

# SHIP2SHORE



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**Commercial Enquiries**  
 Tel: (01394) 602591  
 E-mail: [enquiries@fdrc.co.uk](mailto:enquiries@fdrc.co.uk)  
**Editorial**  
 Tel: (01394) 602064  
 E-mail:  
[ship2shore@hpuk.co.uk](mailto:ship2shore@hpuk.co.uk)

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 Tomline House, The Dock  
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 United Kingdom  
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# CEO COMMENT

I was delighted to attend recently the official launch of London International Shipping Week 2017 (LISW17) having been appointed to the event's Board of Advisors earlier in the year. The launch reception brought together representatives from many of the maritime world's leading organisations and figures from UK Government to learn of the aspirations, plans and exciting opportunities that LISW17 will deliver between 11-15 September, next year.

The UK is one of the world's leading maritime nations and the level of expertise in the country extends beyond simply the operation of ships and beyond the city of London. LISW17 will celebrate all these things under an overarching theme of 'Tomorrow's Maritime World'. As part of this look into the future, LISW17 will explore five key topics: Tomorrow's Prosperity, Tomorrow's Industry Professionals, Tomorrow's Business Solutions, Tomorrow's Environment and Tomorrow's Partnerships. It promises to be an excellent event and I look forward to seeing colleagues from across the globe in London next September.

The container shipping industry has been through some difficult trading conditions but I am confident that the worst of it is now behind us. The industry has faced some of the lowest freight rates on record in recent months and the combination of excess capacity and sluggish growth in global trade have claimed their first casualty for many years with Hanjin Shipping filing for bankruptcy protection.

I am sure that the future will be brighter. There has been an uplift in consolidation, with deals such as the recently announced merger of the container operations of the big three Japanese lines, and agreements for new global alliances. The new order book is much contained, which will help to correct the supply-demand imbalance, although there still needs to be an increase in the number and pace of older ships being scrapped.

It is now 5 months since the British public voted to leave the EU. The Prime Minister has confirmed that Article 50, officially triggering the exit negotiations, will be invoked by the end of March 2017. The negotiations on the terms of the divorce will be long and complicated but one area already identified by Government as a priority is the nature of the future trading relationship with the UK and the Customs regime that will oversee it.

It is 25 years since Customs entries last applied to EU traffic. It is possible, however, that they - and the border controls that go with them - could be reintroduced in a little more than two years' time. A lot has happened in the last 25 years, not least the rise of the digital economy, which will greatly simplify the way that any future EU clearances will be handled.

Predicting the future is never easy but one thing about which I can be certain is that you will see a new look to Hutchison Ports going forward. Our new brand identity reflects who we are and underpins the concept of UNITY which is inherent in our corporate values. The concept is explained in the feature on page 8. I hope you like the new look for Hutchison Ports and that we continue to work together in partnership to set new standards throughout global supply chains.

**CLEMENCE CHENG**  
Chief Executive Officer

# NEWS UPDATES

## YET ANOTHER DAILY RAIL SERVICE

Just seven weeks after the start of the 32nd daily rail service from the Port of Felixstowe, the 33rd service has been introduced by GB Railfreight between the Port of Felixstowe and Rotherham.

Commenting on the new service, Clemence Cheng, Chief Executive Officer of the Port of Felixstowe and Managing Director of HPH Europe division, said:

“The introduction of the 33rd daily rail service from the Port of Felixstowe so soon after the 32nd is evidence of the continuing strong demand for rail. An ever increasing number of shippers are looking to benefit by integrating rail into their supply chain strategies.

“The range and frequency of rail services offered at the port, combined with the minimum deviation for the latest generation of mega-vessels, makes Felixstowe the logical choice for both shipping lines and shippers looking for quick and sustainable transport solutions.”

John Smith, Managing Director of GB Railfreight, added:

“We are delighted to be working with both the port and terminal operator Newell & Wright Transport in delivering this important new service to the DB Cargo site at Rotherham.

“The 33rd daily train represents GB Railfreight’s eighth intermodal flow from the Port of Felixstowe, and our second new service from Felixstowe this past year. With the help of our newly ordered Ecofret triple wagons, ultimately this will make the train 45 wagons in length, it allows us to further increase our capacity at the

Port and across the network.

“The introduction of this new flow highlights the benefits rail freight traffic brings to our intermodal customers, and the intention of the port and GB Railfreight to ensure the long-term competitiveness and viability of the industry.”

Frank Newell, Managing Director of Newell & Wright Transport, operators of the Rotherham terminal, said:

“As a well-established container haulier for over 40 years and working with most major shipping lines we could see there was a gap in the market for a rail terminal in the Yorkshire area. Opening/operating our first rail terminal in Rotherham gives us further opportunities with our customer base.

“We feel that we can now offer a one stop shop from the Port of Felixstowe to final delivery point in the Yorkshire region. This consists of a daily rail service and onward delivery via our own fleet. We can also offer container repairs, loading and unloading of containers in to our warehouse and storage of both loaded and empty containers. This is an exciting opportunity for Newell & Wright Transport and we look forward to the future working with the Port of Felixstowe, GBRF and DB Cargo.”

The new daily service departs from the port’s North Rail Terminal which was opened in 2013. Felixstowe’s North Terminal was the first in the UK built specifically to handle trains of up to 730m length. The new GB Railfreight service consists of 33 wagons, taking advantage of the greater efficiencies longer trains allow.



## LONDON SHIPPING WEEK 2017... COUNTING DOWN...

The countdown to London International Shipping Week 2017 (LSW17) officially started on Wednesday 19 October at an exclusive reception hosted in the iconic Norton Rose Fulbright building on London's South Bank.

The event was attended by leading members of the maritime fraternity and representatives from UK Government. The evening outlined the aspirations, plans and exciting opportunities that LISW17 will deliver the week of September 11-15, next year.

Clemence Cheng, Chief Executive Officer, and a member of the LISW17 Steering Group commenting on the event said:

"Hutchison Ports has long been a leader in the ports and maritime sector and it is an honour for me to be part of the Steering Group and help to guide this prestigious event in the world's maritime calendar.

"Shipping is the lifeblood of economies, connecting global markets and making the world our neighbours. LISW17 is a celebration of all things

maritime and a chance for the industry to raise awareness and explore the opportunities and the challenges facing the future of the maritime sector under the overarching theme of 'Tomorrow's Maritime World'."

There will be five key topics explored under the 'Tomorrow's Maritime World' theme: Tomorrow's Prosperity, Tomorrow's Industry Professionals, Tomorrow's Business Solutions, Tomorrow's Environment and Tomorrow's Partnerships. These

themes will run throughout the week, creating a platform upon which, to debate and discuss important issues and opportunities for the future of shipping.

There are expected to be in the region of 160 events held during the week, generating genuine thought-leadership and innovation, all of which will culminate in a high level debate at the LISW17 Conference on 14 September 2017 at the Grosvenor Hotel, Park Lane.



## MORE MEGA-SHIPS

The Port of Felixstowe's position as the UK port-of-choice for the latest generation of mega ships is now firmly established.

In 2015 the port set a new benchmark with 105 calls by ships of 18,000 TEU capacity or above. The record was short lived however with the 106th mega vessel of 2016 arriving at Felixstowe on 7 October.

The 18,691 TEU Al Dahna is operated by United Arab Shipping Company (UASC) on its AEC1 service as part of the Ocean Three Alliance.

Commenting on the latest record, Lawrence Yam, Port of Felixstowe Commercial Director, said:

"Hutchison Ports has invested heavily at the Port of Felixstowe to ensure that we were the first port in the UK capable of handling the latest mega vessels and that we remain first choice for these

huge ships. The facilities we have, the direct access from the main shipping routes and the range of road and rail connections combine to provide the best transport solutions for shipping lines, shippers and receivers."

It is not just in the very biggest class of vessels that the Port of Felixstowe excels. By mid-October an incredible 344 ships of over 12,000 TEU had called at the UK's largest container port in 2016 providing an unrivalled choice of service for port users.

**FOSTERING POSITIVE FOREIGN RELATIONS**

As part of a Department for International Trade sponsored initiative to promote trade and cross-regional opportunities, a delegation of UK diplomats based in Southern Africa recently visited the Port of Felixstowe.

The delegation included, Jonathan Drew – British High Commissioner for Mauritius, John Dennis – British Ambassador to Angola, Jo Lomas – British High Commissioner to Namibia, Simon Mustard – British High Commissioner to Malawi, Rob Daniel – UKTI/DIT Regional Trade Director for Southern Africa and Iain Steward – the Political Councillor, Economic Diplomacy for South Africa.

The party visited Felixstowe as part of a visit to a number of UK regions. They were keen to see the UK’s largest container port and to obtain an insight into the realities of international trade.



**PORT OF FELIXSTOWE GOES GREEN**

Hutchison Ports has joined forces with a number of other global port operators for the third annual environmental initiative to coordinate green activities across the globe. In the third week of September marine terminal operators APM Terminals, DP World, Port of Rotterdam Authority, PSA International and Shanghai International Port Group joined Hutchison Ports to highlight the strength of industry-wide cooperation by participating in a busy ‘Go Green’ week of global green activities.

Hutchison Ports Group Managing Director Eric Ip said:

“The third year of this successful event was marked by increased levels of participation at our container terminal operations around the globe. By aligning the various green activities organised by all the participants over the course of a single week, we hope to show by example that environmental concerns are something everybody needs to work together to achieve.”

Following the structure established last year, ‘Go Green’ activities centred around three main themes: reuse and recycle; climate change and the community.

One of the Port of Felixstowe’s ‘Go Green’ projects this year was to create a natural space in a disused area at the Dock Gate 2 entrance to the port. Work began on the site in ‘Go Green’ week. The area will be landscaped using recycled railway sleepers and planted with trees and wild flowers to create a natural space to support the indigenous wildlife in the area.



## WIND DEAL FOR HARWICH

Harwich International has an agreement in principle with Galloper Wind Farm Limited for the construction of a major Operations & Maintenance facility at Harwich for the Galloper Wind Farm.

The facility will see the construction of pontoons and an operation centre for the control of Crew Transfer Vessel operations. The site will also have a back-up helicopter for rough sea conditions to ensure turbines can be kept operational in all weather.

Commenting on the new deal, Mark Seaman, Executive member for Harwich International, said:

“Harwich International has been firmly established as one of the leading UK ports supporting the offshore wind industry for many years. Until now activities have focussed very much on wind farm construction but as the industry matures we are moving into a new phase. This will be the first O&M facility at the port and we are pleased that our involvement with the Galloper offshore wind farm will extend for the long term.”

The Galloper Wind Farm is an extension of the existing and fully operational Greater Gabbard Offshore Wind Farm off the coast of Suffolk, the turbines for which were shipped through Harwich International. The offshore construction phase is



scheduled to commence in summer 2016, with the project commencing operations in March 2018.

Overall, Galloper Wind Farm is expected to create around 700 jobs during the construction phase and

around 90 jobs will be generated in Essex during construction and operation of the O&M base. The wind farm off the coast of Suffolk will be capable of generating up to 336MW, enough energy for up to 336,000 homes.

## AND THE WINNER IS...

The Port of Felixstowe and sister-company Hutchison Logistics have been recognised at two prestigious industry award ceremonies.

The port was short-listed for Port Operator of the Year at the Lloyds List Global Awards and Hutchison Logistics was amongst the contenders in the Supply Chain Partnership Award category at the Global Freight Awards for the Hutchison Logistics - Whirlpool Felixstowe Project. The collaborative training programme between Tesco, Maersk Line, Damco and the Port of Felixstowe was short-listed for the same award.

Commenting on its Whirlpool Project, Mark Taylor, Director of Hutchison Logistics (UK), said:

“The purpose of the Whirlpool Felixstowe Project was to develop a new port centric logistics operation for the world’s number one appliance

manufacturer at the UK’s busiest container port. Working in partnership with Whirlpool’s award winning in-house logistics team and trusted local operator, Marexport, and by sharing best practice, training, systems and equipment, we were able to deliver a ‘showcase’ Felixstowe operation in less than nine months.

“The Whirlpool Felixstowe Project is testimony to how smart partnerships can create customer value and that a collaborative approach with key customers can deliver added value and improved service.”

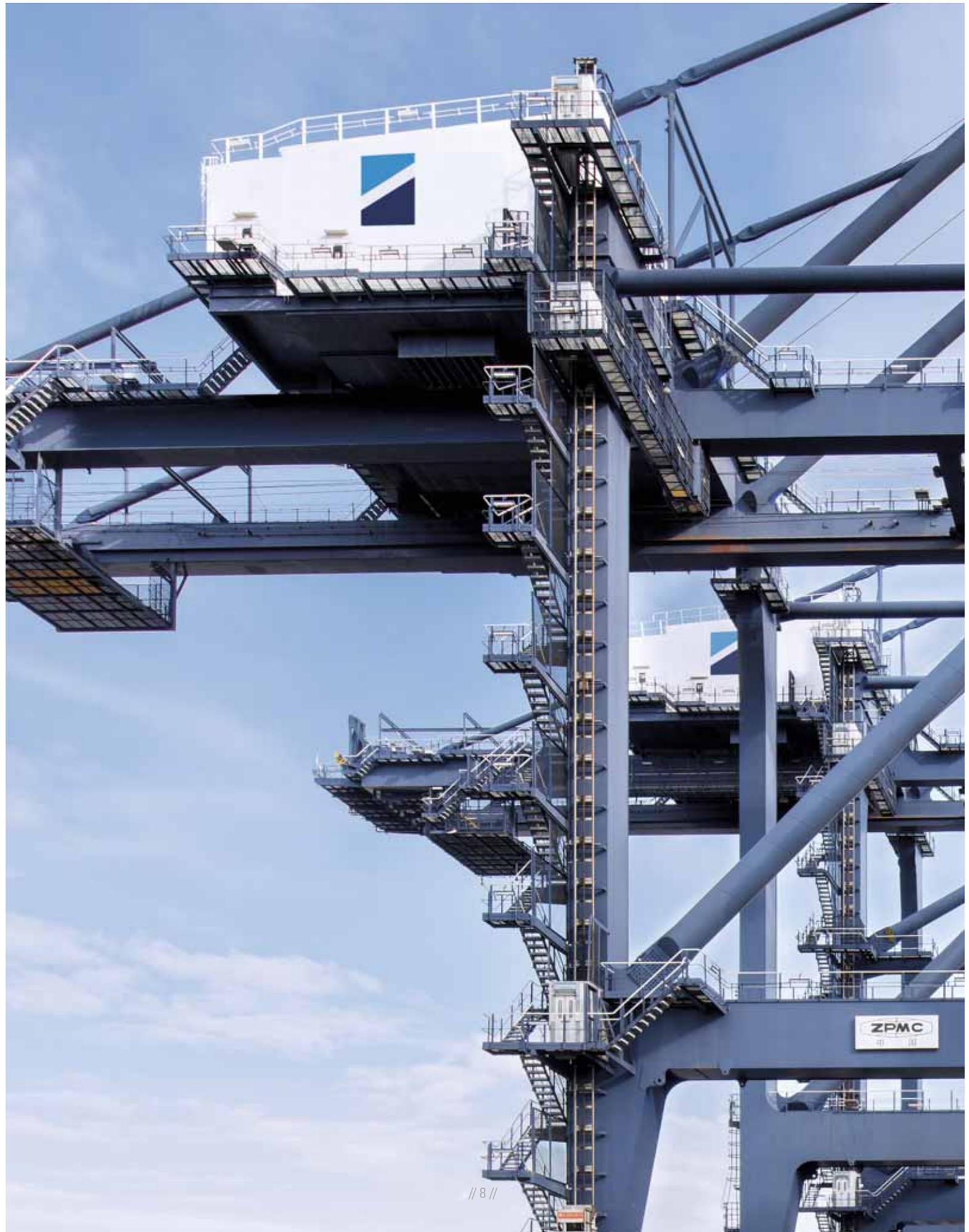
Part of the Hutchison Ports group, Hutchison Logistics provide logistics solutions that offer greater flexibility, scalability and sustainability whilst at the same time maintaining the complete visibility, control and reliability necessary to meet and exceed the demands of their customers.

The Lloyd’s List Global Awards showcase and reward the best talent and achievements



in shipping over the last year. The evening’s Environment Award was sponsored by Hutchison Ports and won by GAC EnvironHull for its environmentally friendly and cost-effective hull cleaning system.

Hutchison Logistics can be contacted at: [taylorm@hutchisonlogistics.co.uk](mailto:taylorm@hutchisonlogistics.co.uk).



# WE ARE HUTCHISON PORTS

Rebranding a global port network

**A**s you gaze across the huge expanse of containers, cranes, ships and warehouses at Port of Felixstowe, take in the sheer size and scale of operations, and consider its ambitious plans for the future, it is very easy to forget the fact that it is also part of a much larger picture. A picture, that stretches across many continents, oceans, time zones, cultures and people.

That picture is Hutchison Ports, the new name for The World's Leading Port Network.

## REBRANDING A LEADER.

The Hutchison Ports network has been leading the way in the ports industry for many decades. It has long been the standard bearer for operational efficiency, technological innovation, and service quality, wherever in the world it has a port or a terminal.

So, in 2015, when the decision was made to rebrand what was then Hutchison Port Holdings, a group of almost 50 operations, it was an ideal opportunity to restate the values that make the network strong, and bring the brand into line

**HUTCHISON PORTS' COMBINED THROUGHPUT IN 2015 WAS 83.8 MILLION TEU**

with what was already true: that in a rapidly changing world of globalised trade, Hutchison Ports stands at the forefront of its sector.

## THE HUTCHISON PORTS CORE VALUES.

The inspiration for the rebranding exercise was UNITY; an acronym for a newly formalised set of values that has long been inherent in the group's DNA. The acronym stands for Unrivalled standards, Network strength, Informed decisions, Trusted and honest, Your partners.

UNITY also helps to explain Hutchison Ports' leadership role in the world. This complex, competitive, interconnected world that calls for joined up thinking, connected solutions to trade and transportation needs, efficiencies of ▶▶▶



scale and reach. There is undeniable demand for a true network of ports – one that can deliver excellence not just on a local level, but also from a global perspective. It is what today's trade partners and customers, shipping lines, haulage companies, governments and industry bodies need and expect from the port industry.

What is clear for Hutchison Ports is that the value of working closely together as Business Units, of supporting each other across continents, of freely sharing ideas and skills, has never been higher. Not just operation, but cooperation. It is the key that unlocks even more efficiency in each port, even higher standards of service for local and global customers and partners and, therefore, continued leadership of the sector.

UNITY empowers the Hutchison Ports network on many levels, and it comes through loud and clear in the new brand identity.

### SEA AND SKY

Once the group's new name had been redefined, it was time to rework the brand identity – the way it would present itself both to the outside world, and to its 35,000 employees across the world. How could the strengths, the values and the ambitions of such a broad and multi-faceted organisation be captured in one logo, and the identity system surrounding it?

The solution is simple and bold, and one befitting a leader. Taking inspiration from movement, scale, innovation and established maritime codes, two blue colour blocks – one light, one dark – represent the sky and the sea. The white line represents the horizon, which connects them. Importantly, the white horizon line points upwards, in order to symbolise growth, progress, innovation and ambition. It is a symbol of both the here and now, but with a clear view towards the future.

The geometric shapes and the dynamic angle that form the logo are replayed across a wider identity system for Hutchison Ports, with graphic colours and photography that show the rich fabric of the ports industry; the people, the vessels, the infrastructure, the technology, constantly moving, constantly evolving. Its stories are told in a new typeface – called Verlag – itself

reminiscent of maritime tradition, yet contemporary and confident.

The sum of all these constituent parts is a brand that unifies all of the group's member ports, lending them more gravitas through the network's reputation, without affecting their individual and local business strategies.

### THE WORLD'S LEADING PORT NETWORK

The new brand, developed in partnership with WHAM (CK Hutchison's global creative agency) was formally launched at a ceremony in Shenzhen on 24 September 2016, by Mr Eric Ip, Group Managing Director of Hutchison Ports. Speaking before the ceremony, Mr Ip set the context for the network's rebranding, and gave a message of intent for the future. "Now as we go forward, we are moving into the strongest position we've ever been in. We'll continue to lead together, across our network, strengthening our position as the leading port operator."

### WHERE NEXT...

This is a bold and timely move for a global network that looks forward and embraces change. Investment in existing and new markets is ongoing; both as a means to strengthen the network, and bring greater synergies to the group.

But in some respects, a lot *won't* change. For the Business Units around the world – including the Port of Felixstowe – day-to-day business and an unwavering focus on quality and efficiency will continue. The group's dedication to its people – the nurturing and development of employees' careers, their welfare and safety in the workplace – will continue to be a firm commitment; one that will help Hutchison Ports remain The World's Leading Port Network.

[hutchisonports.com](http://hutchisonports.com)



*// // ...we'll continue  
to lead together,  
across our network."*



# NEW WAVE OF NEOPANAMAX

In April this year, the Panama Canal held a draw – to choose the first vessel that would have the honour of transiting the expanded canal. Who wouldn't want the opportunity to make history?

When the Panama Canal first opened more than a century ago, this connection between two oceans transformed the world of trade and shipping. The US\$5.25 billion expansion has the potential to shake up supply chains and open up new opportunities once again.

The expansion was officially inaugurated on June 26, and the Cosco Shipping Panama became the first 'neopanamax' vessel to pass through the Agua Clara Locks on the Atlantic side of the country and depart through the Cocoli Locks on the Pacific side. Even at that point, the Panama Canal Authority (ACP) already had 170 reservations for neopanamax ships.

By September, ACP reported that its pilots and tug captains had transited more than 200 neopanamax vessels, including not only container ships but also LPG and LNG carriers, vehicle carriers, oil tankers and dry bulkers. Lockage time has been decreasing steadily.

"More than 100 years ago, the Panama Canal connected two oceans. Today, we connect the present and the future," said ACP Chief Executive Jorge Quijano.

The completed expansion project was, he said, the beginning of a new era. Considered and analysed in more than 100 studies, the expansion would provide greater economies of scale to global commerce and introduce new routes and new services.

In recent years it has been the mega-container ships on the Asia-Europe trades that have snatched the headlines, and the Port of Felixstowe has been leading the way in this, being the first in the UK to welcome some of the largest container ships in the world and the best placed in terms of location and berthing capacity to accommodate these giants of 20,000 TEU and beyond.

Now the Panama Canal expansion opens up significant opportunities for vessel sizes to grow on other routes, too, with an additional driver being the 'cascading' down of vessels that have been replaced on the Asia route by the ever-larger tonnage. Not so very long ago, these 'cascading' vessels were themselves the largest in the world – and when they were, Felixstowe was the first to accommodate these, too.

Felixstowe's unrivalled position as the UK's largest container port is thanks to the vast choice of services and destinations it provides. What, then, can we expect to see on services calling at Felixstowe, such as round-the-world, West Coast South America and West Coast North America routes? ▶▶▶

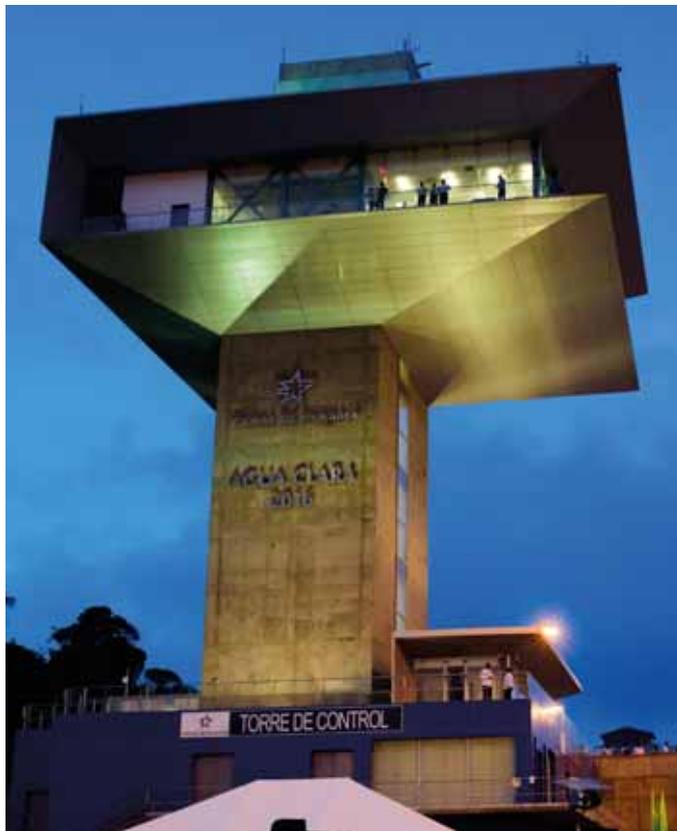
*More than 100 years ago, the Panama Canal connected two oceans. Today, we connect the present and the future”*



## *The Port of Felixstowe is well placed to serve these larger vessels that will transit the Panama Canal*

Until the Panama Canal expansion, 'panamax' meant ships up to a maximum 5,000 teu capacity. Now the canal can handle ships of 13-14,000 teu. Although in most cases lines are likely to step up vessel size gradually, we can certainly expect to see 8,000-9,000 teu ships as standard on many of these routes.

"The Port of Felixstowe is well placed to serve these larger vessels that will transit the Panama Canal and we are looking forward to seeing a steady increase in size," says Commercial Director Lawrence Yam. "We have the deep water, state-of-the-art quay cranes and extensive yard equipment to provide the swiftest and most efficient services to these vessels; and, on top of that, our location speaks for itself. All of the major services also call at Rotterdam or Antwerp, and it is a deviation of only 53 miles from the main shipping lanes between Panama to Rotterdam to call into Felixstowe. That compares with several hundred miles to some other UK ports saving shipping lines considerable time and money by using Felixstowe."





## FACTS & FIGURES

The Panama Canal expansion programme included the construction of new sets of locks on both the Atlantic and Pacific sides of the waterway and the excavation of more than 150 million cubic metres of material, creating a second lane of traffic. The new locks are 70 feet wider and 18 feet deeper than those in the original canal but actually use less water, due to water-saving basins that recycle 60% of the water used per transit.

## THE MILESTONES

### OCTOBER 2006:

In a nationwide referendum, more than 75% of Panamanians approve the expansion programme

### SEPTEMBER 2007:

The expansion programme breaks ground with a protocol blast in Paraiso Hill

### JULY 2011:

Structural concrete pouring begins on the third set of the locks project

### AUGUST 2013:

The first four gates for the new locks arrive from Italy at the waterway's Atlantic side

### SEPTEMBER 2013:

The expansion programme reaches 3 million cubic metres of concrete poured in the construction of the new lock complexes

### OCTOBER 2014:

The first gate for the Pacific-side locks begins its transit through the Panama Canal

### JUNE 2015:

The expansion nears completion with the filling of both the Atlantic and Pacific locks and the first gate testing

### JUNE 2016:

The third set of locks officially passes all performance tests and is now functionally complete

### JUNE 2016:

Neopanamax dry bulk carrier MN Baroque arrives in Panama to begin daily lock trials on the Atlantic side

### 26 JUNE, 2016:

The Panama Canal Expansion Programme is inaugurated; 30,000 people assemble to witness the transit of the *Cosco Shipping Panama*

# THE APPLIANCE OF SCIENCE

**C**ast your mind back to your school days. Remember algebra? calculus? binary coding? Unless you went on to study maths at university or pursue a related career, you might also remember wondering what on earth some of it was for!

As with so many things in life, it's a case of 'use it or lose it'. The answer, of course, lies in applied mathematics – and for an excellent example of mathematics being 'applied', let's take a look at the strong, and developing partnerships between the Port of Felixstowe and several universities and research groups.

"Universities working with places like Felixstowe – that is the future," says Professor Abdel Salhi, Head of the Department of Mathematical Sciences at the University of Essex.

The sums add up. A busy and constantly evolving port operation throws up challenges, such as optimising berth allocation, assigning quay cranes and deploying equipment, or maximising the use of delivery vehicles. The team immersed in operations on a day-to-day basis can benefit from the fresh perspective of a young mathematician looking at the issue from the outside in. Meanwhile, students working away at mathematical theory in the university 'bubble' get to apply their knowledge to actual, physical

challenges in the 'real world'.

"Many students struggle to see where the maths they learn is used – a lot will say, why do I need to do this theory, this algebra, etc.?" says Prof Salhi. "Working with the port is very important because it is in the real world with real issues to resolve."

Stephen Peck, the port's Head of Operations Development, explains: "In the past few years we have focused on making contacts and giving universities some of our challenges to work on. Often the best way to find new solutions is to go to a third party. It gives a fresh thinking to problems and challenges.

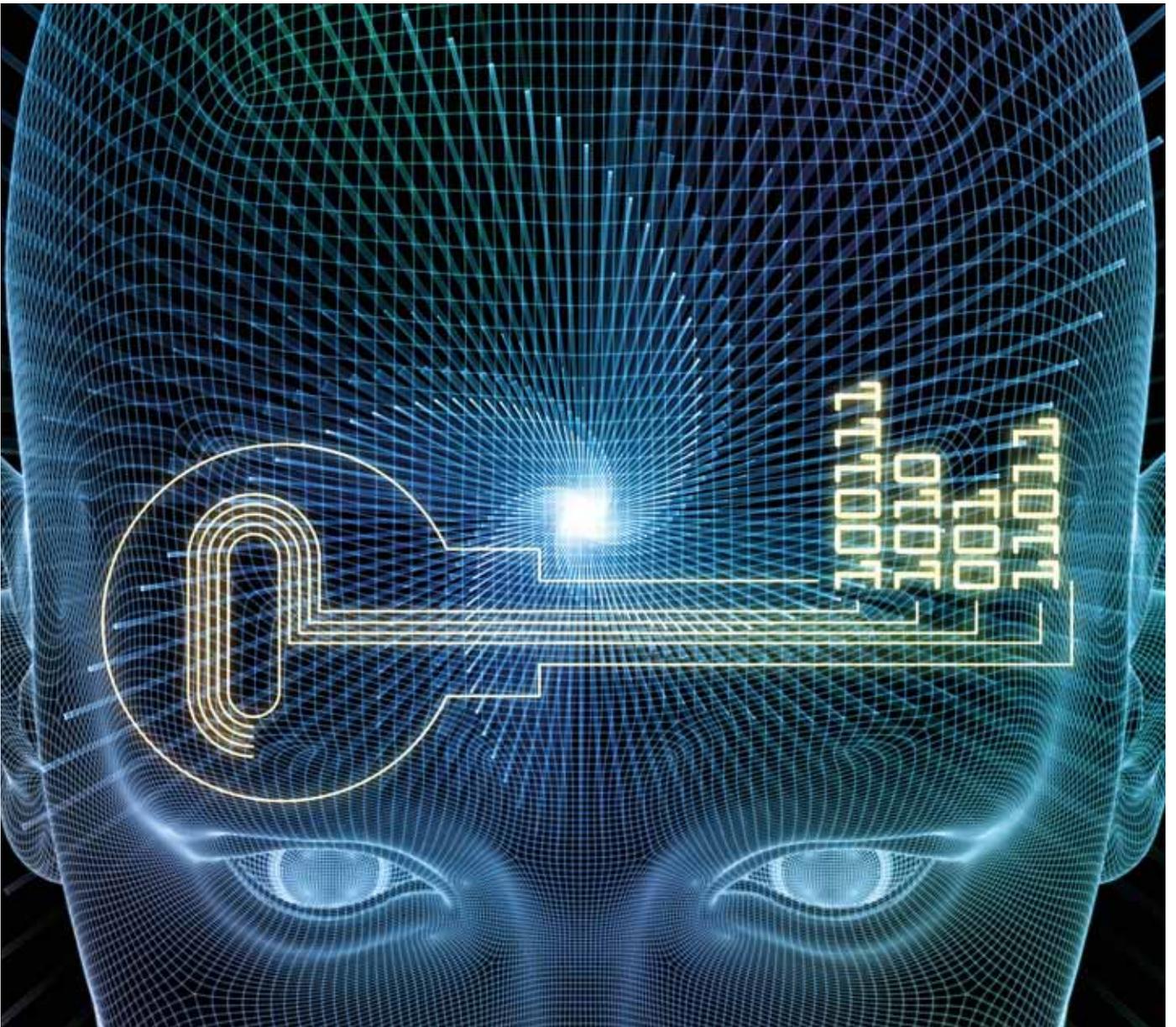
"We have a number of universities, and students, researching and writing papers on a variety of topics. We intend to channel these papers into something tangible for the port. This work could easily end up influencing some of the logic in our systems, or in the creation of new systems."

He recalls studying maths at university and being taught how to make a snakes and ladders board as part of the computer programming module. "That was an icebreaker in conversation with the University of Essex; it's good to swap things that appear to have very little 'real world' context for a challenge which is much more interesting for the students."

The port is also working with students and academics at the



// // *As with so many things in life, it's a case of 'use it or lose it'."*



University of East Anglia and the University of Kent, some of this within the government's Knowledge Transfer Partnership initiative. "As well as the universities helping us, we help them," says Stephen. "For example, we participate on the Mathematical Sciences Advisory Board, where I give input from an industry perspective that will influence what the university teaches its students. We also attend university open days to show our support. And ultimately it's a source for recruiting new people to our team."

Prof Salhi says: "Before 2010, I didn't know much about ports at all, although I was familiar with logistics and network optimisation – that is my area of research. When Stephen and his colleagues came to see us, I immediately thought: this is an area we need to explore and where we can use our algorithms."

He emphasises the broad functionality of maths: "Whether it is scheduling a warehouse or shopping centre, quay crane or exam timetable, in the end they are the same in terms of taking a systematic approach, building a mathematical model using algebra, codes and software and pulling it all together into a solution. What changes is the terminology and the context."

It is essential to pull all the elements together in order to gain operational efficiencies, he emphasises: "For instance, to optimise berth allocation or quay crane assignment, you have to consider the characteristics of the berths, equipment available, quay cranes, distance between berth and where the containers are to be stacked, expected arrival and departure times of the various ships. In any situation, you could solve each challenge piecemeal by looking at each individually – but then you are very likely to get sub-optimal solutions."

"However, there is a catch; if you look at these problems together, they are more complex and bigger, with literally thousands of variables, so it can be daunting!"

There is also, he says, a communication barrier to be bridged between academic and operational viewpoints. "It is one thing to devise solutions and models; it is another thing to sell them to people who have been working in operations for years. People tend to rely on their experience, and of course they have done a very good job and it works, but there are efficiencies to be gained by looking at the detail. Sometimes the solution can be counterintuitive. Sometimes it is shuffling a few things and the gains in terms of time saved can be quite substantial."

"It can be difficult to take an undergraduate student to a port and tell people that these

## *Many students struggle to see where the maths they learn is used"*

youngsters are going to help them. We have to demonstrate that our mathematical approach can deliver a good solution, so that they see the potential benefits and try using it."

It's understandable that people who have worked in the 'real world' for some years might resist the idea of young students telling them how to do their job, Stephen Peck says. "But in a project on labour planning, for example, over time they realised it would help them. Towards the end of the project, they were actually suggesting what areas the students could work on to help improve port operations."

"A person doing the job can be knowledgeable and experienced but he or she might struggle to compare all of the possibilities and permutations. A mathematical approach can enable them to make better, and/or faster, decisions."

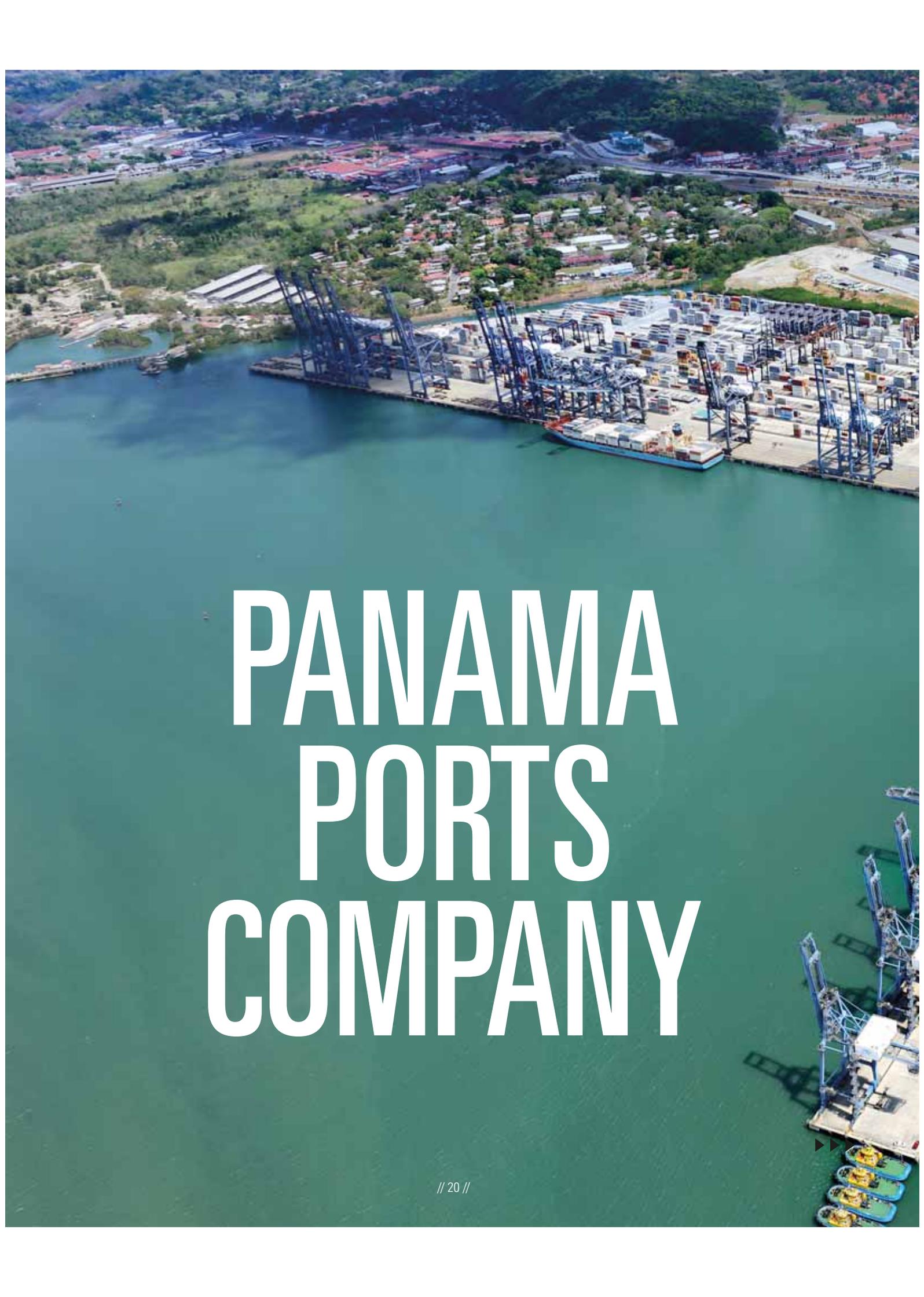
There is the potential to extend the port's academic partnerships into other academic disciplines, to, including sciences, computer programming, IT and business/commercial studies, says Stephen. "Yes, we are concentrating on the maths departments at present, but looking ahead there are opportunities to move around many departments, accessing different skills and disciplines. We are in quite an old-fashioned industry but there are so many opportunities to use new technology or methods."

"It is to do with having an open mind. Our biggest investment is our time. We believe in the potential benefits of creating strong links and closing the gap between industry and education."

To many, the port industry looks distinctly low-tech. However, that ignores some of the very complex processes that are deployed to make a successful and innovative port. The Port of Felixstowe is showing how the appliance of science can improve operational performance.







# PANAMA PORTS COMPANY



**A** member of Hutchison Ports, Panama Ports Company (PPC) manages the ports of Cristobal and Balboa. The Port of Balboa is located at the entrance to the Panama Canal on the Pacific side and Port of Cristobal at the entrance to the canal on the Caribbean coast of Panama. Both ports are strategically located to serve as a distribution network for Atlantic and Pacific trade routes for the main shipping lanes.

Panama Ports Company negotiated with the Panamanian Government to obtain concession, administration, management, operation and development of both Balboa and Cristobal Terminals in the late 1990s. The aim was to transform them into modern and efficient terminals handling containers, general cargo, bulk cargo, Ro-Ro, car carriers and passenger ships. The negotiations concluded with the granting of a 25 years concession, renewable for an additional 25 years on 16 January 1997.

That original aim has now been realised and the twin ports of Cristobal and Balboa share a strong commitment to provide connections and strategic access along both transatlantic and transpacific routes. The ports provide a multimodal transport hub, a concept offering complementary alternatives for movement of cargo or passengers across oceans and the countries of the world.

The port sector in Panama has shown great dynamism in recent years, a process that has been led by Hutchison Ports. From a starting point of just 189,000 TEU in 1997, throughput at the two ports has grown to 4 million TEU per annum with the Balboa terminal the busiest in Panama and the number one transshipment terminal in Latin America.

PPC's operations in Balboa boast a total of 1710 metres of quay dredged to a maximum depth of 16 metres. Container ships are serviced by 25 ship-to-shore gantry cranes of which 7 are of Super Post-Panamax design capable of handling ships with containers stowed 24-wide on deck.

The container yard extends over 42 hectares and is equipped with 3,468 plug-in points for refrigerated containers. Balboa also offers pre-trip inspections as well as maintenance and repair services for refrigerated containers and direct connection with Colon ports via railway.

Balboa is continuing to grow to capture the increased levels of trade that will follow the increase in the size of ships able to transit the Panama Canal. The fourth phase of expansion is currently underway which will help increase capacity to 5 million TEUs per year.

At the other end of the canal Cristobal Port has a unique design that allows it to handle a wide variety of cargo types as well as the capacity to receive and handle 14 weekly-scheduled services, carrying a total of 2 million TEUs annually. It has 3 berths for Panamax and Post Panamax vessels across 970 metres of quay. In total, PPC has 38 gantry cranes and, reflecting its commitment to the environment has introduced a number of electric Rubber-Tyred Gantry cranes (RTG) to help reduce emissions and improve air quality. In addition, Cristobal has 5 multipurpose berths at Docks 6 and 16 for general cargo vessels, as well as 2 berths for bulk vessels (liquid and dry) at Dock 16. The range of equipment available includes 45-ton capacity Reach Stacker cranes, and forklifts with capacities from 4-28 tons. As with container traffic, growth in general cargoes has been strong with over 648,000 tonnes moved - a 171% growth over the last seven years.

Operations are supported by a heavy-lift Liebherr crane which has a capacity from 80 to 120 tons. The port also offers storage up to 70,000 tonnes, a covered warehouse - with an area of 3,400 m, and modern IT systems to control and monitor real-time operations.



Cristobal is not all about freight. The port also has a cruise terminal to accommodate cruise vessels incorporating Panama, and the canal, in their itineraries.

Paul Wallace, CEO of PPC explains:

"The overriding ethos of PPC is a sharp focus on customer-needs. We have a full and continuous training programme for the workforce to guarantee excellence in cargo handling and other port services. Human resources are complemented with the application of the highest technology standards in all operations where cutting-edge computer systems are used for planning yards and vessels. Operations are 24 hours a day, 365 days a year."

As a socially aware organisation, PPC recognises its role as Panama's leading port and devotes its efforts to running sustainable economic, social and environmental operations. PPC recognises the close relation between organisational performance and the society in which it exists and operates, including the impact of its operations on the environment. Hence it focuses efforts not only on carrying out sustainable production processes throughout the value chain, but also promotes and supports a variety of Corporate Social Responsibility (CSR) initiatives in the fields of education, environment and health.

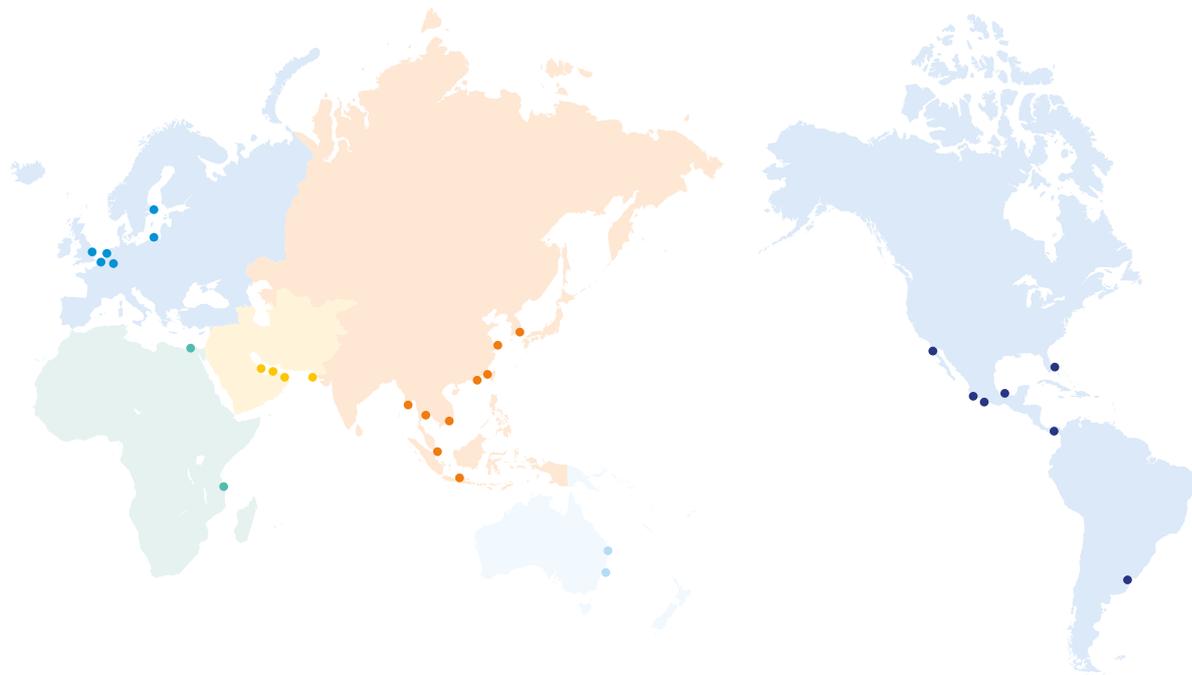
Promoting a culture of best practices, teamwork and solidarity fosters a positive environment and a motivated workforce, all of which has economic, social and environmental impacts and create a truly sustainable organisation.

Add to this, PPC's unique strategic geographical location, its position as a leading transshipment hub with established major shipping lines, its efficient ground transportation connectivity (rail and truck) and logistics parks, and there are many good reasons to choose Panama.

## THE PORT SECTOR IN PANAMA HAS SHOWN GREAT DYNAMISM IN RECENT YEARS...

# THE WORLD OF HUTCHISON PORTS

48 PORTS IN 25 COUNTRIES



## EUROPE

### BELGIUM

Willebroek

### GERMANY

Duisburg

### POLAND

Gdynia

### SPAIN

Barcelona

### SWEDEN

Stockholm

## MIDDLE EAST

### OMAN

Sohar

### SAUDI ARABIA

Dammam

## AFRICA

### EGYPT

Alexandria  
El Dekheila

## THE NETHERLANDS

Amsterdam

Moerdijk

Rotterdam

Venlo

## UNITED KINGDOM

Felixstowe

Harwich

London Thamesport

## ASIA

### CHINA

Huizhou

Jiangmen

Nanhai

Ningbo

Shanghai

Shanghai - Mingdong & Pudong

Shantou

Xiamen

Yantian

### HONG KONG

Kwai Tsing

Tuen Mun

### INDONESIA

Jakarta

### MALAYSIA

Port Klang

## AUSTRALASIA

### AUSTRALIA

Brisbane

Sydney

### MYANMAR

Thilawa

### PAKISTAN

Karachi - West Wharf

Karachi - Keamari Groyne

### SOUTH KOREA

Busan

Gwangyang

### THAILAND

Laem Chabang

### VIETNAM

Ba Ria Vung Tau

## THE AMERICAS

### ARGENTINA

Buenos Aires

### BAHAMAS

Freeport

### MEXICO

Ensenada

Lazaro Cardenas

Manzanillo

Veracruz

### PANAMA

Balboa

Cristobal

# OPINION

Paul McMahon

DIRECTOR OF FREIGHT AND NATIONAL PASSENGER OPERATORS  
AT NETWORK RAIL

**F**rom carrying cars for export and supplying supermarkets to supporting our growing construction industry, rail freight helps keep Britain's economy running. Every day an average of 54,000 tonnes of freight travels the length and breadth of the country by rail. Not least in Felixstowe where the impact of the port's expansion can be seen and felt all around.

That is why Network Rail, alongside Hutchison Ports UK, is upgrading the Felixstowe Branch Line to allow us to run up to 47 trains a day by 2019. The plans, which have been in development since 2008, look at creating a 1.4km section of dualled track to the south of Trimley. The extra trains mean that we need to close and divert six level crossings in the Trimley area. The more trains we run, the higher the risk at the level crossings. As we know this is only going to grow, so we need to create a scheme that protects those using the railway for years to come.

At a recent consultation event in Trimley we welcomed more than 400 through the door to look at our plans. From the feedback we got we really got an understanding of what the railway means to our lineside neighbours. Not only does it carry freight, it also carries passengers and this scheme will bring benefits for the passenger service in terms of improved reliability through a complete upgrade to the signalling system. The passing loop will mean that passenger and freight services can be separated out leading to fewer delays between Felixstowe and Ipswich.

Just like Felixstowe, as part of our Railway Upgrade plan we are putting freight at the heart of everything we do to get the maximum benefits for all our customers. It is no surprise then that the recent Shaw Report, on the future shape and financing of Network Rail, gave clear recognition to the importance of freight and proposed that Network Rail should establish a "virtual freight route".

The new, nationally-focused virtual route will be established alongside our existing eight geographical routes, building on the role and work of the national freight team. As freight services operate across two or more geographical routes, establishing a virtual route will provide clarity and greater focus on freight planning and delivery across the rail network.

The Felixstowe scheme is the first step in this process that has benefits reaching far beyond Suffolk to the midlands and the north. By 2019 we'll have invested £200m in our freight network. In the future we know there's more to do to meet the growing demand. Not least looking to Haughley Junction, doubling the line between Ely-Soham and improving the Ely area to support the increase in passenger and freight services.

Collectively, the steps we are taking firmly support the importance of freight to the rail network and to the British economy because we've seen in Felixstowe first-hand the benefits it can bring. If you would like more information on our consultation on proposed changes in the Trimley area, please visit <http://www.networkrail.co.uk/felixstowebanchline/>



*Network  
Rail should  
establish a  
virtual freight route"*



# MIKE ROBERTS

SENIOR PILOT, HARWICH HAVEN AUTHORITY



- 1996: London and Overseas Freighters. After starting at sea in 1992 became a ships officer on petroleum tankers trading worldwide. One ship was chartered to Chevron oil to carry tarmac oil from America to Hawaii on a continuous shuttle run for four months.
- 1998: P&O Ship Management. Started as a ship's officer on Ro/Ro ferries in the Irish Sea and whilst there stood-by in a team for new ship buildings. Later transferred to P&O Cruises working on large liners on voyages from America.
- 2004: Northern Marine Management Stena Line. Chief Officer on Ro/Ro ferries trading on the Humber – Hoek Van Holland route.
- 2005: Marine Pilot ABP South Wales. Began in the Severn Estuary which has one of the trickiest and largest tides in the world.
- After leaving ABP South Wales I returned to sea as Master on coastal tugs and dredgers.
- 2007: Marine Pilot at Harwich Haven Authority. As a Senior Pilot, responsible for the conduct of navigation of ships boarded in the Statutory Harbour Authority waters. Also worked in liaison committees with stakeholders in the Haven Ports and training other pilots.

## Q&amp;A

**Q** Describe your Role at Harwich Haven Authority?

**A** As a pilot I am responsible for the conduct of navigation of the ship I am on in the Statutory Harbours waters. This includes everything from the passage planning before I join the ship at sea or at its berth. Having the 'conduct of navigation' includes overseeing the navigation and arranging everything from the tugs, communications with traffic control, monitoring the weather 'til the ship is safely alongside or back out to sea. The Statutory Harbour Authority's pilotage waters extend 22 nautical miles to sea from Felixstowe and another eight nautical miles further inland up the rivers Orwell and Stour.

**Q** What is the Biggest Challenge of your job?

**A** I generally joke with the ship's Master about the weather in Northern Europe. When I join a ship it is either raining, windy or dark, but in most cases all three! It is a one hour ride out on the launch to meet the ship and then a big climb up the side to get onboard, let alone the seven decks to climb to get to the navigation bridge.

**Q** What do you find Most Satisfying about your role?

**A** I always remember what it was like to be at sea and when I am dealing with the ship's crew, I remember the stress and strain of being away from home and in an unfamiliar place, so I always adopt a positive attitude to getting the job done in a professional manner.

**Q** What do you like Best about working at Harwich Haven Authority?

**A** Harwich Haven has always adopted professional development for its marine staff. As a pilot I train on some of the best simulators in the country for the ever larger ships we are handling.

**Q** Describe your best day at work?

**A** The successful navigation and berthing of an ultra large containership in challenging conditions – without damage! The Ship's Master and Pilot form a good close-knit team during the three hour pilotage as we have to navigate through confined approach channels and then swing the ship 180 degrees and then reverse backwards towards the berth position. Pah – simple!

**Q** Favourite film?

**A** Where Eagles Dare

**Q** Ideal dinner guest?

**A** Pippa Middleton

**Q** First record bought?

**A** Status Quo, Rocking all over the world

**Q** Last CD bought?

**A** Sia

**Q** Favourite book?

**A** Michael Palin diaries

**Q** Favourite meal?

**A** Steak (Blue)

**Q** Ideal holiday destination?

**A** Ohau, Hawaii

## A DAY IN THE LIFE...

05:00

The phone goes with a call that there is a container ship due at the pilot station. The only person in the household who is glad to hear the phone ring is the dog as he knows he's getting a warm side of the bed.

06:00

I arrive at Harwich Haven Vessel Traffic centre and do the passage plan for the ship and speak with the duty officer before heading to the launch that will take me to the ship.

07:00

After a fast launch ride out to sea we arrive with a bump alongside the ship and I start to climb the ladder on the side of the ship and make my way to the navigation bridge and meet the Ship's Master (Captain) and start the briefing and take over the navigation of the ship.

09:00

Just under two hours of navigating the confined channels and the Landguard bend I communicate with the tugs for assistance with the berthing.

10:00

We are probably running mooring lines from the ship and are safely moored. I am now liaising with the Felixstowe berthing master about the port call.

11:00

I arrive back at the Harwich Vessel Traffic Centre and discuss with the pilot co-ordinating desk about the next work.

12:00

I have my next ship which is out from the river. I do the same and construct a passage plan and tide window for her draft underneath the ship and head out to a waiting taxi to take me to Ipswich.

13:00

I am talking with the Ship's Master who is readying his ship for sea after loading a grain cargo. We discuss the river passage and the challenges it poses.

14:00

We are navigating down one of the most picturesque rivers however it is very narrow with many twists and turns. At this point I am hand steering and altering engine speeds to compensate for the strong tide.

15:00

We exit out of the river and pass the Felixstowe berths and head out to sea.

16:00

I disembark the ship at the inner pilot station onto the launch before heading back to the Harwich Traffic centre. I stand down for a rest period and head home to walk the dog or take my son out to the park. My phone is most likely to go at about 0200 in the morning for my next ship, so I get some dinner and head to bed.



# LOGISTICS PARK

Build-To-Suit Distribution Warehouses

1.4m sq.ft within the  
Port of Felixstowe

For more information contact:  
Dominic Smith, Head of Real Estate  
T: +44 (0)1394 604499  
E: [smithdj@hpuk.co.uk](mailto:smithdj@hpuk.co.uk)

[felixstowelogisticspark.co.uk](http://felixstowelogisticspark.co.uk)

 HUTCHISON PORTS  
**PORT OF FELIXSTOWE**