# Cruise & Ferry

The global guide to passenger shipping



# Sustainable future Fran Collins.



**CEO** of Red Funnel



Mark Collins, president and CEO of BC Ferries



Simon Johnson. director of Shipshape Consulting



Niclas Mårtensson. **CEO** of Stena Line



Christophe Mathieu, **CEO** of Brittany

Simon Johnson, director of Shipshape Consulting, asks four ferry operators to outline the initiatives they have put in place to reduce the environmental impact of their fleets

ust a few years ago, ferry companies and their passengers gave little thought to sustainability. Most operators had not considered the environmental impact of their operations, while the prime concern of their customers was the cost of tickets.

However, customer concerns about how ships are impacting the environment, new government legislation and the potentially negative effect of these measures on ferry companies' operating costs have put sustainability top of mind for everyone involved in the ferry industry. As a result, ferry companies have embarked on several innovative projects that have not only started to deliver positive environmental results, but have also caught the imagination of customers and the media. Four pioneering ferry companies that operate in global, regional and local markets share their thoughts on sustainability and provide feedback on the initiatives they have already implemented with ICFR:

#### How does your corporate vision dictate your approach to the topic of sustainability?

Christophe Mathieu, president of Brittany Ferries: We believe a voyage by sea is the richest way to travel. That means it

should be a pleasure for our customers, our crew and all those who work within the regions we serve. They should not have to question our commitment to anything particularly when it comes to protecting the environments in which we operate – so we know we must take action on issues like single-use plastics. We also have to take the lead when it comes to the types of fuels we use and cutting air pollutants and greenhouse gas emissions. Plus, we must do more for onboard recycling. Our stakeholders should never have to question whether we're 'walking the talk'.

Mark Collins, president of BC Ferries: BC Ferries is privileged to operate in one of

## "We already lead in North America when it comes to lowering emissions"

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BC Ferries' Spirit of British Columbia was recently retrofitted with dual-fuel engines to allow her to operate on cleaner natural gas

the most pristine environments in British Columbia, so it's our responsibility to protect the beauty that surrounds us. Reducing our ecological footprint through continued investment in leading-edge environmental stewardship is a top priority as we build a ferry system for the future. We do this to build trust with coastal communities.

Fran Collins, CEO of Red Funnel: Red Funnel has been serving the Isle of Wight since the early 1800s and longevity and sustainability has been at the very heart of our values for a long time. We have a responsibility to ensure that we operate in a manner that actively enhances the regions we serve and to take advantage of technology developments to improve both our services and the environment. I believe it's a moral imperative. Being open to new ideas and thought processes is essential for this, as the ability to see beyond the here and now.

Niclas Mårtensson, CEO of Stena Line: Sustainability and digitalisation are central parts of our group strategy and our Connecting Europe for a Sustainable Future vision. As a company that operates 28,000 sailings per year on 21 ferry routes, we have a responsibility to do our best to perform all of our business in a sustainable manner. We are aligning our sustainability efforts with the United Nations' sustainable development goals and we're working actively within the four areas that lies close to our operation: clean energy, life below water, good health and wellbeing, and responsible consumption.

# What recent projects have helped you gain ground on your stated goals?

Mathieu: Linked to our corporate vision is Brittany Ferries' eco responsibility project. This is a root-and-branch approach to everything we do, from the tender process for suppliers right through to the materials we currently use onboard. The project has already led to changes – we've removed all plastic cups from cabins, replaced plastic

straws with greener alternatives and put new eco-friendly soap in shower rooms. These are just a few positive steps, but hopefully it demonstrates our commitment. We know we must to do more – and quickly – across our fleet. That's an absolute priority for me as CEO of Brittany Ferries.

Mark Collins: We already lead in North America when it comes to lowering emissions and adopting clean marine technology. We were the first passenger system in North America to adopt LNG and we now have four – soon to be five – LNG-fuelled vessels in our fleet that substantially outperform diesel vessels for emissions and costs. Plus, we have two advanced battery-electric hybrid ferries under construction.

Fran Collins: Last September, we launched our new 'Red Goes Green' plan, which outlines our environmental strategy for the next three years. there are multiple exciting initiatives within the plan and we've already implemented several, including an anti-idling campaign at our



Brittany Ferries' Honfleur will be the first LNG-powered ferry on the Channel

vehicle ferry terminals and testing greener, cleaner fuels. As far as we're aware, Red Funnel is also the first ferry company to offer a large travel discount to passengers travelling with electric vehicles. We're also continuing to phase out single-use plastics across the business and have already replaced plastic straws, plates and cutlery with eco-friendly alternatives.

Mårtensson: Sustainability has been an integral part of our operations for many years and we have completed more than 320 energy-saving projects onboard and onshore. It's important for us to keep a continuity in our efforts - whether it is having a safe and attractive workplace, or switching to organic milk, or installing more shore power and battery power on our vessels.

#### Do you have any projects in progress that will enhance the sustainability of your marine operations?

Mathieu: Honfleur, our LNG-electric cruise ferry. Cleaner, more efficient and quieter than our existing vessels, she will be the first LNG-powered ferry on the Channel when she enters service in 2019 so it's an exciting project for us. We're also partners of whale and dolphin conservation charity ORCA's 'Ship Strike' project. We make space

for ORCA's officers on the bridge of our ferries, enabling them to record cetacean sightings, particularly in the Bay of Biscay on the west coast of France. The project is an important piece of observational research that may present new ways of alerting whales to potential danger. It may also lead to recommendations for training bridge crew so they know how to take affirmative avoidance action before striking a whale or dolphin. The research is ongoing, but ultimately its reach could extend way beyond Brittany Ferries to the global shipping community.

## "We have to take the lead when it comes to the types of fuels we use and cutting emissions"

**Christophe Mathieu** 

Mark Collins: BC Ferries has 47 vehicle ferries under construction for our interisland routes and the first eight will be battery hybrid-electric vessels. When they enter service in 2020, we believe the ships will be some of the most efficient and quietest electric-hybrid ferries in the world.

Fran Collins: Red Funnel's 'Red Goes Green' plan is at the heart of our sustainability strategy, but in five to 10 years' time when we need to look at upgrading and/or replacing our vehicle ferries, we anticipate that we'll make improvements in efficiency and use new technologies to further reduce our carbon footprint. It will be exciting to have even more control with how green we can go when we have a clean slate to work with.

Mårtensson: Finding alternative and sustainable fuels is an important priority for us, and the industry at large. We started testing methanol fuel onboard Stena Germanica in 2015 and methanol now forms 25% of her fuel mix. Our company has also started a battery project on Stena Jutlandica, which operates between Gothenburg, Sweden and Frederikshavn, Denmark. For the first stage of the project, we're using battery power on the ferry's bow thrusters while she manoeuvres in port. In step two, we will substitute one main engine with batteries to enable Stena Jutlandica to



Stena Line is part-way through a trial that will eventually lead to Stena Jutlandica sailing for 50 nautical miles on battery power

run on electric power for around 10 nautical miles, through the archipelago and out into open sea. In step three, battery capacity could be further expanded to enable the vessel to operate for around 50 nautical miles – the distance between Gothenburg and Frederikshavn.

#### What game-changing technologies for the future are you particularly interested in pursuing, and how do you expect them to improve your operations?

Mathieu: We know that LNG is an interim technology because it still involves burning fossil fuels, so we're looking for a longterm solution. We have several projects in progress with CEA - the French nuclear research agency, which has expertise in using fuel cell technology. Fuel cells powered by hydrogen, or another source, could offer a sustainable propulsion solution for the long term. Consequently, while I'm delighted that we're taking a lead with LNG-powered Honfleur, I also fully support this important research. Although we must make immediate changes for today, it's just as important to work hard to find the solutions for tomorrow.

Mark Collins: We developed a Clean Technology Adoption Plan that is leading us toward our next major vessel programme. Four to six new large ships will feature very large energy storage systems, which will allow them to use electric power for in-port operations and when they are arriving in or departing from ports. Our goal is ultra-clean emissions with ultra-low fuel consumption. Over the next 12 years, we anticipate investing CAN\$3.9 billion (US\$2.9 billion) in capital assets – the largest capital plan in the history of our company. Our plan will help to ensure a sustainable, future-ready, efficient marine transportation system which takes into account the energy transition to a lower carbon future. In the long term, we aim to move from fossil fuels to greener sources.

Fran Collins: Shipping is an industry that is ripe for the adoption of new technology and alternative options, but given the nature of its business, it is essential that these are implemented in a way that gives customers certainty around service and price. Red Funnel is greatly interested in the future of propulsion and the options that are being explored to support an industry that currently relies heavily on fossil fuels. I sit on the UK Government's Clean Maritime Council and the opportunity to be involved in the future strategy will be valuable as we start the early planning for replacing our vehicle ferries in future.

*Mårtensson:* A big focus area for us is digitalisation. Artificial intelligence (AI)

and machine learning is a big game-changer for us from a commercial perspective, but also very important from a sustainability perspective. Just recently we have started a project testing AI to support the fantastic crew we have onboard. The system combines historical data with actual conditions, such as weather, stowage and timetable, to help reduce fuel consumption and give better decision support to the bridge officers.

BC Ferries, Brittany Ferries, Red Funnel and Stena Line are just some of the many ferry companies around the world that are working hard to mitigate the impact of their ships on the environment. In fact, the number of initiatives across the industry is quite astounding, particularly because they have the potential to result in a long-lasting positive outcome for the operators, customers and the planet alike. For operators, these sustainability issues will deliver cost efficiencies that add to their bottom line. They will also attract business from green-minded customers who are taking notice of organisations that are making a real effort to improve their

There is no doubt the industry has started to get its sustainability act together and it is encouraging to see that there is a lot more innovation planned for the future. C&F