



**The European Maritime technology sector and
finance**

Christophe Tytgat, SEA Europe Secretary General

71% of the Earth's surface is covered by Ocean & Seas:



- Global trade and transport needs
- Production of energy – fossil & renewable
- Supply of food and raw material
- Strategic dimension

To untap the full potential of Oceans and Seas, it is necessary to **develop innovative maritime hardware solutions**, including green and digitalized ships and technologically advanced maritime equipment and technologies

European Maritime technology has a key role to play to harness the growth potential of ocean economic & emerging blue growth sectors!

**We represent over 90% of
companies in the MT in Europe!**

- **Voice of maritime
technology sector**
- **+ 300 shipyards**
- **8,000 equipment
manufacturers**
- **22,000 suppliers**



Maritime Technology

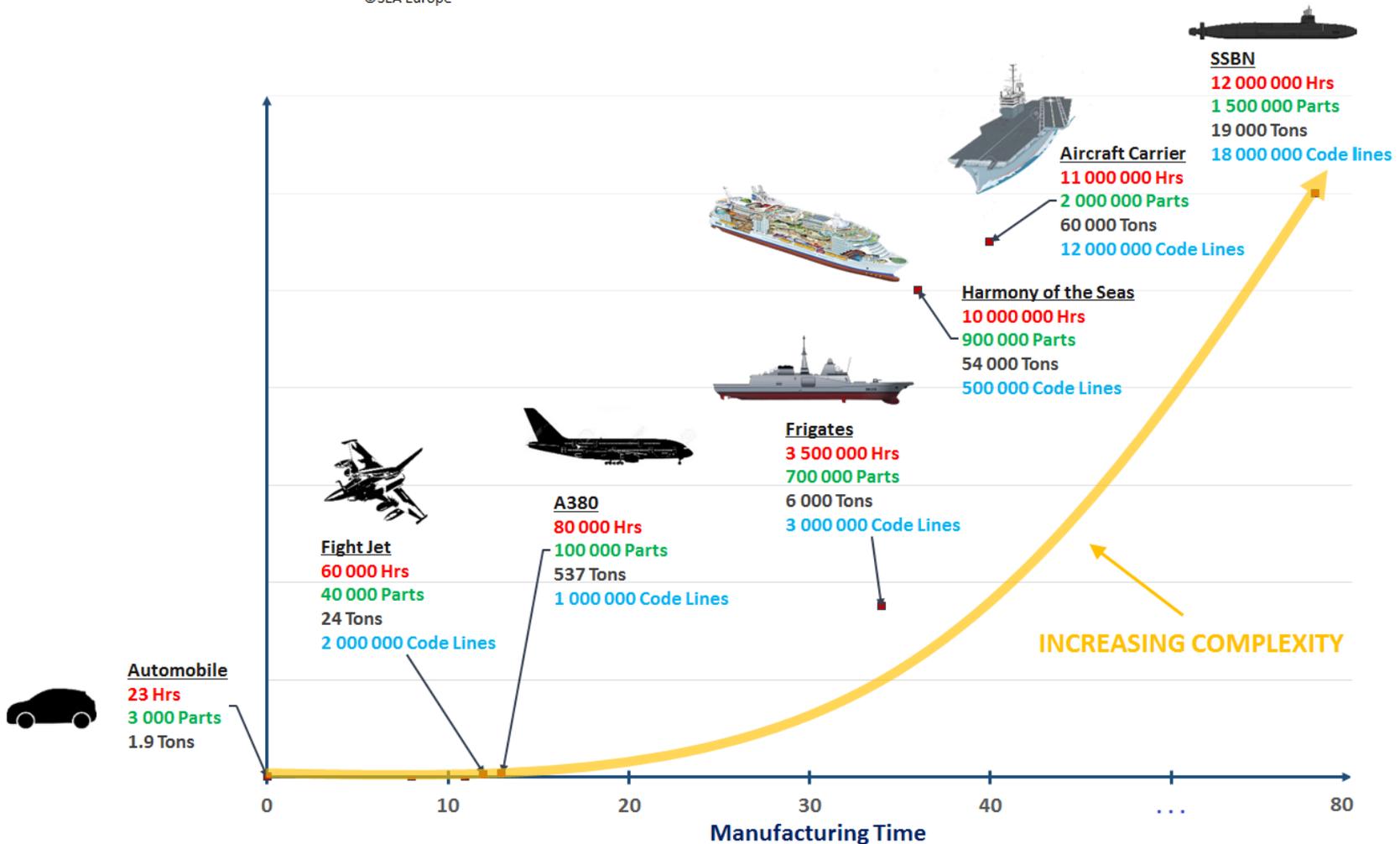
900,000 jobs
Strategic sector for
Europe



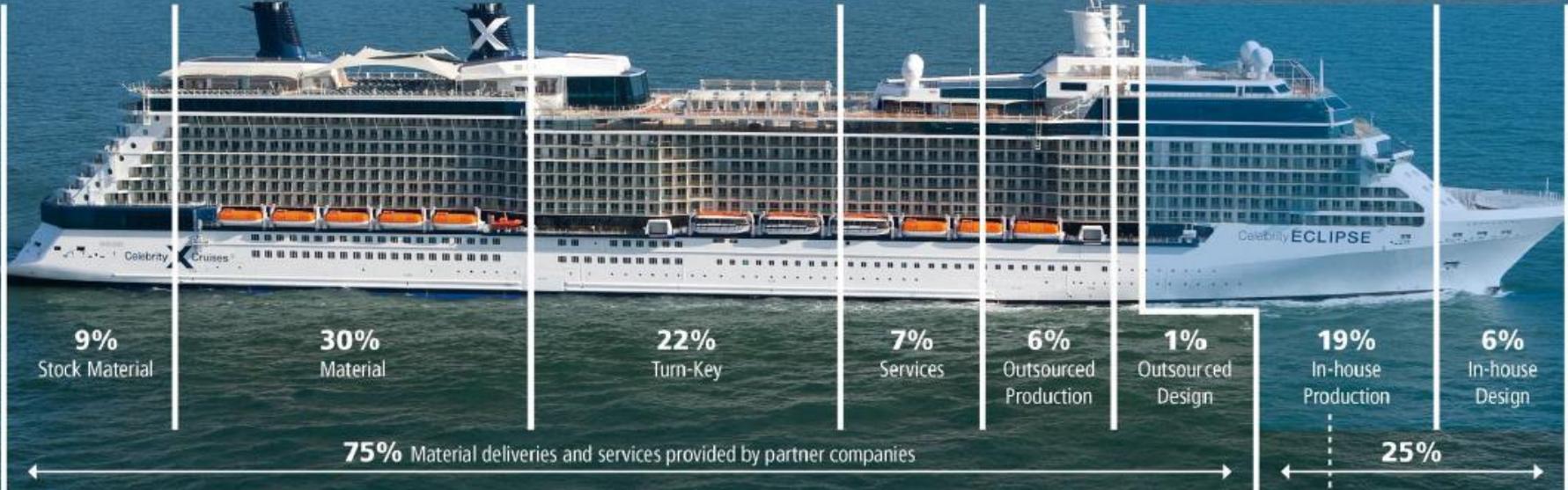
Complexity of the Product

MARITIME INDUSTRIES : HIGHLY COMPLEX VESSELS

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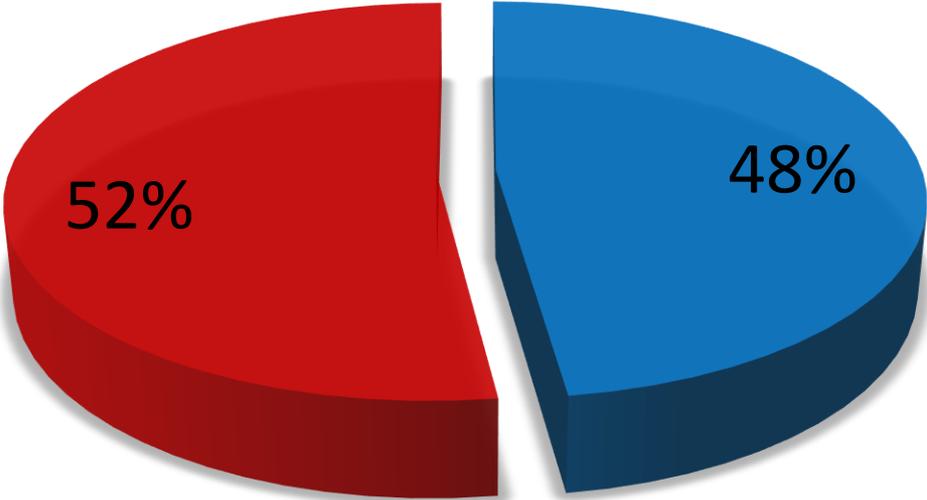
75% of the value of a complex ship is equipment, systems and technologies.
25% of the value relies on the work of shipyards for design, production and assembly



- Including indirect costs due to
- auxiliary and operating materials
 - disposal
 - power
 - mobile communication
 - maintenance
 - and others

Equipment Suppliers

Equipment Suppliers Market Shares
Global production volume average = 125.5 bn €



■ European Companies supplied volume (EU28+Norway)

■ RoW supplied volume

Global challenges

- No global level playing field for Europe's industry
 - Unfair competition
 - South Korea & China governmental support
 - Overcapacity in merchant ships
- Growing trade protectionism
 - Adverse impact for EU maritime equip. manufacturers
- US Jones Act
 - America is closed market
- Made in China
 - EU leadership in complex building & equipment at risk

An industry at risk



The 4 advantages



Market



Enterprises



Strategy



Talents

The 10 key sectors



New information technology



Numerical control tools



Aerospace equipment



High-tech ships



Railway equipment



Energy saving



New materials



Medical devices



Agricultural machinery



Power equipment

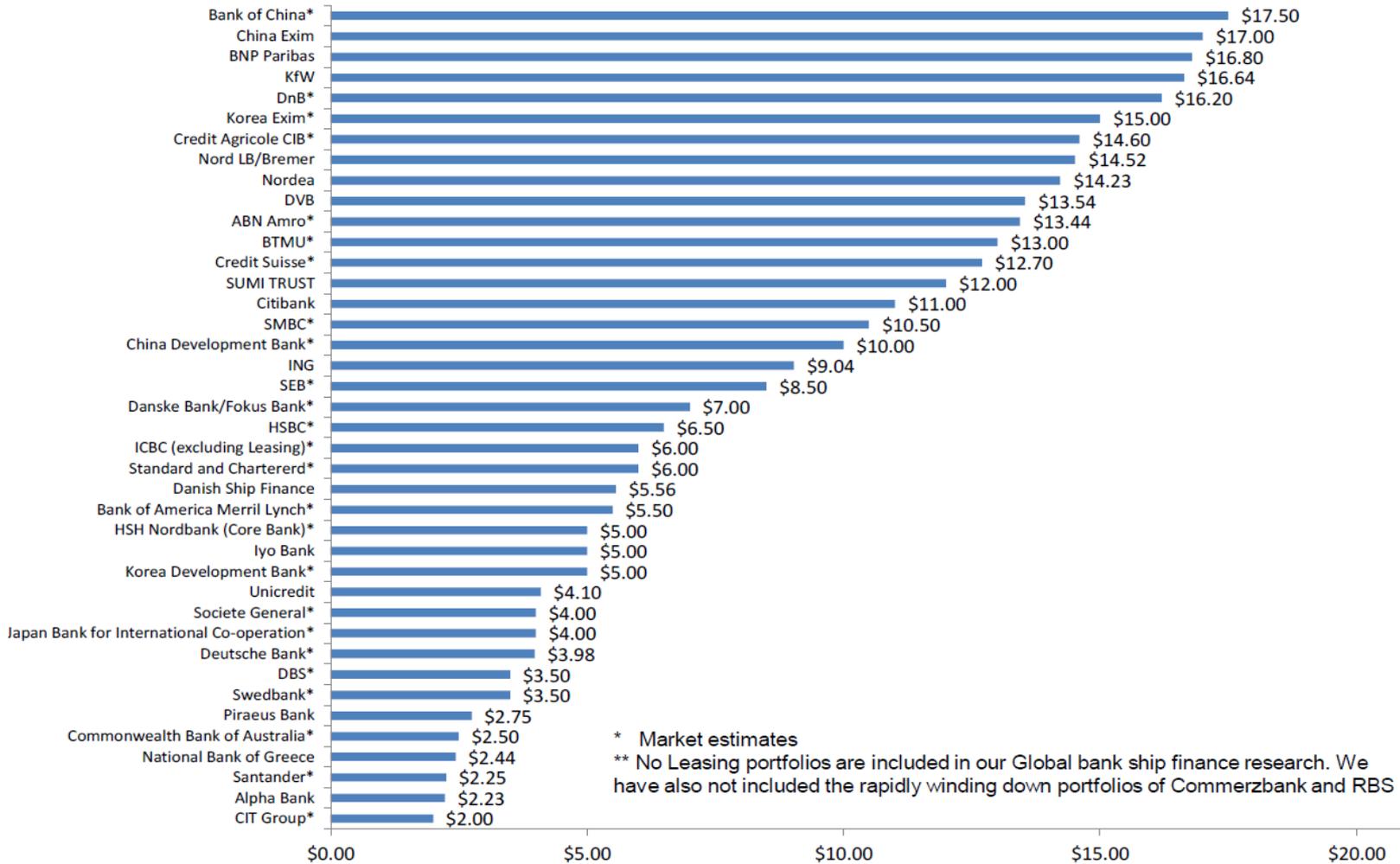
GRAPHIC BY ZHANG RUIQI/PEOPLE'S DAILY ONLINE



Bank Lending to Shipping

Global Ship portfolios** - as of end 2017 – in \$bn
Total loans of leading 40 ship finance banks approximately \$345
(end 2016 - 355.25bn)

September
2018



Societal challenges



- **Environmental challenges**
 - IMO GHG strategy
 - EU Climate neutral economy by 2050
 - Green & clean shipping (IMO)
 - 2030: newbuilt ships: emission-free
 - 2050: all ship types on all trades emission free
- **Technological challenges**
 - Digitalization / automation / autonomy of ships
 - Digitalization / automation / autonomy of factories

Maritime Technology: Untapping the potential of Blue Growth

Oil & Gas Industry



Offshore Renewables



Aquaculture



Deepsea Mining



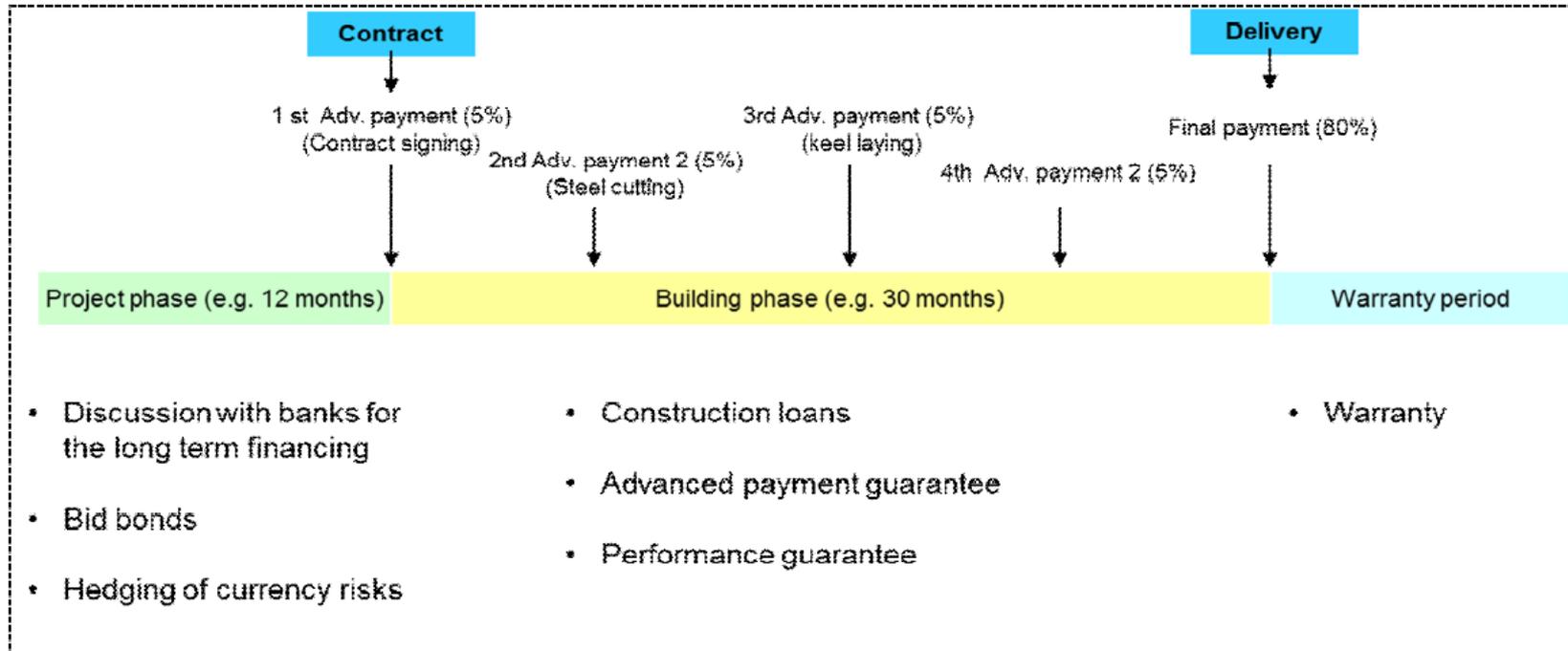
Shipping



Maritime tech and tools are provided to bring these activities to sea

Key Enabling Technologies

SHIPBUILDING FINANCING NEEDS DURING THE VARIOUS STAGES OF A PROJECT



Source: SEA Europe, 2013

Thank you