



November 2010 Vol 55 No 6

PORTS HARBORS

Official Journal of the International Association of Ports and Harbors

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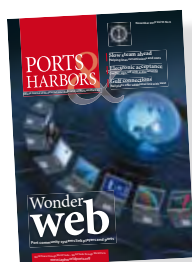
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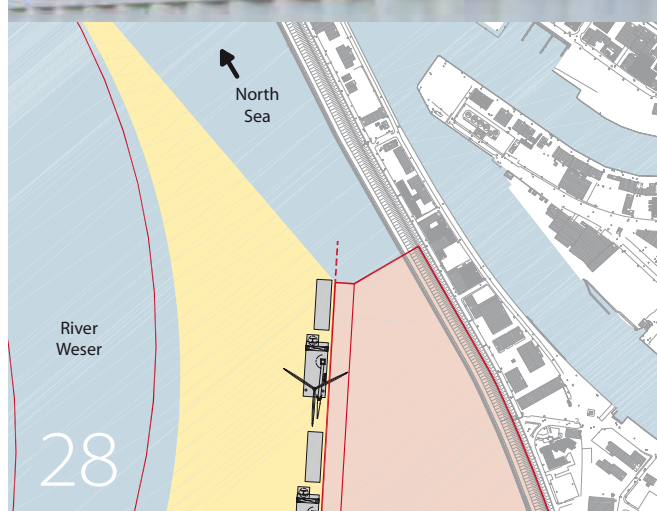
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PORTS & HARBORS

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PORTS & HARBORS

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PUBLISHER

Susumu Naruse
Secretary General, IAPH
info@iaphworldports.org

EDITOR

Penny Thomas
penny.thomas@ihs.com

SUB-EDITOR

Stephen Spark

ADVERT SALES MANAGER

Julian Bidlake
julian.bidlake@ihs.com

DESIGN

**Roberto Filistad, Hannah Kidd,
Matt Ramsdale, Carolina Lorenzo**

PRODUCTION

Liz Wall, Sarah Treacy, Ellie Card

PICTURE EDITOR

Rebecca Bailey

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
Sentinel House, 163 Brighton Road,
Coulsdon, Surrey CR5 2YH, UK
Tel +44 (0)20 8700 3700
Fax: +44 (0)20 8763 1007
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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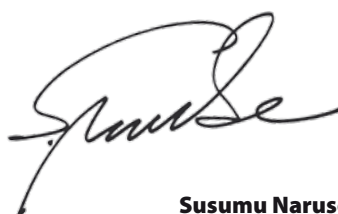
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Regional challenges

Issues for ports now differ depending on location as throughput returns and development resumes



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



Conferences I have attended in Canada, China and Russia are still dominated by discussion on economic recovery, the environment and supply chain logistics. Port throughput recovered quickly this year – a 15–20% average increase compared with the same period in 2009 – yet the industry is still not confident that recovery will continue throughout the rest of the year.

Economic issues aside, I am happy to see that other common issues – logistics and the environment – are being proactively addressed by IAPH through the activities of our technical committees and WPCI.

President Ndua and I were invited to the AAPA (American Association of Port Authorities) 99th Annual Convention in Halifax, Canada, where nearly 900 delegates and partners of the association gathered. Thanks to AAPA, we were also able to hold an IAPH Americas regional meeting, where the election process for a new vice-president for this region was confirmed.

I also attended the International Port & Shipping Development

Forum 2010 in Shanghai, which was hosted by China Ports and Harbors Association. I was a little surprised to learn that in a country that has expanded its infrastructure at a remarkable speed, and currently has six of its ports listed in the world's top 10 container ports, there was uncertainty about the next step for its ports. No doubt China will continue

“The industry is still not confident that recovery will continue”

to expand its capacities to meet the vigorous demands expected in the future. But it also wants to strike a balance between facilitating this expansion along with environmental protection and a desire to add value to ports through their logistical capabilities.

Russia too is expanding its capacity and is also seeking a port administration system for the country. It has improved terminal operation efficiency by introducing private-sector operators, but the administrative systems differ from region to region and the role of port authorities is not clearly defined. It is now defining the relationship between public and private, such as public and private partnership (PPP) programmes for the country. Issues are different from region to region. An IAPH regional meeting for Africa and Europe is scheduled to take place in Arusha, Tanzania, on 6 December at the 8th PAPC (Pan-African Association of Ports Co-operation) Conference. I look forward to meeting you there. PH

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Port updates

PARADISE IN TAMPA

The Tampa Port Authority has announced that Carnival Cruise Line will upgrade its Tampa presence in December 2011 by homeporting *Carnival Paradise* to replace *Carnival Inspiration*. She will join *Carnival Legend*, also homeported in Tampa, as one of two ships to serve the US cruise market in Tampa year round.

DAVAO BANANA BOOST

ICTSI subsidiary Davao Integrated Ports and Stevedoring Services Corp has taken over the operation of a new reefer facility at Sasa Wharf at Davao International Port in the southern Philippines. The reefer facility will boost the fruit trade in the port. It is the main transit point for Philippine bananas, the country being the world's third-largest exporter of the fruit.

MD LEAVES AUCKLAND

Jens Madsen, MD of Ports of Auckland Limited (POAL) will leave the company at the end of February 2011. POAL chairman John Lindsay expressed appreciation to Madsen for his significant contribution to the company. Madsen said his five years with POAL had been an important part of his career and his life, and he was pleased to leave the organisation and the business in a strong position.

GATEWAY BOOST TO UK

The London Gateway port project will generate £3.2Bn (\$4.9Bn) for the British economy, according to a new report. The report from Oxford Economics also said the Thames estuary project will create 36,000 jobs, the UK government said in a statement. The first phase of the £1.5Bn project is expected to be completed in 2011.

FERRY FOR KIEL

Kiel's Schwedenkai has opened a new handling terminal for passengers and cargo. To mark the opening of the new 13-storey ferry and cruise terminal in October, Stena Line announced it was introducing a bigger generation of ships on the Kiel–Gothenburg route, including *Stena Germanica*, one of the world's longest ferry ships.



Fred Olsen's *Balmoral* transits the Kiel Canal. The line may stop calling at US and Canadian ports due in part to requirements to switch to more expensive low-sulphur fuel

Emissions control pushes up prices

Photo: Oliver Sesemann

Expensive low-sulphur fuels are pushing up prices for seaborne cargo and may increasingly force cargo on to land inside Europe's emission control areas (ECAs). Since July this year, restricting sulphur content in bunker fuel to 1% in Baltic and North Sea ECAs has forced vessels to switch to low-sulphur fuel. Similar standards are due to come into force in North America in 2012 and in 2015 ECA specifications will tighten to 0.1%.

According to bunker industry sources, the premium attached to low-sulphur fuel over heavy fuel oil has not exceeded \$50/tonne so far. But when ECA standards tighten substantially by 2015, the price differential will widen. It is currently estimated at \$230/tonne, according to Bunkerworld data.

The financial burden of using progressively lower sulphur fuels in these areas will inevitably put up

passenger fares and the cost of sending cargo by sea. The increase will particularly hit ferries, cruise companies and shortsea liner companies, which tend to operate for longer periods inside the ECAs than do deepsea container lines.

In Baltic countries the cost by 2015 of switching to 0.1% sulphur fuels could run into billions of euros and, as it costs up to three times as much as conventional bunker fuels, this could lead to a gradual move of cargo from sea to road.

Cruise lines are also considering their options and future itineraries. In September, Fred Olsen Cruise Lines cited the likely increase in operating costs resulting from the announcement of the proposed US/Canadian ECA as a reason for its possible withdrawal from the region. A spokesman for the line, which occasionally calls at ports in Canada and New England, said the

extra fuel cost of \$17,000/day would make it uneconomical to continue operating in US waters.

ECAs are likely to appear in other regions where shipping is intensive. For example, China may impose fuel restrictions near its busiest port clusters, such as Shanghai and the Pearl River Delta.

Maersk Line, which has switched to low-sulphur fuel while visiting US ports since 2006, has voluntarily decided to order its container ships to switch to low-sulphur fuel while in the port of Hong Kong.

Since Maersk Line calls in to Hong Kong some 850 times a year, it estimates that the move will cost an extra \$1M annually. But it says that customers are increasingly interested in environmental performance and it is now an area for competition between carriers. Other major carriers are expected to follow Maersk Line's example.

New energy facility for Port Harcourt

Nigeria is creating a new support facility for its offshore oil and gas industry east of the current main production area around Port Harcourt.

To be constructed on a 375ha site, the facility, called Calabar Energy City, will have 500m of quay as well as infrastructure for the petrochemicals industry, warehousing, accommodation and offices. It is located in one of the most secure parts of Nigeria and enjoys good access to the sea.

Calabar Energy City is billed as one of Nigeria's most technologically advanced projects, complete with subsea systems and hi-tech communications.

The city will be populated by a mix of energy-related companies, customers and suppliers. The regional Cross State government has contracted Port

Evo as its strategic business adviser to manage the \$350M development.

"We are currently at the design stage with an environmental impact assessment about to start," Port Evo CEO James Sutcliffe told *P&H*. The site will be cleared towards the end of 2010, after which port and site construction will begin.

The site will be reclaimed with between 7M m³ and 10M m³ of sand to provide a flat development site for the port facilities, warehousing, lay-down areas and both permanent accommodation and temporary accommodation for those working on rigs.

The project is seen as facilitating the development of a new phase in the energy industry in Nigeria and the Gulf of Guinea.

US ports get shortsea money



The Port of Brownsville, pictured, along with Texas and Manatee, sponsored the Cross Gulf Container Expansion Project

Four US ports were awarded a total of \$7M in grant funding from the Department of Transportation (DOT) for three shortsea shipping projects aimed at reducing highway congestion. The winning projects, announced on 20 September, were selected from 35 applications submitted by ports and transport agencies to DOT's Marine Highway initiative. They were unveiled by DOT Secretary Ray LaHood.

The money will expand two existing operations and jumpstart a new inland river service. The Cross Gulf Container Expansion Project between Texas and Florida, sponsored by the Ports of Brownsville, Texas, and Manatee, Florida, was awarded \$3.34M for barge equipment upgrades.

The James River Container

Expansion Project, sponsored by the Port of Virginia, was awarded \$1.1M for barge purchases that will go towards increasing weekly sailings between Hampton Roads inland to Richmond, Virginia.

Another \$1.76M was awarded to the Tennessee-Tombigbee Waterway Pilot Project, a new container service between the Port of Itawamba, Mississippi, and the Port of Mobile, Alabama.

The Obama administration has been advocating so-called 'marine highways' as alternatives to truck transport to save fuel, cut emissions and lower shipper costs.

"These grants will help a long overlooked means of transporting goods finally grow," said maritime administrator David Matsuda. It also marks the first time that DOT has made such funding available

for shortsea shipping.

"We were a strong advocate for Congress appropriating funds for this programme, and we're very pleased to see DOT make these grant funds available," noted American Association of Port Authorities vice-president Susan Monteverde. Certain areas of the country make sense for shortsea shipping and have been successful for years, noted Walter Kemmsies, chief economist for consultancy Moffatt & Nichol. He cited a barge service between Texas and Alabama moving construction materials, and an East Coast service between Baltimore and Norfolk.

He noted, however, that these are well established services mostly moving freight that isn't time-sensitive. "These projects can work if they're in a corridor where barge service can be competitive with trucks," Kemmsies told *Ports and Harbors*.

"But truck rates aren't rising a lot, which intensifies the competition, and we haven't put a lot of money into the inland waterway system," making it difficult for shortsea projects to gain momentum, he said.

"It's very difficult trying to figure out the supply-demand equation for these projects when the economy is in the hole and the line of sight into the future is somewhat distorted."

Port updates

US IMPORTS FADE

Transpacific box rates are predicted to weaken as the high peak in the US shipping season, traditionally in September and October, seems to have peaked in July this year. Box import volumes at major US container ports in September was expected to be 1.32M teu, a 16% increase from September 2009 but down significantly from the 1.38M teu handled in July, which was up 25% from July 2009, according to the National Retail Federation.

BEER BARGES

Dutch brewer Heineken has started barging its beer to the port of Rotterdam via Alpherium, an inland shipping terminal. Some 200 boxes a day are trucked 15km from the brewery to the inland terminal, instead of Rotterdam, reducing the brewer's yearly road kilometres by 6M and its carbon footprint by 35%. Four barges a day, with a capacity of 85teu each, shuttle the beer, mostly destined for the USA, to Rotterdam.

INTERMODAL USA

Ports and their intermodal connections to the surface (land or sea) transport system should be given higher prominence in US transport policy, according to a new report. The study, released by the University of Virginia with input from two former US transport secretaries, said a renewed emphasis on intermodalism and connectivity should guide policy. It suggested that intermodal projects be given greater priority within the existing departmental structure.

INTER-AMERICAN

The Inter-American Committee on Ports is holding its First Hemispheric Convention on Port Logistics and Competitiveness at Ixtapa-Zihuatanejo, Mexico, on 3–5 November. The convention will provide a forum to discuss and exchange experiences on policies, strategies and actions of the Organization of American States' members and other bodies, to improve competitiveness in their markets and increase the use of logistics.

Port updates

PANAMA-ANTWERP DEAL

Panama Canal Authority (ACP) and Antwerp Port Authority have signed a memorandum of understanding to promote commercial relations. The first of its kind between the ACP and a European port, the MoU will increase co-operation on joint marketing and co-ordination on modernisation and expansion projects and help boost trade between Antwerp and the west coast of South America via the canal.

US ANTITRUST THREATENED

Democrats have proposed legislation in the US House of Representatives that would eliminate antitrust protections in the US liner trade. The Shipping Act of 2010 would effectively wipe out all remaining antitrust measures protecting foreign carriers operating in US markets, create a new layer of shipper protection and vastly increase the power of the Federal Maritime Commission.

TRANSNET EXPANDS

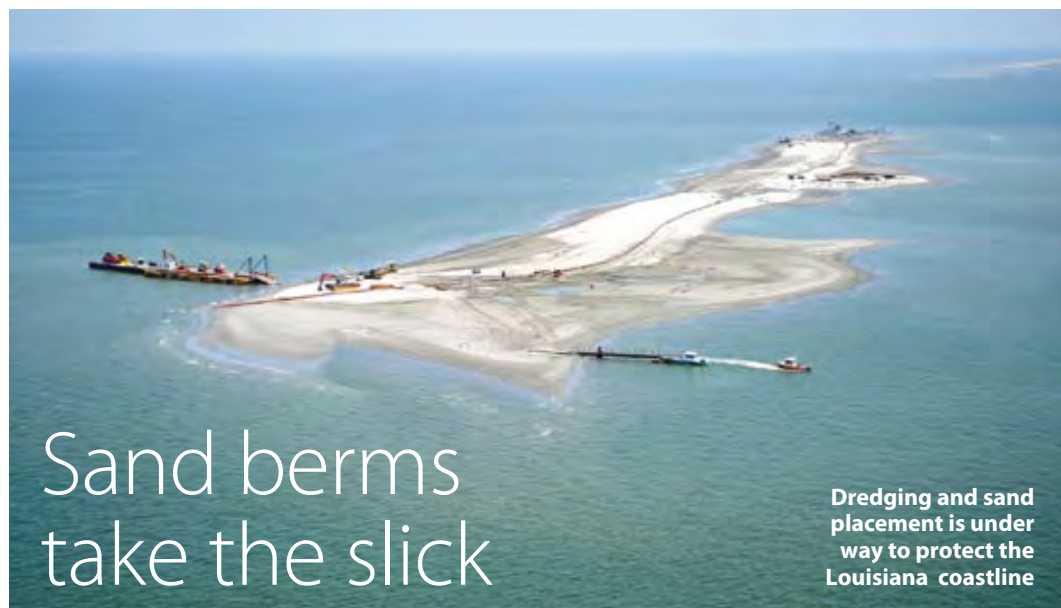
Transnet Freight Rail of South Africa said it plans to increase South Africa–Mozambique rail traffic in the next six months. This would increase its role in the Maputo Corridor Logistics Initiative, which links the Port of Maputo with Gauteng province in South Africa.

QUAKE HITS NZ MERGER

The Port of Lyttelton in New Zealand has called off its proposed merger with rival Otago, saying it needs to focus on repairing damage from September's earthquake. Although most parts of the port have continued to operate, the port company expects repairs to infrastructure and facilities to cost more than \$50M.

TIME FOR TEES

Tea and coffee merchant Taylors of Harrogate has awarded PD Ports a 10-year contract to handle all of its tea and coffee imports on Teeside, northeast England. The family beverages business will now import all of its tea and coffee through Teesport, rather than via southern UK ports. This will shorten the road journey to its production facility at Harrogate and save approximately 160,000 truck-kilometres a year.



Sand berms take the slick

Dredging and sand placement is under way to protect the Louisiana coastline

The first phase of construction of emergency sand berms off the Louisiana coast should be complete this month. The project was fast-tracked after April's *Deepwater Horizon* disaster, to protect the state's fragile ecosystem from the thousands of barrels of oil that leaked from the damaged Macondo well.

Permitting for the \$360M project was approved on 27 May and almost 10M m³ of sand have been transferred 8km off the barrier islands to a 206km chain of berms using 13 dredgers.

P J Hahn, director of coastal zone management for Plaquemines Parish was convinced early on it would take a large-scale berm project to battle the spill, the result of the explosion on the BP oil rig that killed 11 people.

Before the accident, state and federal officials had been considering a proposal to build a series of sand berms as part of a

major coastal restoration project in Louisiana. The US Army Corps of Engineers approved six of the berms, across approximately 40 miles, which had been part of the restoration proposal for the emergency project to protect the coast from oil escaping from the damaged well.

Hahn said that under normal circumstances it takes an average of seven to eight years to gain the necessary approval for a quarter of a mile (400m) of coastal dredging in Louisiana. The speed did not lead to cutting corners, he asserted. "We went through the same hoops with every necessary agency weighing in; there were no shortcuts. The only difference was that paperwork didn't waste time sitting on someone's desk. This project shows things can get done quickly when there's a will to do it," he said.

Ten days after permitting was approved the dredgers were mobilised, in some cases

temporarily extricating dredging equipment from contracts already under way.

Oil continues to wash up along the berms, where it is scraped up by surface equipment and hauled away. Coastal workers also walk along berms with shovels and bags, picking up tarballs.

"Material is stacking really well," Hahn said. "We think it will be a great foundation on which to build our coastal restoration project."

Before the magazine went to press, *Ports & Harbors* learned from the Louisiana Governor's Office of Coastal Activities that in August it was decided to focus on the six berms covering 64km and permit applications have been modified accordingly. "We have placed the remaining 13 segments on hold pending more information from scientists on the threat posed by the million-plus barrels of oil that remain unaccounted for in the Gulf of Mexico," P&H was told.

Expansion for Ennore

Ennore, the only major port in India registered as a company, has decided to raise funds to expand through an initial public offering. Once the shipping ministry has approved the move, Ennore's board has said it will prepare a business plan and appoint bankers

to co-ordinate the offering. The ministry has already given an informal go-ahead, according to senior government officials.

The port has not decided how many shares will be sold but is considering divesting 25%. The port is owned by the government

(68%) and Chennai Port Trust (32%). It was created under the Companies Act of 1956. The other 11 major ports are governed by the Major Port Trusts Act of 1963. Ennore is developing a container terminal and a car terminal, adding to its coal and iron ore terminal.

Shipping draws new lenders

Shipping has attracted new types of lenders since the recession, a London conference heard. "It's not all bad news," BNP Paribas director Paul Barnes told delegates at the London Shipping Law Centre in October. "There has been an

introduction of new funding suppliers to the market."

These include export credit/export insurance agencies that are playing an "increasing role", Barnes said. China, for instance, has just announced a \$5Bn fund for Greek

shipping. Equity markets have also "opened periodically" while bond markets have been open for periods with selective issuers, he added. "New banks have also come into shipping, especially in Asia," Barnes told the conference.

Specialist companies team up

Operators in the project and heavy-lift market may benefit from the growing inventiveness of specialised small and medium-sized forwarders.

Increasingly, forwarders appear to be joining forces in co-operative networks to implement seamless global solutions for project shipments from origin to site. Wolfgang Karau, director of the Worldwide Project Consortium (WWPC), which represents some 90 member companies worldwide, told *P&H* that the group added a dozen countries to its global coverage within a few years.

"We see no erosion in our membership; the network is stable and growing," he said, while noting that growth of membership is not an end in itself. WWPC is committed to providing local exclusivity for all participating companies to prevent any internal competition. Most countries are served by only one forwarder, but exceptions are made for extremely large countries such as China, Russia or the USA where members are appointed for certain regions.

Typically, member companies pool their respective local and technical expertise to forge door-to-door solutions for project liftings, from pre-carriage via chartering to on-carriage from the port of destination. Collaboration between WWPC franchisees is encouraged through the 'first and final offer' clause in the group's terms and conditions, which gives network partners priority status in any tender launched by a fellow WWPC member.

The World Project Group (WPG),

another exclusive alliance of 31 forwarders from across the globe, is working on two fronts. First, it is looking to recruit additional members in Africa and South America, where interest from project customers has proved to be more resilient during the global

help people to achieve the standards," Fuchs stressed.

A distinctive characteristic of WPG is that all its members are represented at owner or chief executive level, which permits quick decision-making. "There is no going back to the office to



Photo: Michael Holmann

Project cargo being loaded in Cuxhaven, Germany. Smaller companies can benefit from co-operative networks

slump, WPG president Michel Fuchs explained. Second, the group is seeking to achieve close integration by harmonising service levels across the network. Joint standards have been proposed for response time, sales leads, requests for tenders and so on.

WPG members will also be using the group's forthcoming annual meeting to discuss the introduction of a vetting regime for new and existing members. The scheme would be designed to raise quality levels within the current system rather than to sort out existing members. "We will

check with executives when we meet," Fuchs insisted.

The WCA Project Network (WCAPN), managed out of Bangkok, is taking a different approach. With almost 3,500 member offices worldwide, the group is not allocating exclusive areas to its members. Its website shows as many as eight member companies for Germany alone. Communications manager Victor Gomez described it as more versatile and diverse than exclusive networks, leaving it to the discretion of members to pick a local partner themselves.

People

TACOMA APPOINTS CCO

The Port of Tacoma has named Don Esterbrook as chief commercial officer, a new position to lead the port's operations, commercial strategy and asset management. Esterbrook has 23 years of maritime industry experience, with 10 years in senior leadership. He has worked for Orient Overseas Container Line since 1994, most recently as regional sales director for nine western US states.

NEW INTERTANKO MD

Joseph Angelo was appointed as Intertanko's new managing director at its council meeting in Singapore in October. He will succeed Peter Swift, who retires on 31 December 2010. Previously, Angelo was Swift's deputy and has worked for the tanker owners' group for six years. Katharina Stanzel has been appointed deputy MD.

SAUDI PORTS PRESIDENT

King Abdullah of Saudi Arabia has appointed Abdulaziz Al-Tuwaijri as president of Saudi Ports Authority. He replaces Khalid Bubshait. Al-Tuwaijri previously chaired the council's Transport Communications and Information Technology Committee. He worked as undersecretary for planning at the Ministry of Transport before joining the Shoura council.

IRAN PORTS PROMOTION

The supreme council of the Iranian Ports and Maritime Organization and transport minister Hamid Behbahani have appointed Mohsen Sadeghifar as a board member and deputy MD for Ports and Special Economic Zone Affairs for three years. Sadeghifar worked for Iran's Ports and Shipping Organization throughout his career, ending up as director-general of port affairs.

LAURENT TO DUNKIRK

Jean-Frédéric Laurent has been appointed strategy and development director of Dunkirk Port, replacing Pierre Joly, who has retired. Laurent began his career as an economist with the French shipping federation Armateurs de France and was then appointed director of the Institute of Maritime Transport Economy.

Cash and Cargo

BIG EASY REBOUNDS

Container throughput increased 60% at the Port of New Orleans during the first half of 2010 and more business is on the horizon. Liner Hapag-Lloyd has added a vessel since September, which will add about 12 calls a year and increase services to west and east Mediterranean ports and southeast Asia, port officials said.

BOTANY ON THE UP

Container trade at Port Botany continued its strong performance in July 2010 – up over 15%, driven by growing exports and strong demand for imported goods. Sydney Ports Corporation's container trade statistics show that in July 2010, the port reached its highest July container volumes on record, reaching 171,800teu, an increase of 15.3% on the same period last year.

ANTWERP INVESTS \$2.2BN

The Antwerp Port Authority board of directors has approved a long-term financial plan for 2011–2025 to keep the port competitive, representing an investment of €1.6Bn (\$2.2Bn). The money will be spent on port expansion, improvement of canal and dock facilities and new equipment, offices and workshops.

GREAT YEAR FOR GEORGIA

Georgia Ports Authority has announced container growth of 22% in August at the end of nine consecutive months of double-digit growth. "Container volumes remained strong as the retail sector moved holiday goods earlier due to concerns about both vessel capacity and equipment availability overseas going into the traditional peak shipping season," said GPA executive director Curtis Foltz.

RICHARDS BAY SURGES

Shipments from South Africa's Richards Bay Coal Terminal reportedly rose by 29% year-on-year in September. The terminal said it shipped 5.36M tonnes of coal in September, up from 4.16M tonnes a year earlier, Bloomberg reported, adding that the rise was largely due to improvements in rail deliveries.



Bit Viking... a case in point for Wärtsilä's argument to retrofit and burn natural gas

Photo: Tomas Pinas

Natural gas ideal for ECAs

A new market for natural gas-fired ships in the USA could soon be a reality, believes marine engine manufacturer Wärtsilä North America. But while the technology hurdles have largely been overcome, ship economics and the forces of supply and demand are proving a barrier to the technology being deployed in the near future.

Wärtsilä's Americas vice-president John Hatley explained to *Ports & Harbors*: "My shipowner customers say where's the gas? And [the gas industry] here says we'll make it available, only where's my customer?" Hatley believes that new environmental regulations will enable Wärtsilä and its competitors to get access to 250–600Bn cubic feet of natural gas demand from the US marine sector over the next five years.

"There's a lot of pressure from society to clean up, and the drivers from regulators to drop emissions has been forcing

technology advances", Hatley said.

Liquefied natural gas (LNG) technology developed by Wärtsilä over the last 20 years has given the company a toe-hold in the Norwegian market, which has been aided by government incentives. Hatley agreed that installation of the required technology makes most sense on newbuildings, but he pointed to the company's first conversion of an existing bulk ship – the 25,000dwt product tanker *Bit Viking* – as evidence of the potential for retrofits.

Major cruise lines have also shown interest, Hatley added.

Wärtsilä contends that emission control areas (ECAs) extending 200nm off the coast of the USA and Canada, which begin to take effect in 2012, will present compliance challenges for traditional diesel engines because they will either have to burn expensive low-sulphur diesel fuel or owners will outfit ships with

scrubbers that deal with emissions after they have been generated.

This contrasts with engines powered by clean-burning LNG, which cut emissions at the point of combustion. Wärtsilä maintains that they can reduce carbon dioxide by 25%, nitrogen oxide (NOx) by 85%, and sulphur oxide (SOx) by close to 100%.

In addition, because natural gas is cheaper than diesel fuel when measured on a dollars-per-million Btu basis, there is a 40% fuel price benefit to shipowners who choose natural gas, Hatley asserted. "That translates to \$40M for a large container ship whose typical annual fuel bill approaches \$100M."

Wärtsilä and Norwegian class society Det Norske Veritas, which has developed safety rules for LNG-fuelled ships, see the most immediate market for liquefied natural gas technology in the USA will be smaller boats involved in shortsea shipping.

Hold-up on Murmansk bulk terminal

Plans to build coal and oil terminals at Murmansk are being held up by the Russian government, according to deputy transport minister. Viktor Olersky said work on the facilities cannot begin until the government has issued an order designating the Barents Sea port as a special economic zone. In

addition, problems blocking commercial investment in port land need to be resolved.

Deputy prime minister Sergei Ivanov endorsed the port expansion project at the end of September, presenting it to prime minister Vladimir Putin at a session of federal maritime policymakers known as the Sea Board.

Coal mining group Kuzbassrazrezugol, owned by Iskander Makhmudov, and the Siberian Business Union plan to build a new coal terminal with a capacity of 20M tonnes/year at Murmansk.

The proposed oil terminal is designed to handle up to 13M tonnes a year. Most of this oil will come from fields belonging to Russian oil company Lukoil. According to Olersky, proposals for a new container terminal at the port are not commercially feasible.

High-speed gate for Apapa

The Apapa Terminal in Nigeria's main port, Lagos, is to be fitted with a fully automated 18-gate system to streamline entry and exit of traffic. Apapa is the largest container terminal in West Africa and its operator, APM Terminals, is investing in new infrastructure equipment to support growth.

The high-tech gate system is aimed at further easing congestion at the Lagos facility, which APM Terminals took over in

2006. The gate system includes four optical character recognition and damage inspection portals, 18 driver kiosks with high-security access control barriers and a biometric security system to register and validate drivers at entry and exit.

Apapa Container Terminal is a multi-user facility with four berths, an overall quay length of 1,005m and 29ha of fully operational yard space. APM Terminals has invested

over \$192M over the past four years in upgrading facilities.

The investment includes the acquisition and installation of IT infrastructure, training in handling the newly acquired modern cargo handling equipment, the construction of a modern facility and renewal of the rail cargo link.

Additional new equipment has been added, including 34 new trucks and four rubber-tyred gantry cranes.

Efficiency research for smaller ports

The use of intelligent automatic vehicles (IAVs) to cut costs and improve efficiency at small- to medium-sized ports is being researched at Liverpool John Moores University (LJMU), UK. It has secured a grant worth €516,000 as part of a €3.4M European Development Fund project called InTraDE (Intelligent Transportation for Dynamic Environment).

Jingxin Dong, senior lecturer in transport and logistics at LJMU, told *P&H* that the IAV, which is still being developed, could be used to replace manually operated reachstackers and straddle carriers, most commonly used in small- to medium-sized ports to move containers horizontally and vertically. "The IAVs [will] have advanced control systems. They

do not need human involvement in the container terminal, and thus the labour work and the corresponding costs can be reduced dramatically," he said.

Automated guided vehicles (AGVs) are a popular choice at larger ports and have enabled them to enjoy greater productivity, but they require fixed sensors on the ground to operate – a drawback for smaller ports in which space is limited.

Dong explained that, by contrast: "IAVs do not need the sensor fixed beneath the road to guide its running like AGVs do; they have greater manoeuvrability and flexibility". IAVs would therefore be easier to introduce to existing container ports, as no construction work would be required, and they need less space to operate.

According to Dong, individual IAVs could be virtually coupled and move around the port together making better use of the roads inside the container terminal. They would be controlled by a central system that contains all information about the port environment making it easier to achieve optimum efficiency. Safety restraints, such as speed could also be relaxed, allowing for faster travel of the vehicles which again leads to greater efficiency, Gong noted.

The first step is to build two IAVs and a 3D port environment to simulate port operations, with tests due to be completed by the second half of 2011. Field projects will take place in Oostende, Belgium, and Rouen, France, respectively, with the final report produced in 2013.

Bought & Sold

JEDDAH TOTALS TEN

Red Sea Gateway Terminal, Jeddah's new fully automated container facility, has taken delivery of two of the latest ship-to-shore container cranes, bringing the total number of cranes serving the quayside to 10. The terminal was Saudi Arabia's first build, operate and transfer port project, adding another four berths to Jeddah's container capacity, as well as a dedicated deepwater channel able to accommodate next-generation container ships of 13,000teu-plus.

TRACTORS FOR MEXICO

Cargotec has received an order for 50 Kalmar Ottawa 4x2 terminal tractors from Idealease, a North America-based truck and equipment lease and rental services business. The units will be leased to a customer operating at the ports of Lázaro Cárdenas and Manzanillo on Mexico's Pacific Coast. Delivery of the new machines began this month.

SPREADER BOOM

Sweden-based crane spreader company Bromma has been awarded new orders for a total of 34 separating twin-lift STS45 ship-to-shore spreaders for delivery to Malaysia, the USA, Panama and Turkey. A growing resurgence in container traffic around the world has produced multiple new orders for Bromma, including new contracts for cleaner, all-electric spreaders in Vietnam, Turkey, Algeria and Russia.

KALMAR IN FAR EAST

Two customers at Russia's Far Eastern port of Vladivostok have placed orders for Kalmar container handling equipment. Sollers Far East, a Russian automobile company, and Vladivostok Container Terminal have both opted for Kalmar E-One2 RTG cranes.

CRANES FROM OAKLAND

The Massachusetts Port Authority has welcomed the arrival of two low-profile and four RTG cranes acquired from the Port of Oakland. The low-profile style is needed, because the terminal is under the flight path of a runway at Boston Logan International Airport.

As environmental performance becomes increasingly linked not only to the greater good of society, but also to commercial competitiveness, the need to go green has become a shared priority for most shipping industry stakeholders – regardless of whether they are NGOs, ports or vessel operators. Simply slowing down ocean vessels would be a quick way to make dramatic changes to shipping's environmental performance.

Going slow has already proved its efficacy as a cost measure when the shipping industry was forced to respond to the recent global financial crisis. Now, with public attention turning more and more to the impact of shipping on the environment, it is also the

measure most likely to bring about a much-needed reduction in shipping emissions – an objective shared by vessel operators and ports.

For example, a ship steaming from Baltimore, USA, to Bremerhaven, Germany, at 19kt (today's standard speed) uses approximately 59 tonnes of fuel a day and emits 3,900 tonnes of CO₂. By slowing down to 15kt, that vessel would consume 37% less fuel per day, which would curtail its total emissions for the voyage by 20%. The power of this solution is its simplicity: no rules, regulations, or even research needed.

The main obstacle is the industry's perception of time – if we slow down, we get less done; if we speed up, we get more done. In reality, when it comes to intermodal trade, the case is often closer to 'hurry up and wait'. A recent study carried out by WWL on behalf of a global auto manufacturer revealed that goods in transit spend 40% of their time waiting for the next connection.

In effect, slowing vessels down should not mean slowing trade down too. With more precise planning goods and cargo could travel more slowly, yet be delivered to consumers earlier, while reducing emissions, cost and port congestion at the same time.

For this solution to become reality, closer collaboration between vessel operators and ports is crucial. Slowing down at sea will inevitably result in extended sea transit times, but with today's technology that time can be made up elsewhere in the supply chain.

Keeping up means slowing down

Arild Iversen, CEO of ro-ro shipping company, Wallenius Wilhelmsen Logistics (WWL), believes ports and vessel operators should work together to promote slow steaming



Minimising the amount of time that vessels and cargo spend in ports is part of the solution to this challenge, and there are many ways that ports can help us to do that, such as:

- Adopt key performance indicators to measure on-time arrivals and departures similar to those used by airports. Obviously, the longer a vessel stays at port, the faster we must move between ports. If ports utilised metrics and rewards that targeted getting vessels in and out on a precise schedule, it would be more likely that vessels operators, tugs and other suppliers would work to this schedule.

The less time that vessels spend in the harbor and at berth, the slower we can steam both in the harbor and at sea. Ports would see improved air quality standards, while increasing their own capacity, with minimal, if any, investment required.

- Promote the development of technical service sites. Ro-ro cargo for import and export not only requires proper prepping for the supply chain journey, it often needs to be customised for its destination market. Activities such as repairing damaged vehicles after the journey, and installing hub caps, windshield wipers and iPods take place on these sites. The most efficient place to perform this type of work is at port. Bringing these cargo processing activities closer to the vessels would save time and could also create a valuable new source of revenue and jobs for ports.

“ For this solution to become reality, closer collaboration between vessel operators and ports is crucial ”

Arvild Iversen, CEO WWL



- Create intermodal transportation hubs. Getting cargo to and from ports requires an efficient inland network that integrates ocean vessels with truck and rail transportation, designed for efficient hand-offs with minimum dwell times. By helping manufacturers more precisely plan cargo arrivals and departures with rail and truck carriers, not only could we save time, but ports could handle more cargo with less land.

Ports should work closely with vessel operators to develop a more efficient overall supply chain, where all the players are well-positioned to handle larger cargo volumes with similar footprints, assets and lead times.

They are in a position to set the stage for a dramatic reduction in carbon dioxide emissions and harmful pollutants such as sulphur dioxide that affect our port communities. In order to

do this they must adopt a wider perspective of their role in the supply chain.

WWL predicts that zero-emission deepsea shipping, sailing at 10kt, powered by renewable energy and supported by a highly efficient supply chain structure will be a reality by 2040.

Sustained speed reduction is a solution that is not only in the best interest of the shipping industry, it is also better for ports, along with the millions of families living and working near thousands of ports across the globe. Slowing down requires no technological advances, no regulatory changes, only consensus and a meeting of minds. A sustained speed reduction now will put us firmly on track for a low emissions future. **PH**

More info: www.2wglobal.com



Photo: WWL

Advanced technology and containerisation have created an increasing demand for highly skilled port workers. So why are some European ports failing to meet their training needs? **Stephen Cousins** reports

Dock work is traditionally seen as a tough, dirty job, involving harsh physical labour and little skill. But today, thanks to the introduction of new technologies (notably containerisation) there's an increasing need for new skills such as driving, operating advanced machinery and competence in IT, while concentration, consistency, precision and effective communication skills are all vital to help maintain the high levels of efficiency required in container terminals.

Most European ports are creating skilled workforces through training programmes tailored to meet these specific needs, but others are lagging behind. A study published last year by the European Transport Workers' Federation (ETF), based on data from 18 ETF-affiliated port unions from 14 EU member states, found that there were "major question marks" over the efficacy of port training in some EU ports, especially

in relation to new recruits, who are responsible for a large number of port accidents.

Talk to ports and union representatives and you find a diverse range of training needs, which vary depending on a port's size and its organisation. Some large terminal operators, for example, provide their own in-house training, whereas individual ports might look to training institutions. But best practice training programmes reveal the importance of soft skills, competency-based learning and practical on-the-job experience – skills which European leaders are now looking to integrate into a standard port worker qualification designed to improve safety and quality across the continent.

Whatever their situation, port authorities can no longer afford to ignore port workers' training needs, said Patrick Verhoeven, secretary general of the European Sea Ports Organisation: "One result of privatisation is

Gantry and mobile crane drivers at Port of Antwerp follow a comprehensive training plan

Investment in people

Photos: Port of Antwerp



that many port authorities think training is no longer their responsibility, but they are very wrong. Even if you don't employ port workers directly, if your port performs badly, with high accident rates your image will suffer, customers will know you have poor training and that your staff are unqualified and you will lose business."

Training standards vary significantly across European member states and while some countries, such as the UK, Germany, Belgium and the Netherlands have well-established training programmes that utilise world-class training facilities, some new member states in Eastern Europe have no training facilities at all and are plagued by issues surrounding the use of unskilled labour.

"Many new member states don't have the adequate facilities, training programmes, or training materials. In addition, they have no system for measuring the effectiveness of their training standards through monitoring," said Peter Turnbull, professor of human resource management and labour at Cardiff University and author of the ETF paper *Training and Qualification Systems in the EU Port Sector*.

The provision and funding of training at European ports tends to be dictated by each port's specific

operators employ permanent workers directly from the labour market and take on responsibility for training them via experienced training providers like the Ma-Co (Maritimes Kompetenzzentrum), as well as supplementing this with casual work hired from a labour pool as and when required.

Alongside these programmes, large global terminal operators run their own in-house training programmes – APM Terminals has mobile training simulators, which it can transport worldwide to deliver training wherever a new terminal is opening.

“ They have no system for measuring the effectiveness of their training standards through monitoring ”



Valuable skills... not all European countries have adequate training facilities for port workers

management and organisation. In Spain and Belgium, for example, terminal operators rely on casual labour to meet their daily requirements, so large labour pools have been set up by unions and employers, which train dockers in multiple skills to suit operators' varying requirements.

Conversely, in the UK, where the port industry has been privatised, large ports like Felixstowe own and run their own training facilities, set up to train a dedicated workforce with clearly demarcated roles and little need for multi-skilled workers. This approach has its advantages, as a Port of Felixstowe spokesman explained: "Regular changes to our port equipment and facilities make it very difficult to find training providers who have the necessary knowledge and skill to deliver training on the new equipment and new techniques required, so we are better placed to develop in-house."

Meanwhile, in Port of Hamburg, individual terminal

Best practice port worker training programmes provide valuable lessons on improving health and safety standards, productivity, efficiency and quality of service. Competency-based training with a focus on soft skills is particularly effective, said Turnbull: "[It] creates a more well-rounded employee by ensuring they have all the skills, knowledge and attitudes needed to perform a job."

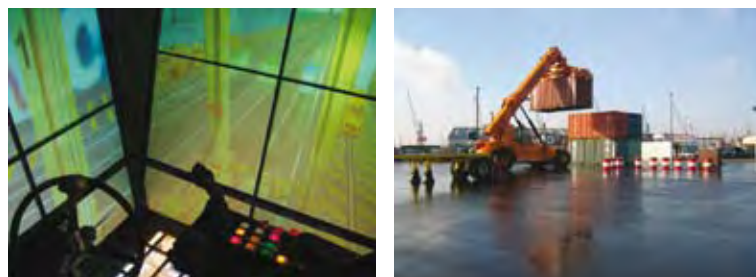
"Dockers are often trained in the 'hard' skills needed to operate a piece of machinery, for example, but competency-based training helps them maintain that learning over time by embedding learning in workplace culture and attitudes."

Turnbull drew attention to a recent study that compared the efficiency of workers unloading two identical container vessels in different ports. One port's dockers, trained in soft skills, "were much quicker at positioning spreaders on boxes





Photo: HPH



Photos: OCHA

Top: Hutchison Port Holdings provides its own training. Bottom: practical training is valued at OCHA

and anticipating any hiccups, which ensured the continuity of operations and meant the ship was unloaded much faster... Good training isn't just about following instructions, it's about being able to anticipate problems and make quick decisions."

German training institute Ma-Co runs a competency-based training system designed to offer great flexibility for employers and employees. The system's modular structure allows individuals to combine single learning components into competencies, which can then be combined into recognised qualifications.

The system is particularly well suited to ports needing multi-skilled workers that can fill different roles, Bernt Kamin, chair of the works council at the Port of Hamburg's dockers' pool, explained to *P&H*. "We manage over 1,000 dockers and modalising qualifications means we can get them all trained using the same methods to allow them to work in different parts of the port".

Turnbull also recommends the non-competency-based courses provided by Antwerp's port labour training centre, OCHA, which offers a basic three-week port worker training course, plus more advanced courses in cargo handling including fork lift driving, container lashing and special lifts.

OCHA has always placed a heavy emphasis on practical training – the basic course is only one-fifth theory-based – and the industry's shift towards more

technically advanced equipment and machinery has prompted it to invest in advanced simulator-based training. "In 2003 we introduced simulators for telecarrier operations and container cranes and last year we started a Gottwald mobile crane simulator," explained OCHA's general manager Guy Vankrunkelsven. "This virtual experience, supplemented by experience on real machines in the port, is crucial to help reduce accidents and increase production levels."

Gantry crane drivers at Antwerp must all undertake an intensive two-week programme on OCHA's simulator, followed by four weeks on-the-job training. Mobile crane drivers spend two to four weeks on the simulator, then five weeks on the job.

With inconsistencies in the quality of port worker training across Europe, many are now calling for a common set of training standards for EU ports and a universally recognised form of port worker qualification. This is one of the key issues to be discussed under the new sectoral social dialogue committee for ports, hosted by the European Commission, with input from ESPO, the Federation of Terminal Operators and the ETF and International Dockers Council unions.

"A major problem is a lack of information on what companies and port authorities are doing, what their training requirements are and the need for standardisation in this field," said ESPO's Verhoeven. "We need to look at the possibility of establishing common qualifications, recognised across Europe, which allow port workers to transfer their skills between jobs. It won't be an easy discussion as everyone will have their own agenda."

But there are obstacles to implementing such a qualification across the whole of the European Union, said Port of Felixstowe's spokesman: "While a standardised level of qualification couldn't be argued with, the actual delivery on a port-by-port basis is dependent upon the specific equipment, layout and operating systems of that port and needs to reflect the unique set of circumstances that prevail." Kamin said any standard qualification should not be based on minimum requirements: "Training should be standardised, not minimised, and oriented towards best practice. We should always consider increasing the level of qualification to make jobs more productive and safe."

Some think the flexibility of modular competency-based training systems, such as the ones taught by Ma-Co, could form the basis for a standard qualification. And for his part, Professor Turnbull believes the European Qualifications Framework might provide the mechanism to deliver it, while taking into account countries' different circumstances: "The EQF basically says: these are the outcomes you need to meet and we recognise that countries have different vocational and educational systems, so we don't prescribe how you get there as long as you get there. Of course, this will mean some countries will get there more easily and cost-effectively than others." **PH**

More info: www.itfglobal.org/etf/pd-project-training.cfm

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'World Peace through World Trade – World Trade through World Ports'

The UK's Marine Accident Investigation Branch (MAIB) has called for British ports to agree on a minimum level of support that a ship's crew should provide to pilots on the bridge. MAIB accident reports reveal that many incidents are caused by the breakdown of communication between the pilot and the ship's bridge team.

Between 1991 and 2009, 5,449 accidents were reported to the MAIB. The top three causes were contact accidents with jetties and other port structures, machinery failure and grounding. The first and third causes usually involve a breakdown in bridge communication, noted MAIB chief inspector Captain Steve Clinch.

At a British Ports Association (BPA) conference in Newquay, UK, in October, Clinch took the opportunity to emphasise the importance of good communication between the pilot and the bridge team. He cited an incident in early 2009 involving the *Vallermosa*,

ship's staff was aware that the plan was going wrong.

When the pilot boarded, the master stood back and handed over complete control to the pilot. The pilot therefore had no-one with whom he could discuss the revised voyage plan and he was the only one to monitor that plan, Clinch noted. He added that ships can be difficult to manoeuvre, with many factors such as speed, tide, wind, traffic density and channel topography affecting the outcome, so decisions should not rest with one individual but need to be monitored and sanctioned by the bridge team as a whole.

BP Oil UK took several actions as a result of the incident, the report stated. In future, operations will not be aborted for administrative reasons and the company will ensure that vessels have all the necessary paperwork when a certain distance from the port. The vessel's operator, Navigazione Montanari, has also taken note of MAIB's findings concerning the performance of its bridge teams.

Bridging the communication gap

Pilots need more support from ships' bridge teams, says UK accident investigator MAIB, which has called for Britain's ports to help make this happen

Photo: Joachim Affeldt



Working together... Bridge operations at Tilbury, involving both the UK pilot and the Burmese master

a product and oil tanker carrying 35,000 tonnes of jet fuel. The ship made contact with two oil tankers bunkering alongside at BP's Hamble Terminal in Southampton, UK, causing damage to all three vessels and the jetty and resulting in some pollution.

The MAIB concluded the following in its report:

- The vessel's approach was aborted unnecessarily for administrative reasons
- The pilot was experiencing a heightened workload, frustration and stress, which affected his performance
- The bridge team did not monitor the pilot's actions with sufficient thoroughness.

The aborted approach was not a decision made by the pilot or bridge team, but the second two points were within their control. Clinch explained that the original voyage plan had not been properly discussed between the pilot and the bridge team so that when the pilot became overloaded with information, none of the

Clinch told *P&H* that he wants both the pilots and crew, especially masters, to be responsible for understanding, monitoring and adhering to the ship's voyage plan. When the pilot is aboard, the master and pilot are both responsible, he asserted.

The MAIB has recommended that the UK Major Ports Group (UKMPG) and the BPA agree and define what they expect from the performance of bridge teams and pilots. In doing so, the UKMPG and BPA should:

- Identify any training requirements needed to enable pilots to integrate into a ship's bridge team effectively
- Assess the minimum level of support required by the pilot from the bridge team, and then ensure this information reaches the vessel. There should also be a procedure to identify and record vessels that fail to follow these minimum requirements.

The working group comprises harbor masters and pilots. From this, a sub-group has been elected and supplemented by representatives from the UK Marine Pilots Association (UKMPA) and the Chamber of Shipping, explained Port of Dover's general manager Port Operations and harbor master, Kevin Richardson. "This group worked very hard to define what is meant by bridge team/pilot integration and to look at training options and ways to get the message across to industry. The group worked very well together, much better than anticipated, and real progress has been made, resulting in firm proposals to be tabled at the forthcoming Port Marine Safety Code steering group meeting in Southampton on 1 December," Richardson said.

The issue requires a change in mindset from both the ship's crew and the pilot. While acknowledging that the UK's pilots are usually well-trained and skilled ship handlers, Clinch said that some believe they have no

On the bridge

A ship's bridge team usually consists of an officer of the watch (OOV) – who may either be an officer, chief officer or master – and a helmsmen. A cadet still in training will also spend time on the bridge and a GMDSS operator and lookout might be in position, if required. However, the bridge team is commonly a team of two: the OOV and helmsmen.

The master is responsible for the vessel, its crew and cargo. When the pilot is aboard, usually as the ship approaches port, the master must decide whether or not to act on the pilot's advice. In practice, of course, the pilot and master should work as a team, drawing on the master's understanding of the vessel and the pilot's experience of navigating vessels into a

specific port. During the approach to the port, the ship is sent a voyage plan, which provides information on the position of other traffic, where the ship should be at certain points of time, where it can drop anchor, and so on.

This information is usually transmitted by voice – via radar or telephone – by the vessel traffic management operator, which may be either the port authority or coastguard.

The MAIB's Steve Clinch pointed out that it is possible to send the voyage plan to ships with internet access well in advance of the vessel's arrival. The minimum level of support, as called for by the MAIB, could therefore be sent with the voyage plan – as is already the case for ships approaching ports in Australia.

need of support from ship's staff. This situation can also be exacerbated by cultural or language barriers on the bridge. Conversely – as demonstrated by the accident involving *Vallermosa* – the ship's staff may leave the pilot with little option but to work independently. These, he asserted, "are mindsets that they have to get over".

It's a recurring problem, agreed Richardson: "The MAIB update shows clearly that this is not a new issue." Several similar incidents have occurred where the lack of bridge team integration has been a substantial contributory factor, he added. "The potential impact is catastrophic: loss of life, business and pollution. It is an issue that needs to be addressed," he told *P&H*. Richardson, who is also president of the UK Harbour Masters' Association, believes that it has not yet been fully addressed because there are difficulties in getting agreement from all the parties concerned. "It involves the port authorities, regulatory authorities, shipowners, ship operators, crew and pilots," he explained.

Richardson concluded that a "port can and should play its part in this complex dynamic. Duty-holders in ports, harbor masters and designated persons under the Port Marine Safety Code all have a role to play and should support pilots when deficiencies in this critical bridge interface are encountered". They should make it very clear that it is OK for a "pilot to say 'No,'" he continued. "If a pilot has concerns about either the bridge team or equipment, he or she should be able to stop the vessel and go to anchor or a safe waiting area and be confident that their decision will be supported. The pilot should then assess the situation, sort out any issues, and only then proceed into port," he said. **PH**

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Photos: Cargotec

Lead the scanning revolution

Scanner-makers Cargotec and VeriTainer talk to *P&H* about the feasibility of 100% scanning and warn of the consequences if ports delay buying equipment too long

Spreader-mounted scanners allow the box to be scanned twice during transshipment – at both unloading and loading stages

The US government has spent nearly \$4Bn in the past two years seeking to establish specifications for nuclear detection architecture, such as cargo screening technology, as announced in September by the Government Accountability Office. This forms part of the debate over the 100% scanning requirement, whereby all US-bound cargo will have to be scanned at the export port. Discussion about its implementation has increased since July, with Democrat leaders in Congress wanting to know, by the end of the 2010 financial year, exactly how the Department of Homeland Security intends to implement the requirement.

The world's ports look on as the government puts together these specifications, but until ports are

sure of the requirement they are unlikely to commit themselves to purchasing any technology.

For product developers VeriTainer and Cargotec – creators of scanning equipment that can be installed in cargo handling equipment, such as spreaders and straddle carriers – these are exciting times. Kevin Orchard, managing director of VeriTainer UK, told *P&H* that the government has appropriated \$18M to spend on crane-mounted equipment in the USA. "As soon as any of the money is used the floodgates will open for crane-mounted equipment, as then they [world ports] will know what they [the US government] want."

Cargotec, however, believes that ports should take the lead in developing a "viable container scanning

Securing the supply chain

The Cargo Intelligence and Security Association (CISA), set up in September, is a coalition of transport security technology companies, which aims to close the knowledge gap between the private sector and the US federal government when it comes to determining whether a container is carrying a load of bananas or a nuclear weapon planted by terrorists.

"There are many innovative solutions to securing the nation's supply chain", said CISA president Ed

Harrison. Harrison is also president of US-based Powers International, a supply chain security company. "Some are already being used effectively in the US and other countries. Our goal is to foster sharing this information and innovative developments with the market and government leaders."

"Curt Powell, vice-president of Raytheon Homeland Security, told *Ports & Harbors*: "One of the reasons we formed is to inform the government that private

industry already has technology that works right now".

He continued: "The Europeans are ahead of us on this, only they're coming at it from an economic perspective. The same technology that makes your supply chain more efficient can also make it more secure. There's no reason we can't already be doing this too."

He said that scanning only tells you what's in a box the last time it was scanned. "It is the combination of many layers that will ensure proper cargo security."

roadmap". Troy Thompson, president of Cargotec Port Security, said that in doing so it "would give the global port community the best opportunity to influence the scanning protocol that will eventually be implemented throughout the world". He pointed out to *P&H* that container ports have the opportunity today to operate as stakeholders "in helping to define methods of scanning that will be least disruptive to port commercial operations. In particular, ports have the opportunity to influence whether scanning will be performed by traditional port container handling equipment in the normal course of port operations, or at special container scanning centres at the terminal."

There is no single solution to 100% scanning. Orchard believes that to meet the legislation ports will need to implement a "multi-layered approach, which is expensive and complex". This would include many types of sensor in a port's equipment that would be used alongside, for example, a physical search conducted with a handheld scanner. Effective data-based risk management systems will also play a key role.

For Orchard, the way in which the 100% specification is defined will determine whether it can be achieved. He told *P&H* that if it required a container to be scanned by one sensor from a list, then it could be possible. But if the government stipulated that all containers must be X-rayed, "then no, never," Orchard insisted.

The US ports of Oakland and Tacoma have conducted trials with the VeriTainer technology, while the Port of Charleston, and again Tacoma, has trialled Cargotec's products. The Singapore government has also tried out VeriTainer's product. Both developers maintain that this type of scanning could provide considerable benefits in transshipment ports, such as Singapore.

Thompson noted: "Containers arriving by rail at transshipment centres often sit for some time in holding areas of the terminal, creating the risk of tampering after the container has passed through scanning at the port perimeter. As such, any effective container security strategy must address the special security risks associated with transshipment terminals."

Using scanners installed in a spreader bar would mean that the box will be scanned twice: when unloaded from the first vessel and when loaded on to the second. "You can tell whether the container has been touched, as it will be scanned twice," Orchard said.

Both versions of the container handling equipment-mounted scanners can detect nuclear materials, but beyond this can also identify the radioactive signatures of different materials. For example, the radioactive signature of a car is different to that of cloth. The possibilities for this are wide-reaching, Orchard said, as in the future this information could be integrated in a wider system that could check what the cargo should be, against what it is.

There is a big revenue-earning potential for ports if they get involved, Orchard believes. They can charge more per container for the scanning service and lease out the land required to accommodate any security equipment. And if they don't comply once the requirement is fully implemented, shippers could simply go to other ports, he said. **PH**

New publications

Dredging in figures 2009

This review of the global dredging market focuses on the situation in 2009 and is published in October 2010.

This review analyses the development of the different industry drivers, the capacity figures for the main dredging equipment as well as the market turnovers specified in different regions and in types of projects.



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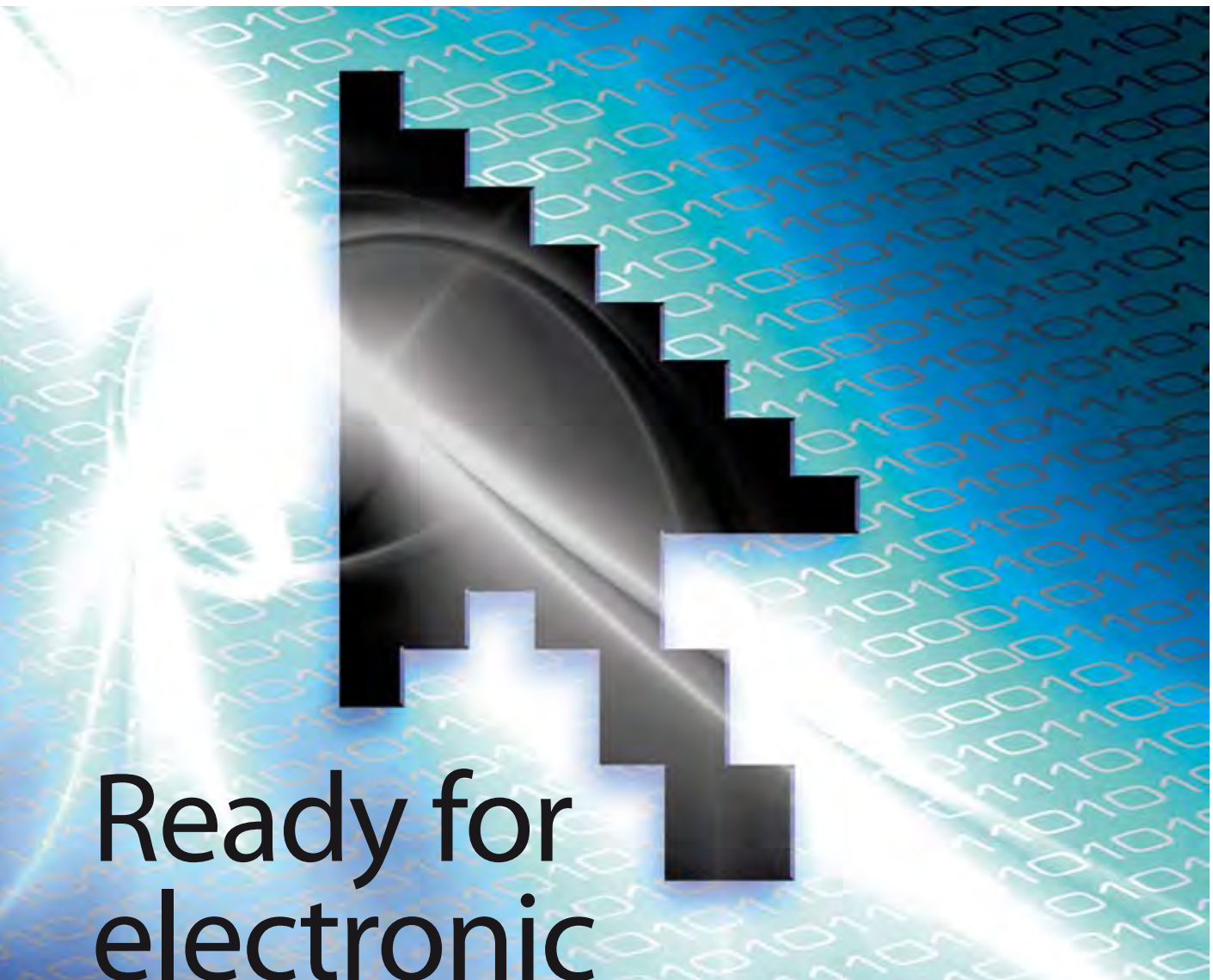


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Ready for electronic sign-off?

Shippers have been slow to adopt electronic documents but recent changes in international regulation could encourage faster take-up. **Neville Smith** reports

The move towards the digital economy has more than one driver even if, at times, it feels as though the increase in electronic commerce is the result of pressure from the suppliers of IT systems and software. In fact, uptake of e-business is driven not just by the need for greater efficiencies and potential cost savings but also by the impetus of compliance. In the maritime and ports sectors, more and more information and data must be transmitted between trading partners and authorities.

The 'push' for pre-filing of ship and cargo information has been felt most strongly since 2001 and the aftermath of the terrorist attacks in the USA. The supposed vulnerability of the supply chain has tightened the focus on ship and port security, a process that looks set to continue.

The 'pull' meanwhile takes the form of changing historical ways of working. Shipping is a paper-driven business from one end of the supply chain to the other. Despite the increased use of the internet and email, shippers and carriers, forwarders and agents continue to view paper as the gold standard.

But this too, is slowly changing. The most recent revision to the World Customs Organization's Kyoto Convention (International Convention on the Simplification and Harmonization of Customs) requires signatories to apply IT solutions to support customs operations. New or revised national legislation should provide for e-commerce methods as an alternative to paper-based documentary requirements and employ electronic as well as paper-based authentication.

In the maritime sphere, the IMO's Facilitation Committee (FAL) is shadowing this development and

working towards the 'single window' concept, such as a port community system (see page 22). This is broadly defined as a facility that allows all parties to lodge standardised information and documents at a single entry point to fulfil all trade and transit-related regulatory requirements.

Both the IMO's work and the WCO convention have also been helped by growing international recognition of the legal equivalence of electronic signatures and electronic documents by WCO governments.

Perhaps the most obvious progress for shipping companies is the recognition in the Rotterdam Rules of electronic documents and electronic signatures. The new standard for contracts of carriage wholly or partly by sea, the Rotterdam Rules make it clear that electronic bills of lading should be acceptable to buyers and sellers of freight.

It is not the case, however, that the signing of the rules has opened the floodgates to a take-up of electronic bills of lading. Container lines have been among the earliest adopters, using a form of waybill common to courier companies to govern container shipments. But the bulk, tanker and general cargo sectors, where the majority of the trade volume lies, continue to move mountains of paper in the course of a single shipment.

Initiatives to move the industry towards electronic documentation are the exception rather than the rule, therefore, although now at least they operate under

have worked with eDocs, they tend not to want to revert to paper processes. Research commissioned by ESS estimates that importing a single cargo using traditional means requires an average of 36 original paper documents and 240 copies from up to 27 parties. Very often, each party will run an independent IT system, preventing even limited data sharing across systems.

The first ESS eBill was issued earlier this year by the tanker *Bro Deliverer* for a shipment from Ineos' Finnart terminal in Scotland to BP's terminal in Belfast, after being electronically signed by the vessel's master.

Marine officer at Finnart Ian Jack pointed out that as the originator of the eBill, the terminal probably gives the most benefit to its trading partners and increased participation will be important if the concept is fully taken up. "It's definitely easier to deal with for the ship and it makes the process much faster," he said. "There are details to be worked out, but it's the way the world is moving. It has to be the way to go."

Broström Tankers' operations manager Andreas Jørgensen said his company had long wanted to streamline its bill of lading process, but desire had foundered due to the size of project. "We hadn't been able to find partners for an eBill project until we were approached by BP, who got us in contact with ESS. I don't think it would have gone through if it had not been for ESS because you need someone external who is doing it to push the process in the right direction."

Jetty 2 at the Finnart Terminal in Scotland where the first ESS electronic bill of lading was issued



Photo: Ineos

“Definitely easier to deal with for the ship and it makes the process much faster”

something approaching a harmonised framework.

There are two solutions providers for electronic shipping documents (eDocs). Bolero spent a decade obtaining legal and insurance equivalence for its eBill of Lading (eBill) service before switching its focus to trade finance and facilitation, a system in use by banks, commodity traders and retailers.

Electronic Shipping Solutions (ESS) has focused on moving shipping documents online and succeeded in launching an eBill service in early 2010 after five years' work. ESS also offers electronic safety data sheets and is developing similar for customs clearance procedures.

The eDocs methodology is slowly gaining acceptance – the International Group of P&I Clubs has now recognised ESS and Bolero eBills as providing acceptable equivalence to paper shipping documents. Both require their members to sign up to a separate agreement under which they assume obligations necessary for the system to operate, so adoption requires careful consideration and a commitment among trading partners that the benefits can be shared.

But like many other new technologies, when users

Jørgensen believes that it is the right time for change, with more ships upgrading their communications to broadband, giving them the ability to send and transmit data around the clock. The company's desire to be in the forefront of using technology for efficiency works in harmony with its safety commitments also.

And there is little doubt that to log in to a single distributed IT system is more time-efficient than the traditional bill of lading process, whereby the terminal or agent brings the bill of lading to the ship for the master to sign and copy.

Moving a paper bill of lading between offices still requires scanning, fax or email and Jørgensen said Broström would welcome the extension of eDocs to other shipping documents.

As a result of the successful use of eDocs at Finnart, Ineos has agreed to roll out the service at its Grangemouth Refinery and Finnart has become a hothouse for what is possible when trading partners embrace eDocs. A recent transaction at Finnart saw an original eBill issued to the consignee and produced back to the vessel in 13 minutes, before the vessel had even departed from the port. **PH**

“Information exchange creates value whereas data storage is not efficient in order to support the trade of goods,” Frédéric Dagnet told *P&H*. Dagnet is chair of IAPH’s Trade Facilitation and Port Community System (TFPCS) Committee and strategy and finance deputy director at Grand Port Maritime de Marseille, France. This is one of the biggest challenges in implementing a PCS, he said, because stakeholders “have to be convinced that this solution will allow gains for everyone” by accelerating cargo transfer through ports without losing commercial data.

A PCS is an IT-based platform aimed at streamlining a port’s administrative procedures, Dagnet explained. It is a ‘single administrative window’ within which all electronic shipment transactions can be performed and the many actors in the cargo network are easily accessible. Essentially, a PCS can ask for and receive authorisation for berthing a ship, book space on a ship, arrange land transport for cargo, and receive an electronic customs clearance, he told *P&H*.

The TFPCS Committee wanted to have a better

understanding of PCS implementation across the globe. At a committee meeting in December 2009 it therefore decided to carry out a survey across IAPH member ports that have a PCS in place. Bearing in mind this definition, the objective of the survey is to identify the “best PCS projects currently available and to have a comprehensive report on them, in order to keep all IAPH members updated about the current world situation and best options of PCS projects worldwide,” Dagnet said.

Approximately 15 ports will be, or have been visited by experts chosen by the Committee and the port’s PCS will be considered using the same questionnaire. The survey is comprehensive in scope and, among other things, covers:

- *Services and procedures offered by the PCS:* such as the documents it is able to handle
- *Operational model:* including agencies involved and the relationship between government agencies
- *Business model:* including equity structure, costs of establishing the system and associated fees

An IAPH committee, chaired by Frédéric Dagnet, has set up a project to establish best practice for IT-based port community systems

Knowledge-sharing at every level

Photo: Shutterstock



- **Technology:** such as its architecture, type of interface and where data is kept
- **Security:** whether the port is ISO 27001-certified, encryption of data and digital signatures
- **Change management:** covering management strategy, promotion and customer service
- **Legal framework:** such as whether use of the PCS is mandatory within the port and participants' contracts.

A representative from the committee visits a participating port for two days. On day one, the representative goes through the questionnaire with the PCS operator. He then visits the port to see the benefits of the PCS in action and to ensure that the PCS described by the port is accurate in function and capability. On day two, the representative meets the stakeholders involved in the PCS, to get their feedback.

PCS provider Maritime Cargo Processing has given its expertise to the survey. Office manager Ole Krebs, who is one of the visiting committee representatives, acknowledges the survey's importance and has been urging all the ports that have been invited to take part

Participating ports

- | | | |
|--------------|-------------|---------------|
| ■ Antwerp | ■ Israel | ■ Shanghai |
| ■ Barcelona | ■ Japan | ■ Singapore |
| ■ Felixstowe | ■ Le Havre | ■ South Korea |
| ■ Hamburg | ■ Malaysia | ■ Valencia |
| ■ Hong Kong | ■ Marseille | |
| ■ India | ■ Rotterdam | |

to do so. "The project includes a number of advanced ports with highly integrated IT systems... but we do need a broader base, particularly from India and the Pacific Rim," he told *P&H*.

A final report is planned for presentation at the 27th IAPH World Ports Conference 2011 in Busan, Korea.

Krebs observed that the term 'single window' – often used in relation to PCS – should mean just that. He further believes that this can only be achieved if there is a commercial reason to provide the drive to speed up the movement of electronic data. Where a PCS is already established it is ideally positioned to act as a gateway to a 'single window'. However, where it is not, establishing a PCS will provide a commercial drive for a business-to-business service, he explained. This should then evolve into a single window, resulting in business-to-government and government-to-government interfaces. "When the system starts to exchange data at these levels the real benefits of data-sharing will be seen," he said.

He pointed out that we are already seeing ports working within the same PCS on a national level – most of the ports in France, he noted, are working via the AP+ system and in the UK the Destin8 system is used to handle 90% of maritime container trade.

IAPH's PCS survey project should be seen as an important step in understanding the true potential of a PCS that is fully supported by all the players, both in the port and beyond. **PH**

PCS from a shipping line's perspective

Maersk Line's director of customer service for the Netherlands, Bert van Grieken, spoke to *Ports & Harbors* about the operational and cost implications of a PCS.

"Maersk Line uses the Port of Rotterdam's PCS continuously to log import manifest data for all vessels calling at the APM terminal.

"Most importantly for us, PCS functions as an intermediary between us and customs, but it can also be accessed by our customers wishing to see the present state of their container and how it has been logged with customs.

"Information for each individual Maersk vessel is extracted from our core documentation system into a local software application, which generates an electronic data interchange (EDI) message that's sent to Rotterdam's PCS. We can also access the PCS software ourselves to change data if necessary.

"The best thing about PCS is that information can be sent to various authorities at once in one data format, which is much faster than the old system of having to send manifests in printed format and send correspondence to veterinary or other authorities.

"The fact that customers can access the PCS online to get the information to complete their part of the customs declaration saves us lots of time, as previously they would often have had to call us to check the declaration number and how we declared the cargo. Customers can also see if there has been a customs inspection or if there is a customs block on a container.

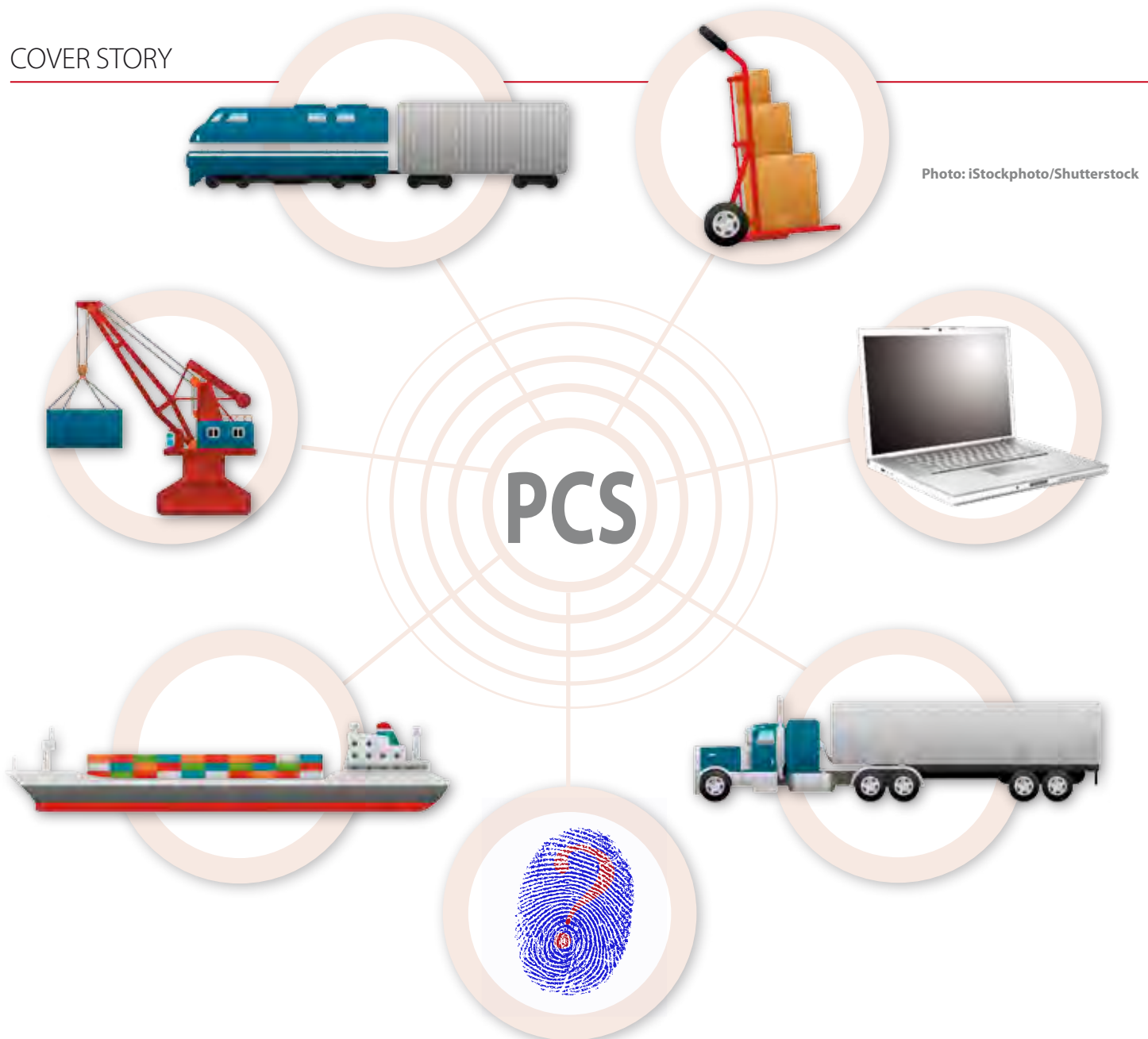
"On the down side, shippers can pay high fees for a PCS, depending on the amount of data they send. For example, a ship carrying 1,000 containers will pay much more than one carrying 50, as 1,000 sets of information must be sent. It is also possible that shippers would prefer to pay for PCS as part of their port dues, rather than via monthly invoices, which are time-consuming to check through.

"There is a risk of a monopoly situation emerging with PCS, leading to over-elevated prices. There is just one PCS at Rotterdam and no competing systems, so shippers can't compare prices of different providers or review their options each year.

"It's not a problem right now, but, who knows, they could double or triple prices in the future. Once you have invested in the necessary technical set-up you're effectively tied into a single PCS system, which makes it difficult and prohibitively expensive to switch back or change provider.

"I would like to see changes to the governance model of the PCS, which gives port customers some control or influence over the management, development and commercial policy or price-setting of the PCS. We don't want our fees spent on parts of the service we don't need, for example. Our fees currently cover research and development of the system, but port authorities should finance this, while private users just pay fees to cover the going concern.

"Ultimately Maersk Line is happy with PCS in Holland. Cost and service levels are the two most important factors we consider when deciding whether to visit a port and PCS definitely helps with both of these."



All aboard the PCS

Ports are a crucial node in the port community system (PCS) web and must convince other players to take part. IAPH's survey project is intended to provide best practice advice for ports looking to implement their own system

In its July 2009 issue, *P&H* quoted Pascal Ollivier, director of development at PCS operator SOGET, as saying that the most important consideration when implementing a PCS is change management – managing not only a new way of working but also people's attitudes towards that change.

More than one year on, similar sentiments are being expressed by a number of IAPH member ports that took part in the association's PCS Survey Project. *Ports & Harbors* asks these ports how it all started.

Case study 1: Barcelona

The PCS at the Spanish port was implemented in 1998 and started operating in 1999. The aim was to improve the port's productivity – reducing the time dedicated to paper-based processing of goods, said Maite Roman Ramentol, an analyst at the port and co-ordinator for the IAPH project. The main challenges the port faced when implementing its PCS can be categorised within three groups, she explained.

■ **Security and trust:** Those involved found it difficult to trust that the information they shared with other participants would be secure. It is therefore important to emphasise the safety of the system from both a technical and legal perspective, said Ramentol. From a technical viewpoint, players need to be reassured that information is managed in a secure way.

■ **Benefits:** A company's IT department may initially advise its manager that its own system can achieve the same ends using electronic data interchange (EDI) technology, she said. It is important to get these IT teams on side and show them how participants can work together via a PCS, she added as this is not something an individual company can do on its own.

■ **Enrolment:** To get companies to enrol, the PCS must offer products and services that they find attractive, said Ramentol. The new service should offer value for money and save time, and a pricing policy should be established in accordance with the port's framework. Beyond that, promotion of the PCS, both within the port and beyond, is vital. It is also important to familiarise personnel with the system through training.

Ramentol's most fervent recommendation is to convince the port community that the PCS is not exclusively an IT project. It is more a change of mindset – change management – that will completely alter the processes and relationships of the port.

Case study 2: Le Havre

The Port of Le Havre's AP+ PCS was introduced in 1983 in partnership with SOGET, initially to facilitate trade. As one of the early pioneers of the system, Ollivier said once again that the most important requirement was change management – “in an industry where practices are 100 years old”.

Ollivier went back to his ‘10 rules methodology’ – also cited in *P&H's* July 2009 issue – which include partnering with customs, establishing public-private partnerships, training and nominating an individual to champion the PCS.

If implemented correctly, there are rewards from a PCS, he said, including a “dramatic increase of productivity for logistics operators” and “compliance with eCustoms regulations”. SOGET is involved in the IAPH survey project, visiting a number of participating ports to find out how their systems operate. Overall, he believes that the project “will be an excellent tool to support the development of PCS around the world”.

Case study 3: Marseille-Fos

Monica Bonvalet, director – head of the Shipping Department at Grand Port Maritime de Marseille and chair of the IAPH Communication and Community Relations Committee, told *P&H* that a port's community is of “utmost importance”. It's the people within this community – the freight forwarders and logistics providers, the shipping agents and other port-linked service providers – that are striking the deals that will attract cargo to the port. “I do believe that it is essential to work and succeed together,” she said.

The Marseille-Fos port community, consisting of private companies and public bodies, has been in place since 1989. From 1989 to 2005 the port used Protis, and since September 2005, the AP+ system has been in operation.

Marie Pavesio, head of communication at Marseille Gyptis International (MGI), co-owner with Soget of the AP+ system in Le Havre, explained to *Ports & Harbors* that the system now links, in addition to Marseille-Fos and Le Havre, the following ports: Algiers, Bordeaux, Fort-de-France in Martinique, Nantes-Saint-Nazaire, Pointe-à-Pitre in Guadeloupe, Port Louis in Mauritius, and Rouen. The Port of Cayenne in Guyane/French Guiana is due to adopt the AP+ system this month

and Paris-Gennevilliers, Mayotte in the Indian Ocean and Nouméa (New Caledonia) will be added soon.

Other French and foreign ports have expressed their interest in this kind of system, which brings together public and private professionals around a common PCS with the same objective – greater competitiveness with regard to new international security regulations. Pavesio explained: “The Marseille-Fos port community had to be equipped with a PCS in order to be more competitive. Common interest in setting the rules and procedures was taken into account.” The process of setting up the PCS involved workshops with public and private port professionals that were organised by a neutral company, she explained. “Moreover, one of the main challenges was to convince all the stakeholders of the community to work together around a central system.”

Key to successful implementation of a PCS, said Pavesio, is co-operation of public and private participants, involvement of customs (essential) and high levels of communication throughout the system's introduction. But in her view the port should, above all, “study deeply the logistics process to be able to validate the users' requirements before implementation”.

MGI is involved in IAPH's survey project and, like SOGET and MCS (see p22), it is a member of a team of interviewers that is surveying a number of ports, including Israel Ports (see below). Pavesio acknowledged the project's value: “We can see in the different parts of the world how port communities are using PCS and how they are defining it”. She hopes that an outcome of the survey will be a clear definition of a PCS so that “everybody speaks the same language”.

Case study 4: Israel Ports

Israel Ports' Mainsys (Maritime Integrated System) PCS was surveyed by a representative from MGI. The system was implemented in 1985 and it won silver prize in the IAPH IT Awards in 2007. Amiram Heidecker, the ports' director of information technology, said that it was “interesting and productive to hear about challenges and experience from other [ports]”, during the MGI representative's two-day visit. Mainsys was introduced to streamline procedures between the various Israel Ports-managed ports – Ashdod, Haifa and Eilat.

It was sorting out the human, rather than technical, issues that proved crucial to implementing this PCS, the port revealed. It also held frequent meetings with the stakeholders involved. The biggest obstacles the port encountered during the implementation phase were:

- Conflicts of interest between stakeholders
- Development priorities, including software
- Communication between stakeholders.

The Mainsys PCS is already a national system and in the future a data-exchange agreement with Marseille is planned.

The case studies of these ports represent the experiences of just a few of the participants in IAPH's survey project. As a result of this project, it is hoped that many more ports will consider the possibility of creating a PCS of their own. **PH**

Spider in the logistics

The ports of Rotterdam and Amsterdam both use a port community system that could link them with a wider network, discovers **Jem Newton**

The European Union is attempting to solve its dual transport headaches of road and port congestion. A justifiable boast of Dutch port community system (PCS) Portbase is that it is already helping to reduce the country's port congestion. In the future, it could also make an increasing contribution to the process of moving cargo off Europe's roads.

Describing itself as a neutral 'spider in the web' for all port logistics information, Portbase is starting to expand into port hinterlands to link all commercial players involved in the various overland supply chains.

Portbase is well on the way to becoming the Dutch national PCS. The systems run by the ports of Rotterdam and Amsterdam merged into Portbase in 2009 and the joint system is in the process of linking up with other important Dutch ports including Vlissingen (Flushing), Terneuzen and Den Helder.

"Currently we have around 2,000 customers in all port sectors with 5,000 users," said Portbase managing director Iwan van der Wolf. It offers 34 services – some business-to-business (B2B) and some business-to-government (B2G). Of the government entities, port authorities, harbor masters, customs and inspection services are all connected to Portbase, he told *P&H*.

Inter-port co-operation has been positive, according to van der Wolf. Rotterdam and Amsterdam have not only worked together successfully on Portbase, but also on Keyrail, which has run a dedicated rail cargo service to the German border since 2008. The PCS has discovered that while offering generic services suits many businesses that have dealings with government bodies such as customs, the same is not always true for some of Portbase's B2B operations.

"When we started the Rotterdam PCS [as Port Infolink] in 1992 we developed a lot of generic services for our B2G operations, but more specific solutions need to be developed for B2B services," van der Wolf said. So Portbase has also developed itself as a platform analogous to the iGoogle concept. "We discovered we

could not develop everything both generic and specific for the whole port and cargo community, which is too large, too diverse and because ICT [information and communication technology] developments are moving too fast. So we proposed to become a facilitating platform that offers possibilities for other ICT providers to offer solutions on or connected to our platform," revealed van der Wolf.

The Port of Rotterdam – with some of its operators such as Europe Container Terminals (ECT) – is developing a pioneering concept to address the problem of port congestion experienced in the last shipping boom. The Extended Gateway concept focuses on moving the sea terminal gate into the hinterland and linking to other stakeholders in the inland supply chain to control the flow of cargo. Portbase is playing a key role in this development by hosting links for transport operators outside the PCS remit through its Logistics Service Portal (LSP). The idea is still under development, although it is likely it will use GPS technology to track the cargo.

"The idea of the LSP is to focus on the nodal points within our hinterland to optimise cargo flows to and from our ports," explained van der Wolf.

As it develops its TEN-T network of fast freight corridors across Europe, the EU's Mobility and Transport Commission is particularly interested in this pioneering concept of extended gateways, since it also suggests a possible means of achieving one of TEN-T's goals – relieving Europe's road congestion by efficient use of co-modality. Portbase's links with hinterland operators, including rail and barge services, might eventually make it possible to pre-manage the most efficient way for cargo to reach its destination avoiding – and not contributing to – transport bottlenecks.

Van der Wolf, along with several other leading PCS professionals – Jacques Ritt, CEO of Soget; Alan Long, MD of Maritime Cargo Processing; Santiago Mila, CEO of Portic, and Reimund Ott, CEO of DBH – came



together to create the European Port Community Systems Association (EPCSA) in September. The idea is to influence public policy at a European level in relation to e-logistics in ports.

But van der Wolf is realistic about current realities, pointing out that the European Commission's vision of a single efficient transport area is still a long way off. "Europe wants to connect up the national networks and streamline cargo movement, but in reality that will take a very long time. So the focus we have right now is still the Netherlands, also because the Dutch ports are among our shareholders.

"We would like to facilitate the Extended Gateway concept and look at it from a broader perspective than the commercial operators, asking 'What can we do for the port community as a whole and what can we do to integrate the B2G services?'," he explained. "We are also thinking of connecting with providers like TomTom [GPS navigation system] so we can notify players on the Portbase system about traffic congestion so they can optimise their routing," he added.

Another bonus of the Portbase system is that for the first time it is able to offer detailed information on cargo

arriving from overseas, such as the nature of the cargo, its origin and destination, the carrier, and whether the cargo is hazardous or dangerous. Hitherto this has not been available to cargo terminals or hinterland transport operators. "This has been a black hole in the port process, but this service is now growing very fast. We can see when goods are arriving, when they are selected for a customs scan etc, so it gives a really clear view of the status of the cargo," van der Wolf explained.

Portbase also offers several services to the on-carriage operator, for example giving feedback on the availability of containers to minimise turnaround time at the terminal and improve the degree of utilisation of transport modalities. "This is the area where the real competitive position of the port is now being made," he commented.

But Portbase is constantly aware of its dual function of being an enabler of other businesses as well as an information provider. "We need to establish a position so that we leave room for players like ECT to develop their own processes; they also need to improve their competitive position and make their own products on our system," explained van der Wolf. **PH**

Portbase from the port side

Portbase is a good system for Amsterdam because it enables port customers to speed up their administrative process, Micha Hes, port project manager for Portbase at the port, told *P&H*.

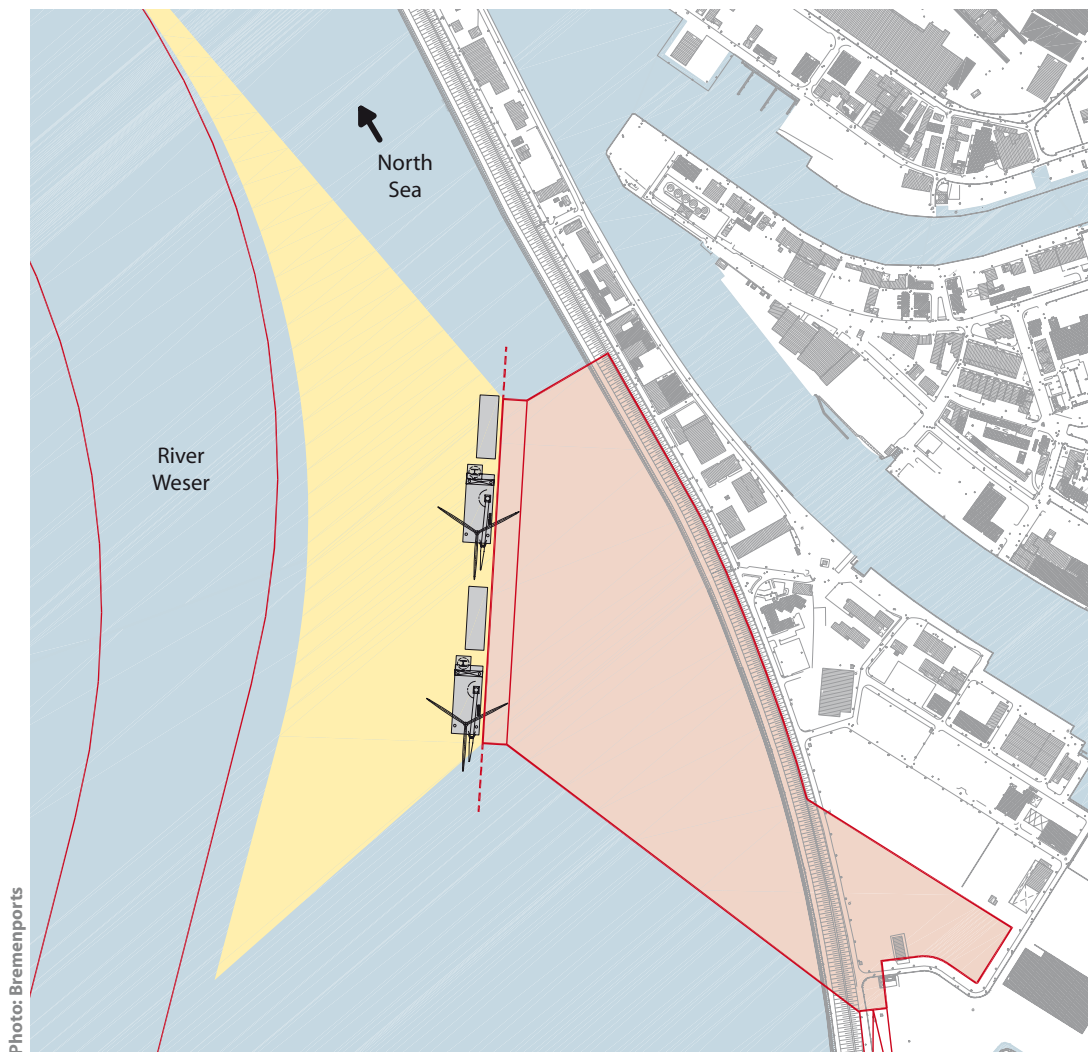
"As a port authority there are, of course, areas where we need to be digitally connected, but for our customers it's much easier working with a system that connects both Rotterdam and Amsterdam and in future other Dutch ports too. It makes it much easier for ship agents to do their administrative work particularly as regards bulk and break-bulk cargo."

A spokesman for Rotterdam Port Authority said it uses four Portbase applications relating to vessel arrival and compliance, namely vessel notification, notification of dangerous goods, waste disposal and communicating harbor dues.

Rotterdam would welcome the extension of the PCS to other Dutch ports, particularly the

neighbouring ports of Flushing and Moerdijk. "For us, Moerdijk being online is particularly important because the vessels have to come anyway through the Port of Rotterdam. Vessel notification for Moerdijk is already in our system," he told *P&H*.

Portbase's Logistics Service Portal is another platform that the port is keen to see developed. "As a port authority we are not directly involved in cargo, but we are interested because of increasingly important issues such as modal split, sustainability and pollution reduction, but always via the stevedoring companies and the shipping lines. If we look at use of applications such as the cargo declaration, import EDI [electronic data interchange], the customs scan process and cargo discharge, it's quite logical that that should be extended to inland hubs such as Venlo or to the smaller ports such as Moerdijk," the spokesman said.



New port for clean energy

Bremerhaven is constructing an offshore-wind energy terminal and is looking for a private investor, reports IAPH member **Stefan Färber**

The new terminal, marked in red, will be able to handle large pieces of wind turbine equipment

IAPH member Bremenports – a port and infrastructure management company for the ports of Bremen and Bremerhaven – is planning to build a terminal for loading and handling offshore-wind energy equipment, such as wind turbines, for destinations in the North Sea.

This new port will be located in the northern part of Blexer Bogen – situated on a bend on the River Weser – close to a number of offshore-wind energy component producers in Bremerhaven. Its location was agreed on 15 June by the Senate of the Free Hanseatic City of Bremen. The senator for Economic Affairs and Ports, Martin Günthner, was asked to initiate the approval procedure immediately. Günthner said: “With today’s decision the Senate is sending an explicit signal. We want to offer the industry perfect conditions so both the industry and the city can profit from the current boom in renewable energy. Climate protection

creates qualified employment.” The senator also wants to maintain momentum in order to see the €200M (\$267M) development completed in 2014.

The Port of Bremerhaven is located on the estuary of the River Weser where the river opens out to the North Sea. Already 31 offshore windfarms in German waters have been approved – 25 of which are in the North Sea. A further 51 offshore windfarms have been applied for. It is hoped that the offshore wind terminal will help the City of Bremerhaven defend its position as Germany’s leading location for the offshore-wind energy industry.

One advantage of the port is its location and in particular its proximity to a number of players in the offshore energy industry, which should reduce land transport costs. Up to 25% of offshore-wind energy costs are associated with logistics – companies situated close to the new site should be able to reduce these

costs significantly, as land transport can be avoided.

The new terminal will cover 25ha, incorporate a quay wall about 500m long and have sufficient capacity to handle up to 160 offshore-wind turbines a year. Heavy cranes and special handling equipment will be installed on the terminal both to assemble the components and then to load them on to vessels for their eventual transportation offshore.

When the rotors are fully assembled the blades of a wind turbine have a diameter of 120m. Earlier this year, experts were concerned that the width of these blades, if transported horizontally, could cause an obstruction for traffic sailing in the busy shipping lanes on the River Weser. A solution was found: rather than transporting the assembled rotors horizontally, one option is to assemble the blades on to the rotor at the final destination offshore. The region's airport, Luneort, will be affected by the development of the new terminal, because it is located behind the river bank close to the new terminal. The cities of Bremen and Bremerhaven have been asked to find an alternative solution to enable both the airport to handle its flight traffic and the new terminal to handle offshore parts.

When the planning process began, Bremenports engineers considered various locations. A shortlist of 12 was made, and from this two were identified for close consideration.

One of these two alternatives had ecological disadvantages. If this site was chosen it would have been difficult to compensate for the environmental damage created and remain legally compliant. Therefore the location at Blexer Bogen was agreed upon.

The offshore-wind energy terminal will be built and operated by a private investor, as Günthner wants to move away from the landlord port model. Under the landlord port model the public authority is owner of the infrastructure and is therefore also responsible for building and maintenance costs. The superstructure, however, is owned and maintained by a private company. Bremerhaven is now looking for a private investor and operator so that it can move away from landlord port status for the new terminal.

Eurogate – one of Bremerhaven's container terminals – is currently accommodating the offshore-wind energy equipment at the southern end of the terminal. The local terminal operator signed a two-year-contract with



Photo: Repower

Specialist equipment is required when handling the components of a wind turbine

RWE Innogy in May to allocate sections of its terminal for the storage and handling of heavy equipment for RWE Innogy's offshore-wind park – Nordsee-Ost – situated 35km north of the island of Helgoland.

Bremenports' engineers are constructing and reinforcing the seabed at the berths to support the heavy equipment that offshore construction vessels – such as the two self-propelled jack-up vessels commissioned by RWE Innogy – that come alongside will handle.

For the duration of the contract, the area previously used to store containers, carry out gantry crane operations and other container handling utilities will be moved to a different location.

Container handling will, however, remain Eurogate's core business. The shipping, storing and handling of wind turbine equipment is only an interim solution until the boom in container handling returns. By then the new offshore-wind energy terminal at Bremerhaven should be ready for business. **PH**

Stefan Färber is the management assistant at Bremenports

More info: www.bremenports.de

New home for avocets

The chosen location for the new offshore-wind energy terminal at Bremerhaven is subject to environmental regulations relating to the protection of wildlife species under European Union regulations. In order to compensate for any environmental impact when creating the new terminal, Bremenports has taken extensive measures before starting construction. A new area of around 30ha is being created as a substitute for the mudflats lost in the creation of the terminal and which are home to a very special bird, the avocet (pictured). These environmental measures account for 10% of the overall cost of the terminal project.



Photo: Bremenports

Rail links for Gulf ports

Jem Newton reports on a variety of rail projects that would safeguard the region's access to western markets should the Strait of Hormuz close

The Strait of Hormuz dominates a strategic international shipping route, with about 40% of the world's traded oil passing through the narrows, not to mention general cargo traffic. Gulf ports have placed themselves at the forefront of plans to diversify the region's transport options, in the event regional instability results in the strait's closure.

Faced with increasing congestion along Gulf coastal highways and the environmental implications of increased road traffic, the Gulf Co-operation Council (GCC) states have agreed to build a regional rail system that will take pressure off the roads and give Gulf ports a rapid cargo connection across Saudi Arabia to the Red Sea port of Jeddah. Furthermore, discussions with non-GCC states – Jordan and Syria – have opened up the possibility of extending that network northwards, offering for the first time a direct rail link to Europe by the end of this decade.

The strategic importance of a rail option in the future planning of United Arab Emirates' (UAE) ports is demonstrated by the fact that DP World vice-chairman Jamal Majid Bin Thaniah is a member of the Union Railway board, a DP World spokesman told *P&H*. The board is overseeing the construction of a coastal railway linking up all the Emirates, which could eventually serve the whole Gulf coastline from the port of Muscat in Oman to Kuwait City.

GCC assistant secretary-general for economic affairs Mohammad Bin Obeid Al-Mazroui said the GCC element of the network would be built according to a timetable agreed by member states with the aim of operating it from 2017.

"It's still early days; we are still at the planning stage of developing the interlink between the Gulf line and the individual ports," Bassam Mansour, the engineer in charge of rail development at the UAE's National Transport Authority (NTA) told *P&H*. "One of our key tasks is to ensure there is full consultation with the port authorities."

For example, Mansour added that, as a new industrial area, Bahrain's Khalifa Bin Salman Port had been closely involved in intermodal planning discussions. A spokesman for the Bahrain maritime body – General Organisation of Sea Ports (GOP) – explained that the arrival of a railway line posed connectivity challenges: "As with any large-scale infrastructure development project, there are challenges with the complex

linkage process involved. Any major transportation link has to fall within Bahrain's ongoing infrastructure augmentation plan."

He continued: "GOP, which is represented on a national committee for this, is in communication with relevant parties in the Bahrain Government to discuss and agree how best to achieve this."

The DP World spokesman said plans to build a railway connection to the port of Jebel Ali were also at an early stage and the operator would provide more information and discuss the implications once the rail plans were further advanced.

An independent Middle East think-tank believes that the 2017 deadline may be too optimistic. "The project is the combination of several national rail projects that will need to be co-ordinated by a committee at GCC level," Dr Eckart Woertz, programme manager, economics, at the Gulf Research Center in Dubai, told

DP World's Jamal Bin Thaniah is part of the rail project's executive board





P&H. "In some GCC member states – Bahrain, Qatar – the exact track alignment has not been decided yet and while planning is already advanced in the case of the UAE, it is lagging behind in other cases – for example, Oman."

Saudi Arabia already operates an embryonic railway network on which it can build, connecting the capital Riyadh to the kingdom's second port, Dammam, on its Gulf coast. Saudi Rail is currently considering bids for construction of a 'landbridge' that will link the Gulf coast to its chief port, Jeddah, on the Red Sea.

Plans are advanced in UAE, while Oman lags behind

Mansour pointed out that, conversely, the landbridge would provide an alternative outlet in the Gulf for Jeddah cargo if there was an emergency in the Suez Canal or Red Sea. Plans also envisage a major extension northwards off the landbridge towards the Jordanian border. The GCC is in discussion with Jordanian and Syrian railway authorities for a further extension to link up with the Turkish railway system.

Further construction will be needed between Jordan

and the Syrian capital Damascus. There is still a railway line between Damascus and Turkey – a remnant of the Ottoman-era Hejaz Railway.

Jordan is the weak link in the region's ambitious infrastructure plans since it does not have the GCC's petrodollar reserves to push through construction. However, Imad Fakhoury, CEO of Aqaba Development Corporation and government minister responsible for mega projects, said Jordan's National Railway Project would connect the port of Aqaba with Saudi Arabia, Syria and even Iraq. "This is a critical project because it builds on Jordan's geopolitical and geo-economic importance, connecting the GCC region with the Levant region and through that with the heart of Europe," he said, adding that "expressions of interest will be issued and will be packaged for private-sector investment and development" in late 2010.

Turkish engineers are currently working on a rail tunnel beneath the Bosphorus Strait at Istanbul, which will create the first direct railway link between Turkey's Asian and European regions. Digging began in May 2004, but archaeological finds and other delays have meant that the tunnel will not be ready for use before the third quarter of 2013 at the earliest.

However, the completion of the tunnel opens the prospect of the first-ever railway connection between the Arabian Peninsula and the heart of Europe. **PH**

Cleaner cargo handling



IAPH's drive to create greener ports through the introduction of cleaner and more efficient handling equipment, as part of the World Ports Climate Initiative (WPCI), is being undertaken in co-operation with the Port Equipment Manufacturers' Association. PEMA was pleased to join IAPH as an associate member earlier this year.

"As a new associate member of IAPH, PEMA looks forward to supporting the WPCI project on port handling equipment," Ottonel Popesco, PEMA president and chief executive officer of Cavotec MSL, a leading player in the field of onshore power supply, told *P&H*.

PEMA was set up by major port handling equipment manufacturers including Kalmar, Cargotec and Konecranes several years ago. It is breaking new ground because hitherto the port handling equipment industry has lacked a body able to co-ordinate the pooling of collective knowledge in the equipment and technology sector.

"In the coming months PEMA aims to support WPCI in

expanding the port handling equipment section within WPCI, spearheaded by our Environment Committee," explained Rachael White, PEMA secretary general. The committee was formed this year under the chairmanship of Stefan Johansson, director of research and development (R&D) for lift trucks & reachstackers for Cargotec, with participation from some of the global leaders in clean cargo handling technologies.

"One of the committee's main roles is to aggregate and share knowledge on environmental advances being made by the port equipment and technology sectors," White told *Ports & Harbors*.

"In the first instance, this will include preparation of a white paper on how new technologies are supporting reductions in environmental impact and energy costs, including areas such as electrification, energy regeneration, hybrid technologies and alternative fuels. We will be sharing this data with WPCI and will also be seeking feedback from IAPH on other areas where we can make a contribution," White continued.

The WPCI port handling equipment project has taken time to gather momentum in comparison with other projects (see page 36). Popesco explained that one reason might be the fact that ports have different levels of involvement in cargo operations and equipment procurement.

"While authorities are the ultimate custodians of a port's environmental performance, frequently it is their terminal

operator tenants who are actually responsible for the specification and purchase of handling equipment and systems," pointed out Popesco. "As a result, there may be a knowledge gap about the significant R&D efforts being made to reduce the environmental impact of cargo handling operations and how efficient new equipment and systems are delivering measurable results in practice."

Financial considerations have also played a part. During the recession of 2008–09, cargo operators protecting their bottom line were reluctant to invest in new equipment, and it is true that new greener, more efficient models carry with them higher initial investment costs. Johansson told *P&H* that an upturn in new equipment investment by cargo operators had only been apparent since early this year.

The USA has been ahead of other countries in terms of equipment research and development because a lot of state funds had been made available to ensure that ports and shipping comply with US clean air legislation (especially in California). Johansson said that manufacturers based in Europe had not received comparable help from the European Union, despite its similar aim of cutting carbon emissions.

Another factor is that equipment manufacturers like to maintain a competitive edge over their rivals and this could be a reason why some companies have been reluctant to pool their expertise for the common good.

Johansson said many cargo operators were coming round to the belief that there is a long-term business benefit in acquiring greener port handling equipment. "Eco-friendly equipment has higher initial investment costs normally, but operators invest in it in the hope that it will pay off in the long run in terms of reduced energy and running costs," he said. "We can't expect customers just to think green, they also want to have some money back over time."

Johansson pointed out that the benefits of operating cleaner and more efficient equipment are diminished if drivers are not trained to derive maximum benefit from their vehicles.

"We talk about new technology giving you lower fuel consumption, but that also depends on the way drivers handle the vehicles – there is a big upside to driving correctly," he emphasised.

Earlier this year Cargotec introduced EcoService, which is said to offer improved reliability, longer and more cost-effective equipment lifecycles, sustainable parts sourcing, reduced fuel consumption and a lower carbon footprint. The first module – EcoDriving – teaches best driving practices to its customers' operators. This course is aimed at curtailing equipment damage, reducing fuel consumption and lowering emissions – all without adversely affecting productivity.



“Eco-friendly equipment has higher initial investment costs. Operators invest in the hope it will pay off in the long term”

Stefan Johansson, director R&D for lift trucks & reachstackers, Cargotec



Photo: Joachim Affeldt

Shore leave for seafarers is a right, said the Facilitation Committee

IMO defends the right to shore leave

The IMO's Facilitation Committee has tried to strike a balance between enforcing port security and supporting the right of seafarers to enjoy shore leave.

The committee had received

complaints that different interpretations of the International Ship and Port Facility Security Code (ISPS Code) and SOLAS Chapter XI-2 enhancing maritime security had

led to unfair treatment of ship personnel in the granting of shore leave and access to shore-based facilities.

At its working group meeting in early September, the committee stressed the importance of shore leave and appropriate access to ships, without prejudice to the immigration procedures of IMO member states.

The committee agreed to bring to the attention of port states and the other parties that enforce security measures affecting ships or port facilities, that shore leave for seafarers is a right not a privilege. The committee acknowledged that access by authorised personnel to the ship was necessary too.

The Facilitation Committee also agreed to issue a circular highlighting the importance of striking a balance between the need for adequate port security and the recognition of seafarers' rights. The committee urged member states to transmit its views to the authorities concerned, including public authorities, ports and terminals.

Commenting on the committee's discussion, Gunnar Knudsen, an Intertanko security officer, stressed that seafarers should be regarded as the partners of all who seek to preserve safety and security on board ships and in ports, rather than being looked upon as a security risk.

"These people live and work on board ships and thus have a great motivation in keeping shipping safe and secure and we see them taking substantial risks by keeping open the vital international trading routes through the piracy high-risk areas," Knudsen told *Ports & Harbors*.

He continued: "A key issue is not to discriminate against seafarers with regard to requirements related to visas and access to protected areas such as ports unless there is a particular reason to suspect that security can be compromised."

"Therefore a 'normalisation' of treatment of seafarers should be the aim for all who hold such responsibilities in the shipping industry," Knudsen concluded.

EU enforces advance cargo security requirements

Shippers sending goods to any of the 27 European Union member states will be required to transmit advanced information about the contents and origin of the shipment from 1 January 2011.

The legislation requires that all goods brought into the customs territory of the European Union, regardless of their final destination, shall be covered by an entry summary declaration (ENS), which must be lodged at the customs office of the first intended European port of call.

The vessel operator is responsible for filing the ENS and all cargo, whether or not consigned to the EU, must be declared, including freight remaining on board.

In the deepsea container context, this is held to be the

ocean carrier that issues the bill of lading for the carriage of the goods into the EU.

All deepsea containerised shipments will require cargo security data to be filed to customs at least 24 hours before it is loaded at each of the foreign load ports (for EU imports) or each of the EU load ports (for exports).

Non-containerised shipments will be subject to pre-arrival (rather than pre-loading) filing requirements, with the deadlines dependent on whether the vessel is deployed in deepsea or shortsea shipping.

Changes have also been made to the EU Customs Code to reduce delays to consignments and to allow carriers to concentrate all the information in a single customs office instead of several.

USA may exclude foreign firms from its energy market

New legislation passed by the US House of Representatives in late July could make it more difficult in future for foreign operators to participate in the USA offshore energy market.

The bill was sparked by the rupture of the Macondo well in the Gulf of Mexico earlier this year, which resulted in the world's largest-ever marine oil spill. The damaged well took nearly three months to cap, and the leak was blamed largely on the oil company BP, which has its global headquarters in London.

The bill, which is awaiting US Senate approval, contains an 'Americanisation' amendment requiring any vessels engaged in US offshore energy developments, exploration or production to be US-flagged.

While the vessel can be foreign-built, it must be owned by a so-called Jones Act company, which by law must have 75% US citizen beneficial ownership and US

management. The restrictions would apply to alternative energy projects, such as the movement of turbines and other windfarm equipment through US territorial waters.

If enacted, the new legislation would apply to offshore activities from 1 July 2011 onwards. The legislation has already been approved by President Barack Obama, which increases the chances of it becoming law.

Concerns have arisen that the new law may conflict with existing trade and investment agreements with other countries. If found to be the case, that could lead to some of the more restrictive Jones Act provisions being removed from the bill. On the positive side, maritime lawyers said the bill could clarify important rules about vessel hiring. It would give energy developers clear guidance about whether they would need to invest in US-built ships or whether they will be allowed to hire cheaper vessels from abroad.

Photo: IMO



MEPC in session... adoption of the EEDI is likely to become mandatory at next meeting

Progress limited at MEPC

Progress against the odds might be the best way to describe the outcome of the 61st meeting of the IMO's Marine Environment Protection Committee (MEPC), which was held from 27 September to 1 October at its headquarters in London.

Despite the huge number of issues on the agenda, the main business concerned work to formulate and agree measures to combat greenhouse gas emissions from ships. This work has two strands – market-based measures (broadly a choice between carbon trading and a tax levy on bunker fuel) and technical and operational measures.

The meeting began with

delegations predicting that it would make no progress on the former and so it proved, despite the secretary-general's expert group presenting an exhaustive review of the 10 options for the market-based measures that are under consideration.

But hopes were high that the committee could agree text to make the Energy Efficiency Design Index (EEDI) and the Ship Energy Efficiency Management Plan (SEEMP) mandatory and thereby push forward the technical and operational measures.

European Union member states have called up the maximum number of delegates, should the issue go to a vote.

Since the EEDI is used in a number of the market-based mechanisms, it is also a crucial component of market measures, but the committee had to resort to extraordinary means to get the proposal through. Faced with concerted opposition from developing countries, which oppose any climate change measures that treat all countries equally, a group of delegations invoked a little-used right to ask the secretary-general to circulate the text with a view to adoption at MEPC 62.

Peter Hinchliffe, secretary-general of the International Chamber of Shipping, told *P&H* that, in his view, adoption at the

next meeting would mean the EEDI becoming a mandatory instrument. "Parties to Annex VI can request that text is circulated for adoption and my understanding is that this would make it mandatory if adopted, because you can't have a voluntary regulation. So this is a good outcome and another positive step forward."

The committee did hold a debate on market-based measures, following the submission of the expert group report on the feasibility and impact of several measures submitted by governments and observer organisations.

Although comprehensive, the report's main conclusion – that none of the proposals was sufficiently mature to recommend – made real progress impossible. With delegations from developing countries blocking discussion, an agreement to hold a further intercessional meeting in spring 2011 at which the group would attempt to refine the proposals must be considered a good result.

But IMO member states must also be aware that by making only limited progress on CO₂, they have risked the resumption of debate with the UNFCCC, whose next attempt to seek the funds pledged last year at Copenhagen takes place at the end this month.

Recession hits battle against piracy

Besides global economic activity, another casualty of the worldwide recession looks likely to be the fight against piracy off Africa's east coast. Operations to combat Somalia-based piracy could be hit by major public spending cuts, top NATO commander Rear Admiral Hank Ort of the Dutch Navy told a London press conference in September.

"In many nations, budgets are dwindling, and, in the longer term, that will make it more difficult to free up military resources for the purpose of operations like this," he said. However, he added that budgets for anti-piracy operations would be funded until 2012, when EU Navfor (Naval Force Somalia) and NATO mandates in the region end.

Ort added that it was the responsibility of shipping companies to have a clear management response ready beforehand in case of a pirate attack. The world's three largest box shipping lines also announced recently that they

had decided to join forces to co-ordinate their response to piracy. Co-operation between CMA CGM, MSC and Maersk Line includes information exchange on safety measures, piracy policies and procedures, as well as co-ordination to ensure the issue is addressed with all relevant stakeholders.

"Our first and foremost concern is the safety and security of our crews. Piracy continues to be a problem for the shipping industry and if we want to address it effectively, we as shipowners must co-operate," the lines said in a joint statement. They said they agreed on the importance of the Best Management Practices for safe sailing in the area where Somali pirates continue to attack vessels.

They also voiced their support for proposals for regional capacity building in east Africa to address issues such as a regional coastguard and possible sea transit corridors. Ort told journalists that he agreed that structural solutions to

the piracy problem should be investigated: "Some nation-building is required to address this problem structurally and the military could set the conditions for that to a certain extent, then someone else would have to take over. I would argue that the EU is in the best position to take the role [of capacity building], because of the money available."

At the same London press conference, a senior EU Navfor officer, Major General Buster Howes, suggested that in future countries bordering Somalia might need to boost their anti-piracy coastguard patrols in exchange for aid.

Howes also pointed out that ships targeted in the Gulf of Aden generally belonged to smaller shipping companies. "The vessels pirated in the area are overwhelmingly those that do not conform to best or even minimum management practices – generally those who do not maintain an adequate lookout and aren't able to provide adequate warning," he said. "Often they do not register with maritime forces, so we are often unaware of their presence in the area."

Stricter windfarm licensing

The body regulating the building of up to 10,000 wind turbines off of the UK coast in the next decade has warned that the licensing of turbine manufacturers and installers will be much stricter than it has been for earlier development rounds.

The Marine Management Organisation (MMO) said it was vital that developers of the biggest windfarms (known as Round Three) ensure that new licence applications are thoroughly completed and sufficiently detailed to prevent time-consuming and costly delays.

According to a UK government report by the Marine Consents and Environment Unit (MCEU), the applications for Round One windfarms – in comparatively

shallow water near the UK coast – were made with “many uncertainties” relating to the projects’ designs.

The MCEU stated that these shortcomings made a “robust scientific assessment of the environmental impacts very difficult” and the deficiencies in the information meant there were delays in issuing licences.

The Round Three proposals will present even greater engineering challenges – not least the installation of wind turbines in deep water where the variety and strength of currents places even more strain on foundations and the underwater section of the column.

The MMO has also urged renewable energy companies to make sure their figures add up if

they want to be granted licences for development of offshore projects. It also urged companies to be honest about the return on investment that they are expecting to receive.

In mid-2010, the appointed contractors for Round Three wind farm development began the initial scoping process for their planned developments at nine identified offshore wind zones. This process includes the identification of the key factors that the developers will need to consider in more detail in their environmental impact assessment, which represents the next stage of development.

Round Three windfarms are not expected to start operation before 2015.

Photo: Laverder Blue



Thanet Windfarm, off southern England... licensing could be more heavily regulated

Tighter safety inspections for European ports

New rules to improve the safety performance of ships were adopted by the European Commission in September.

A new online register will be introduced from 1 January 2011 to ‘name and shame’ shipping companies that perform poorly on vital safety port state control (PSC) inspections.

Port state control inspections are essential to prevent shipping disasters and the consequent loss of life and cargo that occur, and

also environmental damage. Now, companies and states that perform poorly will undergo more intensive, co-ordinated inspections in EU ports.

An advantage for manufacturers and other commercial companies is that they will be able to choose the shipping companies they use for freight in full knowledge of their safety record.

For the first time there will be a fully co-ordinated information system governing all the port

state safety inspections carried out in the European Union.

The risk profile of ships will be assessed using the company performance and the flag state performance as appear in Thetis, an advanced information system that will track every ship calling at EU ports.

Eventually, the new regime will strengthen the EU’s ability to push sub-standard ships that do not perform to standards out of European waters completely.

Operators for polar code

Cruise operators backed a call made by the International Maritime Organization for its member states actively to support a navigation code to prevent a major accident in polar regions. “We welcome the IMO’s initiative,” Saga Shipping’s operations director Grant Laversuch told *P&H*.

Saga has many years’ experience of sailing cruise ships in polar waters, and Laversuch pointed out that the International Association of Antarctica Tour Operators (IAATO) had already instigated such a navigation code in southern waters to enhance marine safety on vessels operated by its members.

IMO’s Maritime Safety Division director Koji Sekimizu said at a World Maritime Day event in Buenos Aires in October that, if resolutions were passed by the IMO during 2012, a finalised code could be enacted by 2014–15.

Issues that should be taken into account included the hostile polar environment, long-distance search-and-rescue operations, difficult oil spill response and crew training for the region.

Sekimizu asked both Chile and Argentina to offer their extensive Antarctic experience to the IMO initiative. Both countries had submitted a recommendation for stricter safety in Antarctic waters during recent discussions in Manila concerning the Standards of Training, Certification and Watchkeeping (STCW) Convention.

Argentina’s Admiral Guillermo Palet said joint patrols with Chile had improved safety in Antarctic waters.

Under new rules agreed by the Antarctic Treaty partners and adopted by IAATO, ships will not be able to use or carry heavy fuel oils in Antarctic waters, but must use diesel.

Furthermore, those that do not have totally enclosed lifeboats will not be authorised to visit the region. However, there is room for improvement in the current safety specifications of ships sailing in polar waters and Laversuch suggested this was an area that IMO should look at closely when formulating its polar navigation code.

Operating procedures for IAATO vessel operators are on the IAATO website at www.iaato.org/press.html.

IMO updated on WPCI progress

IAPH Europe's managing director, Fer van der Lar, gave an update on progress in implementing the association's World Ports Climate Initiative (WPCI) at a meeting of the IMO's Marine Environment Protection Committee in September.

WPCI is an effort of ports worldwide to reduce air pollution and fight global warming. It aims to raise awareness in the port and maritime community of the need for action to reduce greenhouse gas (GHG) emissions and improve air quality (see page 32).

Participating ports have already made considerable progress in agreeing the shape of three of six environmental projects:

■ **Carbon Footprinting and Modelling Tools:** used to determine emission sources, track emission trends, and provide information to determine where ports can focus efforts to

reduce their GHG emissions. The Carbon Footprint Working Group has released a guidance document, available on the WPCI website, serving as a reference for ports looking to develop or improve their GHG emissions inventories.

■ **Onshore Power Supply:** replaces onboard power generated from diesel auxiliary engines with electricity supplied from the shore, thereby reducing emissions and noise.

The OPS website – www.ops.wpci.nl – was launched earlier this year and provides a wealth of practical information for vessels and shore installations to improve air quality in ports and port cities. The website is targeted particularly at port authorities, terminal operators and shipping companies.

■ **Environmental Ship Index (ESI):** identifies seagoing ships that perform better in reducing

air emissions than required by current IMO emission standards. The index is based on the amount of nitrogen oxide (NOx), sulphur oxide (SOx) and other GHG emissions released by a ship and is a good indication of the environmental performance of ocean-going vessels. The programme is voluntary, but ports can use the ESI to reward ships that participate in scheme. It can also be used by shippers and owners for their own promotions.

A detailed description of the ESI may be found on the WPCI website (www.wpci.nl). As *P&H* went to press, the Index was due to be formally launched on 2 November in London.

The three other projects – Low Emission Port Equipment, Intermodal Transport and Sustainable Lease Agreements – are being developed. More details of these will be available in forthcoming issues of *P&H*.

Marseille member visits Tokyo home port

Dominique Lebreton, a member of the IAPH Trade Facilitation and Port Community Systems (PCS) Committee and AP+ project manager at Marseille Gyptis International, France, visited the IAPH Secretariat on 28 September.

He was welcomed to the secretariat by under-secretary Hisayoshi Tokui before leaving to survey two of Japan's ports' PCS as part of the committee's PCS benchmarking project (see page 22).

The ports of Nayoga and Hakata both use a Sea-NACCS (Nippon Automated Cargo and Port Consolidated System Inc) system. Lebreton's report on his visit and how the system is working at both of the ports will form part of a presentation on the PCS benchmarking project to be given at the World Ports Conference to be held in Busan next year.

Dominique Lebreton (right) with Hisayoshi Tokui (left) before he visited two Japanese ports as part of the Port Community System Survey Project



More funds for overseas training

IAPH's Training Scholarship has been updated and now includes an increase in scholarship funds and a wider selection of ports that are eligible to apply.

Under the new scheme the maximum amount of funds offered to an individual will be \$2,500 (previously \$2,000). Personnel from ports whose membership dues are based on six or fewer credits can apply – previously it was four or fewer credits. This will broaden the selection of member ports that can apply.

The scholarship is aimed at giving staff of developing ports the opportunity to attend advanced port training programmes overseas

in order to gain the latest knowledge on port management and operation and expand their personal network of contacts.

Since the scheme was set up in 1980 more than 100 people have received financial assistance through the scholarship.

Distance learning programmes are also offered for members who cannot travel.

A typical applicant would be a staff member of an IAPH regular member port whose membership dues fall into the bracket of six credits or fewer.

The scholarship scheme does not extend to staff employed by a central government.

A maximum of four scholarships can be awarded per year.

The IAPH-approved training institutes are:

- PSA Training Institute (Singapore)
- IPER (Le Havre, France)
- APEC (Antwerp, Belgium)
- PPPM (University of New Orleans, USA)
- IBC Global Academy (distance learning)
- Australian Maritime College (distance learning)

Applicants for training scholarships should submit a form to the IAPH secretariat.

More info: www.iaphworldports.org/Essay_IT_Scholarship_Flyer.pdf.

Prestigious prizes for winning entries



IAPH's competitions give members the chance to promote their ports in Busan next year. The deadline for entries to all competitions is **31 January 2011**. They can be sent in via email in MS Word format or as hard copy to the IAPH Secretariat Tokyo office



IAPH rewards innovation

Do you have a good idea to improve your port or the port industry? IAPH members are invited to submit entries for the 2011 Essay Contest, organised by the Human Resources Development Committee. It is your chance to showcase your knowledge of topics such as strategies to increase port efficiency and productivity, and improving the port-community relationship. There are two awards available: the Akiyama Award and the Busan Open Award. Prizes for the overall winners include \$1,000, plus an invitation to the award ceremony at the IAPH World Ports Conference 2011 to be held in Busan. Winners of both awards will be given a round trip air ticket, accommodation in Busan and free entry into the conference.

A merit prize of \$500 for both categories may also be given if the judging panel believes that there is a second outstanding entry that just falls short of the top prize. Essays should be written in English and be between 800 and 1,000 words in length.

More info: www.iaphworldports.org/Essay_IT_Scholarship/Essay_Flyer.pdf



Promoting IT excellence

Don't miss the chance to showcase your port's excellent IT capabilities. IAPH members are invited to submit entries for the 2011 IT Award, organised by the Trade Facilitation and Port Community Systems Committee.

Its aim is to promote the use of IT in ports to meet the challenges of globalisation. Awards will be given to ports that recognise the benefits of innovative IT in relation to the port itself, its customers and the logistics chain.

There are three prizes available for the best entries – gold, silver and bronze plaques – which will be presented at IAPH's World Ports Conference 2011 in Busan.

Entries should be written in English and follow the designated project description. Please go to the link below for a breakdown of the word count. Entries are accepted in MS Word format via email or as hard copy delivered by courier to IAPH secretariat.

More info: www.iaphworldports.org/Essay_IT_Scholarship/IT%20Award%20Flyer.pdf

Promotion for president Ndua

**President Gichiri Ndua
is now MD of KPA**

IAPH president Gichiri Ndua was appointed managing director of Kenya Ports Authority (KPA) on 11 August, following a six-month period as acting general manager.

President Ndua, who was corporate manager before this appointment, succeeds James Mulewa and is the 12th managing director of the organisation.

Ndua joined KPA in 1984 with both master's and bachelor's degrees in Economics, which he obtained from the University of Nairobi.

He is a member of the Institute of Economic Affairs, the Kenya Institute of Management and the Institute of Directors, Kenya.

"I shall not spare any effort in serving IAPH. I am committed to both organisations and look forward to continued support, teamwork and spirit in our undertakings," he said in a statement.



IAPH committee chair adds EADA

David Padman, chairman of IAPH's Port Environment Committee and assistant general manager, regulatory, at Port Klang Authority, was elected as chairman of the Eastern Dredging Association (EADA). Padman took up the chairmanship at the XIX WODCON (19th World Dredging Congress), which was held in Beijing, China, in September this year.

He succeeded John Dobson from Australia, who stepped down from the post for health reasons.

EADA is a chapter of the World Organization of Dredging Associations (WODA), a non-profit organisation that includes ports and dredging-related organisations and industries.

EADA covers the Far East and Asia/Oceania region, while the other two chapters are CEDA (Central Dredging Association, covering Europe and Africa) and WEDA (Western Dredging Association, including North and South America).

New date for Auckland meet

The recently re-scheduled date for the Asia/Oceania Regional Meeting in Auckland, New Zealand, will now take place from 9 to 11 February. The event's host, Ports of Auckland Limited, is looking forward to welcoming members at the Hyatt Regency Hotel.

It was originally to be held from 2 to 4 February, but the Lunar New Year 2011 celebrations will coincide with these dates.

The draft programme is:

Wednesday 9 February

Guests arrive/check in to the hotel

17.30–18.15: Registration

18.20–20.30: Networking and cocktail evening

Thursday 10 February

09.00–17.30

Opening ceremony [key note address]

Port forum sessions

Breaks for tea/coffee and lunch

18.30–21.30: Gala dinner and cultural entertainment

Friday 11 February

08.30–10.00: Asia/Oceania regional meeting

10.00–12.00: Port tour

12.15–13.30: Lunch

14.30–15.00: Conclusion

A separate ladies/partners' programme is also being organised. The conference is during the peak tourist season in New Zealand and so the host needs to organise hotel rooms as soon as possible. Please advise of your attendance, along with arrival and departure dates, to: Pervin Fatakia, executive assistant to the managing director, Ports of Auckland; tel: +64 9 309 1363, fax: +64 9 367 5451, email: fatakia@poal.co.nz.

Dates for your diary

A selection of forthcoming maritime courses and conferences

November

- 8–12** Seminar on Dredging and Reclamation – Singapore
www.iadc-dredging.com
- 9–11** TOC Americas – Rio de Janeiro, Brazil
www.tocevents-americas.com
- 14–19** 12th International Conference Cities and Ports – Buenos Aires, Argentina
www.citiesandports2010.com
- 14–19** 2010 IMPA Congress – Brisbane, Australia
www.impa2010.com
- 16–18** Transport and Logistics – Trans Uzbekistan – Tashkent, Uzbekistan
www.ite-uzbekistan.uz/vis/trans/eng/index.php
- 23–24** 6th Trans Middle East – Alexandria, Egypt
www.transportevents.com
- 24–25** European Conference and Exhibition on Inland Terminals – Marseille, France
www.inlandterminals.com
- 29–1 Dec** ICOPMAS 2010 – Tehran, Iran
<http://icopmas.pmo.ir/en/pages/>
- 30–2 Dec** Intermodal Europe 2010 – Amsterdam, Netherlands
www.intermodal-events.com

December

- 1 onwards** Diploma in Port Management – distance learning
www.informaglobalevents.com/event/portmanagementdl2010
- 2** Ports and the Environment Seminar – Amsterdam, Netherlands
www.millenniumconferences.com
- 6–8** 8th PAPC Conference – Arusha, Tanzania
www.pmaesa.org/papc2010
- 6** IAPH Africa/Europe Regional Meeting (in conjunction with 8th PAPC Conference) – Arusha, Tanzania
www.pmaesa.org/papc2010

January

- 24–4 Feb** Seminar on Port Management – Antwerp, Belgium
www.portofantwerp.be/apec

February

- 9–11** IAPH Asia/Oceania Regional Meeting – Auckland, New Zealand
www.iaphworldports.org
- 17–18** 6th Philippine Ports and Shipping 2011 – Manila, Philippines
www.transportevents.com



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Hosted by Busan Port Authority

Contact Information

IAPH 2011 Secretariat **LEE Convention**

Phone: **82 51 711 0041~5** E-mail: iaph@iaph2011.kr



Sound measures in troubled times

R J Lino, managing director of Indonesia Port Corporation II, tells *P&H* that steps initiated in the downturn are now starting to pay off

“ In Jakarta all terminals have made it their policy to enforce zero waiting time for the ships they service ”

The year 2010 is ending with a positive outlook. Trade volumes have increased month by month and the same is also true for global GDP, which has increased year on year.

The Indonesia Port Corporation II (IPC II) made good use of last year's slump as a time of consolidation. 24/7 port operations, almost zero waiting time, facility enhancement, equipment procurement and human capital development are just some of the actions the company has taken to enhance its capacity building. These steps were taken in troubled times and are expected to pay off in the promising times to come.

Working out of normal hours is quite a challenge for Indonesian ports. The fee scheme for stevedoring labour, manufacture and warehouse business processes, undermanned customs, immigration and quarantine offices all take their toll on our success in implementing the action programme.

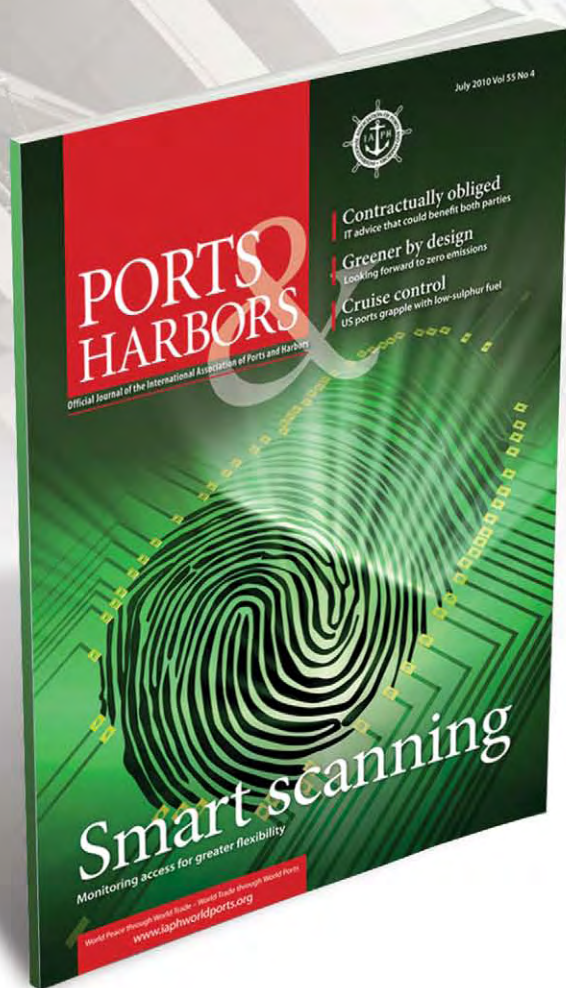
Thanks to an adequate armada of tug boats, reliable pilots and discipline, waiting time at terminals in Jakarta is not such a problem, as all terminals have made it their policy to enforce zero waiting time for the ships they service. However, this is not the case for ports outside Jakarta; vessels calling at many other IPC II ports may have to wait for hours before they can make their final approach to the berth.

IPC II manages 39.67km of berth in total. The facilities are spread out among its 12 port branches, subsidiaries and affiliates. Expansion of facilities – increasing berths and container yards – is a continuous activity even if it is not among the company's main priorities. The Ports of Tanjung Priok, Palembang, Pontianak, Teluk Bayur, Panjang and Jambi are the latest ports under IPC II to expand their facilities.

Nevertheless, while port facility expansion is necessary, the productivity of each port requires more than this type of investment. Adequate loading and unloading equipment is another important productivity factor. The procurement of such equipment is under way and it is expected that, by next year, \$184.2M will be spent on gantry cranes.

Human resource is the key element to the activities mentioned. IPC II has committed itself to increasing its personnel capacity by setting up a human capital management. The programme covers international postgraduate education and training, local workshops, training provided by the Port & Logistics Institute and access to other information systems. IPC II also aims to implement a corporate culture within the workplace as well as focusing on building a corporate image for the corporation. We believe that all of these efforts will pay off in the not too distant future. **RJ**

PORTS & HARBORS



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