



Data & Digital Transformation:

Insights from Shipping Leaders

Find out what industry leaders are doing to accelerate digital transformation and set themselves up for success by unlocking the power of data.



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Introduction:

Ongoing supply chain issues and related disruption during the COVID-19 pandemic have elevated digital transformation to the status of a top priority throughout the maritime shipping industry. However, with so many voices clamouring to be heard and challenges to overcome, it is easy to be overwhelmed by the topic.

To address this situation and shine a light on the issues that insiders truly care about, TradeWinds Content Studio spoke to a select panel of market leaders, each representing a different stakeholder group in our industry, including shipowners, operators, logistics providers, ports and charterers. The result is a white paper that distills the latest thinking on digital transformation from across the world, with contributions from Hapag-Lloyd, Stena Bulk, Koch Supply & Trading, PSA International, Wilhelmsen Ship Management and Equinor.

The goal of this paper is to kick off a candid conversation about digitalisation and provide timely insights that organisations like yours can use to decide the best path

forward. We drill down on the often-underestimated importance of data management for successful digital transformation.

Whether you are well into your digital transformation journey or have not yet started, we hope that the ideas laid out in this paper will help you avoid pitfalls and enable you to implement the best practices needed to reach your goals. The topics covered include:

- **Which organisation types have made the most progress towards digital transformation and what can be learned from them?**
- **Strategies for measuring and maximising ROI**
- **Quick wins on the path to digital transformation**
- **The critical role of data management for successful digital transformation**
- **And more!**



Q&A

Our Cross-industry Expert Panel

To paint a holistic picture of the industry's approach to digital transformation, we solicited the views of the following leaders from their respective organisations:

Q&A participants:



Dr. Ralf Belusa
Chief Digital Officer,
Hapag-Lloyd



Ho Ghim Siew
Head of Group Strategy & Cargo Solutions,
PSA International



Peter Bjorkborg
Manager, Sustainability & Transformation,
Stena Bulk



Oyvind Stordal
Head of Data and Performance Management,
Wilhelmsen Ship Management



Ivana Blazevic
Vice President, Marketing & Supply,
Equinor



Captain Andrew Smiley
Vice President, Shipping,
Koch Supply & Trading

Q1

Where is the industry at in its digital transformation journey? Which parts of the industry have made the most progress to date and why?



Dr. Ralf Belusa
Chief Digital Officer,
Hapag-Lloyd

The journey is a bit more complex for shipping than other industries, but it is well on its way. Significant progress is being made across the board. From operations, scheduling connectivity and mobile solutions on the front-end, to the purchasing department, or even how we are attracting employees, there's some kind of digital transformation underway nearly everywhere you look, and many different points where improvements have been made.



Ho Ghim Siew
Head of Group Strategy & Cargo Solutions,
PSA International

Digitalisation in the supply chain industry is still quite nascent compared to other industries. In the last two years, the pandemic has accelerated digitalisation in three key areas: (1) new digital applications such as visibility solutions and freight marketplaces which enable cargo owners (or freight forwarders) to transact electronically; (2) supporting services such as payments, financing, and documentation; and (3) business-related transactions by governments.

Increasingly, cargo owners want to have better control over their supply chains. Initial steps include visibility and paperless transactions. For example, when there are exceptions in transport management, cargo can be redirected promptly, or when analytics and trends suggest new markets of consumption, cargo owners can position themselves for higher value capture.

The pandemic-induced travel restrictions also saw paperless trade such as electronic documents and signatures gradually gaining acceptance. There is still a lot of potential to be harnessed, especially for electronic bill of lading (eBL).



Peter Bjorkborg
Manager, Sustainability & Transformation,
Stena Bulk

I think the industry has been struggling to find suitable applications for digital technology. We are seeing some progress in the technical and operations field, where data and digital technology is being increasingly utilised to optimise performance and reduce bunker consumption. But pure commercial applications, which we believe could make just as big a difference, are still to be developed and scaled to a broader audience. The characteristics of global shipping make this development difficult. But companies with forward-leaning mindsets and significant transformation resources, or simplified business models with fewer stakeholders, are likely to take the lead in the development.



Oyvind Stordal
Head of Data and Performance Management,
Wilhelmsen Ship Management

We are still very early in the digital transformation journey. As I see it, the larger shipowners with big fleets irrespective of segment are the ones who often have made most progress. They have the dedication, resources, and competence to implement different initiatives. This is, however, good for medium and smaller sized owners / operators since the big ones are paving the way and identifying potential pitfalls. It is important to remember that this is a marathon and not a sprint.

Q1 Where is the industry at in its digital transformation journey? Which parts of the industry have made the most progress to date and why?



Ivana Blazevic

Vice President, Marketing & Supply,
Equinor

The world is facing two intellectual transitions. The first is the energy transition and the second is digital transformation. At Equinor, we believe that the latter is critical to the success of the former, with data collection, integration, and applied analytics at the fore. We know that the need for fossil energy sources will continue for the foreseeable future. As such, we see digitalisation as increasingly pivotal in securing competitiveness—securing both carbon and cost efficiency, plus safe operations.

At Equinor, the first phase of our digital journey focused on areas related to production optimisation, operations, and maintenance. Today, however, as we consider the energy transition and changing dynamics in global commodity markets, there is even greater incentive for the pursuit of further digital opportunities in both trading and shipping, as well as increased digitalisation and investments in low-carbon solutions and renewables. In shipping specifically, given the growing focus on low carbon, this is a key area we are now looking into. In addition, in terms of the supply chain at large, we have several flagship projects with end-to-end processes that we intend to optimise.



Captain Andrew Smiley

Vice President, Shipping,
Koch Supply & Trading

In terms of digital maturity, shipping is behind where it should be. We live in an era where we are sending civilians into space. We have satellites. Everyone has cell phones and the internet. The world around us is moving quickly. The industry needs to pick up the pace. It has made some headway, things like sensor technology and the transfer of data from ship to shore have improved, but progress has been slow and further advancements on these fronts and others are needed.

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Captain Andrew Smiley,
Vice President-Shipping,
Koch Supply & Trading

Q2

Data is the lifeblood of the industry. However, for the most part, data continues to be managed in a very manual and siloed way. What impact is this having on digital transformation? How are industry participants adapting?



Dr. Ralf Belusa
Chief Digital Officer,
Hapag-Lloyd

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Data really is the new currency. It's the name of the game and having a huge impact because everything is getting more and more data-based. There's the adoption of data-based decision-making and building data-based organisations. The shift has been integrated but taken one step at a time.

It starts with the reconciliation of one's own data in real-time, then adapting it across multiple interfaces before applying artificial intelligence, which lays the foundation for actionable insights. It's not just about data, which is worthless on its own. It's about leveraging the data to make better decisions and automation.

As more industry participants embrace data, more opportunities for meaningful collaboration and intelligence sharing arise. There's a collective benefit, which is why it's imperative for everyone across the supply chain, and every siloed department, to mature. Transparency opens new doors, promotes more interfaces, and, ultimately, aids in the evolution of the entire industry.



Ho Ghim Siew
Head of Group Strategy & Cargo Solutions,
PSA International

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To encourage the wider adoption of data sharing, we need to address two key issues — data standardisation and data governance—and there are several ongoing initiatives aimed at addressing them.

There are already several existing data standards but the more recent initiatives (such as the Digital Container Shipping Association - DSCA) support industry participants by standardising data exchanges for key transactions between various stakeholders along the supply chain, thus enabling interoperable IT solutions.

Good data governance—which sets out the guidelines on how data can be shared, exchanged, or transacted, in a trusted manner between parties—will also provide assurance to data contributors and consumers.

In general, industry participants are adapting well to the new landscape, with the more established players taking the lead and with governments' support. Whilst the full value is yet to be realised, the players are prepared to keep an open mind, venture into this space, and have a first-hand experience of the potential value that data can bring.



Peter Bjorkborg
Manager, Sustainability & Transformation,
Stena Bulk

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The industry has access to plenty of data, but it is often scattered, low quality and underutilised. Best case, that is a waste. Worst case, it means bad intelligence and inaccurate insights leading to inefficient operations and bad decisions. The good thing is there are solutions both for data collection and analytics being developed and, in some cases, already available on the market. Once industry players figure out their needs and how they can translate data into actionable insight, I believe there are significant efficiency and sustainability improvements to be made.



Oyvind Stordal
Head of Data and Performance Management,
Wilhelmsen Ship Management

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There is no question that data silos—and manual management of them—is a challenge we need to overcome. This slows down experimentation and R&D—and consequently the shipping industry's ability to innovate. On the positive side, the industry is adapting. To give a concrete example: When extracting sensor data from ships there might be important data tags missing for different reasons, e.g., data silos due to different onboard system providers. To work around this issue, we see players out there now combining sensor data with manual entered data. In this way, you can enrich your data and realise value without automatically accessing every single sensor tag.

Q2

Data is the lifeblood of the industry. However, for the most part, data continues to be managed in a very manual and siloed way. What impact is this having on digital transformation? How are industry participants adapting?



Ivana Blazevic

Vice President, Marketing & Supply,
Equinor

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Data management is a huge challenge for large companies, including ours. We process a lot of data. The first step involves getting data out of an on-premises siloed solution into a single platform. While we have made progress on this front, liberating all data company-wide will take time. And getting data ready for analytics is a challenge in and of itself. At Equinor, we have huge amounts of operational and production data. We established Omnia, a cloud-based data platform to ensure that much of that data is available on a single platform across our value chains, including development and production, transportation, marketing, supply, and trading.

We believe the liberation, integration, and contextualisation of data will be a key accelerator and a critical differentiator in the industry going forward. Equinor's ambition is to become a leader in the way we manage and derive insights from data for better decision-making. Success hinges on leveraging both new and existing tech partnerships and working closely with internal and external stakeholders to build future-proof data architecture. Simultaneously, we need to explore new ways of working across Equinor and with our partners to really increase the pace of the push to realise the full potential of data.

I see many parallels with our peers. We all face many of the same challenges. The bigger the challenges are, the more complex data management will be. So, in many ways, we are on the same road, with the same challenges, and we are tackling them in similar ways. We are seeing a lot of partnerships forming in the market with tech companies. Speed is crucial and leveraging these partnerships will be the key for both us and our peers going forward.



Captain Andrew Smiley

Vice President, Shipping,
Koch Supply & Trading

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There continues to be a lot of people involved in the logistics and operations of a ship, and those people spend a lot of time circulating critical information. There is lots of back-and-forth via email. This is inefficient and drives data silos. Without transparency, or timely access to complete data sets from across the supply chain, it is impossible to realise the full potential of digital tools that provide meaningful, actionable insight. This impedes the adoption of new technologies at scale. Incremental progress can be made inside individual organisations such as ours, however, where we have largely eliminated manual processes and silos.

If you look at cargo movement from start to finish, automation and optimisation are possible at nearly every turn. The technology exists. The desire is there, and the economics make sense. What is missing is the collaboration between various parties. But I think that is going to change when the next round of emissions requirements is implemented. People are going to demand transparency and collaboration. These calls are already growing louder and will be virtually impossible to ignore in the years ahead.

Q3

The industry is making a significant investment in digital transformation. How do industry participants measure the return on this investment?



Dr. Ralf Belusa

Chief Digital Officer,
Hapag-Lloyd

A3

Cost savings are important. Time savings are important. Improvements of quality are important, as is greater agility in an ever-changing world. Successful investments in digital technology are multi-dimensional and supported by three pillars, which are key to measuring ROI.

The first is a focus on transformation and innovation of the core business that follows a step-by-step approach. This allows you to see cost savings and other improvements, while establishing that these benefits were not a one-off, which are tough to measure.

By taking incremental steps and pursuing incremental innovation in your core business, ROI is easy to calculate because, at the end of the day, digital transformation is data-driven. It's based on facts and figures. You can measure the improvements. How

many customers are adopting this? How much churn is there? How much of this is related to price? Is our service so excellent that everybody books with us?

When you're talking about investments in digitalisation, and an incremental approach to adoption, ROI is really, really clear. On the flip side, if an investment is failing, the damage can be reduced because the step-by-step approach provides visibility on a weekly basis, versus a scenario whereby you sink a lot of money into something but can't tell whether it's working or not until months later. This wasn't the case in the past. Today, if something isn't working, you can pivot and improve or throw in the towel.

This incremental approach to investing and monitoring ROI in real-time also favours fewer KPIs and OKRs, which, in turn, promotes faster progress.



Ho Ghim Siew

Head of Group Strategy & Cargo Solutions,
PSA International

A3

Return on digital transformation can be measured in several ways including cost savings, productivity improvement and competitive advantage. Supply chains are no longer purely about cost management; risk mitigation is also crucial through better foresight, planning and visibility. Also, many organisations are leveraging digital transformation to provide a distinct competitive advantage and revenue upside for their business. Among others, this can be achieved through the use of predictive analytics for an enhanced

customer experience, demand-sensing technology for better inventory management, and use of data to drive decision-making for product development.

PSA views data management as an integral part of our digital transformation journey. We formed a Data for Excellence (DFE) team several years ago to play a catalytic role in empowering PSA business units to apply data analytics to business processes, while ensuring the necessary data policies and governance standards are in place and adhered to.

Q3

The industry is making a significant investment in digital transformation. How do industry participants measure the return on this investment?



Peter Bjorkborg

Manager, Sustainability & Transformation,
Stena Bulk

In many cases, digital transformation aims to improve efficiency and reduce bunker consumption. That is a win both for profitability and the environment. I think we are going to see sustainability being one of the main drivers of digitalisation moving forward and the key will be to find just that kind of combination of benefits.

Apart from reducing emissions, we are also seeing a big push for transparency and reporting towards not only regulatory bodies but also banks and customers—something that we expect to increase further and will be crucial for long-term profitability. Quality and time savings could be harder to measure in terms of dollars and cents, and although these are areas that should be continuously improved to ensure an efficient and well-working operation, they require long-term commitment and a quality mindset to make their way through the short-term ROI gates.



Oyvind Stordal

Head of Data and Performance Management,
Wilhelmsen Ship Management

I believe that the effort of measuring ROI varies quite a lot among industry participants. Some have the attitude that it is better to do something on digitalisation rather than nothing without being too concerned about the impact, while others are calculating fuel oil savings from digital initiatives down to the dollar. For me, it is definitively important to track efficiency and quality gains over time. But this shouldn't be a show-stopper short term. Data management—and consequently ensuring high data integrity and quality—is key when it comes to succeeding with digital transformation. However, much of the data out there is never going to be 100% perfect. People need to be aware of that and learn how to deal with it.



Ivana Blazeovic

Vice President, Marketing & Supply,
Equinor

Focus is vital. If we try to do everything at once, success is not likely. Prioritising what matters the most is key.

Since the launch of our digital roadmap in 2017, we have delivered roughly \$1 billion dollars in value creation through efficiency gains from our oil and gas business. Going forward, even greater attention will be paid to value projections and value generation through stricter portfolio management and strategic alignment of our project portfolio.

We have embarked on a path towards the standardisation of business case guidelines where we value both financial and non-financial elements, such as safety and low carbon, coupled with a business case where we define a set of KPIs that lay the foundation for value generation and anchor our digital targets at the very top.

“Many organisations are leveraging digital transformation to provide a distinct competitive advantage and revenue upside for their business.”

Ho Ghim Siew,

Head of Group Strategy & Cargo Solutions,
PSA International



Captain Andrew Smiley

Vice President, Shipping,
Koch Supply & Trading

Utilisation rates, speed and fuel consumption are core KPIs. Cost savings related to voyage optimisation are quantifiable, and thus, critical to calculating ROI. Like most charterers, data management is very important to us. Utilising a ship as best we can is how we make money.

Q4

Which processes are the lower-hanging fruit when it comes to digital transformation?

“There is lots of low-hanging fruit. Easy wins are enticing but can distract from the bigger picture. It is important to tie decisions to a broader strategy. Otherwise, you risk focusing all your attention on low-hanging fruit, chipping away at small projects here and there, and end up making a mess!”

Dr. Ralf Belusa,
Chief Digital Officer,
Hapag-Lloyd



Dr. Ralf Belusa
Chief Digital Officer,
Hapag-Lloyd

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Much of it is in the core business where legacy work-flows and processes are often left untouched because they are proven systems that have performed sufficiently for years. But sometimes, these are strong candidates for minor improvements that could make life significantly easier for staff or customers.

There is lots of low-hanging fruit. Easy wins are enticing but can distract from the bigger picture. It is important to tie decisions to a broader strategy. Otherwise, you risk focusing all your attention on low-hanging fruit, chipping away at small projects here and there, and end up making a mess! Meaningful change across an entire organisation is not possible if you only fix the basics. So yes, the low-hanging fruit is not a bad place to start, but in the end, it must be incorporated into a bigger strategic roadmap with more ambitious destinations.

In fact, there are times when it may be better to avoid the low-hanging fruit altogether and pursue efficiencies that can be scaled across the board.



Ho Ghim Siew
Head of Group Strategy & Cargo Solutions,
PSA International

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The low-hanging fruit for companies is to begin their digital transformation journey on a use-case basis. One can look at the relationships between internal departments or with customers or vendors, and how the processes can be redesigned with digitalisation to solve their pain points. They can then quantify the benefits and value before scaling up or expanding it along supply chains.

The more challenging workflows would be those that require the participation of multiple parties across various industries. For this to work, we would need the various parties to embark on digitalisation transformation concurrently. It is only with the “whole of the ecosystem approach” that each party can realise the value and enjoy higher returns on digitalisation.



Q4 Which processes are the lower-hanging fruit when it comes to digital transformation?



Peter Bjorkborg

Manager, Sustainability & Transformation,
Stena Bulk

More and more companies are starting to use data and digital platforms to improve efficiency in their commercial operations. In recent years, a few standardised platforms aiming to achieve just this have reached the market and that appears to be a logical place to start for companies that are yet to embark on their digital transformation journey. Getting control of the data needed to transform and develop is a crucial first step. Once that is done, more advanced applications could be added on.

One area that is yet to be explored on a broader scale is the commercial applications of digital technology. There have been some trials around smart contracts, blockchain-based shipping documents, cargo tracking and digitised port calls, but these initiatives require a broad commitment from the industry to gain enough momentum to eventually develop into standards. This is a challenge, but once leading industry players come together to push these improvements through, there are large efficiency gains to be made.



Oyvind Stordal

Head of Data and Performance Management,
Wilhelmsen Ship Management

An important area is of course energy efficiency—and a great place to start is with the noon data. Here, you have historical insights which can give immediate value when analysed. I also believe that if you have transparency and get involvement from the crew, they will join efforts to improve operations. I believe that predictive maintenance—or spotting upcoming equipment failure—is of a more challenging character from a data perspective. It's not impossible, but it requires a lot of data which is matched with onboard events.



Ivana Blazevic

Vice President, Marketing & Supply,
Equinor

Much of the low-hanging fruit relates to employees and citizen development, areas where we can, ultimately, empower the organisation to utilise data ready for analytics, making data easily accessible, and utilising low-code/no-code tools. By doing so, we can boost creativity each and every day by enabling employees to develop solutions themselves. This can serve as a starting point for the exploration of use cases, then building up to the ones that are relevant to scale.

In terms of workflows, the most challenging ones to tackle involve complex value chains with big datasets, data stored in proprietary databases that are not easily available. They depend on collaboration between internal and external stakeholders.

While for some, the introduction of low-code or no-code tools can be disruptive, embracing new tools and technologies is critical for growth. To really utilise data, you need to use it and you need to explore it. You cannot fully realise the potential, or see what you have been missing, until you put it to use and test new tools at your disposal.



Captain Andrew Smiley

Vice President, Shipping,
Koch Supply & Trading

Workflows related to bills of lading and other documentation, and the instantaneous transfer of those from ship to shore, and real-time access to data collected onboard the physical asset, are increasingly important to stakeholders across the supply chain. Though the requisite technologies exist, upgrades are needed, as is wider adoption.

Q5

What practical steps can industry participants take to maximise ROI from their digital transformation initiatives?



Dr. Ralf Belusa
Chief Digital Officer,
Hapag-Lloyd

▼ Making the most out of investments in digital transformation begins by defining objectives and key results and mapping out a step-by-step-by-step approach that is clear, but agile. Don't lose sight of your customer, or the day-to-day needs of the organisation.

Throughout the process, it's critical to maintain a culture of lifelong learning, which is all about gaining a deep understanding of how people are working, using data, collaborating, and sharing data between departments. Siloed thinking can impede progress on the path to digital transformation.



Ho Ghim Siew
Head of Group Strategy & Cargo Solutions,
PSA International

▼ To maximise ROI, organisations will need to ensure that they have clear objectives and internal processes in place to enable digital transformation.

Participants should also be open and innovative when it comes to revamping processes, rather than simply digitising existing processes. Industry participants can start small and on a use case basis to first establish the value that digitalisation would bring, but they should have an end goal in mind and build towards it by expanding the functionalities gradually. By adopting this approach, they would only spend what is needed for their organisation's requirements. Companies with minimal IT resources may also consider building simple custom software in-house via knowledge-based platforms.

With digitalisation, benefits can also be derived via data analytics that will (a) yield productivity improvements; (b) enhance customer experiences through preemptive responses; and (c) drive the development of new products that can capture more value and revenue.



Peter Bjorkborg
Manager, Sustainability & Transformation,
Stena Bulk

▼ Figure out what your needs are and start with what is on the market. Buying off-the-shelf products that are flexible enough to be modified to match every company's individual needs, and that can be built upon and integrated with other solutions, is a cost-efficient way to approach digital transformation. Sustainability is also a great starting point — that will allow shipping companies to both tackle regulations and new requirements from banks and customers, and improve efficiency, save fuel, and reduce emissions.



Oyvind Stordal
Head of Data and Performance Management,
Wilhelmsen Ship Management

▼ The key is to bridge data and actions. You can have as much data as you want, but it is worthless if it is not utilised and converted into actions. Another thing is to avoid being trapped by system-specific or proprietary solutions. This might limit you down the road in terms of flexibility and expansion into new areas. If you as a shipowner or operator have not dived into this yet, start with small-scale and low-risk experimentation, figure out where you see value and gradually increase the efforts.

“Data can be made much more accessible with cloud solutions, allowing organisations to share data more efficiently, both internally and externally with partners and suppliers, thereby enabling new services and new business model opportunities for companies such as ours.”

Ivana Blazevic,
Vice President, Marketing & Supply,
Equinor

Q5 What practical steps can industry participants take to maximise ROI from their digital transformation initiatives?

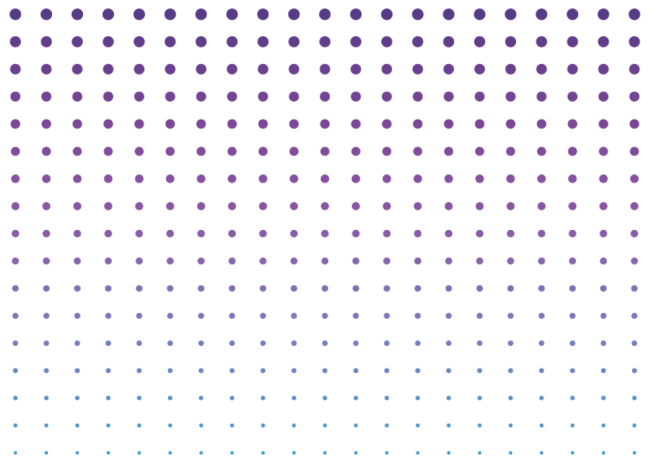


Ivana Blazevic
Vice President, Marketing & Supply,
Equinor

Again, I would point to the importance of focus. You cannot do everything at once. Establishing priorities is critical.

Another consideration is data availability and industry collaboration. Data can be made much more accessible with cloud solutions, allowing organisations to share data more efficiently, both internally and externally with partners and suppliers, thereby enabling new services and new business model opportunities for companies such as ours.

Third, I think it is important to leverage relevant tech partnerships to build culture. We are now, really, focusing more and more on adopting a “one-team” mindset across business domain experts, IT and digital experts, and tech partners—creating an environment where we all work as one team.



Captain Andrew Smiley
Vice President, Shipping,
Koch Supply & Trading

Training staff and shipboard personnel is essential. Technology is useless if people do not know how to use it and leverage its full potential. Securing buy-in from end-users and cultivating a culture that embraces innovation across the organisation, from the top down, is equally important to the success of initiatives related to digitalisation.

Conclusion:

In the wake of the COVID-19 pandemic, stakeholders across the sector face an increasing number of challenges. Between complex supply chain issues, increased competition and new regulatory requirements, the solution for many lies in digital transformation and unlocking the value of often-fragmented data and technology.

The experts featured in this paper highlight many exciting applications for digitalisation, from electronic bill of lading (eBL) to scheduling connectivity. However, they are also clear that, in comparison to other sectors, the shipping industry is still in the early stages of digital transformation and has much work to do. Whether you are a large-, medium- or small-sized industry participant, and regardless of where you are in your digitalisation journey, data and the way it is managed can present an abundance of opportunities to better serve your customers, reach your sustainability goals or reduce operational risk.

Our contributors agree about the importance of data within the industry (“Data really is the new currency,”

as Hapag-Lloyd’s Ralf Belusa says) and the role of data management as an enabler of digital transformation. “Data management — and consequently ensuring high data integrity and quality — is key when it comes to succeeding with digital transformation,” notes Oyvind Stordal of Wilhelmsen Ship Management.

However, it is clear that several significant data challenges must be overcome before seizing the opportunity presented by digital transformation. As Peter Bjorkborg of Stena Bulk notes, “The industry has access to plenty of data, but it is often scattered, low quality and underutilised.” Stordal highlights the impact that data silos and manual data management have on experimentation, R&D and, ultimately, innovation in the industry. At the same time, Equinor’s Ivana Blazevec discusses the work that is being done to democratise data throughout her organisation.

So, with so many factors to consider, where should industry participants focus their efforts in order to accelerate their digital transformation initiatives? The following are some key insights to consider:

Start small

At a high level, operators should focus on digitising as much of their operations as they can. However, that does not mean everything needs to be done at once. Start small with priority initiatives with a phased approach, learn, and move onto the next. Whilst this is not an overnight process, iterative progression will support business buy-in.

Ensure data quality and governance

It is important to be confident in the quality of the data you rely on for decision-making. This can be achieved by implementing best practices for data audits, data interrogation and data integrity checking. A lack of good data you can trust will have a significant impact on you and your supply chain partners.

Look for flexible and scalable solutions

It is important to look for solutions that are flexible and scalable by design. The right solutions should be able to seamlessly integrate with the tools your team uses every day. As a result, you can extend the life of your existing investments while maintaining the workflows that make the most sense for your business’s unique needs. Scalability will also be imperative for addressing rising data volumes and varieties from various sources (both internal and external) and demands for more analytics and intelligence.

Do not overlook the foundational stuff

Whilst there are many best-of-breed technologies available in the industry, they will only be as good as the data feeding them (garbage in, garbage out, as the saying goes). Be sure to support new or existing technology implementations with robust data management best practices. Doing so will also futureproof you for upcoming data requirements (e.g., regulatory and sustainability reporting, analytics, and new technology implementations).

Embrace data-driven decision-making

By embracing data as a core component of your strategies, you can greatly decrease operational risk and uncover opportunities. Not only can this help you respond to crisis situations more effectively, it can also help you develop and execute long-term organisational strategies that make it easier to achieve your goals. Being data-driven is not restricted to specific roles and will benefit everyone who wants to make decisions in the most economical and efficient way.

Embrace the cloud and managed services

Allow your solution providers to handle the ongoing maintenance, support, and upgrades of your chosen platforms. By doing so, you can focus on decision-making; free up resources to add further value within your organisation; and ensure best practices are met continuously.

Conclusion:

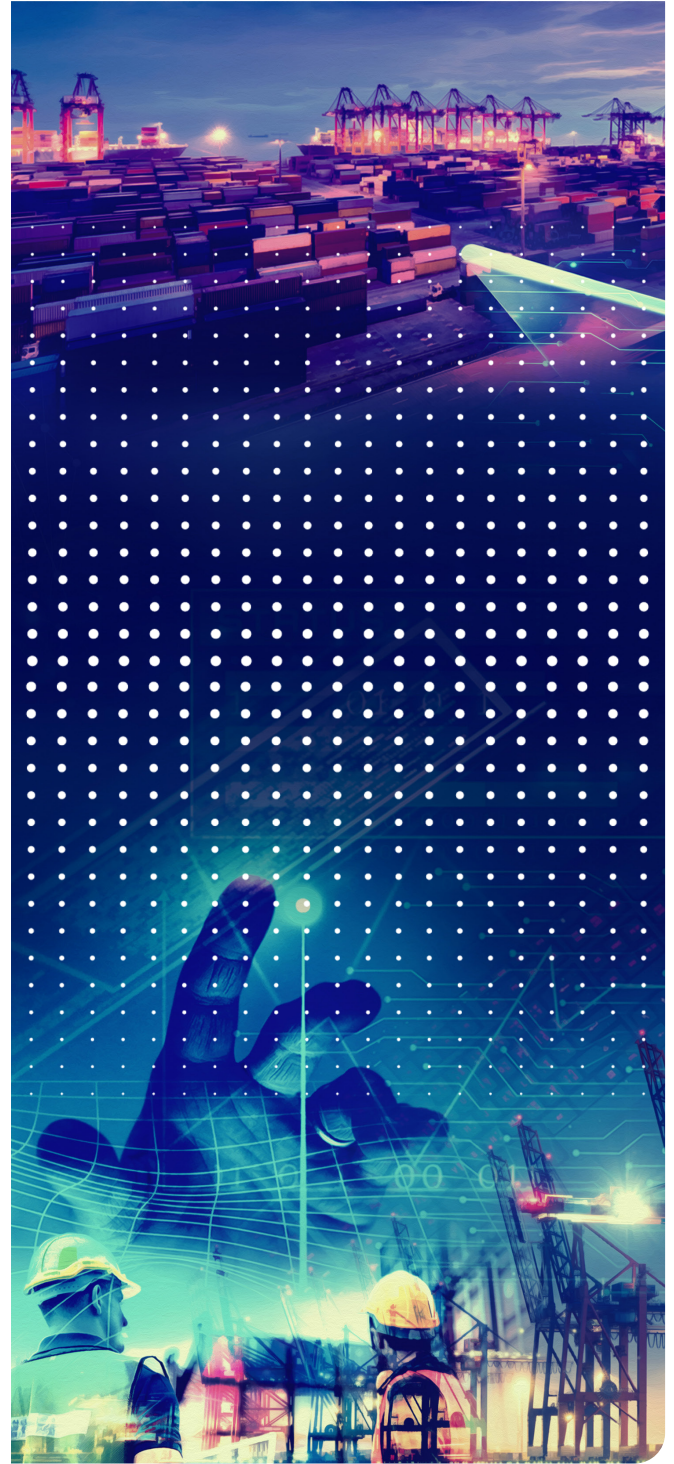
Focus on your customer

While digitalisation is critical for long-term organisational success, you cannot afford to lose sight of your customers as they accelerate their digital transformation efforts. For the best results, it is critical to continuously consider your customers, understand their needs, and make sure your investments will enable you to deliver more value.

Be realistic about the process

It bears repeating: You do not have to complete your digital transformation in one fell swoop. At the same time, you do not have to navigate the process on your own. By taking your time and partnering with solutions providers who can work with you to help achieve your digital transformation goals, you can move forward with confidence.

While the digital journey is not easy, it is increasingly clear that maritime organisations that make smart investments in digitalisation, while understanding the mission-critical nature of data-driven decision-making, can bolster their margins while building a more sustainable business that is well placed to thrive in the long term.



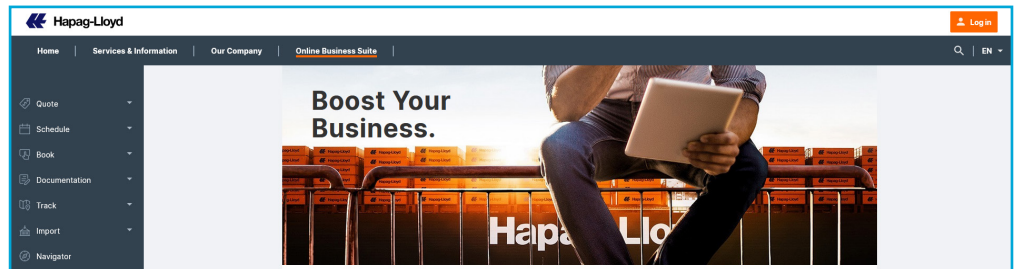
“As more industry participants embrace data, more opportunities for meaningful collaboration and intelligence sharing arise. There’s a collective benefit, which is why it’s imperative for everyone across the supply chain, and every siloed department, to mature. Transparency opens new doors, promotes more interfaces, and, ultimately, aids in the evolution of the entire industry.”

Dr. Ralf Belusa,
Chief Digital Officer,
Hapag-Lloyd

Meet the contributors



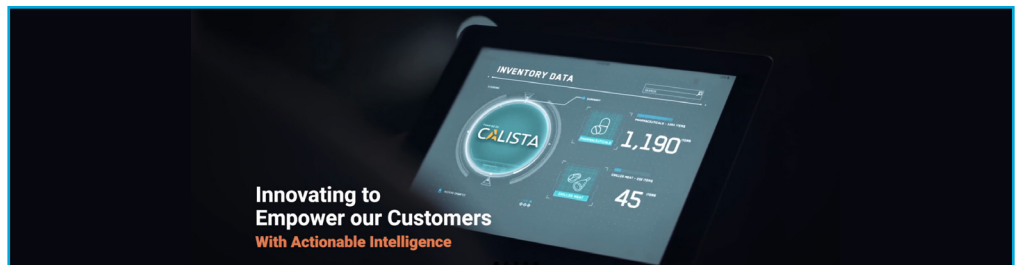
Dr. Ralf Belusa
Chief Digital Officer,
Hapag-Lloyd



Ralf has led business transformations, mentored, co-founded and exited various start-ups. He was included in the Top 50 most respected managers in Germany and Top 100 digital influencers in Europe by Wirtschaftswoche magazine and Daimler Corporation. Ralf originally trained as a scientist and has since completed further studies in micro- and nanotechnology and astrophysics, with a doctorate in cell research. He began software programming at the age of six and started his first technology company at 16. He currently leads Hapag Lloyd's digital business and transformation in 144 countries and serves as a board member of an international Fortune 500 health company.



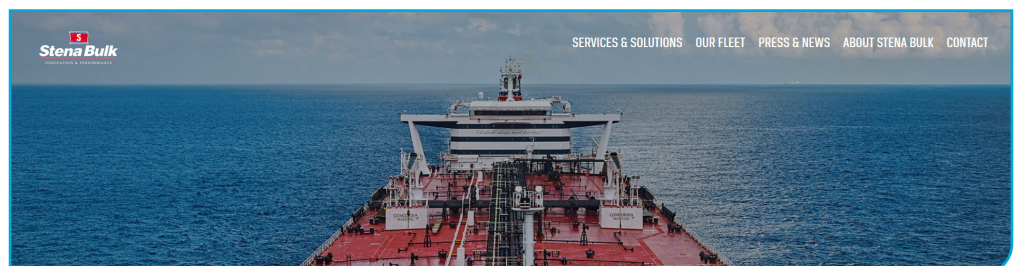
Ho Ghim Siew
Head of Group Strategy
& Cargo Solutions,
PSA International



Ghim Siew is responsible for developing and maintaining PSA's overall group business strategy with a focus on major industry trends and potential shifts. She also leads Cargo Solutions' development, formulating partnerships with cargo owners, shippers and logistics service providers to enable more resilient, agile and sustainable supply chains, by leveraging the port's connectivity, services and digital platforms.



Peter Bjorkborg
Manager, Sustainability
& Transformation,
Stena Bulk



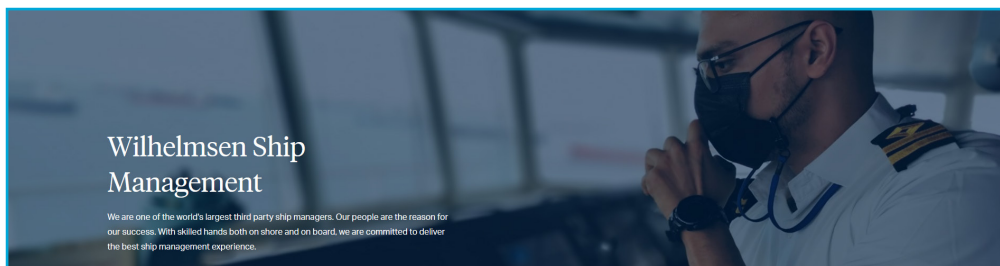
Peter is leading Stena Bulk's innovation and business development initiatives within the areas of sustainability and digital transformation. Within the field of decarbonisation he has been working with several commercially focused projects involving alternative fuels and new technology to improve efficiency and reduce emissions from shipping. Peter was active in the shipping industry for ten years prior to his current appointment.

Meet the contributors



Oyvind Stordal

Head of Data and Performance Management, Wilhelmsen Ship Management

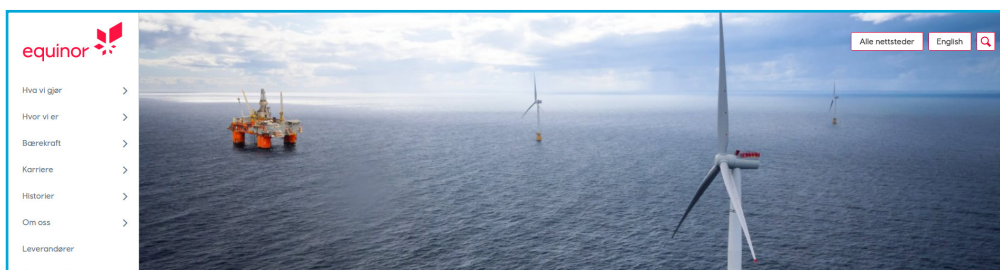


Oyvind is responsible for delivering effective digital propositions and strategies to support WSM's goal of accelerating the digital evolution of ship management. Prior to WSM, he served in the Strategy and M&A department in Wilhelmsen Holding and headed the Wilhelmsen Marine Fuels office in Singapore. He has been instrumental in the development of the long-term portfolio strategy for the Wilhelmsen Group.



Ivana Blazevic

Vice President, Marketing & Supply, Equinor

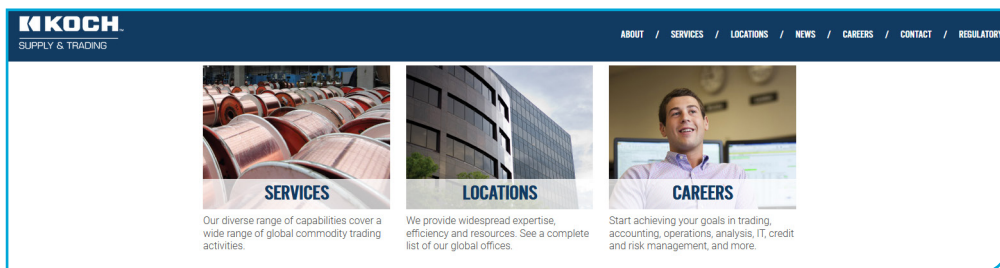


Ivana is managing data, digitalisation and improvements within Marketing and Supply at Equinor. During the last 20 years she has developed strategies and successfully executed several major digital initiatives. Her core competencies are data management and applied analytics within marketing and sales, trading, and supply chains. With a strong technology and commercial background, combined with transformational leadership, she believes that data sharing and digitalisation will be a key to succeed with the energy transition.



Captain Andrew Smiley

Vice President, Shipping, Koch Supply & Trading



Twenty-two years at sea have earned Captain Andrew Smiley adventuresome tales to tell. Though anchored ashore for the past 19 years, his work is still in the water, moving products around the world. As Vice President of shipping for Koch Supply & Trading, he manages the technical operations of 85 to 90 chartered ships at any given time, and vets up to six vessels each day to ensure adherence to Koch's rigorous compliance, safety, and ethics standards.

About this publication

This whitepaper was written and produced by TradeWinds Content Studio in collaboration with our sponsor, IHS Markit. Our primary objective is to shed fresh light on key issues related to the shipping industry's digital evolution and encourage frank dialogue amongst stakeholders across the market, regardless of their digital maturity.

Secondly, we want to introduce IHS Markit's Enterprise Data Management (EDM) for Maritime solution to the masses. Whether your digital journey is already well underway or just beginning, the EDM for Maritime workflow automation and data management platform is equipped to support you. Learn more below.

IHS Markit & EDM for Maritime

IHS Markit (which is now a part of S&P Global) is a leading global provider of data, technology, and services. Our technology solutions include EDM for Maritime, a workflow automation and data management platform.

Market-leading in the financial services and upstream energy industries, EDM is now also empowering

maritime, shipping, and logistics organisations to unlock the value of their data.

EDM leverages IHS Markit's deep industry knowledge and experience as a market-leading provider of both data and technology. EDM supports industry participants by:

- Optimising workflows and delivering trusted data for decision-making and analytics
- Improving operational efficiency and data governance
- Enabling data collaboration by breaking down functional and technological silos
- Increasing automation and reducing manual efforts
- Supporting digital transformation through robust data best practices
- Supporting sustainability and decarbonisation initiatives
- Increasing transparency and supply chain visibility

You can learn more by visiting ihsmarkit.com/EDMforMaritime or by contacting EDMforMaritime@IHSMartkit.com.



TradeWinds Content Studio

Anyone can create content. Social media, blogs and email marketing make sharing content faster, easier, and cheaper than ever before. Producing content that's unique, compelling and drives action—and getting the right people to engage with it—is a different story.

As more and more marketers produce and distribute content, it becomes harder and harder to rise above the noise. This is where we come in. The Content Studio helps

clients craft prolific narratives while providing a direct line to the people they want to do business by leveraging exclusive distribution channels. In addition to maritime shipping, the Content Studio, and its affiliates at NHST Media Group serve the oil & gas, renewable energy, and seafood sectors.

From bespoke articles and videos to co-branded events—and everything in between—we can help you rise above the noise.

Visit contentstudio.nhst.com to learn more or email [Aaron Kelley](mailto:Aaron.Kelley). He's our Creative Director—and the author of this whitepaper.

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