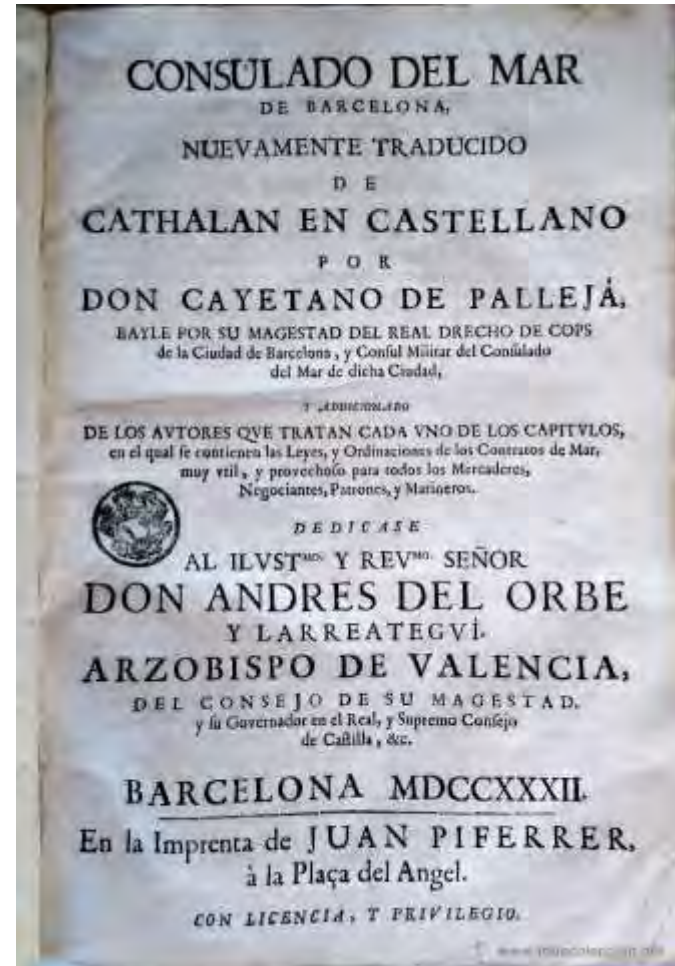


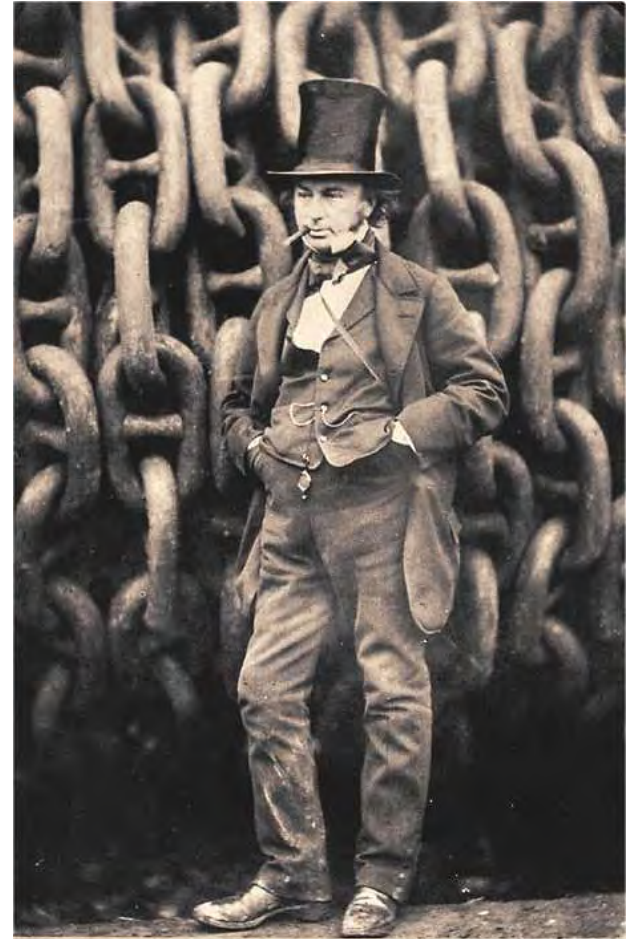
The legal regime of unmanned merchant shipping

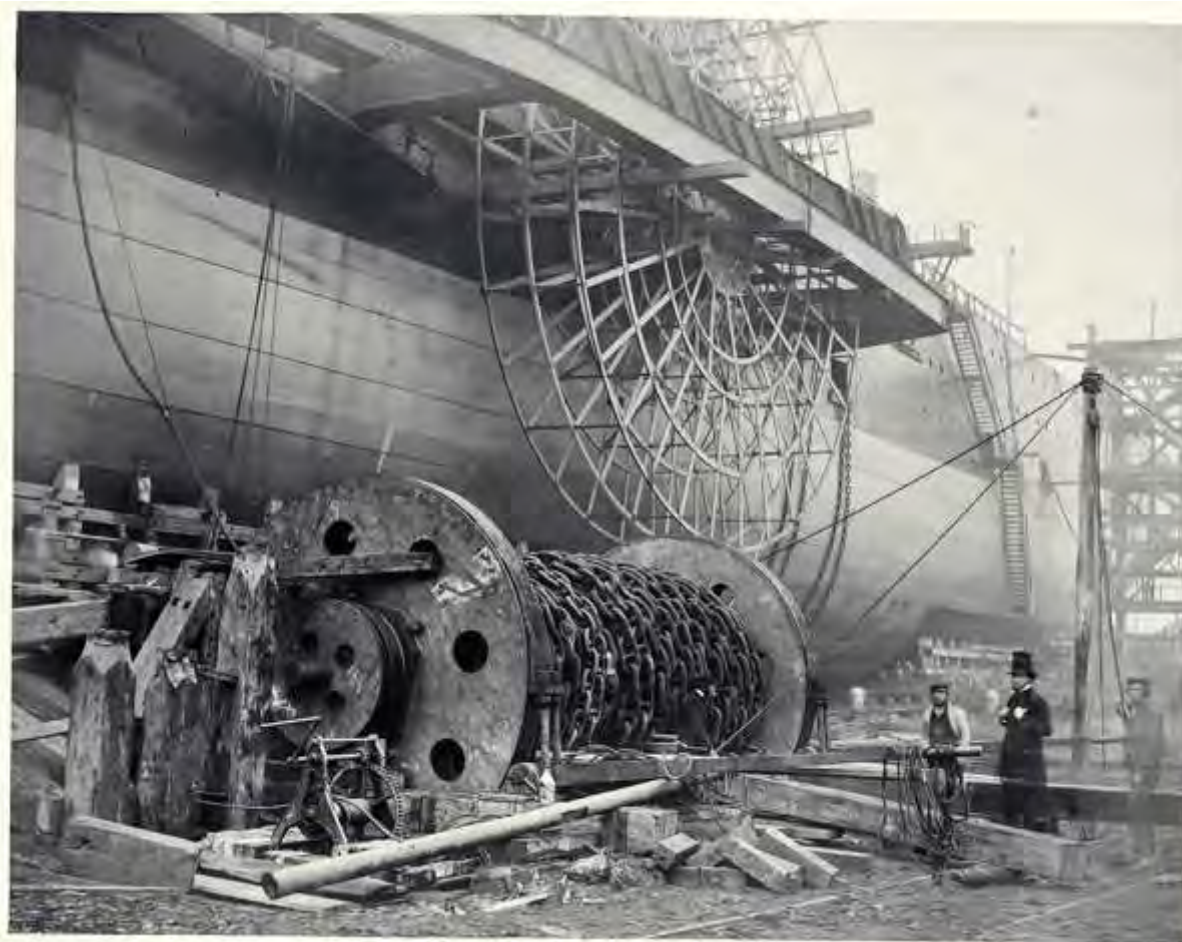
**CMI Conference
New York City, 4 May 2016**

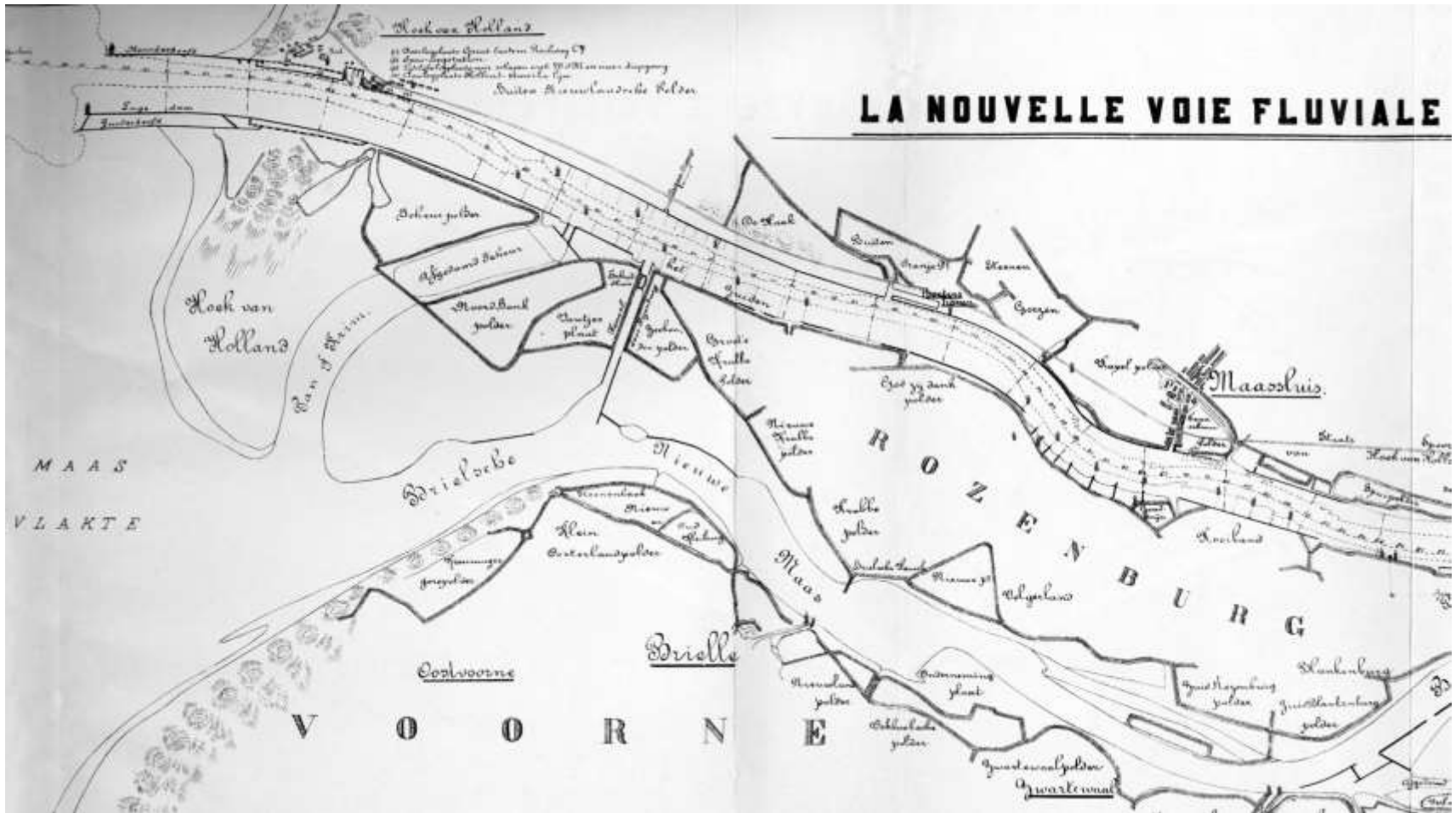
Prof Dr Eric Van Hooydonk
Professor, University of Ghent
Advocate, Eric Van Hooydonk Lawyers, Antwerp

1. The stability of maritime law























2. Unmanned ships: current status

4 types of unmanned ships

- Remotely controlled ships
- Smart or fully autonomous ships
- Semi-autonomous ships
- Unmanned ships in unmanned ports

Status of legal research

- Unmanned Marine Vehicles (UMVs)
- EU projects
- Paper in *Journal of International Maritime Law* (2014) 20, p 403-423
- International Working Group of the Comité Maritime International
- National initiatives
 - Belgian Shipping Code
 - Flemish Pilot Project

Feasibility and risks

- Which business model ?
- Is it realistic and acceptable ?
- Human factor in accidents
- New dangers because of dependence on IT
- The social dimension

3. Regulatory issues

Is it still a ship ?

- There is no uniform definition
- UN Law of the Sea Convention
- Public law conventions
- Private law conventions
- National laws and regulations
- Conclusion: unmanned ships will still be ships and most existing rules will remain applicable

Is there still a link to a Flag State ?

- Principles of the UN Law of the Sea Convention
- Flag States must assume jurisdiction in social matters and ensure that ships are in the charge of competent master, officers and crew
- A 'virtual' instead of a 'genuine' link
- Position of the shore-based controller ?

Masters, seafarers, pilots, etc (1)

- The Captain – a romantic memory
 - The end of Captain’s Law
- The shore-based controller
 - Is not a seafarer (e.g. definition under STCW), and seafarer law is not really relevant
 - Yet he will assume huge responsibilities
 - The COLREGs will have to be complied with
 - Reporting duties
 - Port State Control procedures

Masters, seafarers, pilots, etc (2)

- Ship documentation and VDR
- Passenger transportation
- The 'on-bridge team'
- The pilot
- The tugboat
- VTS
- The harbour master

Masters, seafarers, pilots, etc (3)

- The stowaway
- The pirate and the terrorist

Focus on the pilot (1)

- No ship master, no pilotage assistance ?
- Will the pilot's profession disappear together with the function of the ship master ?
- Local nautical expertise will still be needed

Phantom contracts and phantom liability (1) ?

- Responsibility and the path of control
- The charter party
- Crew management contracts
- Shipowner's liability
- Limitation of liability

Phantom contracts and phantom liability (2) ?

- The Hague Rules & the Rotterdam Rules
 - Electronic transport documents
 - Due diligence to make the unmanned ship seaworthy = providing it with a well-functioning IT system
 - Liability of the carrier for errors by the shore-based controller (?)
- Shipping agency contracts
- Terminal operators

Phantom contracts and phantom liability (3) ?

- Collision liability
- Pollution damage
- Salvage
- General average
- Arrest
- Liens and mortgages
- Insurance and insurability

4. Conclusions

Regulatory changes are needed

- Maritime law appears to be relatively well armed
- New rules will be needed on, inter alia, ship safety, port state control, rules of the road, facilitation of maritime traffic
- In ports, new organizational models will have to be elaborated

5 big priorities to make it happen

- The ship and port technologies
- The business case
- Insurance
- The organizational set-up of the ship/shore interface including VTS, pilotage, port procedures
- Societal and political acceptance