

# BIC

## Breakfasts 2019

**Welcome to August's BIC Breakfast -  
Towards a Greener Book Industry**

**#BICBreakfast**

Kindly sponsored by





BOOK INDUSTRY COMMUNICATION LTD

# What is a BIC Breakfast?



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THE BOOK INDUSTRY'S  
SUPPLY CHAIN ORGANISATION

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# BIC Committees

Digital Supply Chain

Libraries

Metadata

Physical Supply Chain





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## Regular BIC Events

BIC Breakfasts  
(monthly)

Networking Events including our annual BIC Bash  
(12<sup>th</sup> November 2019)

Building a Greener Business Seminar at  
London Book Fair  
(12<sup>th</sup> March 2020)



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# Engagement

Extensive Training Programme

Social Media:

@BIC1UK

@KarinaLuke

@BIC\_LCF

Connect with us on Twitter, Facebook and LinkedIn.



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# Towards A Greener Book Industry

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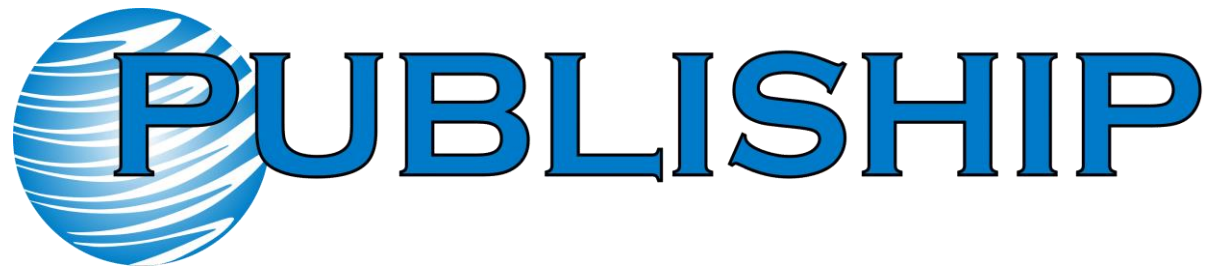












WE  
SHIP  
BOOKS



# 200

## MILLION

BOOKS SHIPPED  
WORLDWIDE

BOOKS  
SHIPPED  
EVERY

# 1.5

## seconds



# 54

COUNTRIES



# 178

## PORTS

# 12

OFFICES IN



# 5

CONTINENTS

# 5%

ANNUAL GROWTH





Enjoy the presentations!

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**Over to  
Carly & Nick...**

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# BOOK CHAIN PROJECT

Building better supply chains for books

15<sup>th</sup> August 2019

**The issues**





## FORCED LABOR IN THE PRODUCTION OF ELECTRONIC GOODS IN MALAYSIA

A Comprehensive Study of Scope and Characteristics

**V**  
VERITÉ

## China's Aging Migrant Workers Are Facing a Return to Poverty

As first-generation rural migrants near retirement age, many find themselves back in economic straits.









ulture Sport ibuys

Scientists  
as urgent

# UK parliament becomes first in the world to recognise climate emergency

Protecting and  
2030 and help

Michael Gove said the Government  
situation



The UK has become the first parliament to recognise a climate emergency [Getty Images]

## Climate Change and Land

An IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems

Summary for Policymakers



WG I WG II WG III



2019 Status Report

## Task Force on Climate-related Financial Disclosures: Status Report

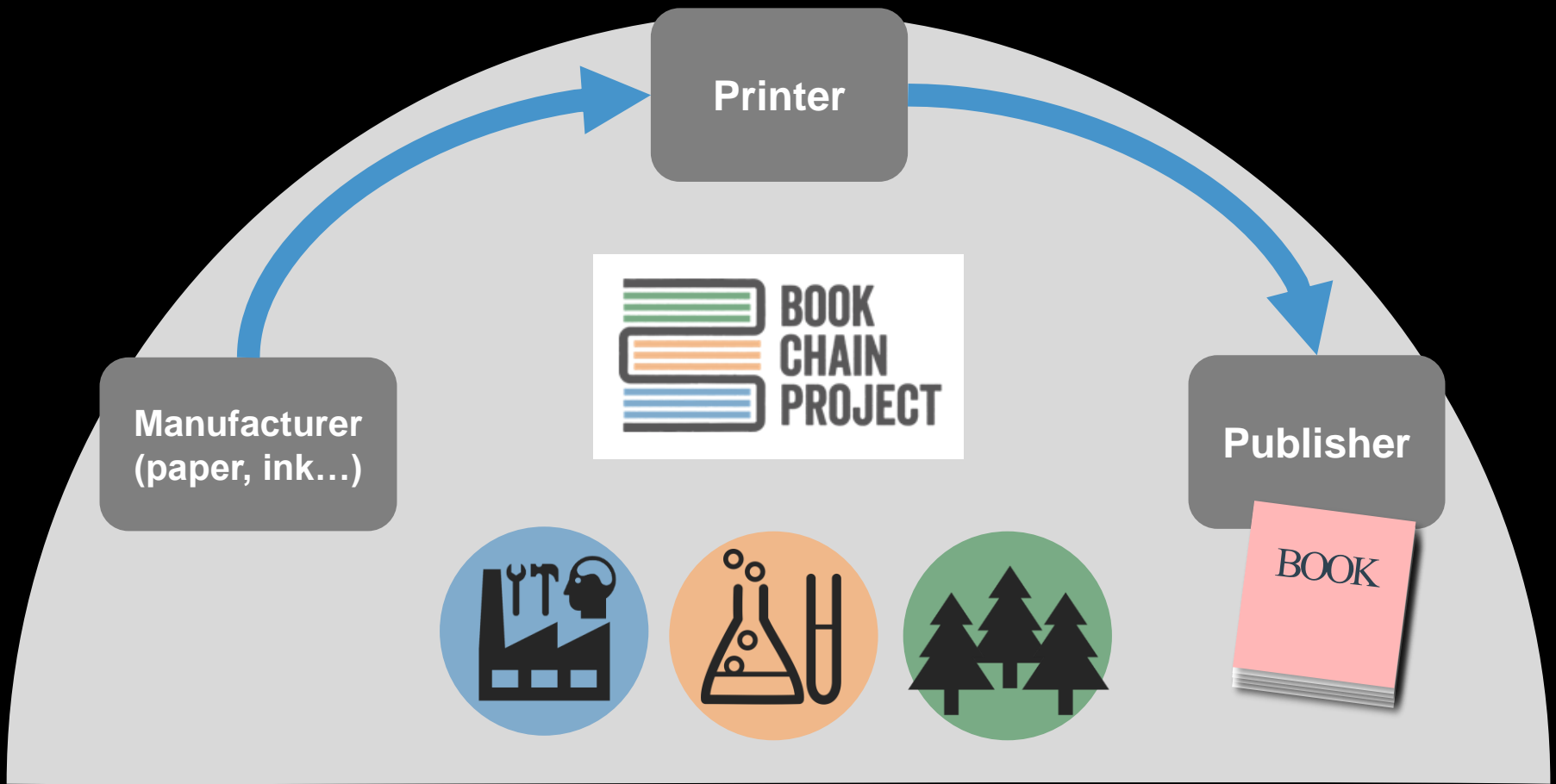
TCFD | TASK FORCE ON CLIMATE-RELATED  
FINANCIAL DISCLOSURES

June 2019



**Working  
together**





**EGMONT**  
*We bring stories to life*



 **hachette**  
UK

 **HarperCollins**

  
**Pearson**

 **CAMBRIDGE**  
UNIVERSITY PRESS

**WILEY**

| Penguin  
Random  
House |



 **RELX Group**

 **SAGE**



**OXFORD**  
UNIVERSITY PRESS



**hacche**  
RETAIL LIMITED

**CAPPELEN DAMM**

 **Education**

 **SCHOLASTIC**

 **MACMILLAN**

  
CHRONICLE BOOKS



**BONNIER**  
Books

**informa**



  
Bayard

**SPRINGER NATURE**

# MILL ASSESSMENTS

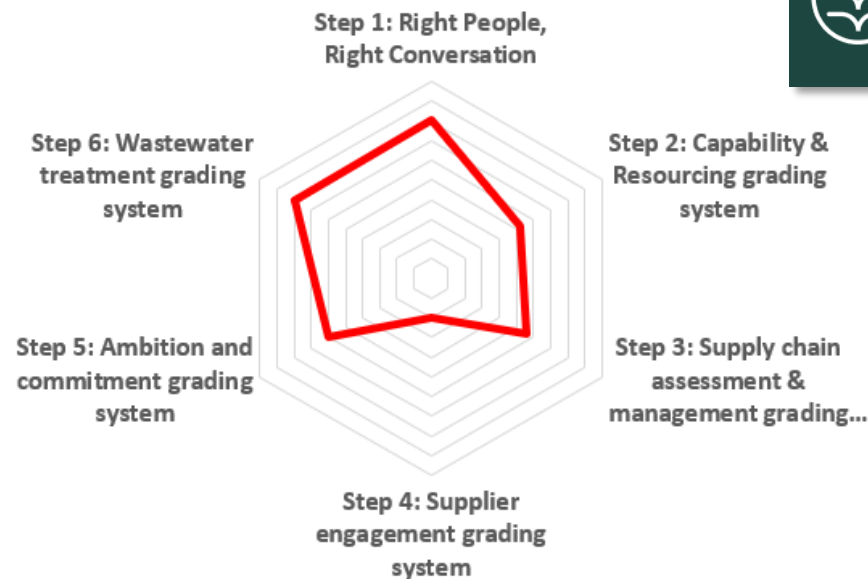


Understanding how mills are mitigating illegal logging and forest clearing risk in their supply chains



Accountability  
Framework

Delivering on  
ethical supply chain  
commitments



# ENVIRONMENTAL QUESTIONNAIRE



- Understanding how suppliers are managing key environmental issues
- Gather key data for publisher reporting

## Management Systems

- > Does the factory have all permits required by the authorities (e.g. water extraction and emissions permits)?
- > Does the factory have an environmental plan or policy?
- > Does the factory have a nominated environmental manager?
- > Does the factory have an Environmental Management System?
- > Does the factory have any third party environmental certification?

Please list these certifications. (e.g. ISO14001)

## Energy Use

Is the amount of the following energy types, used on-site, measured?

- > Electricity  
Yes   
Amount used  kWh
- > Gas  
Yes   
Amount used  m<sup>3</sup>
- > Oil  
Yes   
Amount used  litres
- > Transportation Fuel  
Yes

## Solid Waste

Does the factory produce the following waste?

- > Paper (printed sheets, books, office paper)  
Yes   
Produced  tonnes ?  
Recycled  tonnes ?
- > Board  
Yes   
Produced  tonnes ?  
Recycled  tonnes ?
- > Plastic  
Yes   
Produced  tonnes ?  
Recycled  tonnes ?

# PLASTICS GUIDE



- Understanding plastic – properties, challenges, busting some myths and recommendations

PLASTICS | A GUIDEBOOK FOR THE BOOK CHAIN PROJECT PUBLISHERS

## PLASTICS

### HOW PLASTICS ARE MADE

Plastics begin with a feedstock, most commonly a fossil fuel like crude oil, which is a complex mix of different chemicals. A series of processes break down these feedstocks into simple chemicals called monomers, which are selectively recombined with additives and colourants to help achieve the properties of a desired plastic. This process of recombination, called polymerisation, results in a plastic resin, otherwise called raw plastic, which is delivered to manufacturers either as a powder or pellets.

This general process is outlined in the diagram below, but importantly each plastic can be produced from one or more different feedstocks. As mentioned above, most plastics we are familiar with are derived from crude oil; however a growing awareness of fossil fuel depletion and the environmental impacts associated with extracting such products is leading to the emergence of so-called 'bioplastics'.

The term 'bioplastic' is incredibly broad and can be used to denote one of a few different things. The term is used either:

- to show that a plastic is made from a bio-based feedstock that can be grown as a crop such as starch or cellulose derived from sugarcane (for the purpose of this guide, we will refer to these as bio-based plastics), or
- it is used to describe the end-of-life properties of a plastic and whether or not it is biodegradable.

```
graph TD; A[FEEDSTOCK] --> B[MONOMERS]; B --> C[POLYMERS]; C --> D[PLASTIC RESIN]; D --> E[FINAL PRODUCT]
```

4



PLASTICS | A GUIDEBOOK FOR THE BOOK CHAIN PROJECT PUBLISHERS

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## PLANS FOR THE YEAR AHEAD



- Mill assessments continue on the ground in Europe and Asia
- Workshop convening suppliers and manufacturers in China



- Re-vamped environmental questionnaire extended to mills



- Developing a 'design guide' for environmentally-conscious
- Special project: A collective response to shrink wrap

## GET IN TOUCH



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Penguin  
Random House  
DISTRIBUTION

# **THE BIC BREAKFAST**

## **Towards a Greener Book Industry**

August 2019

# Just a thought.



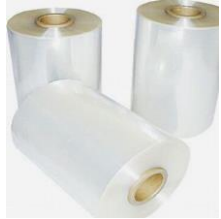
Penguin  
Random House  
DISTRIBUTION



Over 40% of all global plastic usage is in packaging.

*“Plastic will be the main ingredient of all our grandchildren’s recipes.”* [Anthony T Hincks](#)

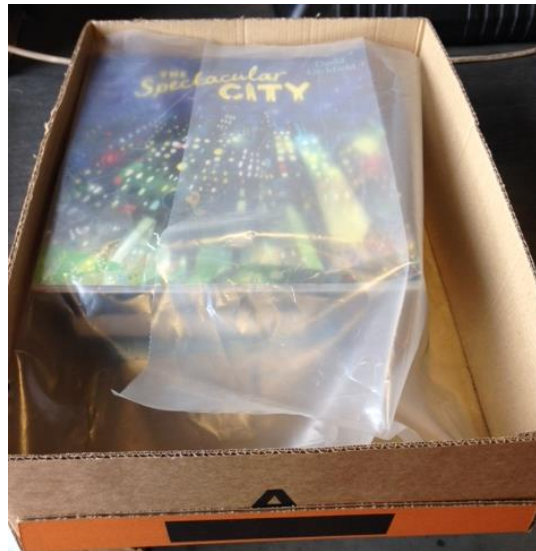
*“The greatest threat to our planet is the belief that someone else will save it.”* [Robert Swan](#)



We studied our total plastic usage figures within our operation in 2018.

Our most considerable usage was in plastic shrink wrap and carton filling.

Our target was to try and achieve a minimum of a 75% reduction throughout 2019.



So far..... We have achieved a **47%** reduction.

# So how have we achieved it?

Investment in multi use pallet lids.



& site shredding equipment to recycle our transit cardboard packaging



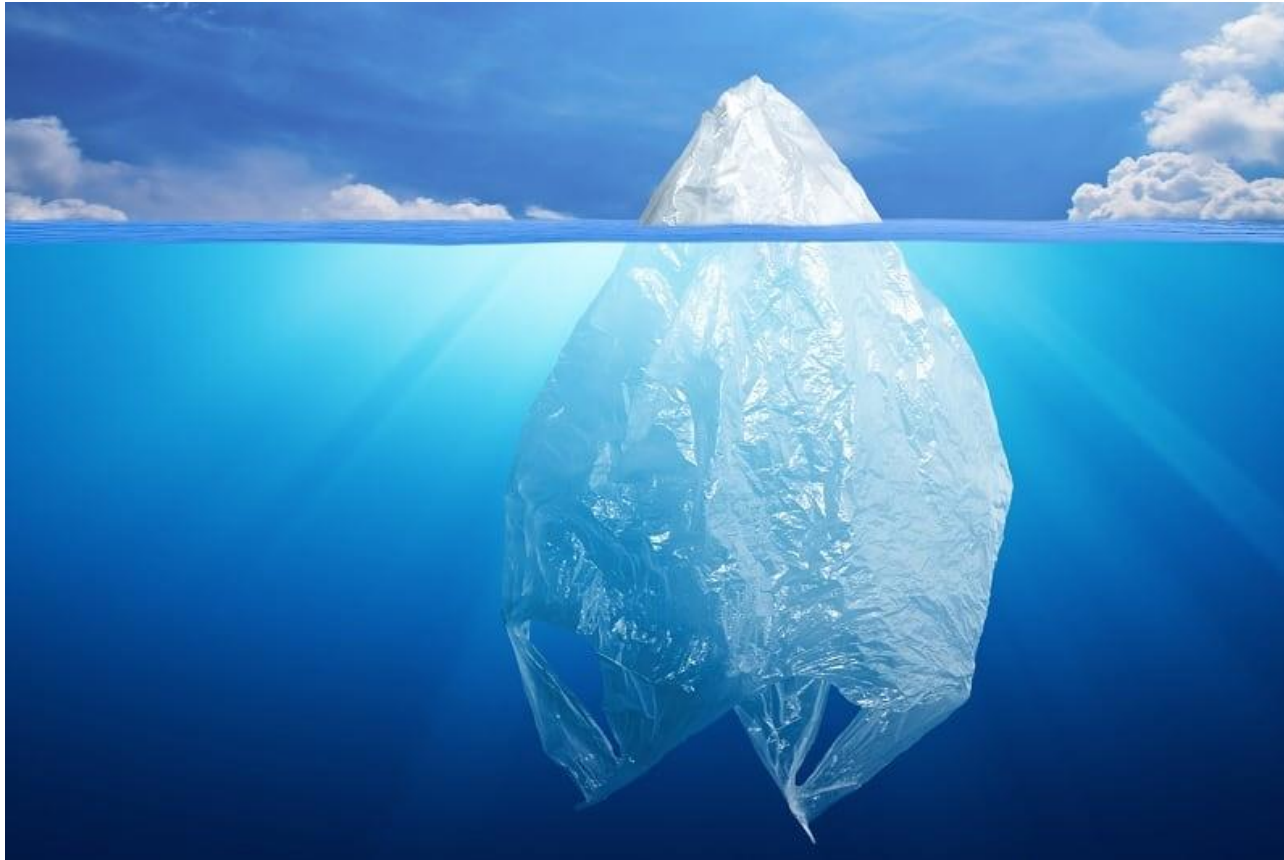


- Internally:
  - a. Office areas, replacing plastic cup water dispensers and straws.
  - b. On-site canteen, single use plastic food cartons and plastic KFS.
  - c. Power reduction initiatives, LED lights, light sensors, car park timer switches.
  
- Externally:
  - a. Printers, pallet lids rather than shrink wrap, binders pack wrapping.
  - b. Container handlers, pallet lids rather than shrink wrap.
  - c. Transportation companies, planning loads to reduce excess mileage.
  - d. 3PL off site locations.

A **green partnership** to help reduce plastic usage and wastage.

**After extensive trials.**

We are seriously investing to make a difference.



And want our suppliers and customers to join us on our journey.



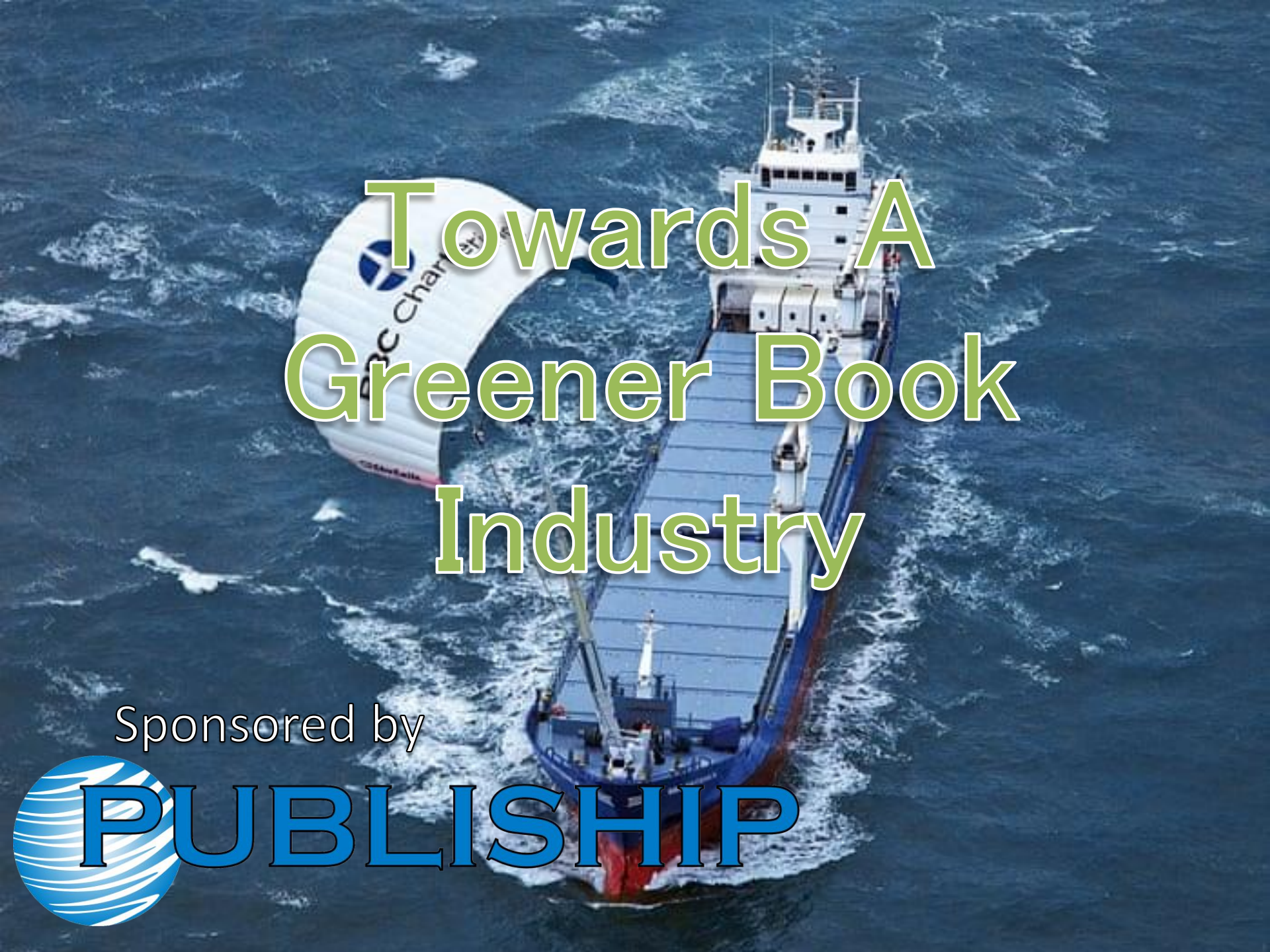
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# Towards A Greener Book Industry

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**PUBLISHIP**





The introduction of the shipping container  
in the late 1950's and widespread  
adoption from the 1960's is the single  
largest contributor to globalisation

What is the Shipping  
Industry doing towards  
improving it's  
environmental impact?



# Emissions



# Ballast



# 13th Tee

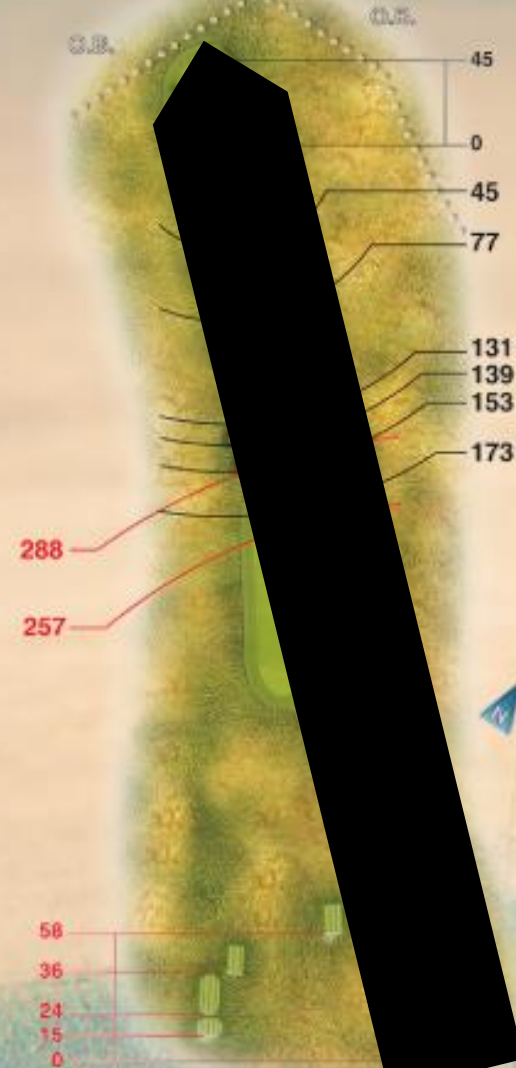
Par 4 457 Yards



# Royal St. George's - Hole 13

13

●  
Par 4  
457  
●  
Par 4  
442











# OOCL Hong Kong

400 metres long, 58.5 metres wide



Containers stowed 8 high above deck,  
11 high below – making the ship around  
the height of a 20 storey building

Carries equivalent of 21,430 20'  
containers – placed end to end  
they would stretch 81 miles

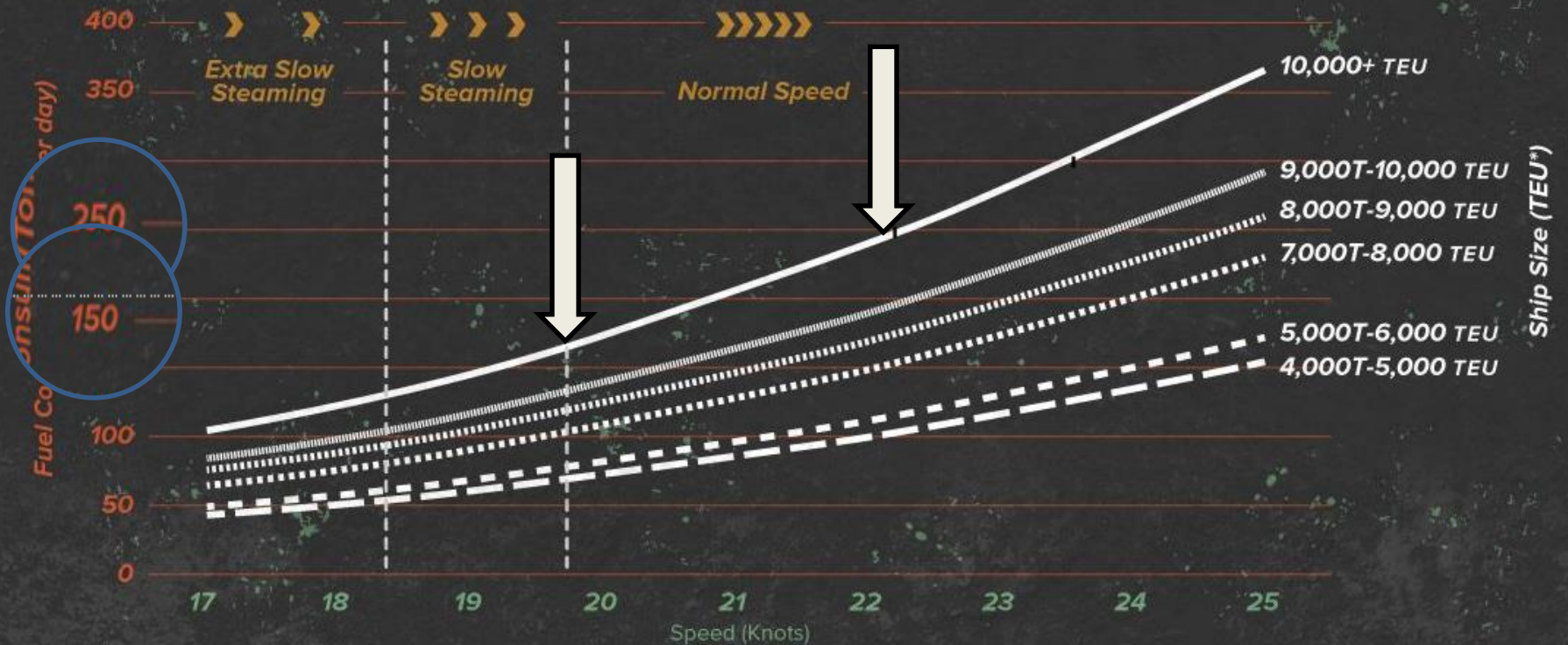




40% more fuel  
efficient than ships of  
10 years ago

‘Slow Steaming’  
Reduce speed by  
10% - save 35% of  
fuel

## Fuel Consumption of Ships at Varying Speeds



\*Twenty-foot equivalent unit = a measure of the capacity of shipping vessels (1 TEU = [1] 20' x 8' shipping container)

# Emissions from Containerships

Carbon Dioxide ( $\text{CO}_2$ )

Sulphur Oxide ( $\text{SO}_x$ )

Nitrogen Oxide ( $\text{NO}_x$ )



If International Shipping was a country,  
it would sit 7<sup>th</sup> in the world table of  
emissions based on 2017 figures

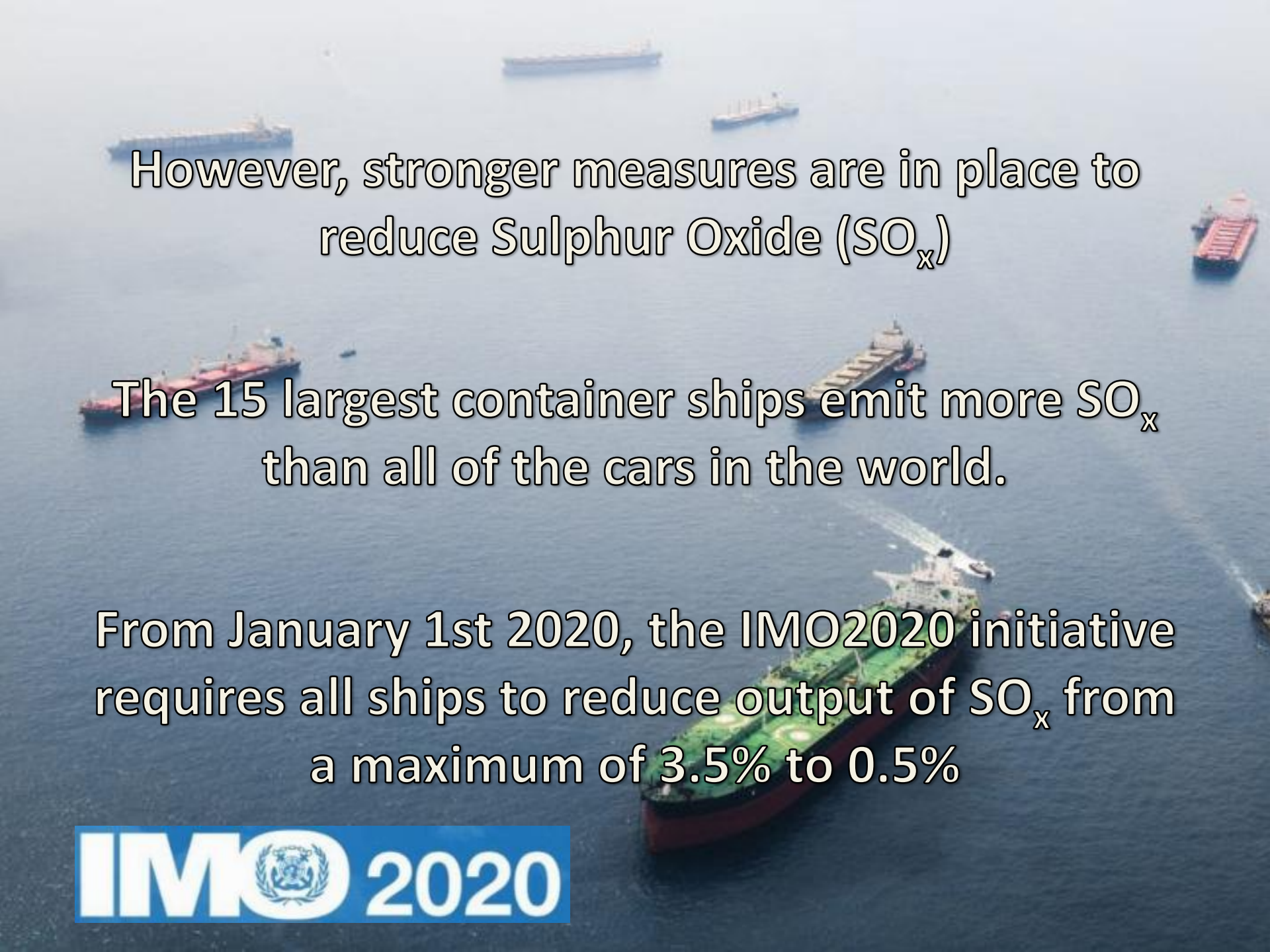
| Rank | Country                | 2017<br>kton |
|------|------------------------|--------------|
| 1    | China                  | 10877218     |
| 2    | United States          | 5107393      |
| 3    | India                  | 2454774      |
| 4    | Russia                 | 1764866      |
| 5    | Japan                  | 1320776      |
| 6    | Germany                | 796528.9     |
| 7    | International Shipping | 677247.8     |

Emissions from Containerships

International  
shipping accounts for  
2.1% of all CO<sub>2</sub>  
emissions

International Maritime Organisation  
(IMO) has a target to reduce CO2  
Emissions 50% by 2050 and for  
'emission reduction to begin as soon  
as possible'

Some have criticized this as  
'unambitious' but these measures  
were not unanimously approved, with  
9 member-states voting against



However, stronger measures are in place to  
reduce Sulphur Oxide ( $\text{SO}_x$ )

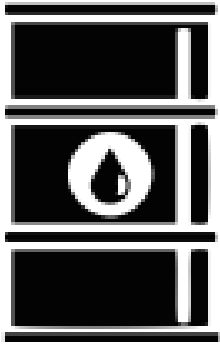
The 15 largest container ships emit more  $\text{SO}_x$   
than all of the cars in the world.

From January 1st 2020, the IMO2020 initiative  
requires all ships to reduce output of  $\text{SO}_x$  from  
a maximum of 3.5% to 0.5%



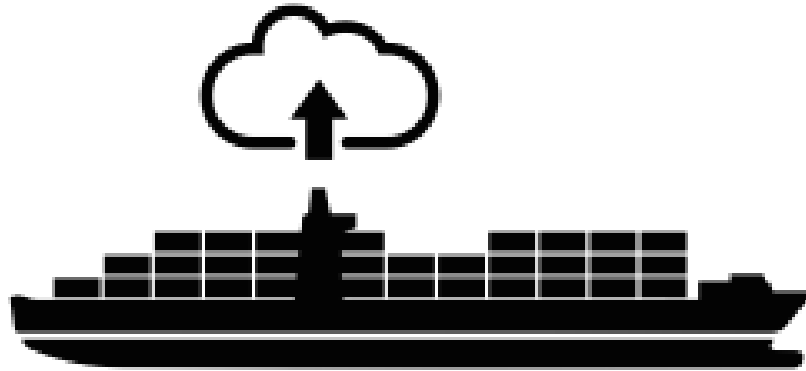


# Low Sulphur Options



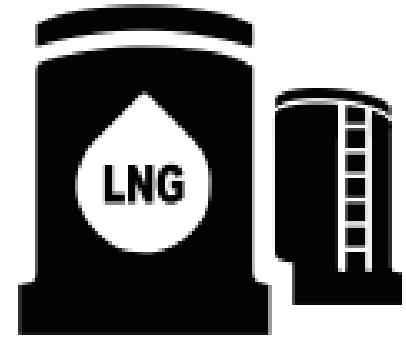
Low Sulphur Fuel

Expensive &  
produces  
emissions  
landside during  
production



Exhaust Gas Cleaning System (Scrubbers)

Somewhat unproven in  
maritime conditions. Only  
1% of maritime fleet has  
fitted them



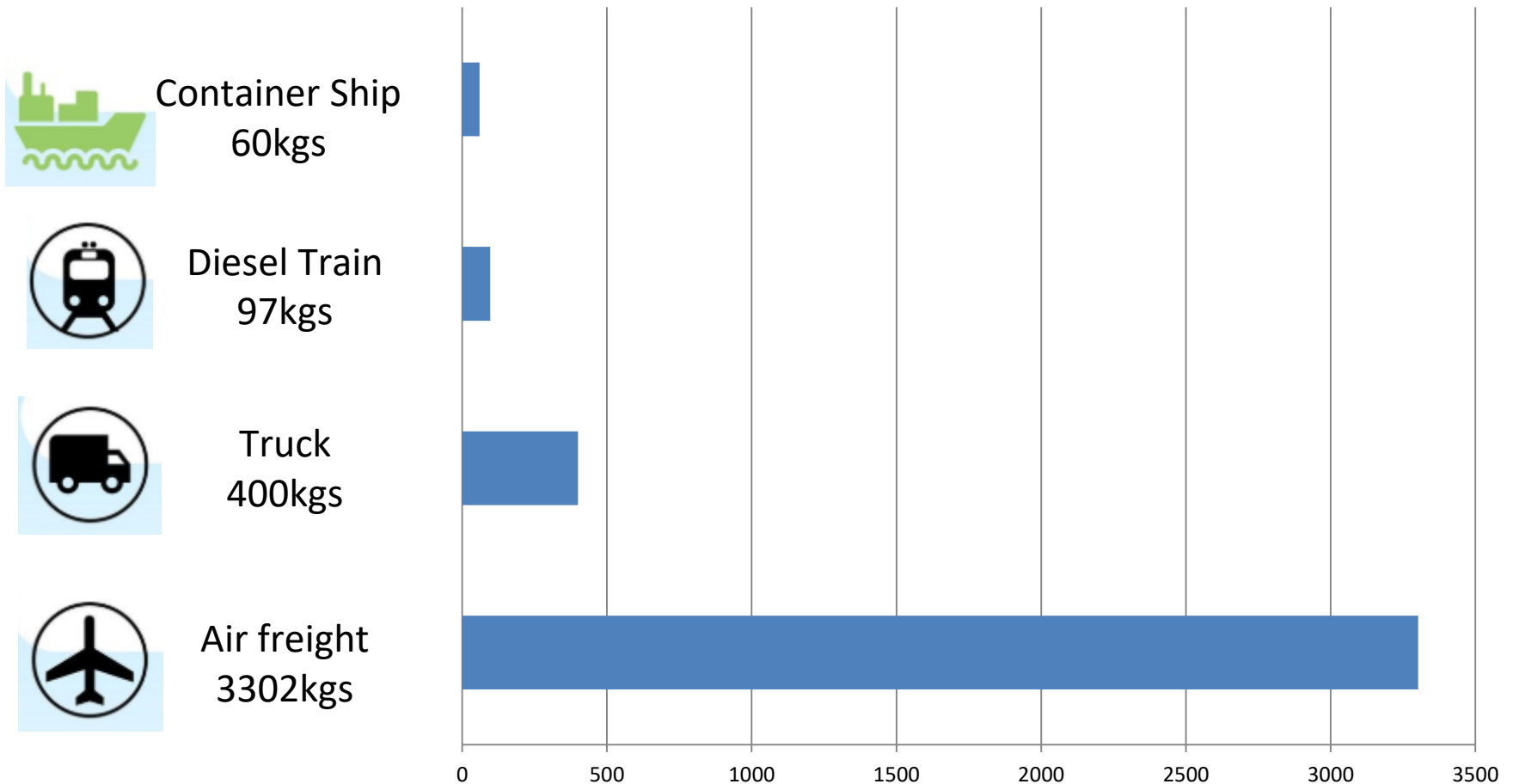
Liquefied Natural Gas

Cheaper, but  
produces  
emissions  
landside during  
production. Not  
widely available

All options are likely to increase freight costs

# Other Modes of Transport

CO2 emissions produced moving one tonne of cargo over 5000 kilometres distance



# Ballast

Ships have tanks which they fill with sea water to trim the ship

Provides stability in rough conditions

Balances the ship during loading and unloading

Compensates for fuel usage

①



Discharging  
cargo

Loading  
ballast water  
at source port

②



Cargo hold  
empty

Ballast tanks full  
during voyage

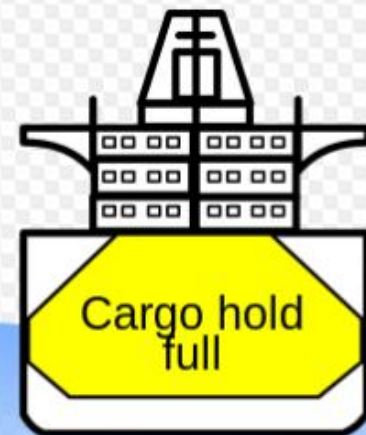
③



Loading  
cargo

Discharging  
ballast water  
at destination port

④



Cargo hold  
full

Ballast tanks empty  
during voyage



# Ballast

Discharge of Ballast water could transfer polluted water to another port

Could also transfer predatory sea creatures to a new environment

Estimates suggest 10 billion tonnes of water are discharged elsewhere per year



# Ballast Water Management Convention

Came into effect in 2017

D1 Standard: Requirement to discharge ballast at least 200 miles from land, in seas at least 200 metres deep

D2 Standard: Performance standard specifying type and amount of viable organisms allowed to be discharged. All new ships must comply with this standard

The world's first electric cargo ship is now operating on the Pearl River in China....

It can sail 50 miles on one charge, and can re-charge in 2 hours....

It is used to carry coal to a power station!



If you have any further questions,  
please email me:

[dave@publiship.com](mailto:dave@publiship.com)



Thanks for listening



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**Any questions?**

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**Thank you for attending August 2019's BIC Breakfast:**

## **Towards a Greener Book Industry**

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