships, to berth at the port.

The prospect is exciting the local population, said port director Halvar Pettersen: "It has opened people's eyes in this city towards the port – I'm amazed at the level of interest."

Tromsø's legacy of contamination has built up over many decades and the seabed in Tromsø Sound now contains sewage from the town, anti-fouling paint from ships and pollutants from landfill water runoff. The toxic cocktail in the sediment includes polychlorinated biphenyls, tributyltin compounds and polycyclic aromatic hydrocarbons. The problem was so severe that Norway's Ministry of the Environment designated Tromsø as one of 17 'high priority' coastal locations that urgently needed cleaning up to prevent

the spread of toxins to plants, animals and humans.

With limited funding and resources, the government deemed it essential to link these remediation projects to development projects, which would attract local backers to provide funding and keep the projects moving forward.

"About three years ago we [the Port of Tromsø] took the initiative and approached the government with a plan to meet the environmental requirements as well as improve facilities at the port," said Pettersen. After much planning and negotiation, the municipality of Tromsø and the port agreed to fund 67.5% of the €29.8M project, with the remaining €9.7M coming from the state.

As part of the package, Tromsø may soon begin work on construction of a new cruise terminal. Meanwhile, remediation works and related construction are being carried out by main contractor Skanska, working under the direction of KLIF, Norway's climate and pollution control authority.

The focus of remediation is on dredging the top 70cm of contaminated sediment from the harbor and depositing it in 25 secure, sealed steel cells positioned in front of an existing quay. Not only will they act as disposal containers for the polluted material, but they will also form the foundations for a new quay and public promenade.

This technique offers many advantages, claimed Pettersen: "We considered covering polluted sediment with a layer of clean sand, but that would not have given us the 8.5m channel depth we require and by using the sediment to create a new quay we didn't have to move the material to a clean area." With the disposal site located just a couple of hundred metres from the dredging site, the work could also be completed much faster, he added.

Stig Røskar, Skanska's site manager, described the sequential scheduling of the dredging with the installation of the sheet piles that form the cells containing the polluted material as "a complicated logistical challenge".

The walls of the individual cells are formed by steel sheet piles driven deep into the seabed, with each cell bound to adjoining cells using solid steel plates. The cells and their interlinking walls are then clad internally

with a fibre mesh to prevent any seepage of the contaminated material.

Each cell is between 14m and 19m in diameter and can hold an average 1,600m³ of polluted material. In total, therefore, some 40,000m³ of material will be entombed within the cells, supplemented by concrete rubble obtained from the demolition of the existing quay. Later in the process, an additional 60,000m³ of dredged material will be deposited between and behind the cells, along with yet more rubble. Finally, the entire structure will be covered with 50,000m³ of clean rock.

The long line of cells will extend for 650m behind a newly built concrete quay wall, positioned 16m in front of an old quay wall. Once covered, the 650m x 16m area between the two walls will create the new promenade space.

Before dredging could begin, a sedimentation basin was created to treat overflow water from the dredging process, and prevent recontamination of the port's waters. Excess water that flows out when the cells are filled with contaminated material is pumped into the basin, where contaminated particles are able to settle and clean water is returned to the Tromsø Sound.

The extensive remediation work has had an impact on the port's operations and during the 2010 summer season all the port's cruise ship traffic has had to divert to Breivika, 4km north of the city centre.

The need to engage the community led Pettersen and his colleagues to set up an outreach programme to explain the work to local environmentalists, schools and stakeholders. "We had a very good dialogue with the local people and explained fully our obligations to clean up the port and what we proposed to do with the materials," said Pettersen.

As work on the cells continues apace, the remediation project is on target for completion in September 2011, when the quay will be completed and a new shoreside electric power system will be installed for moored vessels. With deeper, cleaner waters the port is sure to attract many more visitors to this spectacular city above the Arctic Circle.

More importantly, however, the work is benefiting the community, said Pettersen. "An important goal is to leave behind for future generations a Tromsø Sound cleaner than it has been for many decades... water quality will improve for swimming, and our people will once again be able to enjoy the delicious locally caught cod and halibut." In short, no more dirty secrets... **PH**

“It has opened people's eyes in this city towards the port – I'm amazed at the level of interest” **Halvar Pettersen**





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The port, a citizen of its city

Olivier Lemaire, general manager at AIVP, believes that a port should promote itself as a local player

The variety and scope of activities that a modern port is able to offer its clients has in turn increased the impact on its surrounding hinterland and local community. A port's strategy and activity is not necessarily understood by all who live close to a port. From this perspective it is possible to understand why local residents might query the cost benefits required to develop a port. This type of discontent has been known to slow down developments, and on occasion expose the project to seriously delays.

Many port cities have put into action projects aimed at regaining the support and confidence of their citizens. AIVP (Worldwide Network of Port Cities), as a network to exchange experiences on city-port projects, is following these initiatives with particular interest.

Both the port and its city need to develop their environments to serve totally different functions. The port has to stay competitive while the city must remain

a pleasant place to live. They need to work together to find a satisfactory resolution for both parties.

Ports might consider putting their activities 'on stage' by developing interface sites, such as viewing platforms, where visitors can observe the port in action. This idea was developed in Japan some time ago and now promenades and observation points are being more widely implemented in ports across the country.

Abandoned port areas across the globe are a dream for architects and town planners. For local people, their development into urban shopping and residential spaces can be a source of pride and a symbol of the city's adaptation to new challenges and new times. Puerto Madero in Buenos Aires was once dismissed as 'no man's land', but after its rehabilitation is considered by many to be one of the most attractive parts of the city.

Nevertheless, collaboration between both parties is not always possible. Sometimes the needs of the



Photo: Port of Oslo



Photo: AIVP

Getting close to the action is easy at Port of Oslo

Entertainment time in Port of Buenos Aires

local community cannot be accommodated and in these situations relocation of the port is the only solution. The Port of Helsinki successfully relocated its activities to a new site at Vuosaari, 14km away from the old port. In contrast, Hamburg decided to optimise and reorganise its spaces to take into account new economic developments. For example, the port's local authority negotiated the relocation of a bulk terminal to allow the port to expand its container activity in the main port area.

These developments have worked well for the

individual ports mentioned, but there is a lot more to working with a local community than physically adapting a port. Many ports and local authorities have been striving to strengthen their communities by improving local residents' perceptions and much can be achieved if this is successful.

A port authority should support a selection of community initiatives to demonstrate its involvement in, and appreciation of, the well-being of the local population. In doing so, the authority should be thinking locally rather than globally by, for example, providing financial support for cultural or sporting events. The aim should be to assert the port's citizenship, as other local enterprises do. Port of Amsterdam, for example, supports the 'Art-on-a-Box' exhibition.

The more local residents know and understand about a port, the more likely they are to be sympathetic to port expansion and development. Ports wishing to integrate more into the local community should work on getting their activities known. If residents are better informed about the realities they are likely to be prouder of their port and they will more open to compromise on certain points.

Activities should be aimed not just at adults, but also children, and could include port visits and art competitions. Public open days for all ages are increasing in popularity at ports all over the world.

Visitor centres have not yet sparked the same enthusiasm, however. Nevertheless, the ports of Rotterdam, Antwerp and Genoa do use this type of experience to offer locals and tourists a chance to learn more about their activities and the important role they play in the community. AIVP hopes that visitor centres will become more widespread in the future.

Whatever activity a port city chooses to engage in to promote itself among local residents, it should not only present itself as a player in globalisation, but also as a community developer that values local citizens' well-being. **PH**

The AIVP is the Worldwide Network of Port Cities; it is based in France and a friendly organisation of IAPH. It is organising the 12th International Conference Cities and Ports, with the theme 'New world, new challenges', from 15 to 19 November 2010 in Argentina. More info: www.citiesandports2010.com

Port city interface – calling all case studies

IAPH is closely monitoring the changing relation between a port and its city through a project being carried out by its Port Planning and Development Committee, chaired by Wolfgang Hurtienne, managing director of Hamburg Port Authority. The committee, in conjunction with Port of Hamburg, has analysed the first in a collection of best practice examples of port development projects in cities. Particular attention is being paid to examples of successful solutions that have resolved conflicts of interest between the

port and the city. This data was collected by both parties as well as by AIVP. The next step is to expand the collection with more examples, with aim of making this research available so that it may be used as a resource by planners involved in future projects at the port city interface.

Hurtienne told *P&H*: "It is a pity that all ports have to do this by themselves without any form of communication from other ports." Many types of solution could be considered. Taking Hamburg Port Authority's approach to noise

emissions as an example, he explained that both technical and organisational solutions are relevant:

Technical – a project to reduce the noise emanating from container terminals

Organisational – establish an advisory council to facilitate regular meetings between the port and its neighbours.

If you would like to put a case study forward, please visit the IAPH website at www.iaphworldports.org and your project's send to bestpracticecases@hpa.hamburg.de

CASE STUDY 1

The people's perspective

Long-term dialogue with local residents has resulted in a meaningful relationship at Port of Ghent

The Port of Ghent has pioneered a ground-breaking approach to port development that has proved successful despite the economic downturn. For nearly two decades the Belgian port has invested its time and effort in establishing a dialogue with the local

communities adjoining the port and its 32km access canal to the River Scheldt.

"The red thread running through the Ghent Canal Zone project has been long-term, sustainable dialogue with public and private stakeholders to help define the port's future," said the port's vice director-general Peter Mortier. Out of this has come a strategic plan for the whole zone, the key feature of which is a network of local relations that has expanded the social framework for deciding port activities.

"The port's action programme includes not only spatial planning and the environment but the whole spectrum of issues that affect the general public," added the port's research and strategy adviser, Saskia Walters. "Each year we agree with local groups a list of actions to be taken, including a timeframe so we can assess later whether deadlines have been kept to."

The port had its first contacts with local communities in the early 1990s as a result of its poor public image and complaints over issues such as noise, coal dust and other

“Before the plan
there was always a
hostile situation”

Peter Mortier

Vice director-general, Port of Ghent



Photo: Jem Newton

Contact with the community

CASE STUDY 2

Citizens at the centre

Gijón Port Authority president **Fernando Menéndez Rexach** describes the activities that won the port the 2009 ESPO Award on Societal Integration of Ports

As part of its strategic plan, the Port of Gijón has pursued an active port-city policy over the past three decades. After the industrial crisis of the 1980s, the port was instrumental in refurbishing extensive coastal areas that previously were occupied by obsolete industries, encouraging a mix of commercial, new industrial, civic and leisure activities to take root with the aim of turning Gijón and the wider Asturias region into an enterprise centre.

The port developed part of the industrial wasteland

into the largest marina in the region, with 850 moorings. Around this, an ocean boulevard for pedestrians was built and, in the early 1990s, two public beaches were created in the west of the city, giving inhabitants direct access to the sea inside the city boundaries. These beaches have helped shift the city's urban development. Several built-up areas in the western zone have been regenerated, allowing public access for the first time in decades. The port has also built a sea aquarium and a thermal spa.

In parallel, the port has embarked on a policy of

industrial emissions. "Before our strategic plan there was always a very hostile situation – people saw only the downside of having a working port on their doorstep," Mortier told *P&H*.

Mortier continued: "By the end of the 1990s we had achieved a target vision of how to tackle the issues facing the canal zone. One of the main results of the plan was the creation of a platform on which we could talk to local stakeholders and give them all a voice."

The dialogue-building approach to port-community relations attracted interest from ports worldwide and Ghent was singled out for special mention during last year's first ESPO Award on Societal Integration of Ports.

Mortier is proud of the quality of dialogue the port has established with local residents: "If you give people the right information at the right time and people can see in practice that what you say is so, you can establish good communication even if people are not necessarily happy about the situation." Walters supports this approach: "We value the fact that the body co-ordinating the activities is independent of the port's economic strategy."

Mortier said that in at least two of the seven village communities around the port there were enthusiastic groups of people thinking and acting proactively with regard to port-community relations. One of those groups represents the village of Sint-Kruis-Winkel, on the eastern bank of the Ghent-Scheldt canal. *P&H* talked to its spokesman Kevin Reygaerts.

"In a small country like Belgium there is no room to



Photo: City of Ghent

Residents from villages close to Port of Ghent meet to discuss its development plans

locate industrial zones away from populated areas, so companies are obliged to take local communities into consideration," he said. "As a local group we're in the best position to say what problems and issues affect us."

"When we set up our local group we quickly came to the conclusion that we had to consult with stakeholders from the whole Ghent canal zone. For this to happen, partnership with local companies, residents' groups and civic bodies has been crucial."

Mortier has words of caution for port authorities keen to emulate Ghent's success in its dialogue with local residents: "I know that ports are keen to learn how we did it, but the key factor is that it takes time – it's a process on which we have already spent more than 15 years"

Walters told *P&H*: "This kind of project is a very complex journey demanding not only intensive communication but, maybe even more important, the mental shift that had to be made by the authorities involved." **PH**

Three European ports' have implemented different approaches to fostering a beneficial two-way relationship with their local communities. **Jem Newton** discovered that they all have value

integration to strengthen links with the citizens of Gijón, through an ambitious programme of sponsorship of cultural and sporting events and by staging exhibitions to explain the port's history and its links with the city. It also organises visits for more than 3,000 children to learn about the port every year.

The port's initiative – co-ordinated with local business associations and official bodies at city, regional and national level – has also resulted in May this year in the hosting of a European Maritime Day to coincide with Spain's tenure of the rotating EU presidency. The event attracted more than 2,000 delegates, who attended a total of 120 workshops. The event was supplemented by a number of exhibitions, presentations and visits to naval attractions that were attended by 40,000 visitors.

The Port Authority of Gijón hopes that winning the 2009 ESPO award for societal integration will help it to consolidate its aim of placing its citizens at the heart of port-city relations and enable it to build on their support

“Placing citizens at the heart of the port community is our aim”

Fernando Menéndez
President, Gijón Port Authority



Photo: Port of Gijón

for its activities. A public survey that the port authority conducts periodically revealed that today it can count on 81.7% of those polled as having a good or very good opinion of the port. **PH**

CASE STUDY 3

Getting to know you

Once a year Rotterdam opens its gates and invites the public to tour the port

When this issue of *Ports & Harbors* was published, Rotterdam was holding its well-established World Port Days – a three-day event on the first weekend in September. “World Port Days has been in existence for 33 years this September,” chief organiser

Sabine Bruijninx told *P&H*. “The event started modestly to meet the desire of local inhabitants to learn more about the port, but its national and international renown has grown and with it the duration of the event.”

Visitors using bikes, boats, trains and buses have a rare opportunity to access much of the working port for a guided tour. “It also has an English-language element, with information and guided tours. This is an aspect we hope to expand in the future to make the event even more attractive for foreign visitors,” she said.

This year’s theme is ‘An accessible future’ and the focus is on Rotterdam’s accessibility as a port, its future potential for growth as typified by the Maasvlakte 2 reclamation project, and the fact that the port can have no future without encouraging a ‘green’ and sustainable way of



Accessible to the public... Rotterdam's World Port Days have been a hit for 33 years

Photo: Port of Rotterdam



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thinking, she added. Bruijninx also drew attention to the theme's focus on young people and the possibility of them living and working within a port city in the future. "The port and city are closely linked together and have an international profile on the world map."

The event includes demonstrations of the many types of vessel working on the River Maas, complete with helicopter and aquatic stunts. On the quays, local businesses demonstrate their skills and wares, and offer visits to boats and port-related attractions. "A number of firms have asked to take part in the [World] Port Days because of its jobs market potential," Bruijninx said. The programme culminates on Saturday evening with a sound and light spectacle featuring music and dance, ending in a grand firework display.

Despite the success of the World Port Days, response was disappointing for a venture launched in 2009 called Rotterdam Port Experience. This was intended to be a permanent exhibition in the city centre where local and international visitors could gain an impression of the port as a dynamic whole. The attraction closed in July.

Also in 2009, the Maasvlakte 2 reclamation project opened a visitor centre. FutureLand gives an overview

“Firms have asked to take part because of the jobs potential”

Sabine Bruijninx

Organiser, World Port Days



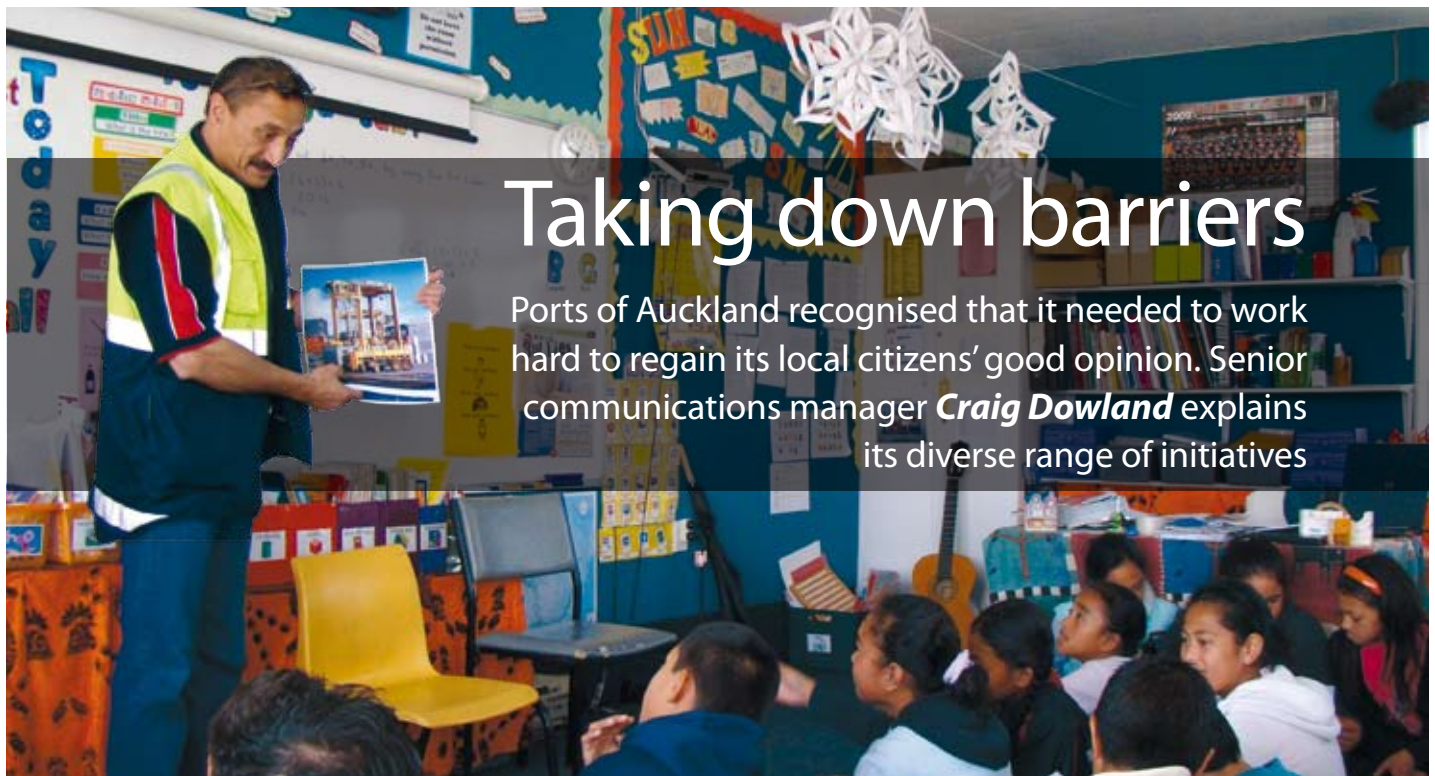
of the way the new port development takes the needs and concerns of its environment into account. This information is intended both for local residents keen to monitor the reclamation and development programme, and for a more general audience, for whom the construction of Maasvlakte 2 is a further chapter in the Netherlands' long history of successfully completing ambitious marine engineering projects. **PH**

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Taking down barriers

Ports of Auckland recognised that it needed to work hard to regain its local citizens' good opinion. Senior communications manager **Craig Dowland** explains its diverse range of initiatives

Back to school... young children are introduced to the important role a port plays

The Port of Auckland in New Zealand has always been an important part of the city. For much of its early history, the port was generally seen in a positive light. There was no reason to question its place. Regional and urban growth, however, has put pressure on the city's infrastructure, particularly transport, and this has had a knock-on effect in terms of the perception of the port. Over the past 20 years, therefore, the port has had to work harder to ensure the community, particularly its close neighbours, fully understands its contribution to the city.

The port closest to Auckland city centre, the Port of Auckland, is one of two seaports and one inland port that comprise Ports of Auckland. It is located in the harbor itself, just across the road from the central business district. Urban growth has seen a rejuvenation of downtown Auckland, with developments prompted also by New Zealand's America's Cup success, and hosting of the sailing regatta in 1998 and 2002. Those developments put pressure on Ports of Auckland land and helped galvanise the port into taking a different approach: working to understand other waterfront activities. The port wanted to be a positive contributor to the city in a wider sense, including releasing land for marina and property development.

Ports of Auckland regards it as imperative that the local community appreciates the role it plays in the region; if this support is lost, public owners will find it harder to justify investments in the port's growth. The port handles trade equivalent in value to 15% of the country's GDP, yet research suggests that many people do not understand the important position the port holds in the supply chain. By contrast, there is greater awareness of the historic Red Fence – an

ornamental wrought iron security fence built around port facilities between 1913 and 1923. Portions of it are now heritage-protected, but some residents still see the fence as a barrier between the city and Auckland's beautiful harbor playground.

Acknowledging this perception, Ports of Auckland has commissioned a Community Relations Monitor – an online survey sent out to a cross-section of Aucklanders. The survey is conducted every six months to gauge progress towards enhancing the level of local understanding of the port's activities. Participants are asked how aware they are of communication activities and how the port is perceived generally. Results suggest that good progress is being made, although, because some community and sponsorship initiatives are relatively new, their impact may take some time to reach citizens. As this is written, another survey is being undertaken, with results anticipated shortly.

The port authority is trying to improve relations with its community from both a technical perspective, for example reducing noise volumes and land release, and an interpersonal perspective through its various community programmes.

Negative views of the port area have primarily focused on both noise and visual impact. A high proportion of freight to and from the port is carried by truck, so traffic volumes, truck noise and emissions through the downtown area are problematic. That latter issue has been addressed to an extent by improvements in motorway access to the port, and also by Ports of Auckland's strategic investment in an inland freight hub that has both rail and road links to the port.

Since 1996 Ports of Auckland has released around

70ha of its downtown land back to the city, which it has achieved by developing its services to the eastern part of existing port land. This has been made possible through containerisation of freight and investment in developing the container terminal operations via land reclamation and technological advances. It is not so much relocation as a concentration of activity, as the port has still managed to grow through this period. Further intensification is expected, as freight volumes are predicted to rise by 75% in the next 20 years.

To address some of the negative public perceptions, the port has implemented an active programme of community engagement, such as publishing a community newsletter in local newspapers every quarter, and initiating a round-the-clock telephone line for public feedback.

In 2009 Ports of Auckland met with interested parties and established a Community Reference Group, working under a jointly developed charter, which meets quarterly to discuss port-related matters. This allows the port to talk directly, openly and constructively with its neighbours about the challenges of being a city port. Feedback during these discussions has often focussed on alarm noise from straddle carriers operating at night. These alarms, however, are necessary for port workers' safety. As a result, the port authority carried out tests and it was determined that the alarms had to operate at a certain level by day to be heard above the significant noise of day-time city traffic. At night, when this noise is reduced, the alarm noise could be of lower volume without sacrificing safety. As a result, earlier this year, the straddle carriers were retro-fitted with lower-level night-time alarms. Feedback was positive.

The Community Reference Group has also provided an opportunity to discuss the use of the fumigant methyl bromide, used to treat some exports and imports as a bio-security measure. An attendee suggested that an odour be added to the gas so that it be more easily noticed – particularly in the event of a leak. The port authority thought it a good idea, so added it to its submission to New Zealand's Environmental Protection Agency.

Under a community programme, members of the executive team contribute their leadership experience

Panama looks on with pride

The Panama Canal Authority (ACP) has had an information centre overlooking the Miraflores Lock since the 1960s. Its purpose has remained unchanged: to inform visitors about the canal's operations and activities and to offer them the opportunity to view operations at close quarters.

"In the late 1990s, with the arrival of passenger ships in Panama, the need emerged for a larger structure to accommodate tourists, so the administration invested in the construction of a large and more modern centre," ACP told P&H. It receives visitors from both the provinces and Panama City and is said to be well patronised on weekends and holidays – from October 2008 to September 2009 some 579,000 tourists visited the centre.

Before 1999 many Panamanians believed that they were not permitted to enter the canal area, said ACP. The authority explained that the centre "has helped to educate the public, correct many misconceptions on the operation of the waterway and update visitors on the progress of the historic canal expansion programme. In addition, the Miraflores Visitors' Center provides opportunities for Panamanians to interface with international tourists."

The local community is said to be impressed and proud when they hear how many ships pass through the canal each year and the canal's contribution to the Treasury.

to boards at two poorly funded primary schools close to some of the port's operational areas. Free boat tours of the Waitemata harbor for five-year-olds and upwards have also proved popular, as they allow the public to view operations without having to enter customs-controlled areas.

A 'visual amenities' audit was commissioned from a New Zealand environmental planning and design consultancy last year after a stakeholder survey and a community monitor survey both found there was a poor impression of the industrial and operational elements of the port. Plans are not yet finalised, but are likely to involve tree planting, the redesign of certain areas and developing sightlines that improve views to and through the port to the sea.

With all eyes on Auckland as it hosts the Rugby World Cup from September to October 2011, the port is keen to be a positive contributor to global perceptions of Auckland and New Zealand. PH

All aboard for Seeport Week, when Ports of Auckland hosts free bus tours for all ages



Receiving and refusing refuse

Port waste reception facilities and associated costs vary greatly from port to port and region to region. **Steve Valentine** reports

Can this port receive and handle the waste my vessel is carrying, receive it by a particular date or within a certain number of hours, and will it charge a reasonable fee? These are questions faced by masters and shipping companies but, unfortunately, waste reception facilities in many ports can only be described as inadequate.

Some operators have described the situation as a disgrace, because certain ports charge too much per visit or lack adequate facilities. In many cases, waste reception systems do not function and skips are not in place. Operators sometimes have to apply for a lorry at their own cost just to offload a few sacks of rubbish. At times, private companies are hired to dispose of a vessel's waste using road vehicles and may require several days' notice. That causes problems for tramp ships, as they may not know their next port of call or time of arrival until just a few hours beforehand.

Jacob Sterling, general manager of the Sustainability Department of Maersk Line believes there is a great deal of variation between the different standards of facilities provided at ports. He told *P&H*: "In some ports the waste is disposed in an appropriate way, whereas in other ports all the waste ends up in the same dump."

Maersk Line tries to counteract this by separating waste and landing it under separate categories.

"We see the need for improvement in many ports, especially those located in the developing world. So far, we have rated 60 ports worldwide on their ability to handle waste and sludge," he said, adding that waste reception facilities should be part of the basic service. "Actually, some types of waste – such as sludge – can have a value to the ports when handled correctly," he pointed out.

Sterling also believes that if better waste disposal facilities were made available it would result in more environment-friendly disposal of waste within the shipping industry. This view is echoed by Henri van der Weide, policy adviser for safety, security and environment at the Port of Amsterdam and member of the IAPH Port Safety and Security Committee. Providing adequate waste reception facilities is a step towards ensuring masters and crew do not discharge waste in areas that are unsuitable and potentially hazardous to the environment, he told *P&H*. He believes that there should be a worldwide exchange of waste information between authorities.

The IMO publication *Guide to good practice for port reception facility providers and users* (MEPC.1/Circ.671) gives guidance to



Skips are not always in place to receive waste

ships' crews that is aimed at helping them comply with the associated regulations stipulated by the MARPOL Convention, and also to ports to provide adequate, timely and efficient facilities. The guide also includes a series of circulars: the form to be used for reporting inadequate waste facilities in port; format to be used by masters wishing to give advanced notification and details of waste he wishes to be received ashore; and, the format for the waste delivery receipt.

A section on good practice for ports is also included, but legal requirements are dependent on the port state's individual legislation. From a European perspective, how a port should receive a ship's waste is defined by Directive 2000/59/EC. In the USA, Federal Regulation 33 CFR 158 on garbage stipulates the required procedures.

Speaking from a Dutch perspective, van der Weide explained that procedures and conditions are regulated by the environmental authorities at national level and not by the port authorities. These regulations take into account European legislation. "There is still the ongoing difference of interpretation between the public and private law," he told *P&H*, "which may lead to unwanted situations." Van der Weide continued: "According to the public environmental law, the port reception facility is responsible for the waste after receiving" and at that time becomes the owner of the waste. According to private law, until there is a signed contract, the ship is the owner, even if the waste is already being transferred to the port reception facility, he explained.

He pointed out that ports are naturally very careful before they start the transfer of a vessel's waste, and providing samples and waiting for analyses of different types of waste can cause delay to ships.

Good practice, as under MEPC.1/Circ.671, dictates that all inadequacies should be reported to the flag state, which then relays this information to IMO. This information should then provide a guide as to which region's facilities are lacking.

Amsterdam Port Authority charges a basic fee for waste reception facilities, said van der Weide. "The 'polluter pays' principle is applied, either in a direct way (cargo-residues) or indirect way (ships' waste) by means of an environmental fee. Waste is not seen as a commercial tool for attracting shipping lines, it is a part of the services a port is supposed or obliged to offer." He believes that facilities should not be provided free of charge but rather streamlined, "as waste must not be a competitive item". A worldwide fund into which shipping companies pay a yearly fee to cover the costs of reception facilities could offer a solution, he believes, but he conceded that this would be a difficult proposal to move forward. He does, however, want to see a system that makes delivery of ships' waste in the port of call a normal operational habit instead of a 'special' procedure.

MARPOL's Annex V already prohibits disposal of plastics anywhere at sea as well as restricting discharge of other types of garbage into coastal waters and it is due to be revised. Van der Weide hopes that this will help enforce regulations. "At the moment, at

Training scheme for waste management in ports

IMO's Sub-Committee on Flag State Implementation (FSI 18) met in July and the issue of port reception facilities was on its agenda. The sub-committee agreed that the 'Action plan to tackle the inadequacy of port reception facilities' that was agreed in June 2006, was complete. The plan was created to enable flag states to achieve full compliance with MARPOL, and includes the development of the *Guide to good practice for port reception facilities* and Advance Notification Form, plus the development of the Port Reception Facility Database (PRFD) as a module of the IMO Global Integrated Shipping Information System (GISIS).

Harry Gale, technical manager at the Nautical Institute, told *P&H*: "The work done at IMO will help to improve waste reception facilities in ports, but it will be a long time before we will be able to have a 'zero discharge at sea' regime".

He drew attention to another element of the action plan: development of an assistance and training programme. "Particularly helpful is the action plan for member states and other organisations to assist with the infrastructure and training schemes for waste reception facilities in these countries. This does not mean that processing facilities have to be available in every port, but that all types of waste can be received at the port, even though it may involve transportation to another place or even another country for integration into the local waste management system," he told *P&H*.

The meeting also reported that an ISO standard is being developed on 'Arrangement and management of port waste reception facilities' (ISO 16304). The IMO Secretariat has also been asked to take the necessary action for the revision of the *Comprehensive manual on port reception facilities*, reported IAPH's managing director, Fer van der Laar.

Gale added that IMO member states should also be encouraged to populate the GISIS database with all their ports' reception facilities.



Photo: Joachim Affeldt

high sea, all kinds of waste are allowed overboard, and fortunately this will come to an end. Awareness programmes are also very important." A revision of the EU Waste Directive is also foreseen in 2011.

One of the main problems is establishing if a particular cargo residue is actually waste and, if so, defining the nature or type of ship-generated waste. MARPOL 73/78 defines waste differently in each of its six annexes and each type of waste requires a different approach to its reception and disposal. Not every port can match the requirements and some are better at handling one type of waste than another.

Much is dependent on the support and backup provided by local authorities, and the attitude of government to environmental issues. Pressure from the shipping lines and changes in IMO regulation may bring about the changes that many want to see. **PH**

Intermodal improvements



The window of opportunity is shrinking for rail and barge to become competitive alternatives to road transport, Port of Amsterdam's leading adviser, and member of IAPH's Port Operations and Logistics Committee, Jan Egbertsen, told *P&H*.

"Trucks will soon be so CO₂-friendly that they are coming ever closer to the emissions levels of rail, shortsea and barge. The gap is getting smaller, so if the cost of using rail, shortsea and barge does not come down soon, companies will tend to stay with road transport as cheaper and more flexible," he said.

Urgent measures are needed to ensure that rail, shortsea and barge match road haulage for efficiency and competitiveness.

Amsterdam is one of several ports that are looking at ways

of improving intermodal networks – one of the projects of IAPH's World Ports Climate Initiative (WPCI).

The concepts to be developed in this WPCI project are expected to influence intermodal networks in the future. The project group's aim is to gather case study examples of intermodal transport developments in seaports. It is hoped that these case studies will form a resource for other ports to learn from.

The group also wants to encourage discussion about intermodal transport among ports and other players.

Egbertsen believes there is a question mark over European ports introducing contractual obligations to modal shift into their negotiations with terminal operators and shippers.

"It is difficult to say

whether this is a good solution," he commented. "Another port could attract an operator by saying it makes no pre-conditions whatsoever," he explained.

Egbertsen's belief is that the role of European ports should be to influence a modal shift rather than enforce it.

He pointed out that intervening directly with operators' choices could also lead to a conflict with EU competition law. "That's why the EC is not talking in terms of targets at the moment, even if it wants to encourage a modal shift to ease road congestion in Europe," Egbertsen commented.

The WPCI intermodal project is still at an early stage. Egbertsen said that one of the initiatives so far has been to create a discussion platform asking transport bodies what the role of

port authorities should be.

There have also been moves within the project to encourage universities to invest in intermodal research and to network with the WPCI initiative. "For example, there will be a three-year study here in the Netherlands about intermodality and the role of ports," he revealed.

Egbertsen is also working on a management model for an intermodal hinterland strategy. "If a port asks for assistance in formulating such a strategy, it can help formulate that," he explained.

However, he pointed out that some ports have seemed reluctant to pool their expertise and experience, which has made it difficult to move this particular WPCI project forward.

"I believe some ports see their intermodal solutions as a competitive advantage and are reluctant to share information. They are afraid other ports will copy them and win the battle on hinterland competition," Egbertsen explained to *P&H*.
More info: www.wpci.nl

“Trucks are coming ever closer to the emissions levels of rail and barge”

Jan Egbertsen, Port of Amsterdam leading adviser

Intermodal roles for ports?

Port of Amsterdam's Jan Egbertsen believes:

- Port authorities can influence and provide the right infrastructure in the port region, but users/operators have the final say on intermodal choice
- Development of new hinterland infrastructure is usually not the direct responsibility of port authorities but of regional and national authorities
- Bulk sector: large volumes mean bulk operators can rent full trains and barges. Port authorities should aim to provide the right infrastructure to make this possible
- Containers and general cargo: co-operation is necessary because individual operators rarely have sufficient volume to sustain an intermodal shuttle. As an independent party, port authorities can provide the necessary co-ordination to develop combined intermodal shuttles. 'Bundling' of cargoes is one of the port's main intermodal roles
- Port authorities can help to secure subsidies or grants for development of intermodal terminals by private operators. They can also help with research and market feasibility studies
- The port authority can develop its role as an intermodal network co-ordinator. Ports are one of the places where the interests of government and private business overlap.



Photo: Port of Amsterdam

Lower cap brings cleaner air

The revised MARPOL Annex VI (Regulations for the Prevention of Air Pollution from Ships) should result in a significant beneficial impact on the atmospheric environment and on human health, particularly for those living in port cities and coastal communities. It entered into force on 1 July together with other reductions in sulphur oxide (SOx) emissions in specific areas.

The annex will bring about a reduction of SOx emissions from ships, "with the global sulphur cap reduced initially to 3.5% (from the current 4.5%), effective from 1 January 2012, then progressively to 0.5%, effective from 1 January 2020, subject to a feasibility review

to be completed no later than 2018," said IMO.

Annex VI also allows for emission control areas (ECAs) to be designated for SOx and particulate matter, or NOx, or all three types of emissions from ships, subject to proposals that will be considered for adoption by the organisation.

The limits applicable in sulphur ECAs were reduced to 1% on 1 July 2010 (from the current 1.5%) and will be further reduced to 0.1%, effective from 1 January 2015. This means that ships trading in the current ECAs will have to burn fuel of lower sulphur content (or use an alternative method to reduce emissions) from 1 July 2010.

Japan and EU recognise trusted AEOs

Trade between Japan and the European Union should become easier after the signing on 24 June of an agreement establishing mutual recognition of authorised economic operators (AEOs). Japan's Ministry of Finance said that certified trustworthy traders that have invested in supply chain security in both Japan and the EU will now benefit from preferred customs procedures.

"Japanese AEOs will receive benefits by European customs that are comparable to those received by EU AEOs; Japan will apply the same for EU AEOs in Japan," it said.

Japan's Ambassador to the EU, Nobutake Odano, said: "The signing of AEO mutual recognition is a good example of a very active and action-oriented co-operation between the customs authorities of Japan and the EU."

New US rules for passenger ships

US Congress has passed the Cruise Vessel Security and Safety Act of 2010 in response to incidents of passengers falling overboard and shipboard assaults. The act was signed by President Barack Obama on 27 July and the new law applies to any cruise ship that calls in a US port with at least one US passenger aboard.

Within 18 months of Obama's signature, cruise lines will be

required to ensure that all ship rails are at least 42 inches (107cm) from the deck and that all stateroom and crew cabin doors are equipped with peepholes.

For any ship with a keel laid after the enactment date, each door must be equipped with security latches and time-sensitive key technology. Additionally, each vessel must possess "technology that can capture images of

passengers or detect passengers who have fallen overboard".

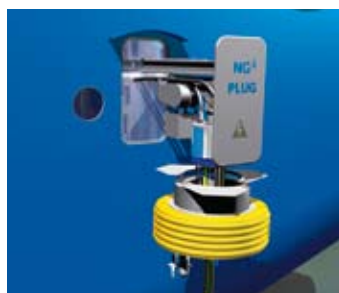
Cruise ships will be required to maintain log books with detailed information on all complaints of onboard crimes.

The industry's incident data will also be posted quarterly on the Internet. Cruise lines found in violation will face a penalty of \$25,000/day and could be barred from entry into US ports.

Speeding up shoreside power

In January this year, the Marine Fuel Sulphur Directive came into force in Europe, obliging operators to limit the sulphur content of the fuel their vessels burn to reduce emissions, especially in EU ports. This legislation has reduced air pollution in port areas, but, to reduce emissions still further, European ports are also putting more investment into onshore power supply (OPS) – providing ships with electricity from the national grid.

Onshore power is well-established in some Scandinavian ports, but take-up in the rest of Europe has been slower, partly because of the high cost of installation and operation. Other challenges include finding a safe and efficient way of connecting ship systems to shoreside power supply, costs of converting between European and US frequency standards and providing



PLUG... French ro-pax ferries may benefit from faster connection

adequate power from the grid.

The two French ports of Le Havre and Marseille are currently looking at different types of OPS. The latter, a Mediterranean port, is considering introducing shoreside power at its ferry terminal for ro-pax shuttle services to Corsican ports.

Meanwhile, the director of Le Havre's quality, security and environment division, Jean-Paul Raffini, told *P&H* that technical studies were in hand at the port



Photo: NG2

with a view to introducing onshore power soon for cross-Channel ferries as they load and unload passengers and cars. "But we have a number of issues still to resolve regarding shoreside power and will have more details available by mid-October," Raffini told *P&H*.

Marseille and Le Havre are both considering the PLUG system for ro-pax ferries that demand a fast turnaround. NG2, the company marketing the PLUG prototype,

claims the system, which is installed on the quayside and is dragged aboard by a hoisting chain, can connect to the ship's electrical systems in less than a minute and does not take up payload volume on board.

NG2's general director Damien Féger estimates that capital and operational expenses of PLUG could be three to four times less than for current manual connection systems.

A recent study carried out on behalf of France's major ports – known as Grands Ports Maritimes – said onshore power was particularly suitable for France's ferry services: ro-pax ferries make regular and frequent stops and generally berth at the same quay; ro-ro vessels generally consume less power than ro-pax but tend to stay in port for longer periods, sometimes for over 24 hours.

Call to simplify reporting procedures

The European Parliament has called for the directive (2002/6/EC) that stipulates reporting requirements for ships arriving or departing from member states' ports to be "simplified and harmonised".

On 6 July it approved a draft directive put forward by the European Commission.

According to the European Parliament website it wants to reduce the "administrative burdens for shipping companies" and aims to do this through revised information procedures.

Provisions of the directive will be phased in between 2012 and 2015.

It believes that member states should "deepen the co-operation between the competent authorities, such as their customs, border control, public health and transport authorities in order to continue to simplify and harmonise reporting formalities within the union and make the most efficient use of electronic data transmission and information exchange systems, with a view to the elimination of barriers to maritime transport as far as possible simultaneously and the achievement of a European maritime transport space without barriers".

However, it comments that the full benefits of such data transmission systems cannot be realised unless "there is smooth and effective communication" between SafeSeaNet – the European Platform for Maritime Data Exchange – e-customs and the electronic systems required.

Siim Kallas, Commission VP responsible for transport said: "The simplification of administrative procedures for maritime transport is an important step, not only because it will reduce the costs of maritime transport, which is used to deliver almost 40% of goods within the Internal Market, but also because maritime transport is a cleaner and safer form of transport".

Focus on container weighing

ICHCA International, which represents cargo-handlers, has said that shippers need to do more to ensure that the safety of vessels is not compromised by misdeclared container weights. "Shippers have to accept that they have a lot more responsibility than they think they have," emphasised Mike Compton, a technical adviser for the organisation.

Compton acknowledged that shippers may fail to understand how a series of apparently minor contraventions can add up to a major ship stability issue: "For a landlubber it's shocking to think that five tonnes or less could affect the safety of a ship at sea." He emphasised, however, that the problem must be dealt with, and it is not terminals or shipping companies which should bear the brunt of that responsibility.

Few shipping lines currently weigh the containers their ships carry, but one that does is Maersk Line. It has strict procedures for weighing boxes using a software package that helps to ensure the safety of the vessel.

Maersk senior VP Asger Lauritsen told delegates at a London conference on 29 June that all container lines should employ box weighing technology, which is, he claimed, "really cheap"

and should be part of any container line's overall investment package, in his view. Lauritsen emphasised that it is not just up to the container lines to push the industry to weigh boxes, as they are part of a long supply chain.

If container weights are misdeclared it is the seafarer who is most likely to suffer. A single under-declared container contributes to a significant overall problem, noted Compton. He cited the case of *MSC Napoli*, which suffered hull failure in the English Channel in January 2007 and was later beached off the English coast. There was a significant misdeclaration of weight, the Marine Accident Investigation Branch found.

Its report noted that of the 660 containers stowed on deck, 137 (20%) differed from declared weights by more than three tonnes. "The largest single difference was 20 tonnes," the April 2008 report noted, "and the total weight of the 137 containers was 312 tonnes heavier than on the cargo manifest".

In suggesting potential solutions to the problem, Compton emphasised that adhering to the basics was the first step. "When a shipper books a consignment there are conditions of carriage; a core requirement is to say what the

cargo specifically is and tell them what the weight is," he pointed out. "Shipping companies should require a declaration of weight to be provided by documentation."

"A shipping company taking a booking could ask for proof of declared weight when goods are taken to port; proof could be provided via public weighbridges or by using similar equipment at the shipper headquarters." He was adamant about when it was inappropriate to weigh containers: "Not on the quay crane as it is being lifted on to the ship, as that is much too late!"

If boxes are found to be over the declared weight, they should be put to one side, then the shipper told of the error and that it must be corrected. "It'll mean delaying the cargo, but it will mean it won't happen again," Compton predicted. "What shouldn't happen is that a note of the correction is made and the cargo goes on its merry way without the shipper being informed of their mistake."

One delegate at the London conference, Joroen de Haas, managing director of BMT De Beer, said the lack of regulation making weighing mandatory and commercial realities were the main reasons that other lines had not followed Maersk's example.

MSC Napoli... some containers on board were found to be heavier than declared

Photo: Geoff Moore Dorset Media Service



Passenger ships to be built with more redundancy

New regulations for newbuild passenger ships came into force on 1 July. Amendments to IMO's SOLAS (International Convention for the Safety of Life at Sea) regulations emphasise reducing the likelihood of accidents and improved survivability in case of incident, using the concept of a ship being its own lifeboat.

Amendments include:

- Alternative designs and arrangements
- Provision of safe areas and the essential systems to be maintained while a ship proceeds to port after a casualty, which will require redundancy of certain systems
- Onboard safety centres – where systems can

be operated and monitored

- Fixed fire detection and alarm systems
- Times for orderly evacuation and abandonment stipulated, including requirements for systems that must remain operational in case any one main vertical zone is unserviceable due to fire.

EU fast freight corridors nearer

The European Parliament has endorsed a programme to connect Europe's major ports via a fast rail cargo network before the end of this decade. Rail freight is expected to become as competitive, efficient and reliable as passenger rail services.

In June, members of the European Parliament (MEPs) voted for a network of nine freight corridors (see table), which will allow trains to pass easily from one national network to another and eliminate the congestion and bottlenecks currently preventing rail from competing with road transport, which currently carries about 70% of land-based cargo.

Once agreement has been reached with the European Council, EU member states involved in the networks have six months to draw up implementation plans for these corridors. Many of the nine corridors could be established

during this decade, with other priority routes to follow.

MEPs amended the Commission's original proposal to promote better links with sea and inland waterway ports and encourage intermodal solutions to try and reduce the congestion on European roads caused by heavy-goods vehicles. Accordingly, they included a number of second-tier seaports – such as Lisbon, Valencia and Constantza – in the itineraries.

A major innovation of the legislation is the 'one-stop-shop' system, under which freight operators using a corridor can go to a single international body to

request an international train path.

Currently, railways are the least integrated transport mode in the EU, leading to delays, extra costs and insufficient use. Since the bulk of goods are currently shipped entirely by road, future increases in volume present major challenges.

"Rail is lagging behind other industry sectors such as telecoms and energy," Matthias Reute, director-general for Mobility and Transport at the Commission told a recent conference on intermodality. "It needs to become truly European to achieve greater efficiency."

The evolution of freight

transport has put a strain on the EU's transport infrastructure, increasing costs. These are estimated to be as high as 1.5% of GDP and could increase further as growth returns. Studies show that 50% more freight is expected by 2020 and in some parts of Europe predictions suggest a doubling of volumes by 2050.

The transport sector's carbon emissions and their contribution to climate change are a major concern. An estimated one-third of emissions are caused by freight transport. This trend needs to be reversed if the EU is to meet its greenhouse gas targets.

“Rail is lagging behind other industry sectors such as telecoms and energy”

Matthias Reute, DG Mobility & Transport

Photo: Jem Newton

Economic corridors of power

Corridors that should be established three years after the EU regulation enters into force:

- Rotterdam/(Zeebrugge)–Antwerp–Duisburg–Milan–Genoa
- Rotterdam–Antwerp–Luxemburg–Metz–Dijon–Lyon
- Almeria–Valencia–Barcelona–Marseille–Lyon–Turin–Milan–Verona–Trieste–Ljubljana–Budapest–Ukraine border
- Lisbon–Madrid–Bilbao–Irun–Bordeaux–Paris–Le Havre–Prague–Vienna–Budapest–Bucharest–Constantza
- Prague–Vienna–Budapest–Bucharest–Constantza and (Prague–Vienna–Budapest–) Sofia–Thessaloniki–Athens
- Prague–Horní Lideč–Žilina Košice Čierna–Slovak/Ukraine border

Corridors that should be established five years after EU regulations enter into force:

- Stockholm–Malmö–Copenhagen–Hamburg
- Gdynia–Katowice–Bratislava–Vienna–Klagenfurt–Udine–Venice–Trieste–Bologna–Ravenna
- Bremerhaven/Rotterdam/Antwerp–Aachen–Berlin–Warsaw–Terespol–Belarus border

Source: EU Official Journal



Dates for your diary

A selection of forthcoming maritime courses and conferences

September

- 12-14** PIANC 125th Anniversary Celebrations in Asia – Nagoya, Japan
www.congre.co.jp/pianc125/english/index_eng.html
- 14-15** 5th Annual Canada Maritime Conference – Montreal, Canada
<http://joc.com/events>
- 14-15** Transport Security Expo and Conference – London, UK
www.transec.com
- 14-15** 7th Annual Port & Maritime Security 2010 – Sydney, Australia
www.portmaritimesecurity.com.au
- 16-17** 5th Southern Asia Ports Logistics and Shipping – Mumbai, India
www.transportevents.com
- 16-17** 6th World FIBC Congress 2010 – Amsterdam, Netherlands
www.millenniumconferences.com
- 17-21** 57th International Meeting and Safety Seminar – Constantza, Romania
www.iasst.com
- 19-23** 2010 AAPA Annual Convention – Halifax, Canada
www.aapa2010.com
- 20** IAPH Regional Meeting (Americas) as part of AAPA Convention – Halifax, Canada
- 20-21** TOC Market Briefing: Middle East 2010 – Muscat, Oman
www.tocevents-me.com
- 20-1 Oct** Inland Waterways Transport – Antwerp, Belgium
www.portofantwerp.be/apec
- 21 onwards** Diploma for Harbours Masters 2010-2011 – distance learning
www.ibcglobalacademy.com/hm
- 27-28** International Port and Shipping Development – Shanghai, China
www.gatewaymedia.com.cn/english/Default.asp

October

- 4-8** FIAT World Congress – Bangkok, Thailand
www.fiata2010.org
- 5-6** Port & Terminal Technology – Long Beach, US
www.millenniumconferences.com
- 5-7** TRANSTEC 2010 – St Petersburg, Russia
www.transtec-neva.com
- 6-7** British Ports Association Annual Conference – Torquay, UK
www.britishports.org.uk
- 13-15** 4th Vietnam Container Ports and Logistics – Ho Chi Minh City, Vietnam
www.vietnamportslogistics.com

Your next port of call!

Busan Port Authority (BPA) is preparing a stimulating programme of events as it prepares to host the IAPH World Ports Conference in May next year. It may seem like a long way off, but if you wish to take advantage of the early-bird discount, you will need to register before the end of January.

BPA's president and CEO Ki-Tae Roh has been busy promoting the event under the theme of *Embracing our future – expanding our scope*. He looks forward to welcoming port representatives from across the globe to South Korea. See page 5 for more information.

New chairman for technical panel

Shane Hobday (below), general manager for safety, security and environment at Sydney Ports Corporation, becomes the new chairman of the IAPH Port Safety and Security Committee. His position was effective from 14 July. He succeeds Peter Mollema, who

expressed his intention to step down as chair at June's committee meeting in Savannah. President Ndua expressed his appreciation for all the hard work Peter has done and the enthusiasm he has shown during his leadership of the committee from May 2005. Peter will continue to be an active committee member.

Chairman Hobday has been involved in the ports and maritime industry in Australia for more than 30 years. He currently has corporate responsibility for the safety of Sydney Ports' employees, compliance with maritime security requirements and responsibility for environmental management performance and initiatives. *More info: www.iaphworldports.org/members_only/committee_room/index.html*



Membership notes

The IAPH secretariat is pleased to announce a new regular member of the organisation

Regular member

The National Ports Agency

Address	Lotissement Mandarona 300 Lot No 8, Sidi Maarouf, Casablanca, Morocco
Telephone	+212-520-200-703/+212-520-200-705
Fax	+212-522-78-61-10
Email	elkaddioui@anp.org.ma
Representative	Mohammed El Kaddioui, director of co-operation

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IAPH BUSAN 2011



Monday **23 May** - Friday **27 May**, 2011
The 27th World Ports Conference
BEXCO, BUSAN, KOREA





Enhance infrastructure to build global commerce

Georgia Ports Authority's executive director, **Curtis J Foltz**, calls for better hinterland logistics to get US ports connected and ready for the Panama Canal expansion

“ We need a national focus on ensuring deeper waterways, direct rail access and excellent highway connectivity at our major gateway ports ”

The United States faces many obstacles in rebuilding the national economy, including the movement of freight along its corridors. To ensure the competitiveness of our products and commerce with our global trading partners, our country should focus on key infrastructure areas to maintain the capacity and efficiency of our supply chain.

Our nation needs to take notice that our port network is not sufficiently ready for the upcoming wave of much larger and deeper-draught vessels. Enabling ships with as much as three times the capacity of those deployed in servicing the US east and Gulf coasts, the magnitude of the Panama Canal expansion is clear. These new locks will have a far greater impact in a rebounding economy.

When the world's most efficient and preferred vessels begin calling on these two coasts as early as 2014, the expanded canal will play a critical role in US growth. We need a national focus and priority on ensuring deeper waterways, direct rail

access and excellent highway connectivity at all of our major gateway ports.

By focusing on the immediate needs of American waterways, as well as enhancing the efficiency of the railroads and roadways leading to US ports, we can enhance the profitability of every business in the supply chain – regardless of political boundaries. Connectivity to an expansive rail and highway network creates access to key markets, ensuring competitiveness for our global commerce.

In preparation for the Panama Canal expansion, the Georgia Ports Authority (GPA) has embarked on an aggressive expansion and modernisation plan – to prepare for 2014 and beyond. Our long-term strategic plan keeps the Port of Savannah's capacity 20% ahead of demand. In fact, throughout the recession, the GPA has continued planning and construction for future needs, which will, in turn, enable future opportunities and generate sustainable growth in the coming years. **R&H**

Be part of the global ports' community with an IAPH membership



The International Association of Ports and Harbors (IAPH) is a global alliance representing over 200 ports in 90 countries. Together, IAPH member ports handle over 60% of the world's sea-borne trade and nearly 90% of the world's container traffic. It is a non-profit-making and non-governmental organisation headquartered in Tokyo, Japan.

IAPH provides a platform to develop and foster good relations and co-operation among the world's ports and harbors through forums where opinions and experiences can be exchanged. It promotes the role ports play in waterborne transportation and in today's global economy.

Benefits of membership include:

Free copies of IAPH publications including Ports & Harbors, Membership Directory, newsletter and full access to IAPH website

A voice for your port at IAPH meetings and other NGOs such as IMO, UNCTAD and WCO

A chance to influence decisions at IAPH's technical committee meetings

Networking opportunities at IAPH's meetings and conferences, plus reduced registration fees for these events

To apply for membership please email info@iaphworldports.org or visit www.iaphworldports.org



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Hans van der Hart, managing director Zeeland Seaports

- **Directly located on the sea**
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- **Deep sea quay 2000 m**
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- **75 km from Rotterdam, 38 km from Zeebrugge and 55 km from Antwerp**
- **Total surface area 140 ha**
- **Indicative transshipment capacity of deep sea quay 2.5 million TEU**
- **Capacity for 5 deep sea vessels simultaneously (ULCS > 15,000 TEU)**

• You do not need to know much about container terminals to see that the location is ideal. In the Netherlands. At the entrance of the Westerschelde river. Directly located on the sea. With a draft of 16.5 meters even accessible for the latest generation of ULCS container ships. At this location, Zeeland Seaports wishes to develop the Westerschelde Container Terminal in the port of Vlissingen. The terminal has a deep sea quay stretching more than 2 kilometers and a 900-meter inland shipping/shortsea quay. The hinterland connections by rail, inland waterway and road are optimum and both port efficiency and labour mentality are excellent. We are seeking a partner for the Westerschelde Container Terminal. Are you interested in operating this unique terminal and therefore sharing in the benefits of this ideal location and the growth of the container market? Then contact us on +31 6 5319 3275. You can literally call us on this number day or night. www.zeelandseaports.com •



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