



**Navigating
Climate Change:**
Dispelling the
myth that
sustainability
means reduced
profit.

Maritime's contribution to climate change

The maritime sector makes a significant contribution to global emissions and is responsible for 2-3% of global greenhouse emissions annually¹. The sector also contributes to climate change in other ways, for example in its use of plastics, through poor waste management and in its reliance upon fossil fuels.

Fortunately, things are changing and significant steps are now being taken to mitigate the impact that the maritime sector is having on the environment. For example, under the International Maritime Organization's strategy, greenhouse gas emissions are to be reduced by at least 50%- relative to 2008- by 2050².

As businesses and governments across the globe focus on addressing climate change, shipping companies are feeling the pressure to respond and sustainability is now being prioritised by many in the sector, with very positive outcomes.

For example, Freddy Ingemann, Founder and CEO at Moscord, the online ship supply platform, reports that the maritime sector is beginning to see a reduction in

the use of plastics and other kinds of materials that damage sea life³. In addition, Stephen Alexander, Chief Operating Officer and Secretary General of the IMPA SAVE Council for Maritime Supply Chain Sustainability, states that he's seen a mindset shift within the sector and that in the past three years shipping companies have started to invest in making their businesses more sustainable⁴.

The challenges faced

Whilst the adoption of more sustainable practices represents a significant opportunity for the maritime industry, it's often resisted by shipping companies because of the many challenges presented by going green.

Moving to a sustainable agenda is not a quick or simple process and often requires substantial financial investment and changes to established operating practices. For these reasons some shipping companies can be understandably reluctant to commit to sustainable initiatives.

However, it's not necessarily the case that improved sustainability means increased costs, and in fact, having a greener agenda very often results in increased profits over time. Indeed, there may well be heavier costs to bear in the long term if a company does not start to move towards a greener agenda now.

What's the financial cost of going green?

Whilst the idea that going green is expensive does have some truth to it (for example there are lots of eco-friendly products that are a little bit more expensive than the regular ones), when it comes to sustainability, the long term benefits always outweigh the short-term costs.

¹ Sea Cargo Charter 'Here's how a group of charterers is contributing to shipping's low carbon future'.

² International Maritime Organization, 'Initial IMO GHG Strategy'.

³ Interview with Freddie Ingemann

⁴ Interview with Stephen Alexander

“I think that making a profit and being green is possible.
It’s not going to affect what you’re doing if you simply refocus on the way you’re
delivering something to make it more sustainable” David Evans

It’s also important to note that quite often green solutions do work out cheaper than regular alternatives, especially when considered over the lifetime of the business. David Evans, Founder at Matilda’s Planet, believes that making a profit and being green are not mutually exclusive and that it is possible to achieve both⁵.

Some proven ways that maritime businesses can reduce their carbon footprint without losing money include:

- Reducing emissions
- Using renewable energy
- Reducing the use of plastics
- Sustainable waste management

Reducing emissions

John Barnacle-Bowd, Vice President Global Environment Health and Safety at Electrocomponents PLC, believes that emissions are probably the biggest issue and the maritime sector’s ‘most pressing environmental concern’⁶.

This is because maritime transport emits around 940 million tonnes of CO2 annually and these emissions are projected to increase significantly if mitigation measures are not put in place swiftly⁷. According to the 3rd IMO GHG study, shipping emissions could increase between 50% and 250% by 2050 if things continue as they are⁸, undermining the objectives of the Paris Agreement.

The good news is that according to a report for the UK’s Department for Transport in 2019, ‘some measures to reduce emissions also have the effect of reducing the operating cost of a ship’⁹. These are predominantly energy efficiency and slow steaming options.

Slow steaming is the practice of reducing the operational speed of the vessel and saves fuel because the ship’s engine is not used at full power. Slow steaming also reduces CO2 and air pollutant emissions and research has shown that reducing ship speeds by 10% leads to a 27% reduction in emissions overall¹⁰.

Slow steaming has also proven to be a good way to trim operating expenditures so as to boost the bottom line, and most shippers have now accepted the practice, with some believing that slow steaming will become a normal way of shipping in the future¹¹. One of the reasons for its popularity is because fuel usage costs make up 50-70% of a ship’s total operating expense¹² and so any practice that reduces these costs will be welcomed.

⁵ Interview with David Evans

⁶ Interview with John Barnacle-Bowd

⁷ European Commission ‘Reducing Emissions from the Shipping Sector’

⁸ *ibid*

⁹ Smith and O’Keefe et al. Department for Transport ‘Reducing the Maritime Sector’s Contribution to Climate Change and Air Pollution’

¹⁰ Transport and the Environment ‘Shipping and Climate Change’

¹¹ Liang, Seatrade Maritime News ‘The Economics of Slow Steaming’

¹² Zanne, Poduca and Bajec. Transactions on Maritime Science. ‘Environmental and Economic Benefits of Slow Steaming’

Using renewable energy

As world trade grows, more and more energy is required to power the increasing numbers of vessels on the sea. If ships were designed more efficiently and harnessed wind or solar power, some of this energy use could be reduced, but ultimately if shipping is going to fully decarbonise, it needs to find a replacement for fossil fuels.

Various alternatives to fossil fuels are available, with synthetic fuels like hydrogen, ammonia and ethanol being the most common. Synthetic fuels can be made using clean electricity and burned without emitting greenhouse gases so they are much better for the environment, and more sustainable. However there is a short term cost to moving away from the use of fossil fuels as the vessel's oil-burning fuel system needs to be replaced with a new system, requiring a huge initial financial outlay.

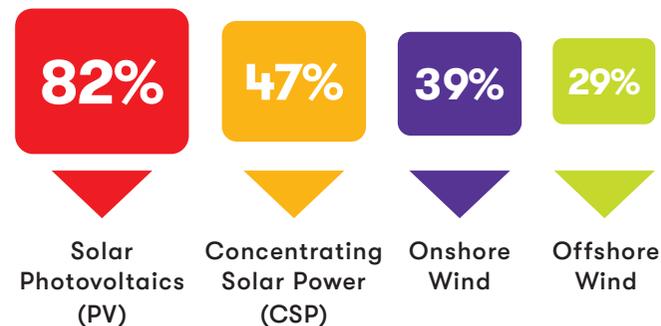
Fortunately, there have already been impressive declines in renewable energy costs since 2010¹³ and 'over half of all utility-scale renewable capacity additions in 2019 achieved lower electricity costs than

the cheapest equivalent new coal plant¹⁴.'

In fact, according to Douglas Broom, writing for the World Economic Forum, renewable energy is 'not only cheaper than fossil fuels, but it's undercutting them without subsidy¹⁵'. For example, in 2019, over half of all utility-scale capacity additions achieved lower electricity costs than the cheapest equivalent new coal plant¹⁶.

Falling power generation costs

Renewable energy costs declined rapidly over the last 10 years (2010 - 2019)



Unsurprisingly, the adoption of new technologies generally carry high capital expenditure and this is of course a concern for businesses. Some solutions are not cost effective and so many companies avoid making the shift away from fossil fuels until a time that it does become cost effective. For this reason pilot projects that establish the real possibility of reduced fuel costs when using new, sustainable technologies are welcomed¹⁷.

Although the initial cost might put some shipping companies off from investing in new fuel systems, the fact that fossil fuels are going to run out eventually, (estimated in just 40 years), means that it's becoming increasingly important to find replacements. Vessels that can only run on fossil fuels will very soon become obsolete and so there's a real urgency for shipping companies to invest in renewable energy.

¹³ Broom, Douglas. EnergyPostEu. '5 Charts Show the Rapid Fall in Costs of Renewable Energy'

¹⁴ *ibid*

¹⁵ *ibid*

¹⁶ *ibid*

¹⁷ Nordic Council Ministers 'Reducing Maritime Emissions'

The social profit will always outweigh any financial cost

It's clear that the maritime sector has to break its dependence upon fossil fuels, but switching to alternative fuels is a complex process and it will take many years to fully transition. The existing infrastructure on vessels does not support all new fuels and energy carriers and so making significant changes is expensive.

However, as demand for electricity increases in harbours, major investments will be required to strengthen the grid and using renewable energy sources will be key to establishing a long-term future for the industry.

It's also important to realise that, as David Evans points out, changing to more sustainable practices doesn't have to be super profitable, because it's socially profitable¹⁸. It's doing good for the environment, for your children and for your children's children. The social profit will always outweigh any financial cost.

Reducing the use of plastics

Plastic waste is everywhere and seeing plastic bottles on beaches has become normal. It's not all the fault of the maritime sector of course, and as John Barnacle-Bowd states, the prevalence of plastic waste on beaches is really a result of the poor, and often harmful, waste practices that we've got in place globally¹⁹. However, the maritime sector does contribute significantly to the problem and reducing the industry's reliance upon plastics is key to making the sector more sustainable as a whole.

The good news is that when processes are rethought, plastics can often be removed altogether, which is in itself a cost saving. It's also often the case that plastics can be reused at little or no cost²⁰ and we're starting to see a reduction in the use of single-use plastics as a result.

Mikael Karlsson, Head of Sales, Francois Marine Chairman of SAVE and Special Ambassador, points out that the technology is there to support a move away

from plastics²¹ and in fact, it may soon be the case that it's going to be cheaper to remove or reuse plastics than it is to use them²². This is because rising oil prices will push up the price of virgin plastics and so make recycling a much more valuable option.

Also, any financial costs involved in switching away from the use of plastics have to be weighed up against the economic costs of recovering marine plastics from the environment. The annual damages that marine plastics cause are thought to be in the billions²³ and so reducing the amount of plastic used on vessels and in ports will present a huge saving in clean up costs.

¹⁸ Interview with David Evans

¹⁹ Interview with John Barnacle-Bowd

²⁰ Keetley, Amanda. 'How Businesses Can Tackle Ocean Plastic Pollution'

²¹ Interview with Mikael Karlsson

²² King, Peter. 'Ocean Cleanup Won't Turn a Profit, But We Should Still Do It'

²³ *ibid*

Sustainable waste management

It's been estimated that in the most polluted areas of the sea, around 300,000 items of debris can be found in each square kilometre²⁴. Unsurprisingly, concern is growing about the damage that marine waste is having on the environment and a number of legislative and voluntary mechanisms have been devised to improve the current waste disposal practices of the shipping industry.

For example, the indirect fee system aims to encourage ships to dispose of their waste at port rather than at sea by including the cost of waste disposal services in the port fees that are paid by visiting ships, even if they don't use the waste disposal facilities. This helps to reduce the costs of waste management for the ships and also disincentivises ships to dispose of waste at sea.

Some shipping companies are also imposing their own environmentally friendly waste disposal regulations and the commercial container operator Matson Navigation has introduced a zero solid waste discharge policy. The impact of this programme is that since 1994 over 10,000 tonnes of waste has been prevented from being disposed of at sea²⁵.

The cost of not adopting sustainable waste management practices will soon outweigh the costs of doing so as more and more legislation comes into affect. For example, Directive 2000/59 of the European Parliament and Council is based upon a 'polluter pays' principle whereby port users, rather than other members of society, pay the costs involved in the reception and management of ship waste²⁶. A second directive, 2019/883 requires that anything not covered by the indirect fee of Directive 2000/59 will be subject to direct fees based on the type of waste and the quantities delivered to port reception facilities²⁷.

This means that all ships calling at an EU port must now 'contribute significantly to the costs' of the reception and treatment of ship generated wastes meaning that costs are distributed '*over the community of users collectively*'²⁸.

It's clear that it's now becoming more cost effective for shipping companies to manage their waste sustainably than to not do so, and it's anticipated that as a result of new legislation, regulations and initiatives, we'll start to see the amount of marine waste reduce dramatically.

The financial costs of not going green

As John Barnacle-Bowd points out, any time you want to implement something new it's going to involve a short term cost²⁹. However, as we've seen, for shipping companies, the cost of not going green is likely to be much, much higher than the initial outlay. Companies that are not sustainable will not be able to keep up with companies who are, and they will fast lose their market share.

Rather than thinking in terms of the costs of going green, perhaps a better question to ask would be 'what happens if you don't? The likelihood is that you'll get left behind and will become obsolete. If you're the only business that's not looking ahead and not moving forward, what will you lose? How will that affect your bottom line?

²⁴ Pitts-Tucker, Clare. 'The Problem of Shipping Wastes'

²⁵ Pitts-Tucker, Clare. 'The Problem of Shipping Wastes'

²⁶ Arguello, Gabriela 'Environmentally Sound Management of Ship Wastes: Challenges and Opportunities for European Ports'

²⁷ *ibid*

²⁸ *ibid*

²⁹ Interview with John Barnacle-Bowd

Now customers want to know the specifics of what a company is doing to combat climate change and demanding a more environmentally responsible approach

It's important to realise that change comes quickly and businesses who don't keep up will lose out. We've seen interest in the environmental impact of the maritime sector accelerate massively just in the last 12 months and John Barnacle-Boyd reports that all customers are now asking what the plans for sustainability are. Two or three years ago no-one was asking these questions, the only question being asked was whether the company had an environmental policy. Now customers want to know the specifics of what a company is doing to combat climate change and demanding a more environmentally responsible approach.

Mikael Karlsson predicts that businesses which don't transition towards a more sustainable model will be overtaken by those which do and points out that there will be a distinct competitive advantage for those maritime companies which do embrace sustainable practices³⁰.

Getting ahead of the trend

It's clear that sustainability isn't going anywhere, and if anything, calls for companies to behave more responsible are becoming even louder.

It's true that there are costs involved in going green, but there are also incredible opportunities and many commercial benefits to transitioning towards a sustainable business model. The companies that take steps now to reduce their environmental impact will be rewarded with a better brand image, increased productivity and reduced costs. They will also be best placed to comply with future regulations, which are likely to become more and more stringent.

Freddy Ingemann of Moscord believes that being seen to be the first to introduce clean initiatives will be of huge marketing value, positioning the business firmly at the front and ahead of its competitors³¹. The transition to new sustainable ways of working will also present opportunities for shipping companies to develop their businesses and Ingemann is positive that

this will bring benefits to those companies which follow a green agenda³².

Navigating climate change with RS Components

RS Components is proud of the work that we're already doing to tackle climate change and drive sustainability within the maritime industry. Our 85 year history as a global supplier to the industry means that we're well placed to respond to changes within the sector.

The products that we supply are sustainable in themselves as we source the best quality products which means that buyers don't need to keep replacing broken parts or having additional products shipped to them when they break. This reduces shipping costs too and means that we don't need to use unnecessary resources, like fuel for example, because we don't have to keep replacing stock.

³⁰ Interview with Mikael Karlsson

³¹ Interview with Freddie Ingemann

³² *ibid*

It's important to remember that moving to a more sustainable way of working is an investment in the future and should always be viewed as a long-term, rather than a short-term, goal

This will also reduce a business' overall procurement costs because they won't need to replace stock so often.

Because RS Components works with online e-commerce platforms like ShipServ and Moscord, we're able to integrate our ordering systems which increases business efficiency and makes for leaner processes.

We're constantly looking for ways to reduce our carbon footprint and are committed to reducing our waste by ensuring that packaging is recyclable and that any hazardous materials are avoided or correctly disposed of.

It's important to remember that moving to a more sustainable way of working is an investment in the future and should always be viewed as a long-term, rather than a short-term, goal.

How can we help?

- 1)** We offer thousands of high quality products via our global supply chain for which product technical data sheets and support resources are available and easily downloadable from the RS websites. Our technical support also extends to cross referencing support using the IMPA Marine Stores Guide.
- 2)** Our specialist Maritime team offer a single point of contact and can handle all of the required documentation as well as providing various purchasing and payment options, including the choice of currency. Our processes and paperwork are designed around your needs, helping you save up to 20% on costs and 15% in time efficiencies³³.
- 3)** RS Pro export.rsdelivers.com/ourbrands/rspro is RS Components' own brand product range offering over 65,000 industry-leading products.
- 4)** Our new global Environmental, Social and Governance (ESG) ambitions are aligned to the **UN Sustainable Development goals**. We've set

ourselves some aspirational targets to inspire a more sustainable world, to improve lives through education and innovation, and to make amazing things happen by 2025.

Watch our ESG video on **Stream** or **Vimeo** to find out more about the four pillars we're aligning our efforts to, the actions we're going to take and how you can get involved.

5) We're also launching our first global social commitment to The Washing Machine Project, a fantastic organisation whose mission is to provide an affordable, portable and accessible alternative to hand-washing for everyone, everywhere. To find out more about The Washing Machine project, watch this video on **Stream** or **Vimeo**.

We've created a **Yammer community** for all of you to join in the conversation and share your fundraising ideas, activities and suggestions.

³³ Calculated by the Institute of Export and International trade, comparing the RS Components Export service to an average exporter.

Working together to navigate climate change

RS Components is playing a key role in combating climate change and are proud of the part we're playing in helping our customers face the challenges ahead.

We continue to work closely with our partners and suppliers to provide maritime customers with the relevant brands and sustainable products for all their repair and maintenance procedures, whatever the future holds.

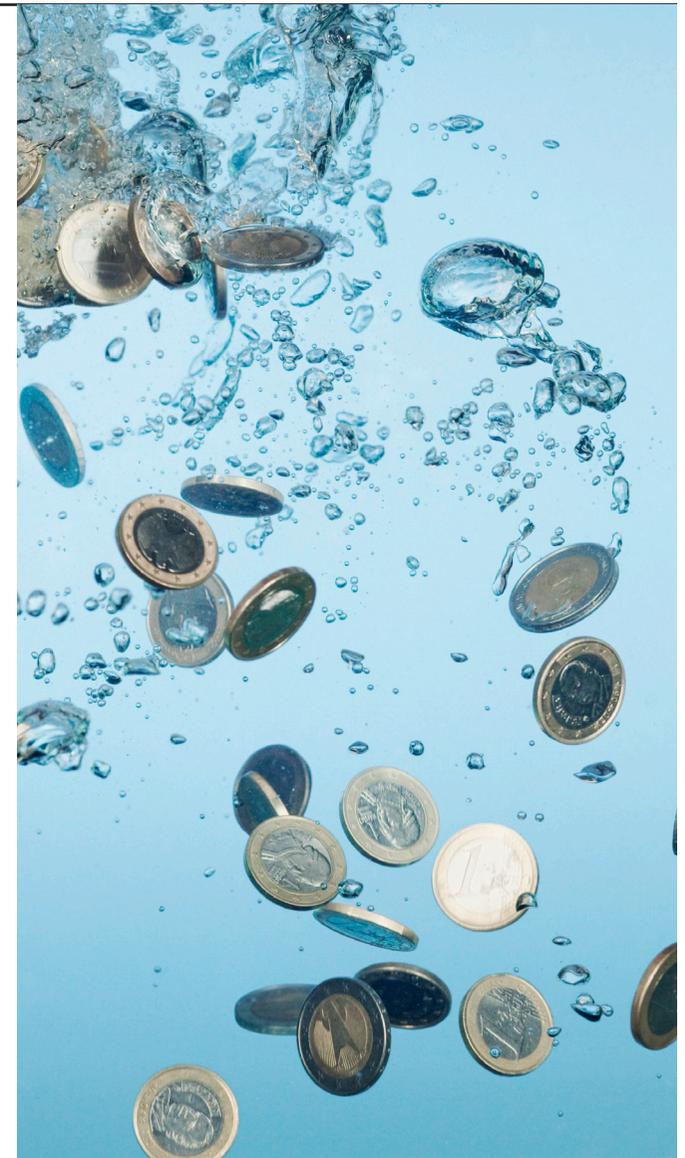


Shipserv are an e-commerce trading platform which connects buyers to suppliers. We're proud to have Shipserv as a strategic partner and we're in the process of integrating our catalogue into Shipserv.com so that we can link seamlessly with all purchasers. When processes are streamlined, time and costs are reduced leading to increased sustainability across the sector.



RS Components is working closely with Moscord, the principal marketplace for the maritime industry, and is recognised by Moscord as a key supplier. Because RS Components have both the range of stock and the export experience to provide an expert service we are helping to combat climate change by streamlining our processes and reducing our environmental impact by having a single point of purchase.

Our priority is to do what we can to help the maritime industry become more sustainable. Let's inspire a more sustainable world, create a positive impact and let's make amazing happen – together.



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