



Driving Transformational Change through the Value Chain

How customers are raising the bar for the entire shipping industry

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Ask any industry insider about sustainable shipping and they'll talk of slow steaming, eco-ships of the future, technology retrofits, mounting regulatory scrutiny and the increasing costs of compliance. Far down the list, if ever, you may get a brief mention of a customer stipulating certain sustainability requirements during contracting. But overlooking the customer is to overlook a valuable competitive and commercial opportunity.

At the centre of everything that the shipping industry does is a 'customer'. A customer who not only shapes present demand, but plays a key role in defining the framework for how we will do business in the future. Combined with the other drivers mentioned above, the customer can prove to be a powerful catalyst for driving more sustainable shipping, in effect, raising the bar for the entire industry..

Enter the 'Sustainable Shipper'

Most companies today understand that social responsibility and the efficient use of resources means good business. Leaders have become smarter and quicker to recognise the business opportunities that arise when reconciling growth, productivity and not least profitability with the basic principles of sustainability; first-movers know that those who get it right will have the licence and means to excel in the long term as well.

The past decade has seen these companies make great progress in addressing the negative impacts of their business. Well-defined sustainability strategies and targets primarily related to production and end-use are no longer 'niche', but rather part and parcel of doing business in the global marketplace. Now, many companies are broadening their scope to focus specifically on the supply chain.

These companies understand that the manner in which they design their supply chains and the procurement choices they make can have substantial impacts – both negative and positive – depending on how they are managed. For these reasons, companies are beginning to recognise the important role that shipping has in creating sustainable supply chains.

It is also why some of them have chosen to become members of the Sustainable Shipping Initiative (SSI).

Box 1: Unilever: Embedding sustainability into Sea Logistics

Unilever is working to minimise the emissions from transport and distribution. Reducing environmental impact helps Unilever achieve cost-effective and efficient distribution of products. Unilever has an ambitious objective in the Sustainable Living Plan to improve the CO₂-efficiency of its Logistics operations by 40% by 2020 on a 2010 baseline, despite significantly higher volumes.

Unilever measures and delivers results in its logistics operations according to "the 3Cs": Costs, Customer service and CO₂ emissions. This involves a careful optimisation of sometimes conflicting priorities: meeting the service requirements of the customer, optimising operational costs and minimising CO₂ emissions in line with Unilever's Sustainable Living Plan commitment.

Unilever has been working to embed sustainability improvement into logistics operations in overland transport and in sea freight. The challenge is to measure, optimise and work with carriers in the industry, as the standards of measurement and emission reduction program are inconsistent across the transport industry.

The company is also working with supply chain partners to optimise network efficiency. Unilever has successfully switched transport solutions away from CO₂-intensive modes. For example, in Europe the company now moves ice-cream from its production facility in Italy to the Spanish market via a combination of road and sea, rather than the pure road solution which was in place previously. So far, Unilever has achieved a reduction of over 200,000 tonnes of CO₂.

SSI Shippers Take a Total Cost Perspective

From the outset of SSI collaboration, member companies have recognised the powerful role of procurement behaviour and policies in moving towards a more sustainable shipping industry. Sustainability is integral to how Unilever does business and the Unilever Sustainable Living Plan sets out to decouple growth from environmental impact, while at the same time increasing positive social impact. Unilever makes millions of products every day that must be efficiently moved from the factories to their point of sale. Unilever's logistics network transports finished goods over 1.5 billion kilometres each year. This generates a corresponding impact in terms of greenhouse gas emissions. Overall this accounts for 2% of Unilever greenhouse gas emissions across the value chain. Embedding sustainability into sea logistics procurement is one lever to reduce this impact. [See Box 1]

Similarly, AkzoNobel has built a very strong foundation for sustainability and is recognised as a leader in its industry. Achieving longer term business success for AkzoNobel and its business partners relies on the ability to get the greatest positive impact out of products and services, from the fewest resources possible. AkzoNobel is therefore targeting maximum eco efficiency throughout the business value chain. This spans the procurement of raw materials to shipping finished goods. The company is finding that interactions on the topic of eco efficiency also facilitate conversations around the total 'value' of relationships, rather than discussions solely on the topic of 'cost'.

As one of the industry's big dry bulk charterers, Bunge also believes it has a leading role to play in driving higher global standards.

Bunge is hiring more energy efficiency vessels and encouraging greater adoption of efficiency technologies among fleet owners. By reducing fuel consumption and costs, energy efficient vessels have a positive impact on the company's ocean transportation footprint. [See Box 2]

SSI carrier member, Maersk Line, welcomes the integration of sustainability into the commercial relationship. "At the intersection of many global value chains, customers across geographies and industries are approaching Maersk Line – initially for basic information to better understand impacts, but increasingly also to set minimum requirements and even commercially incentivise better performance", says Signe Bruun Jensen, Head of Sustainability, Maersk Line. "We are keen to collaborate with first-movers to accelerate the development, promotion and adoption of best practices for integrating sustainability into logistics and procurement strategies as ultimately we believe that this will benefit our business and the industry as a whole." [See Box 3]

Cargill's Ocean Transportation business has focused on making its customers more successful by helping them address their shipping needs most efficiently and reliably. As part of its business and sustainability efforts, the company made a leading commitment to only charter the more CO₂ efficient vessels operating in today's shipping market. In addition to regular vetting processes, this adds another dimension to the way the Cargill selects its vessels and enables it to better meet its stakeholders demands [Box 5].

Box 2: Bunge: Redefining Industry Best Practice in the Dry-Bulk Sector

Bunge is a leading agribusiness and food company with integrated operations that circle the globe, stretching from the farm field to the retail shelf. Bunge uses seagoing vessels to deliver grains, oilseeds and other agricultural commodities farmed in one region to meet the needs of people living in another. Since 2011, sustainability has been core to Bunge's Ocean Freight strategy.

Bunge asks ship owners to guarantee slower speeds (as opposed to only full speed) in order to be able to run vessels more economically, with reduced fuel consumption and lower emissions. When possible, the company also ask ship owners to upgrade their vessels with a retrofit technology i.e. high efficiency propeller, low friction paint, eco appendices (ducktails, fins), engine upgrades to improve hydrodynamics and performance in general.

To measure the impact of their strategy, Bunge has established KPI's to measure vessel performance and the financial impact of running vessels at slower speed. "Since 2011, we have seen that our efforts are paying off as owners are becoming more inclined to guarantee eco speed performance."

As of July 2013, Bunge has 25% of its fleet running at eco speed and is saving around 10,000 MT of bunkers YTD. Nevertheless the figure of 25% of the fleet running at slow speed could be higher. Going forward, to achieve the SSI Vision for 2040, Bunge is looking to accelerate industry collaboration to create a transparent global Emission Index so that industry players can take best informed decision and ultimately incentivise the construction and use of the most fuel efficient ships.

Box 3: Maersk Line: Turning Sustainability into a Top-Line Opportunity

In 2012, Maersk Line reported a burgeoning interest from their customers inquiring about the environmental and social impacts of their business with them. Last year Maersk Line saw a rapid acceleration in both quantity and quality of these requests as more and more companies develop sustainability policies and strategies that extend to their suppliers.

Today, customers representing 19% of their volume are requesting sustainability information as part of their business relationship with Maersk Line. It'd be naïve to think that they aren't asking the same of their competitors. With their strong sustainability strategy and programmes, however, we believe that Maersk Line can compete commercially on this as well – but only on a level playing field.

This makes the ability to produce standardized, credible and comparable performance data to back our overall value proposition crucial. Maersk Line have come a long way with the development of an aligned industry approach to measuring and reporting carbon emissions with the [Clean Cargo Working Group](#). In the coming years, they want to push the Clean Cargo Working Group methodology from being niche to becoming mainstream, thereby creating an even stronger demand for alignment and performance improvements within the shipping industry.

Transparency is Key

But how do you encourage the wider uptake of sustainable procurement practices? And how do you ensure that purchasing decisions are being taken on a credible and transparent basis? If a customer isn't able to compare 'apples to apples' there is little confidence in making hard core business decisions. Perhaps worse, those that do, end up making a decision based on false data and assumptions.

Last year, the SSI looked deeper into beyond-compliance rating schemes and how they can be used to benchmark sustainability performance. Unfortunately, a number of barriers to industry-wide uptake still exist. In general, there is a low awareness of the existence of rating schemes and understanding of which ones to use and how to use them. There is little standardisation in the way parameters are

measured, e.g. CO₂, SO_x and NO_x, and frequently customers are not part of the design or consultation process. There are exceptions, however.

AkzoNobel is a member of the Clean Shipping Index (CSI) environmental impact rating scheme and has identified that using the CSI within shipping tendering processes will facilitate identification of suppliers whose eco efficiency objectives are aligned with those of AkzoNobel. "Including a consideration of eco efficiency rating within the tender process enables a more holistic assessment of tender responses", says Carol Routledge.

“It helps us to ensure that data on the environmental impact of the shipping services purchased is given due weight, alongside other considerations such as the financial impact of the choices made.”
[See Box 4]

Similar to the CSI is the Clean Cargo Working Group (CCWG), a group of carriers and forward-looking customers such as Wal-Mart, IKEA and Nike, who have developed a standardised, industry-supported CO₂ calculation methodology for the container shipping industry. Using the CCWG methodology, carriers calculate and then report key environmental performance indicators to the CCWG secretariat, who aggregates and publishes the performance data in a credible and comparable format for customers to use.

Uptake of the aforementioned tools is picking up. The two examples on the following pages demonstrate how charterers are selecting and using them, but we are not yet at a point where it is mainstream within the shipping industry. The SSI strongly advocates for more shippers to consider rating schemes or similar SMART tools to evaluate carrier sustainability when making procurement decisions. [See Box 5]

Box 4: AkzoNobel: Using the Clean Shipping Index to enhance the sea freight procurement process

AkzoNobel uses the [Clean Shipping Index](#) during the execution of its sea freight tender. As part of the selection process, suppliers are asked to submit information on whether they actively consider the environmental impacts of their activities. They may use a shipping-specific rating scheme to calculate and verify the eco-efficiency of their activities. If they have a structured approach to continuous improvement of their sustainability programmes.

If the tendering companies are actively working to improve their environmental footprint, the use of a

rating scheme provides a structure around which they can explain to the procurement team what they are doing and why. It also enables the companies to jointly identify and agree improvement targets where customer and supplier can work together to deliver the related benefits.

AkzoNobel believes that using a rating scheme, and having data verified by an impartial, certified body, ensures that comparisons between suppliers are made on a like for like basis. Using the CSI as a framework, the sourcing team is better able to assess whether carrier environmental policy and performance is verifiably robust and aligned with AkzoNobel's corporate principles.

Getting started

Incorporating sustainability into decision-making can strengthen customer and supplier relationships by creating new commercial opportunities. This is driven by engaging in dialogue, transferring knowledge and working more closely together. From the charterers' perspective, it is important to understand how shipping fits into the supply chain and to understand the implications of this on wider business so that carriers can be identified who complement, rather than compromise the sustainability of operations. As we have discussed in this paper, this often means selecting a provider that is not at the outset the cheapest cost option, but provides greater overall value that deliver tangible commercial benefits throughout the lifecycle of the relationship. To achieve this, charterers should look to develop simple criteria to grade suppliers against sustainability requirements in order to compare different operators more consistently.

For ship owners and operators, identifying and responding to this changing dynamic of the demand for increased sustainability is a prerequisite for improving customer relationships, and creating viable and profitable businesses for the long-term.

At the centre of this is having a detailed understanding of customers' operations in order to identify how they can contribute towards helping them to achieve their sustainability goals, as well as improving their own CSR performance. This may also involve engaging with different people and departments within customers' organisations beyond the usual day-to-day point of contact to develop this. Creating a set of sustainability credentials is also becoming an important tool for demonstrating intent and achievements to customers.

Ultimately, both parties should embark on transparent, progressive conversations with a positive spirit to mutually address priorities for improvement and to define what 'success' looks like for each organisation. Rather than regarding this as exposing either business, there must be a level of honesty that enables risks to be mitigated. Similarly, where companies do not have complete knowledge or the solution to an issue, open debate can help to identify where third parties (e.g. technology providers, financiers, NGOs) with relevant expertise can add significant value in developing truly sustainable supply chains.

Box 5:
Cargill: Applying Green House Gas emissions ratings, derived from EVDI (Existing Vessel Design Index) to all of its chartered vessels

As a charterer of over 600 vessels, Cargill is rigorous about its ship vetting processes, which are integral to the company's wider sustainability strategy. Within this, one of the areas that Cargill is focusing on is operating its fleet in an efficient manner. To support this, the company identified that it made environmental and commercial sense to use a trustworthy and recognised environmental standard to complement its regular ship vetting procedures.

The EVDI ratings scheme, developed by RightShip and NGO, the Carbon War Room, has been used by Cargill since the first quarter of 2012. The EVDI framework consists of a formula that calculates the amount of CO₂ emitted (in grams) by a vessel for every tonne of cargo carried per nautical mile. It is based on an analysis of i) total engine power; ii) fuel type and specific fuel consumption; iii) DWT and iv) speed. The system is expressed as an A to G scale, which follows the same rating concept as used for standard electrical appliances people use in their homes. Similarly, in the case of EVDI, the best performing vessels are graded "A" and the worst performing are graded "G". Originally developed by, RightShip as a collaboration with Rio Tinto and BHP

Billiton to help mitigate marine risk in their trading operations, today Cargill is also an equal equity partner in the company.

To build on this, Cargill committed to a bold, industry-leading policy, which stipulated that it will only charter vessels that are graded from A to E (unless there is a management override in extenuating circumstances). Cargill is able to use the EVDI alongside other environmental innovation techniques in order to achieve environmental efficiency. All of Cargill's chartered vessels go through this process and the results are monitored on an ongoing basis.

As more of Cargill's stakeholders such as customers become increasingly interested in understanding what the company is doing to improve the sustainability of its shipping operations, the ratings scheme is also valuable for demonstrating measureable improvements.

If you want to know more about the various ratings schemes that exist, please visit the SSI's website that considers the merits of CSI, Rightship, CCWG, ESI, FWG, Green Award, Green Marine, MVEP, ShippingEfficiency.Org, OVG Hong Kong and Triple-E here: <http://ssi.brenock.com/>

Please note that this is not a fully comprehensive list and is not an endorsement.

The Challenges Remain

The SSI anticipates that charterers' sustainability and procurement processes will become increasingly interlinked in driving change within shipping. However, challenges remain in terms of ensuring this integration becomes the new 'norm'.

Firstly, sustainability policies and strategies need to be integrated within corporate strategy so that the most important, 'material' sustainability issues to the business can be addressed as a priority. They need to be 'live' strategies that continuously evolve in line with companies' internal and external requirements. This requires buy-in and commitment from the Board down, as well as the resources to rigourously scrutinise operations, to ensure implementation, and respond to challenges. At the core of this is developing sustainability initiatives that make sound commercial sense; a route to delivering increased efficiencies and profitability. This is where meeting customer requirements and internal CSR policies can overlap. However, it is essential that there is genuine collaboration between both parties and that mutual benefits and objectives are defined at the outset.

At present, shippers may look at the performance of the vessels they charter, but carriers need still need to be incentivised in order to raise their game. For example, if more carriers were rewarded with a higher number of contracts due to strong environmental performance, there is a clear commercial imperative for investing in improvements. Similarly, shippers also need their customers to recognise, and even reward them,

for pushing new boundaries to increase sustainable behaviour. It is a virtuous cycle, but it requires companies to take the initiative and proactively make the first moves rather than waiting for regulation to pass or customers to ask.

Also, due to the wide reaching and complex nature of the shipping supply chain, there are a significant number of variables to address. Similarly there are no universal solutions to meeting environmental, social or commercial issues. However, increasing standardisation could help in the medium term to create some much needed consistency and direction; both in terms of appropriate regulation but also in relation to some of the tools that can be used to measure and advance sustainability. For example, greater global standardisation across ship ratings schemes and the measurement parameters for CO₂, SO_x, NO_x and Particulate Matter emissions could help to drive greater transparency, efficiency and more consistent benchmarking for future improvements.

These variables make pan-industry, cross-sector collaboration essential. It also needs to extend beyond the charterer and ship operator relationship but span the entire industry including technology companies, regulators, classification bodies and independent organisations. Working together to explore new ways to make shipping more sustainable is the responsibility of everyone within the supply chain but the customer / supplier relationship could be the catalyst. Through genuine, results-orientated collaboration there is a potentially powerful force to achieve tangible commercial, environmental and social benefits.

If you want to get involved
in the SSI, or want to find
out more:

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