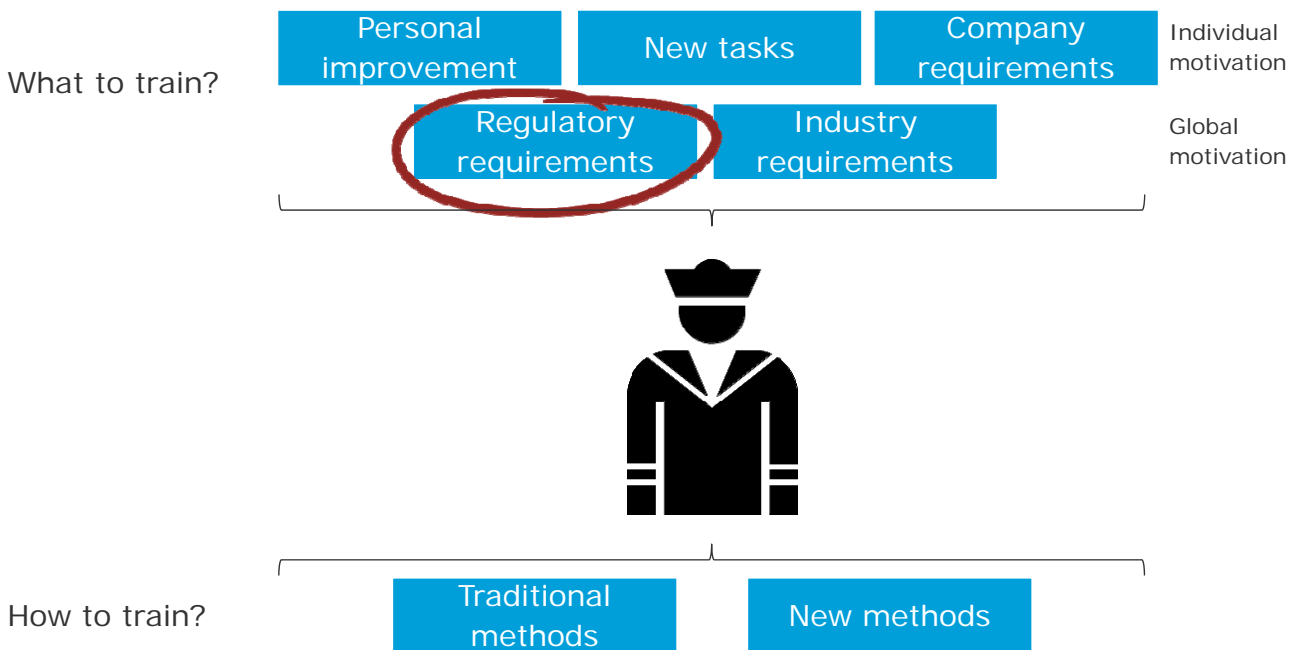




# 21<sup>st</sup> Century Maritime Training – La formazione marittima futuribile

New regulations coming into force

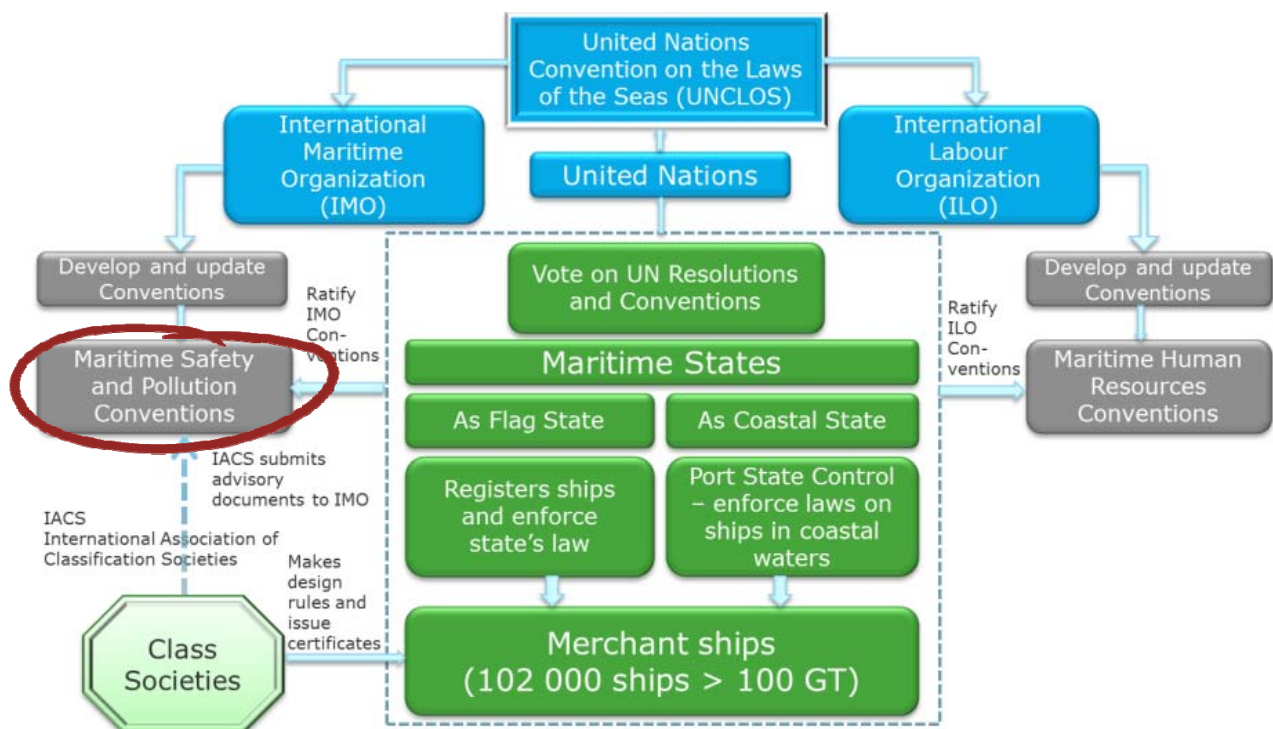
## Introduction



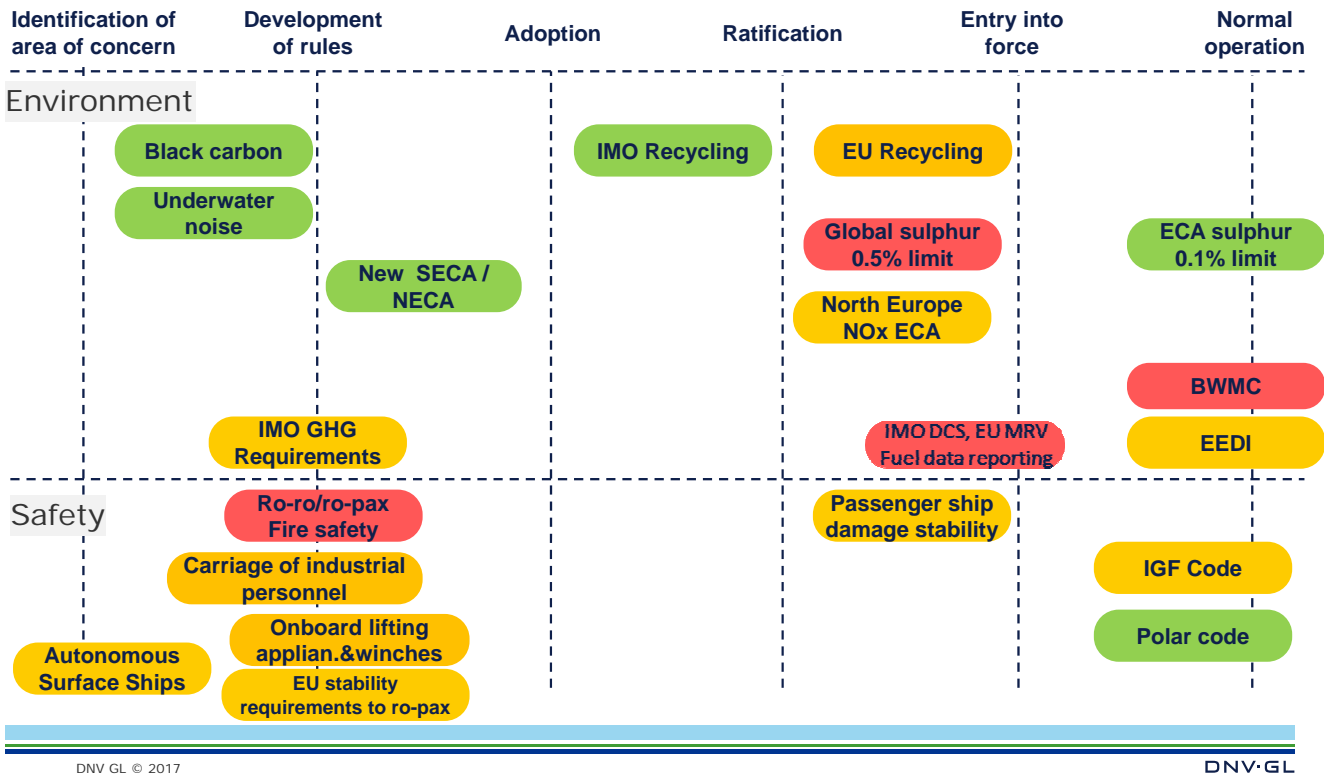
# What to train?

Regulatory Requirements – SAFETY and ENVIRONMENT

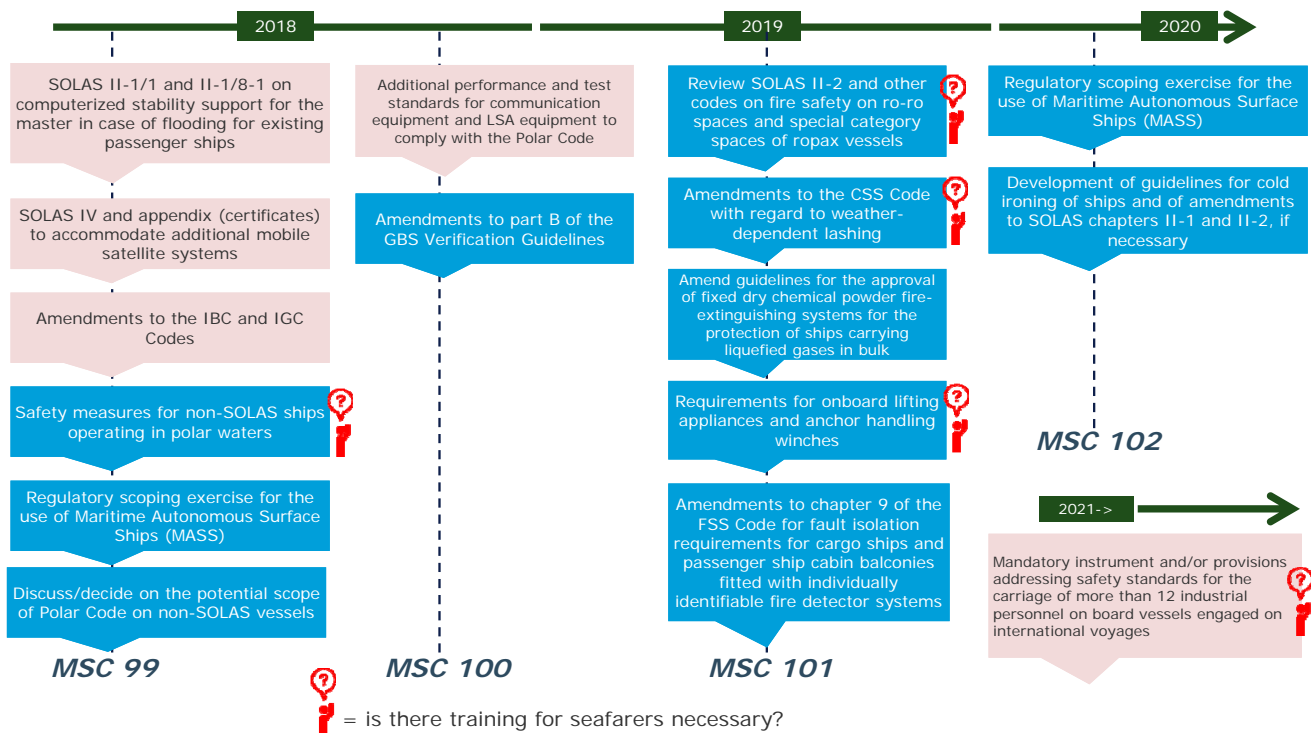
## International Maritime Law – An overview



# What's hot on the Regulatory Agenda?



## Major IMO decisions – Safety



- MSC 98 agreed that there is an urgent need to raise awareness on cyber risk threats and vulnerabilities
- An important part of achieving this would be to consider cyber risk **as part of existing safety management systems** (ISPS and ISM codes)
- MSC 98 adopted resolution MSC.428(98) on *Maritime cyber risk management in management systems*
- The guidelines are not mandatory but Member Governments are encouraged to apply them



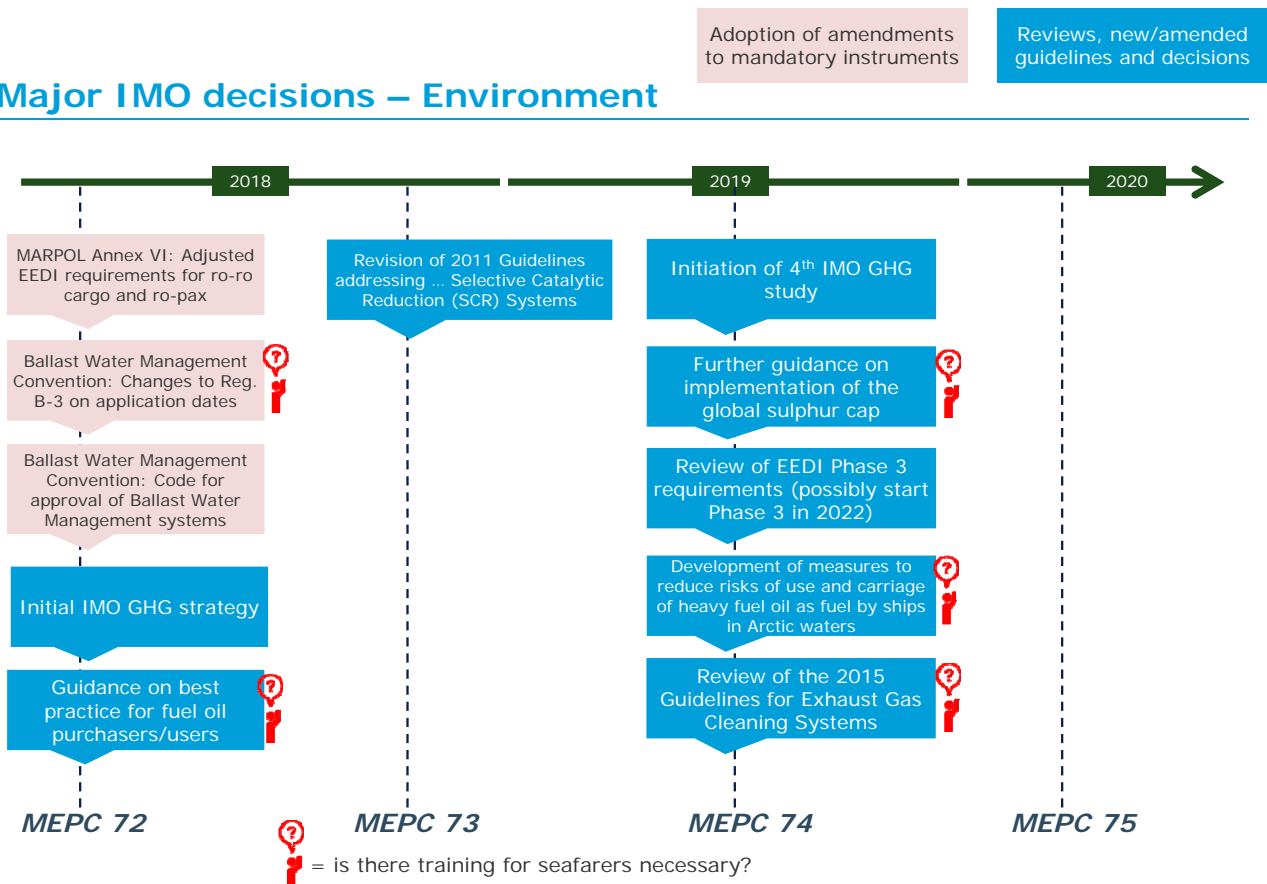
**Impact:**

Cyber risks should be addressed in safety management systems no later than the first annual verification of DoC after 1 January 2021. This is a non-mandatory requirement.

**Outcome:**

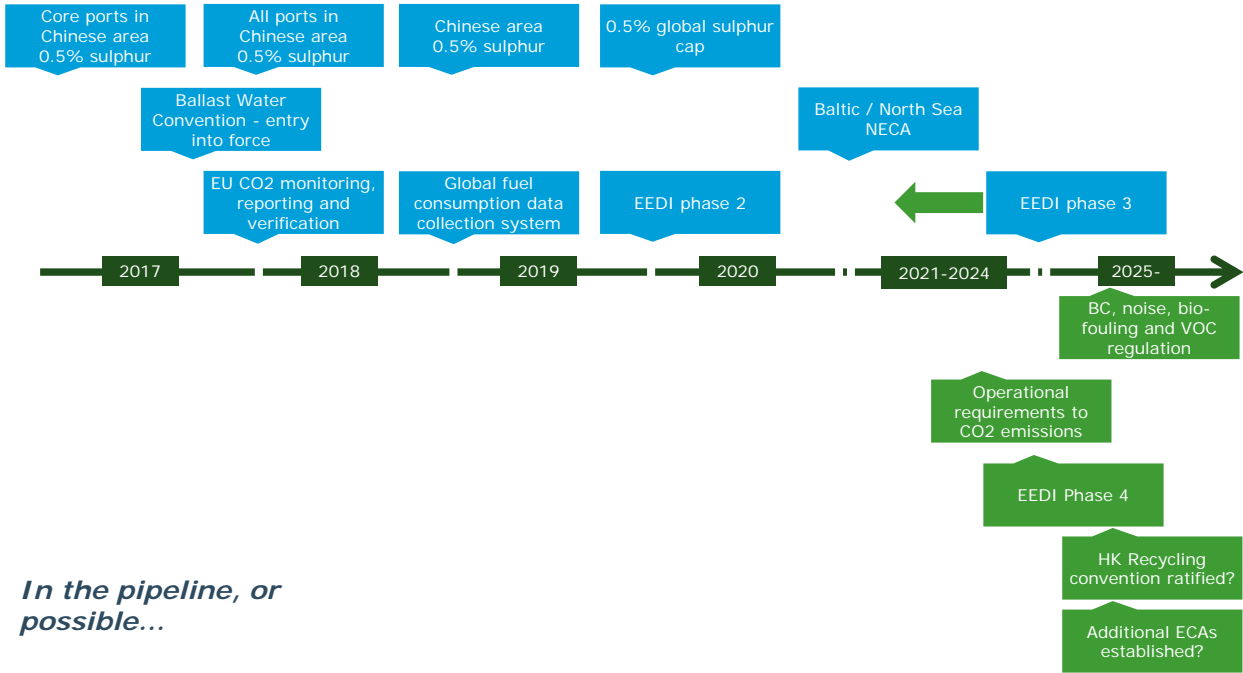
MSC 98 adopted the recommendatory MSC-FAL.1/Circ.3 superseding the interim guidelines

**Major IMO decisions – Environment**



# Regulatory timeline towards 2030 - Environment

## Adopted



*In the pipeline, or possible...*

## What to train? Regulatory Requirements – STCW







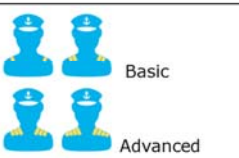

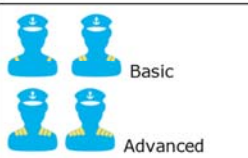

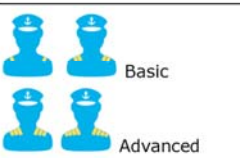

## STCW Amendments: IGF Code Training

|                   | crew | Seafarers with designated safety duties | Masters, engineer officers (with immediate responsibility) |
|-------------------|------|---|--|
| Familiarisation   | ✓    | ✓                                       | ✓  |
| Basic Training    |      | ✓                                       | ✓  |
| Advanced Training |      |   | ✓  |

Model Course expected:  
Summer 2018

Entry into force:  
1<sup>st</sup> January 2017

## STCW Amendments: Ships Operating in Polar Waters

| Ice conditions                   | Tankers   | Passenger ships   | Other  |
|----------------------------------|---|---|--|
| Ice free                         | <br>Not applicable   | <br>Not applicable   | <br>Not applicable   |
| Open waters (≤ 10% ice coverage) | <br>Basic<br>Basic training for master, chief mate and officers in charge of a navigational watch  | <br>Basic<br>Basic training for master, chief mate and officers in charge of a navigational watch  | <br>Not applicable   |
| Other waters                     | <br>Basic<br><br>Advanced<br>Basic training for officers in charge of a navigational watch<br>Advanced training for master and chief mate | <br>Basic<br><br>Advanced<br>Basic training for officers in charge of a navigational watch<br>Advanced training for master and chief mate | <br>Basic<br><br>Advanced<br>Basic training for officers in charge of a navigational watch.<br>Advanced training for master and chief mate |

Model Course 7.11 & 7.12 available



Entry into force:  
1<sup>st</sup> July 2018

## STCW Amendments: Passenger Ship Safety

|  |  |
|--|--|
| Passenger ship emergency familiarization                                       | All crew   |
| Safety Training  | personnel providing direct service to passengers in passenger spaces on board  |
| Crowd Management Training  | ratings according to chapters II, III and VII AND required for all personnel designated on the muster list to assist passengers in emergency situations                                |
| Crisis management and human behaviour training [approved training]             | any person having responsibility for the safety of passengers in emergency situations  |
| Passenger safety, cargo safety and hull integrity training [approved training] | all personnel assigned immediate responsibility for embarking and disembarking passengers, for loading and discharging, securing cargo, closing hull openings on board Ro-Ro-Pax ships |



= whole chapter is updated in STCW

(new) Model Course expected:  
Summer 2018

Entry into force:  
1<sup>st</sup> July 2018

## Sources of information on rules and regulatory changes

# News on rule development, IMO Updates, and technical/statutory newsletters are available from My DNV GL

## Maritime news and updates

- Technical
- Statutory
- Port State Control
- Rules and standards
- Regulatory updates - exclusive content
- My DNV GL portal news

MARCH 22, 2016 | RULES AND STANDARDS | NEWS

### DNV GL rules for ships available for offline download

Offline versions of the DNV GL rules for ships are now available for download with active links for easy navigation.

[Read more](#)

MARCH 22, 2016 | EXCLUSIVE | NEWS

### IMO update No 6-2016 / March

Update from the 3rd session of the IMO Sub-Committee on Ship Systems and Equipment (SSE 3). The Sub-Committee met in London from 14 to 18 March, and discussed issues related to life saving appliances; fire safety; review of the MODU Code; lifting appliances and winches; and escape routes and watertight doors.

[Download the document](#)

MARCH 18, 2016 | TECHNICAL | NEWS

### NOx compliance for retrofitted engines in ECA zones

If a diesel engine installed on board a vessel has to be replaced by a non-identical diesel engine, the replacement engine has to comply with IMO Tier III emission regulations for installations after the 1 January 2016. The market is only starting to respond to this demand, and it may be difficult to find a suitable replacement engine complying with Tier III. DNV GL explains in this technical news how to handle this issue.


[Read more](#)

MARCH 9, 2016 | EXCLUSIVE | NEWS

### IMO update No 5-2016 / March

Update from the 3th session of the IMO Sub-Committee on Navigation, Communications and Search and Rescue (NCSR 3). The Sub-Committee met in London from 29 February to 4 March 2016, and discussed issues related to radio communication and navigation systems and global maritime distress and safety systems (GMDSS).

[Download the document](#)



DNV GL Portal news  
Rules and Regulations news  
Port State Control news

[Go to Maritime News](#)

## How to train? Ideas for future methods





## Traditional methods

## New methods / technology



Class room



Simulator



On board



Drills & Exercises



Familiarisation



Distance Learning / eLearning



Virtual Reality

Assessment



What is suitable for the specific case?

# Thank you

**Bernhard Löbermann**

bernhard.loebermann@dnvgl.com

+49 40 36149-7586

[www.dnvgl.com](http://www.dnvgl.com)

SAFER, SMARTER, GREENER