

# Is the shipping industry embracing the digital age?

Sally-Ann Underhill, of Reed Smith, asks whether regulation will drive greater use of technology in the marine industry and reveals the results of a recent survey on the same question

**W**e are living in what it is tempting to call “interesting times”, with world trade changing and sanctions dominating. At the same time, while the changes in technology that we have seen in the last 20 to 30 years are ones that it is difficult to imagine being overshadowed by those yet to come, that is what we are told is the future. We, therefore, asked the shipping industry what it is expecting in the next five years in terms of technological drivers and efficiencies and what it sees as its greatest challenges.

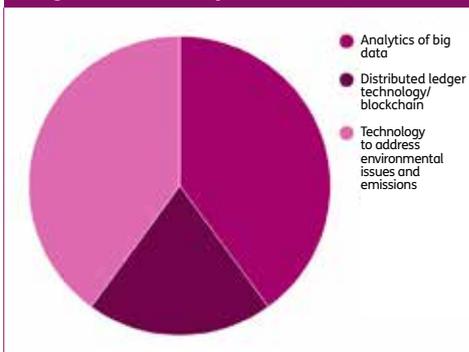
## Technological drivers

Perhaps unsurprisingly, one of the most significant drivers for the next five years is seen to be technology to address environmental issues and emissions. MARPOL Annex VI, regulation 14, which imposes a global emissions limit for sulphur in fuel oil on board ships of 0.5 per cent from 1 January 2020, has been said to be “the single most expensive environmental regulation the shipping industry has ever faced”.

In Greece there was an almost palpable change in attitude to scrubbers after Posidonia 2018. And although the trade press is full each week of reports of countries that will not allow open loop scrubbers and companies saying they will not go down the scrubber route, it is also full of plenty of stories of owners who are changing their minds and fitting scrubbers on at least some of their vessels. This is notwithstanding the uncertainty as to, inter alia:

- whether low and high sulphur fuel prices will level out;
- the impact of scrubbers on vessels’ performance;
- contractual liabilities;
- the availability of low sulphur fuels;
- the acceptance of open loop scrubbers in certain jurisdictions; and
- what the next level of regulation (hopefully, to protect the sea) will be.

Which technology will be the most significant driver of change over the next five years?



Although ballast water regulations seem to be taking a back seat to the sulphur regulations in terms of press coverage, work is also going on behind the scenes to ensure vessels are compliant. It is no wonder then

that the industry sees this as a significant driver. Will this finally be the period in which e-bills of lading come into general use? Although used in the container trade, they have yet to achieve widespread acceptance, but the application of blockchain to the process is expected finally to extend their use. Let’s see.

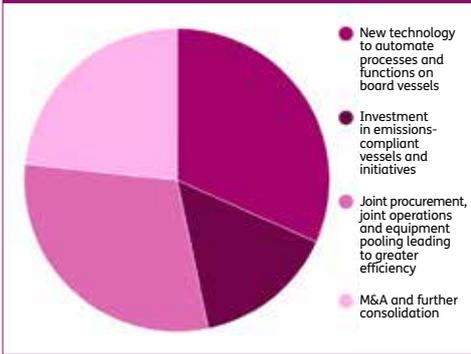
## Efficiencies

Thankfully, technological changes are not all about increased costs. There is also an anticipation that they will help to achieve efficiencies. There is less certainty, though, as to what these efficiencies will be. New technology to automate processes and functions on board vessels is seen as the most likely future efficiency to be achieved, with the use of big data analytics facilitating the development of automated procedures and functions on board vessels, thus allowing decisions to be made more quickly and efficiently, such as identifying when and where spare parts are required and predicting voyage outcomes.

Many such efficiencies, however, are already in place. The key will be ensuring that these are built on to maximise further efficiencies. We are likely to see more companies working together in terms of joint procurement, joint operations and equipment pooling. A start has been made, but it is anticipated that this will increase.



Which of the following do you believe will create efficiencies for the shipping industry in the next five years?



Not so much as a result of the digital age, but rather more as the result of difficult trading conditions, the industry is expecting more in the way of mergers and acquisitions. The Belt and Road Initiative, the

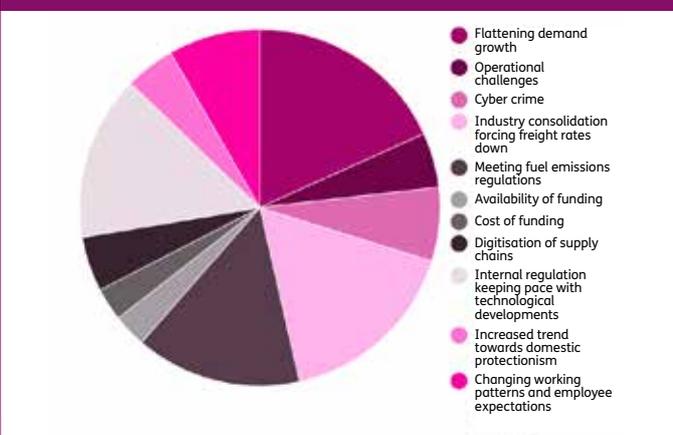
downturn in demand from China, trade sanctions and uncertainties surrounding global relations mean that the long-awaited upturn in shipping fortunes may yet be some way ahead. If so, then M&A and further consolidation could well be the way forward.

### Greatest challenge

On this question, the industry was most divided, but the key issues are seen to be:

- *Flattening demand growth* – as referred to above, the slowdown in the Chinese economy is a significant factor, but this is echoed by other industries across the globe. The concern is that this will push rates even further down.
- *Internal regulation keeping pace with technological developments* – in addition to the sulphur regulations, which

What is the greatest challenge facing the shipping industry in the next five years?



are dominating the headlines at the moment, will we really see maritime autonomous surface ships (MASS) in operation in the near future? In the next five years this seems unlikely, but by 2035 they are expected.

- *Industry consolidation forcing rates down* – with greater economies of scale, the concern is that larger companies formed by consolidation will push difficult rates even lower. Where will that leave smaller players in the market?
- *Meeting fuel emissions regulations* – this is clearly a major consideration for the industry. We will review in mid-2020 to see what the impact has been.

**“Cyber crime is not seen as a dominating concern, maybe because the issues that have arisen to date have shown that, although inevitable, cyber crime is survivable”**

Perhaps most surprising is the relatively high response about changing working patterns and employee expectations. It will be interesting to see whether this is simply in terms of seafarers, who (with some notable exceptions) do not want to be away from home for the lengthy periods that were common for their predecessors, albeit this has already been largely achieved; or whether it also extends to office-based personnel. Communications mean that employees can be contacted 24/7 and so can work flexibly (our firm, for example, has an agile working policy); the question is whether they want to be contactable 24/7, 365 days a year.

In contrast, although cyber crime is an issue, it is not seen as dominating. Is this because the industry feels helpless to do anything about it, or because the issues that have arisen to date have shown that, although inevitable, cyber crime is survivable?

### What does the survey tell us?

It is fair to say that the sulphur regulations are dominating thoughts and planning processes in the run up to their implementation on 1 January 2020. As to the other issues, as well as the challenges, the industry is ready and willing to embrace change and to use technological and other developments to maximise efficiency and improve performance. But there will be some on whom the consolidation and resultant lowering of rates will undoubtedly leave their mark. *MRI*



Sally-Ann Underhill

Sally-Ann Underhill, partner, Reed Smith