



Howard Fireman (ABS): Digitalisation will impact a vessel's lifecycle starting with design, vendor developments, ship operations and management

A touch of class: ABS's Howard Fireman

ABS senior vice president and chief digital officer Howard Fireman provides an exclusive review of how digitalisation is changing shipping

Shipping should embrace digitalisation and evolve with changing global trends, said ABS senior vice president and chief digital officer Howard Fireman. Digitalisation improves vessel lifecycle management and fleet supervision and enhances data analytics to enable better decision making, he believes.

Sectors that have adopted digitalisation processes have reduced fuel and maintenance costs and improved compliance, said Mr Fireman. Below, he provides answers to the questions on every shipping executive's lips.

How do you see shipping's evolution into a more digital industry and its adoption of digitalisation?

The shipping industry has many different markets. The various sectors have their own competitive pressures and are evolving at different depths, breadths and speeds. Digitalisation will impact a vessel's lifecycle starting with design, vendor developments, ship operations and management and charterparties.

How we manage the data generated in this process and use it in a practical and pragmatic way is the challenge. Ultimately, each sector has its own commercial drivers and data and digitalisation will be part of all of them at various levels of sophistication over time.

What are the main factors driving shipping towards greater levels of digitalisation?

The main factors in the digitalisation journey are our clients' needs for efficient, data-driven compliance and performance solutions, which are enabled by the development of:

- Fleet-management software solutions.
- Affordable cloud-based data platforms.
- Faster satellite communications.
- Advanced ship automation.
- Cheaper sensor technology.

- Advanced analytic solutions, including machine learning.

Other examples will exist in future but for now, practical and impactful technology is providing opportunities across the shipping industry value chain.

What sectors of maritime are further ahead in the digitalisation evolution?

We have seen and participated in numerous pilot projects across the maritime industry, driven by various desired outcomes. These outcomes include achieving lower maintenance or fuel costs, spares and parts optimisation, digitising processes and improving day rates.

In terms of early adopters, we have observed more investment in the energy-related maritime sectors generally, with assets that have high degrees of technical complexity.

Why should shipping companies invest in digitalisation and adopt smarter fleet-management systems?

As companies prepare for the world of digital business, I would recommend they work to define and align their digital strategy to their required business outcomes. The investment decisions should be driven by their return-on-investment requirements and market positioning, which support their business strategy.

Tools such as fleet-management systems offer a variety of capabilities to improve the efficiency of shipping company and shipmanager operations. This includes a range of decision processes from managing assets, compliance, workforce and operational performance, to finance and commercial practices. Investing in one or all these capabilities must be supported by the ability to achieve the desired objectives.

ABS is developing a digital-class platform that will enable us to improve digital services across a range of topics, ultimately impacting many areas of the class process, with enhanced service delivery for customers using ABS Nautical Systems products.

What technologies has ABS already adopted and what is in the pipeline?

Our digital team is setting the pace in innovation, building a new data-solutions suite including a data platform, data analytics, data-centric inspection technologies, mobile technologies, cyber-security programmes and our Nautical Systems fleet-management system.

ABS has also delivered a new data access platform, Mobile Survey Manager App, which offers up-to-date vessel data via a smartphone or tablet. ABS has completed and released its

new electronic certificates offering, supported by our certificate authorisation tool, to support client needs for accurate on-demand e-certificates.

What maritime-specific guidance does ABS have to assist shipping to adopt digitalisation?

The importance of people in this digital revolution, or in any technology-based upheaval, cannot be overstated. Although technology is often a vehicle for great change, it is always built and steered by human beings – guided by the vision of leaders and realised by the actions of staff.

Industry leaders should recognise that these fantastic systems and devices are, in the end, just sophisticated tools. As leaders, managing change focused on enabling people through these technologies is key in the adoption of digitalisation.

What are the risks from greater levels of ship connectivity?

Greater connectivity from satellites and ship networks has introduced growing risk within the maritime domain. Vessel risk profiles are increasing with use of advanced control systems and the impact of internet of things.

ABS was the first class organisation with cyber-related notations and standards that concentrate on control systems, operational technologies and their associated risks. Our cyber-security programme is built on three levels of maturity:

- Informed (CS1) – The client is aware of cyber-security requirements and has started addressing those requirements.
- Rigorous (CS2) – The client is managing its cyber-security programme.
- Adaptive (CS3) – The client is continuously improving its cyber-security programme.

How is shipping taking on the challenge of training seafarers for the future IT skills that will be needed in digitalisation?

The operational side of the shipping industry is seeing ships with increased automation and complexity along with the introduction

of cyber-physical systems.

Introducing this new advanced technology will require seafarers with an increased knowledge of basic IT, cyber-related risks and maintenance routines on ships. Fleet managers will need to implement change-management processes, new policy and procedures, incident response and, of course, ongoing training.

When do you expect to see the first commercial autonomous ship operate and in which sector will this be?

There are multiple projects developing around the world, from workboats and offshore support vessels to small container ships and bulk carriers, with vessels designed for various levels of autonomy. Most field testing is taking place in coastal waters by remote operation. The technology is developing at ever-greater speed, but as a minimum, we need international regulation, such as IMO requirements, in place, before we see oceangoing commercial autonomous ships in operation.

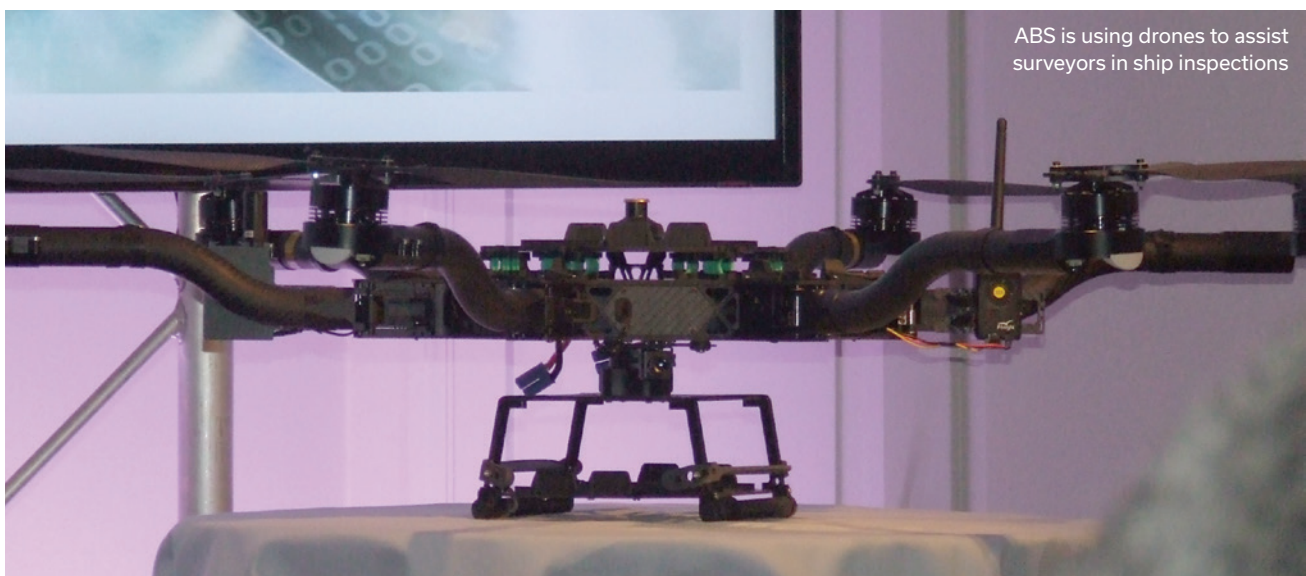
What is your opinion on the role classification societies will play in an established digital maritime industry?

The classification sector is already embarking on this journey. We are seeing some of the benefits to surveyors, owners and operators and seafarers that stand at the heart of protecting safety of life and property at sea.

This digital revolution will have a major impact on how class delivers its primary services. The objective of class is setting standards for safety and excellence in design, construction and operation. The process of how we deliver services will be transformed from plan review throughout the life of the asset.

The journey is going to be fast-paced and exciting. Classification in 2030 should be more effective, efficient, informed and flexible, providing the global maritime industry with safe and affordable services. **MDC**

Cyber-security was discussed at Riviera Maritime Media's European Maritime Cyber Risk Management Summit held in association with Norton Rose Fulbright on 15 June. For more information on the event, visit www.shipcybersecurity.com



ABS is using drones to assist surveyors in ship inspections