



IMO – the International Maritime Organization

What it is, What it does, How it works



IMO mission: safe, secure and efficient shipping on clean oceans



IMO

- Specialised UN agency
- Headquarters in UK since 1958
- Annual budget £30+ million
- Secretariat – 265 staff, more than 50 nationalities



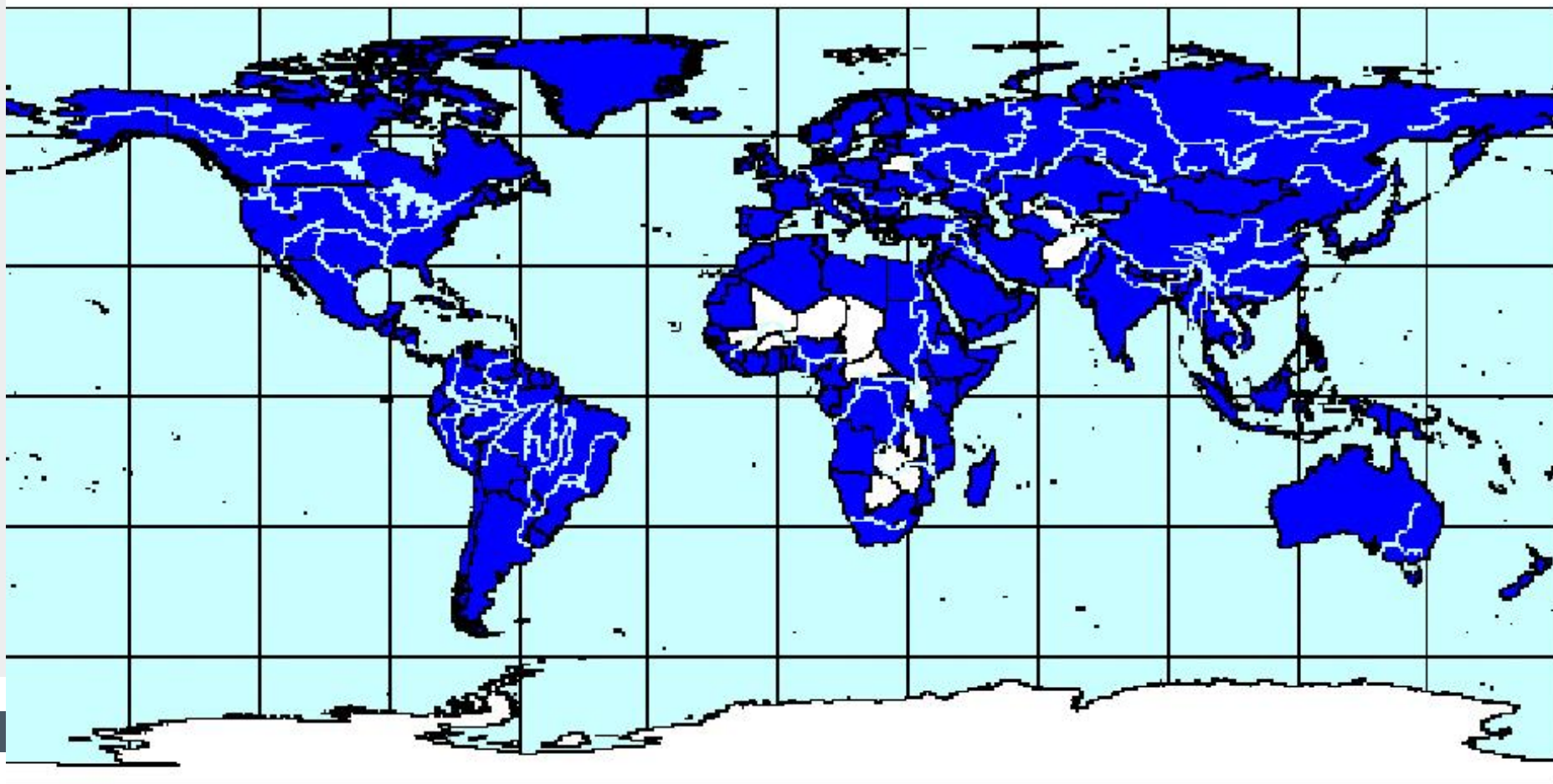
Ten largest contributors to IMO in 2015. Assessed contributions based on flat base rate with additional components based on ability to pay and merchant fleet tonnage.

| | | |
|------------------|--------|--------|
| Panama | £5.22m | 17.33% |
| Liberia | £3.00m | 9.98% |
| Marshall Is. | £2.41m | 7.17% |
| Singapore | £1.83m | 6.06% |
| Bahamas | £1.31m | 4.35% |
| UK | £1.30m | 4.29% |
| Malta | £1.29m | 4.27% |
| China | £1.20m | 3.98% |
| Hong Kong, China | £1.04m | 3.46% |
| Greece | £1.01m | 3.38% |

IMO - global coverage

171 Member States, three associate members

IGOs and NGOs participate as observers

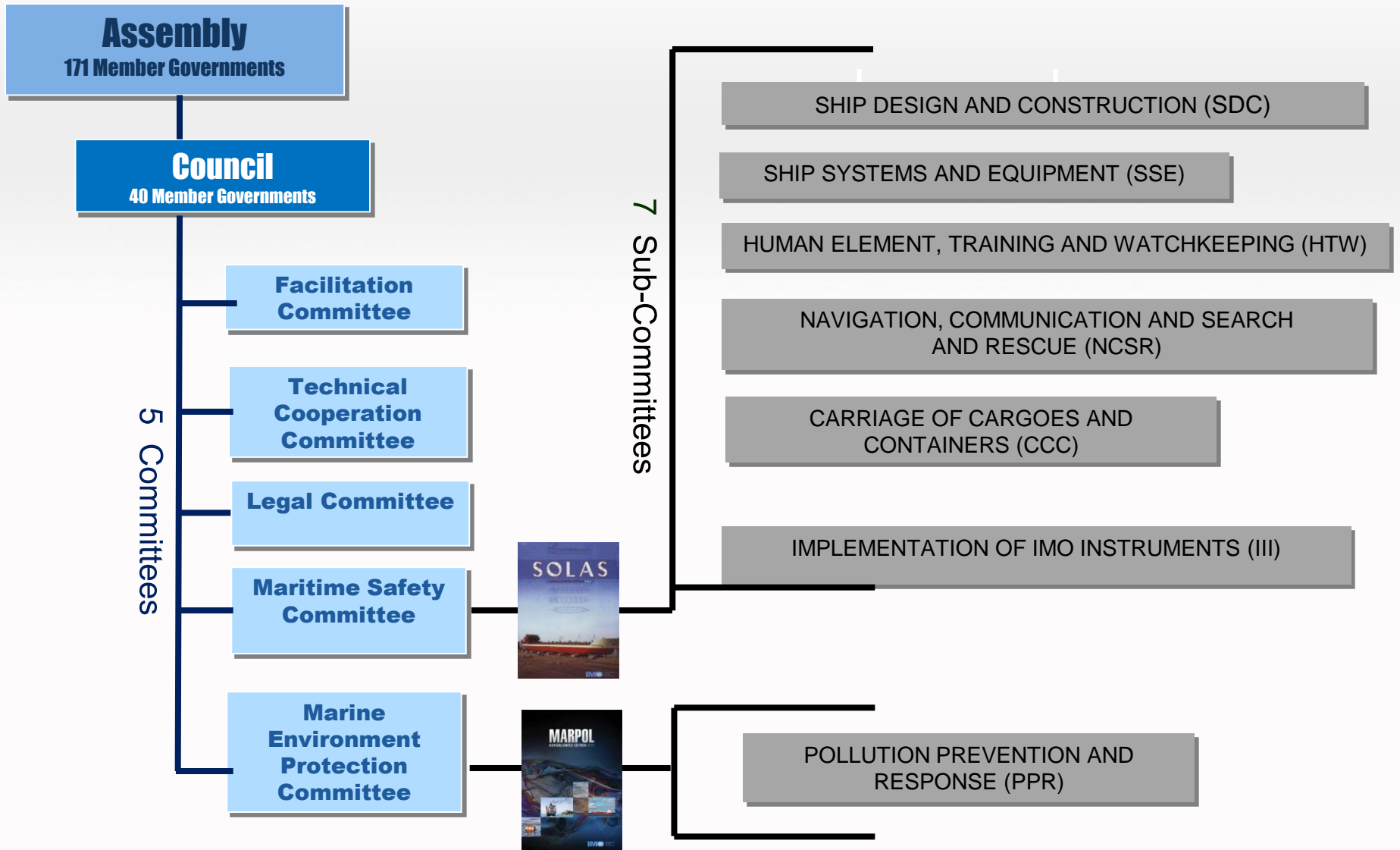


Global standards

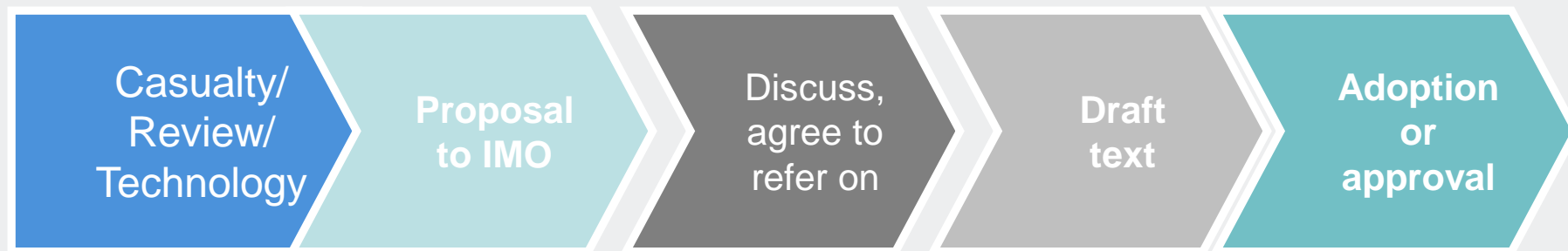
- International industry needs universally applied standards
- IMO - Highest practical standards applied to *all* vessels
- No advantage through cutting corners or unilateral higher standards
- Higher standards may be applied to own vessels
- Implementation is key



IMO Structure



Progress of measures at IMO

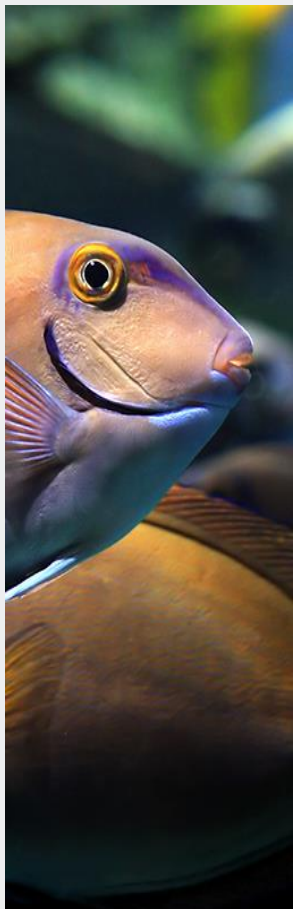


- **Proposals for new, or amendments to existing, mandatory instruments - a compelling need** for such amendments should be demonstrated by the proponent(s), and an analysis of the implications of such amendments, particularly those with far-reaching implications and consequential proposals for other amendments, having regard to the costs to the maritime industry, the legislative and administrative burdens involved and benefits which would accrue therefrom, should be provided.....

Application to real ships

| | | |
|---------------|-------------|----------------------|
| • SOLAS | 162 Parties | 98.74% world tonnage |
| • Load Lines | 161 Parties | 98.72% world tonnage |
| • MARPOL I/II | 154 Parties | 98.73% world tonnage |
| • MARPOL VI | 87 Parties | 95.69% world tonnage |
| • COLREG | 156 Parties | 98.72% world tonnage |
| • STCW | 160 Parties | 98.77% world tonnage |

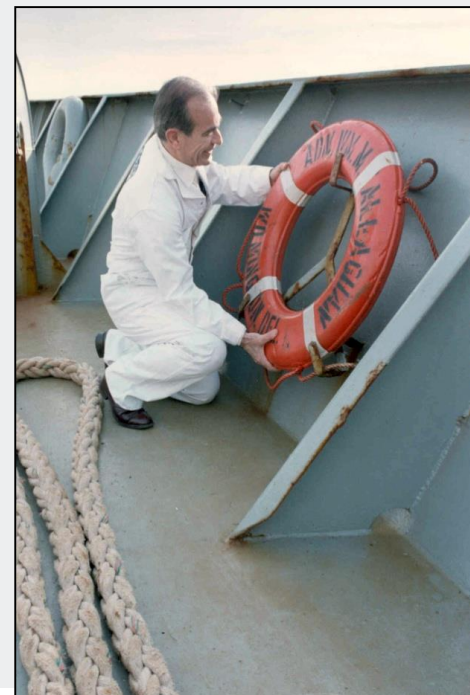
IMO instruments



- Some 50 IMO Conventions and Protocols
- Hundreds of codes, guidelines and recommendations
- Almost every aspect of shipping covered:
 - Design
 - Construction
 - Equipment
 - Maintenance
 - Crew

Implementation – whose role?

- Flag States on own ship
 - classification societies
 - mandatory audit scheme - audits every 7 years
- Port State Control
- IMO – no “policing” mandate



IMO Technical co-operation

- Needs assessment
- Donors – expertise, training
- World Maritime University
- IMLI

WMU, Sweden



IMLI graduation 2016 – Malta

SOLAS first adopted in 1914 after Titanic – much has changed

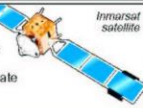
Surviving disaster – The Titanic and SOLAS

In 1914, two years after the Titanic disaster of 1912, in which 1,503 people lost their lives, maritime nations gathered in London adopted the International Convention for the Safety of Life at Sea (SOLAS Convention), taking into account lessons learned from the Titanic. The 1914 version was superseded by SOLAS 1929, SOLAS 1948, SOLAS 1960 (the first adopted under the auspices of the International Maritime Organization) and SOLAS 1974. SOLAS 1974 is still in force today, but it has been amended and updated many times. The regulations relating to life saving appliances and arrangements, contained in chapter III of SOLAS, a new version of which entered into force on 1 July 1998, are intended to ensure that in the event of a catastrophe at sea, passengers and crew have the greatest chances of survival. Improved design and equipment, better fire protection, satellite communications, rescue planes and helicopters and trained personnel also contribute to improved safety at sea.



Distress alert

The Titanic used radio which had a limited range of 200 nautical miles. Ships can now communicate globally via satellites.



Helicopters and rescue planes

Unavailable in 1912, helicopters and rescue planes are now used to locate, search for and rescue survivors.



Speed of navigation around ice

The Commission into the Titanic ruled the loss was due to collision with an iceberg brought about by excessive speed at which she was being navigated.

Under SOLAS, when ice is reported on or near his course the master of every ship at night is bound to proceed at a moderate speed or alter course.

Ice patrol

In the first SOLAS 1914, after the Titanic disaster, ice patrols in the north Atlantic were set up and continue to be a SOLAS requirement.



Lifeboat drill

No lifeboat drill was held on the Titanic. Under SOLAS chapter III an 'abandon ship' and fire drill must take place weekly on all passenger ships.

Evacuation chutes

Passengers on the Titanic jumped from windows and doorways into the lifeboats as they were lowered, often injuring themselves or other passengers. New emergency evacuation chutes are both safer and quicker.



Public address system

There was no public address system on the Titanic and news filtered to the passengers slowly, adding to the disorder and confusion.

Under SOLAS, all passenger ships must be fitted with a public address system.



Training of crew in lifeboat drill

The crew of the Titanic lacked training in loading and lowering the lifeboats and few knew which boat they were assigned to. Lifeboats were not filled to capacity because senior officers did not know the boats had been tested and were strong enough. Under SOLAS, every crew member must participate in regular practise drills and have easy access to training manuals.

Number of lifeboats

The Titanic did not have enough lifeboats for all passengers. Under SOLAS, passenger ships must carry enough lifeboats (some of which can be substituted by liferafts) for all passengers, plus liferafts for 25%.

Lifeboat design

Some people died from hypothermia in the Titanic lifeboats because they were open and gave no protection against the cold. Under SOLAS, lifeboats must be fully or partially enclosed. On passenger ships, partially enclosed lifeboats can be used as they are easier to get into, but they must have a collapsible roof to fold across.



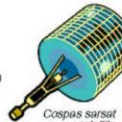
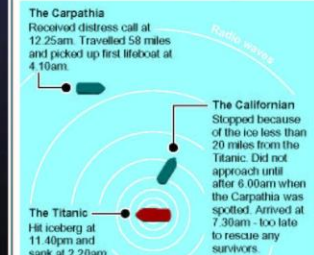
Immersion suits

The sea temperature when the Titanic sank was below freezing point and many people died in the water from hypothermia. Under SOLAS, a specific number of immersion suits must be carried on both passenger and cargo ships, mainly for the crews of rescue boats.



Location

The land station at Cape Race, Newfoundland and ships other than the Carpathia and the Californian heard the Titanic distress call but the airwaves were crackling and the Titanic's position was misinterpreted. With EPIRBs and global positioning systems, the position of a ship in distress can be automatically sent.



Distress watch

The Californian was less than 20 miles away but the radio officer had gone off duty when the distress messages were sent. Under SOLAS, every ship while at sea must maintain a continuous watch on the distress and safety frequencies.

Passenger ship regulations today



Pic: Malta Maritime Authority

Current issues

- E-navigation – strategy implementation plan continues in NCSR
- GMDSS – review completed, modernization plan under development
- Security - cyber security – interim guidelines approved
- Lifeboat and launching systems – new standards for maintenance, repair, testing adopted; 1 Jan 2020 in force
- Facilitation – revised convention annex encourages “single window” concept
- Security and maritime crime – strong focus on implementation and capacity building; active on several fronts (eg Djibouti and Yaounde Codes of Conduct)
 - Maritime security as enabler for sustainable maritime development

Piracy



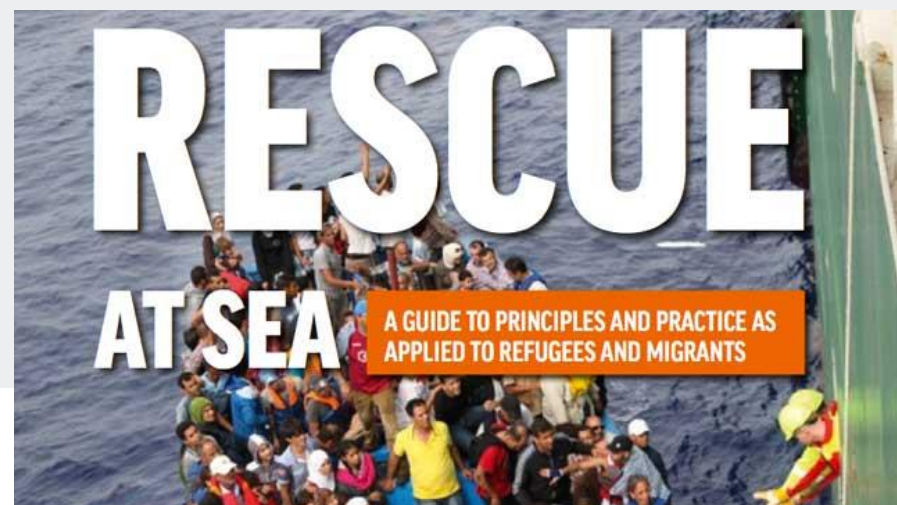
- Piracy off Somalia has declined thanks to building of capacity to address the problem, best management practices, naval patrols. (Djibouti Code of Conduct)
- Piracy in the Gulf of Guinea - capacity building is underway in the region (Code of Conduct concerning the repression of piracy, armed robbery against ships, and illicit maritime activity in west and central Africa)
- South-east Asia – The Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (*ReCAAP*).



Unsafe mixed migration by sea

People on unsafe vessels – significant humanitarian problem which also places burdens on coastal states and ship owners

- More than 1,000,000 people crossed the Mediterranean in 2015, against 218,000 in 2014, with more than 3,760 deaths in 2015.
- To mid-Sept 2016: 280,000 arrivals, 3,212 deaths
- <http://missingmigrants.iom.int/> for updates on latest figures



Prevention of Pollution from Ships

- MARPOL Annex I, II, III, IV, V, VI (newest)
- Preventing operational and accidental pollution
- Response and preparedness OPRC, OPRC-HNS
- Liability and compensation treaties
- Anti-fouling systems
- London Protocol – wastes
- Ballast Water Management
- Special Areas
- Particularly Sensitive Sea Areas



MARPOL Annex VI – air pollution and energy efficiency

- Air pollution requirements adopted 1997, revised in 2008
- *SO_x*
 - Current global cap 3.5%
 - decision on 0.5% global cap date due Oct 2016
 - based on availability review – 2020 or 2025
 - Limits in ECAs 0.1% from 1 Jan 2015
- *NO_x*
 - Tier III emission limit now in force on ships constructed on or after 1 Jan 2016 in North America/Caribbean ECAs
 - Will apply to ships constructed on or after date of adoption for future ECAs

MARPOL Annex VI – energy efficiency

- EEDI and SEEMP adopted 2011, mandatory since 2013
- 2025 newbuilds – 30% more efficient than 2014
- More than 1600 new ships already certified
- Challenge not just for IMO
 - ship designers
 - marine engineers
 - ship operators and managers
 - seafarers
 - educators
- **Projects:**
- **IMO-European Union Project on Capacity Building for Climate Change Mitigation in the Maritime Shipping Sector** – establishment of Maritime Technology Cooperation Centres (MTCCs)



Global maritime energy efficiency partnerships



Carbon footprint?

600 CO₂ (grams per ton-kilometre)

500

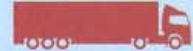
400

300

200

100

0



heavy truck
with trailer

50



cargo vessel
2,000-8,000
dwt

21



cargo vessel
over 8,000
dwt

15



air
freight
747-400
1,200 km
flight

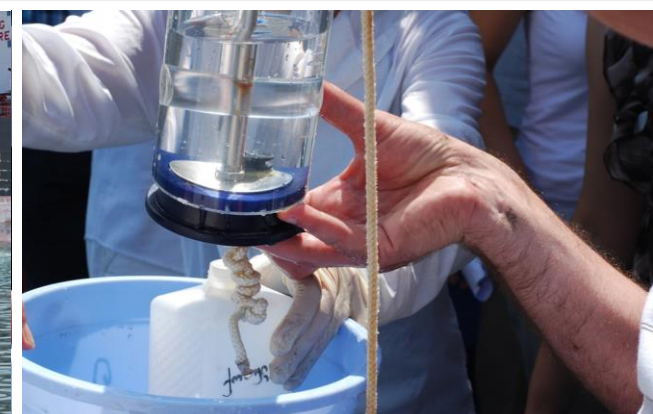
540

Comparison of CO₂ emissions by different transport modes

Source: NTM (Swedish Network for Transport and the Environment)

Ballast water – tackling invasive aquatic species

- International Convention on Ballast Water Management will enter into force on 8 September 2017
- Time scale for application – 1st 5-year survey after EIF
- More than 60 type approved systems (existing guidelines)
- Type approval guidelines being reviewed and revised but no penalty for early adopters



Ship recycling

- Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009
- Environmentally friendly disposal of old ships:
 - Most components and materials re-used
- But: safety issues for workers - hazardous materials
- Inter-agency co-operation ILO, Basel Convention



Awareness days

- **Day of the Seafarer** – 25 June
- “At Sea For All”
- Interactive Quiz!

- **World Maritime Day** – 29 September
- “Shipping: Indispensable to the World”



Ship losses over the years - declining

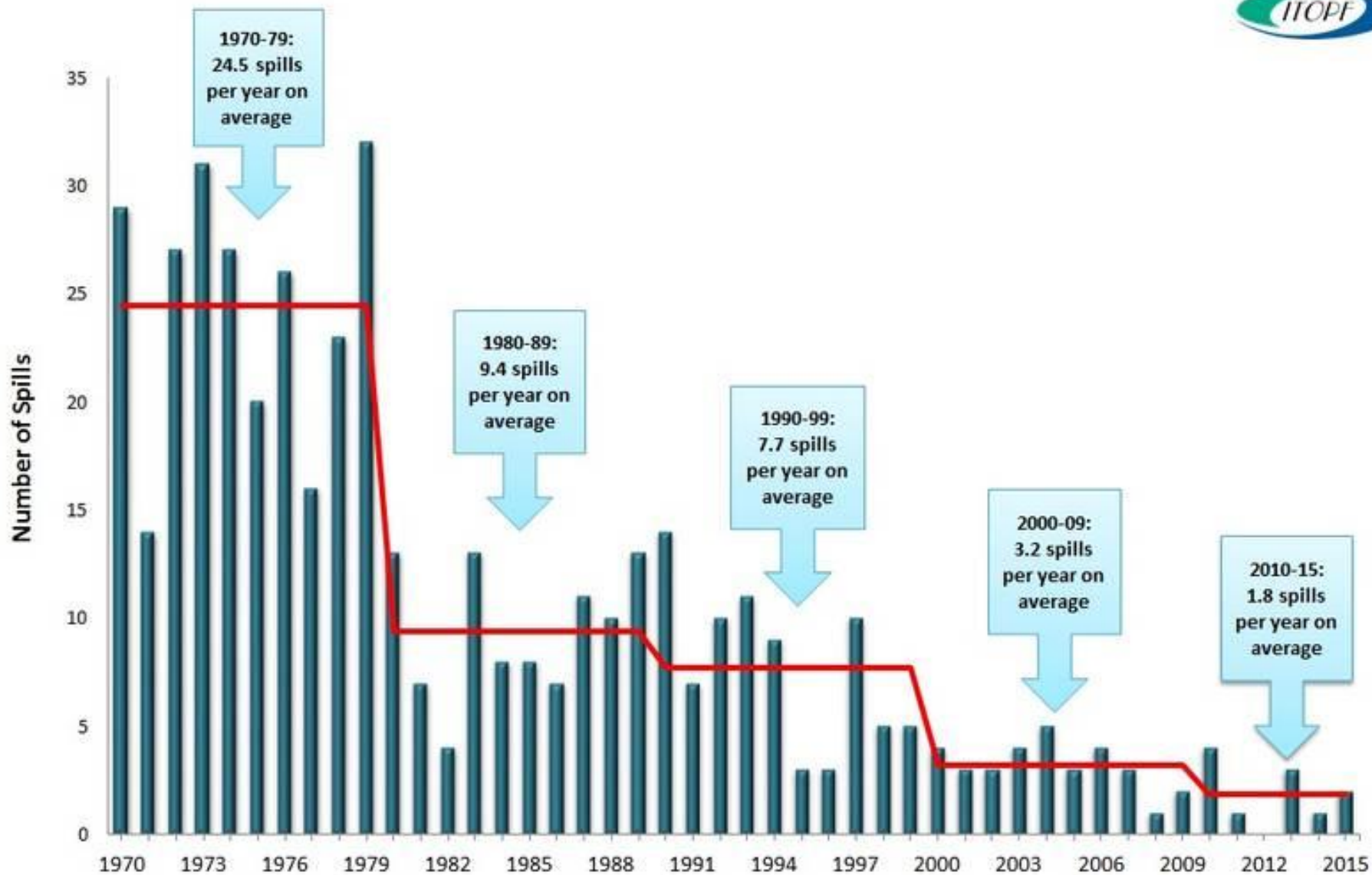
- 1966 to 1985: more than 300 ships lost annually.
- 1990: under 200; 2000: 167 lost.
- 85 ships lost worldwide in 2015, down 3% year-on-year, according to Allianz Safety & Shipping Review 2016.

Total Losses by Year a declining trend



Shipping losses declined by 3% compared with 2014. They have declined by 45% over the past decade.

Statistics – oil spills declined



Shipping impacts us all

- More than 80% of world trade carried by sea
 - Raw materials and commodities
 - Finished goods
 - Foodstuffs
 - Fuel
- Underpins global economy
- Safe, secure and environmentally friendly transport system



Rising trade

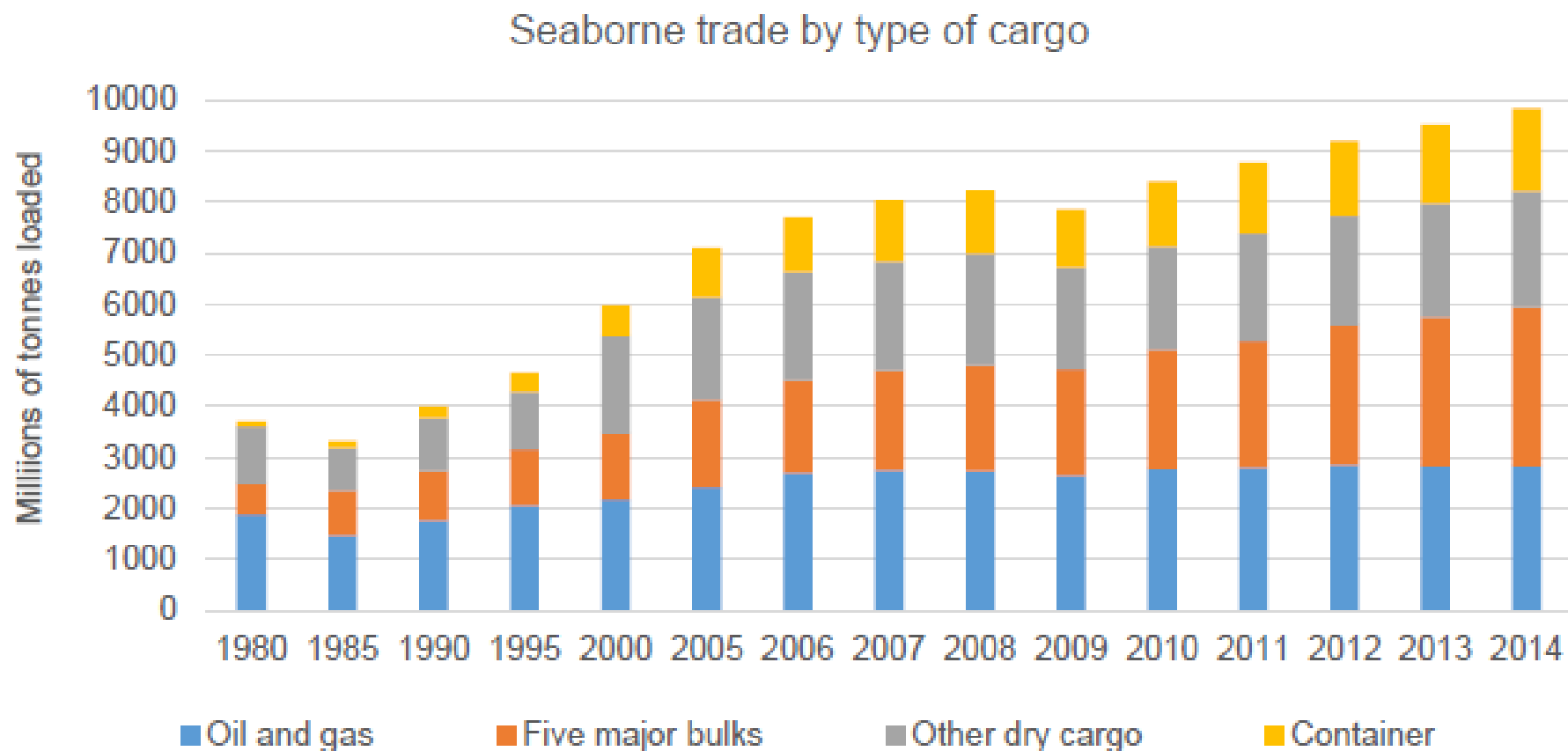
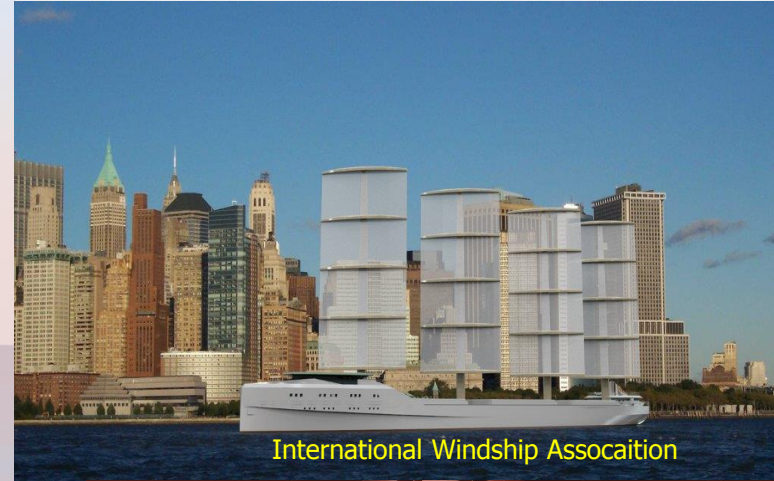


Figure 5 – Seaborne Trade by Type of Cargo
(UNCTAD, 2016d)

Ships of the future? Battery-power/hybrid? Unmanned vessels?



PEACE BOAT Ecoship Project



International Windship Association



With the support of
Bundesministerium für Verkehr und digitale Infrastruktur



Becker Marine systems

Find out more – www.imo.org

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Security Council statement highlights IMO capacity-building work in Gulf of Guinea

IMO Secretary-General welcomes Presidential Statement which encourages States in the region and regional organizations to enhance cooperation on maritime safety and security. more...

Hot Topics



Polar Code



SOLAS container mass verification requirements

What's New



Saint Lucia accedes to key marine environment protection treaties

26/05/2016

Saint Lucia has acceded to four IMO treaties, including important conventions covering ballast water management (BWM Convention) and emissions from ship exhausts and energy efficiency (MARPOL Annex VI). Mr. Tafawa Williams, Alternate Permanent Representative of Saint Lucia to IMO, met IMO's Frederick Kenney, Director, Legal Affairs and External Relations Division, to

Secretary-General



Any questions?

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