

Infrastructures - Ports Construction & Maintenance



ORDEM
DOS
ENGENHEIROS

LISBON

26 September 2019

Topics to cover :



1 - Introduction this Topic;

2 – Presenting the Speakers ;

3 – Moderate the debate;

4 – Write the *Conclusions*;

Introduction

1

Why this topic is important ?

Today

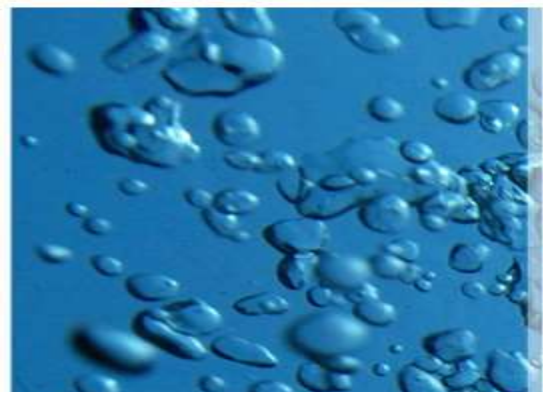
7,701,976,852

2030 ?

8,4 Bi @ 2030



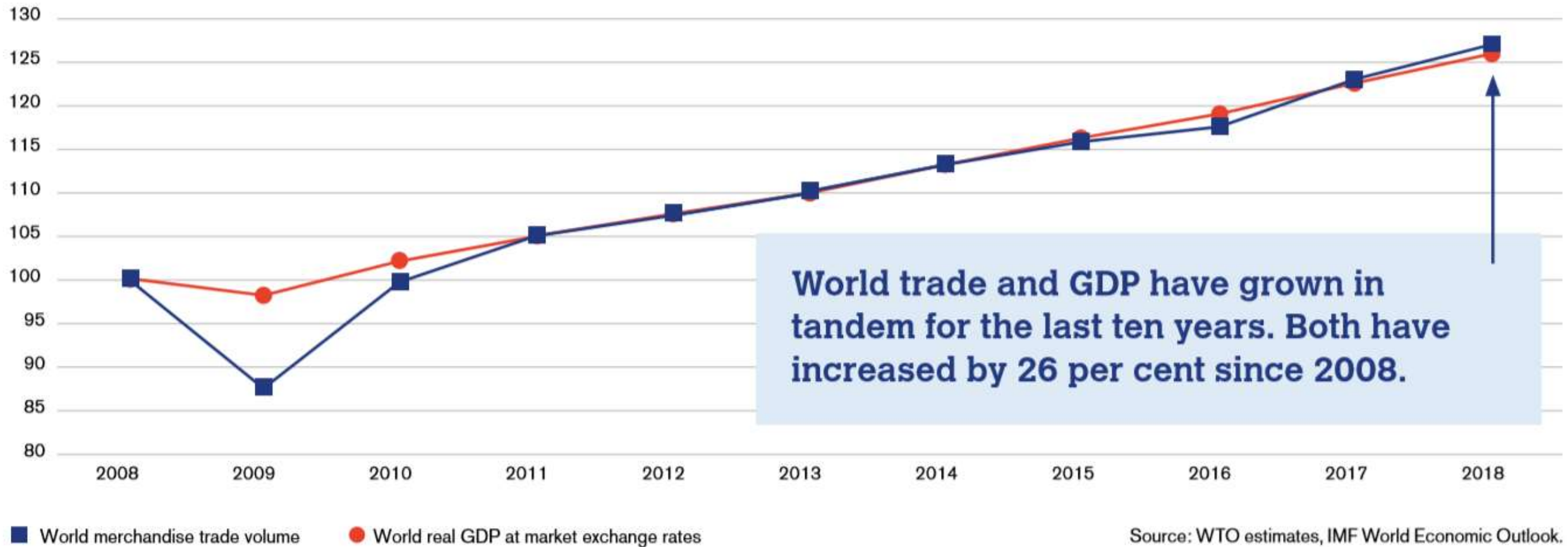
Fonte: <http://www.poodwaddle.com/worldclock/pop1/>



Introduction

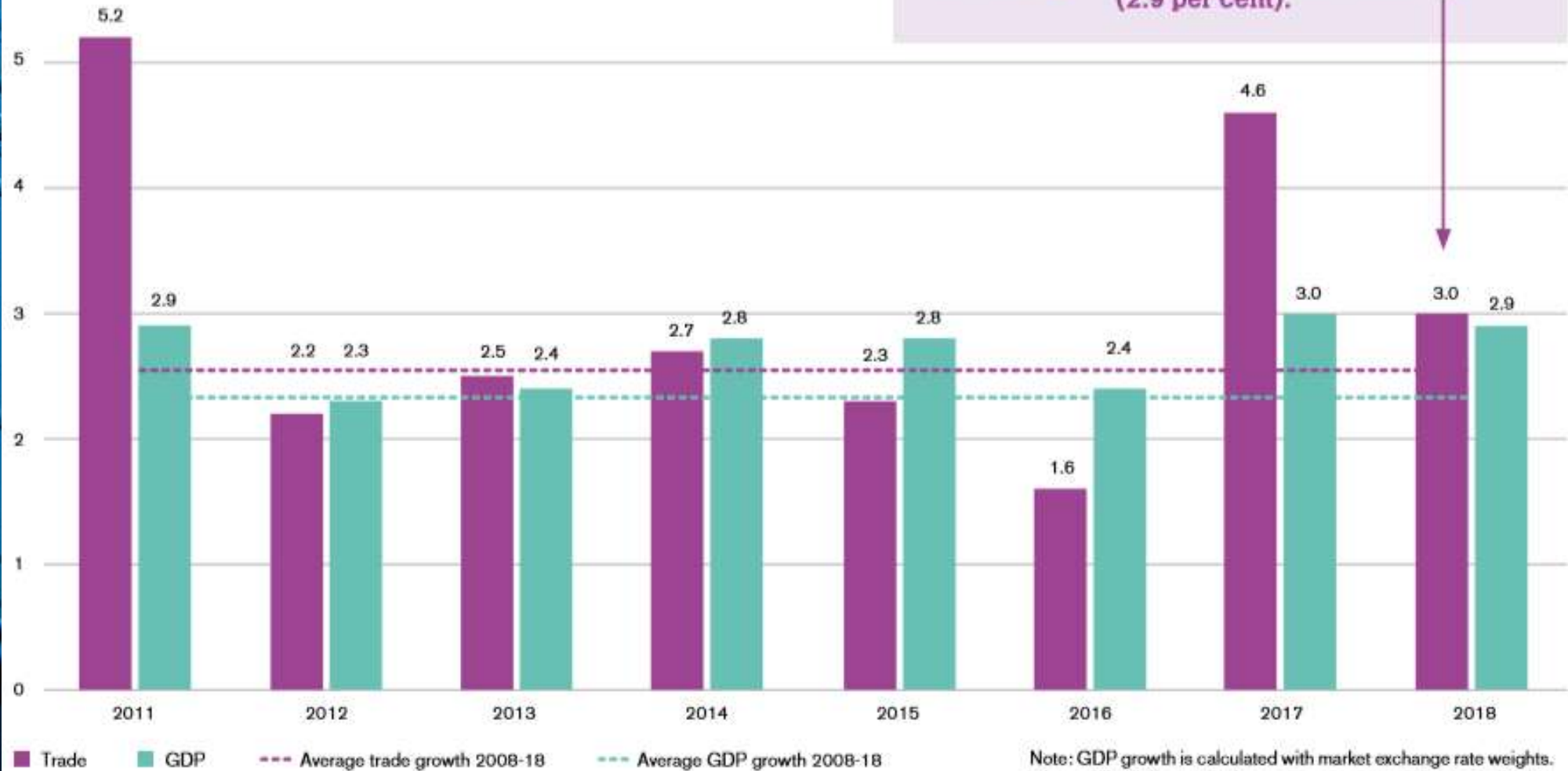


World merchandise trade volume and real GDP at market exchange rates, 2008-2018



Introduction

World merchandise trade volume and real GDP growth, 2011-2018
(Annual percentage change)

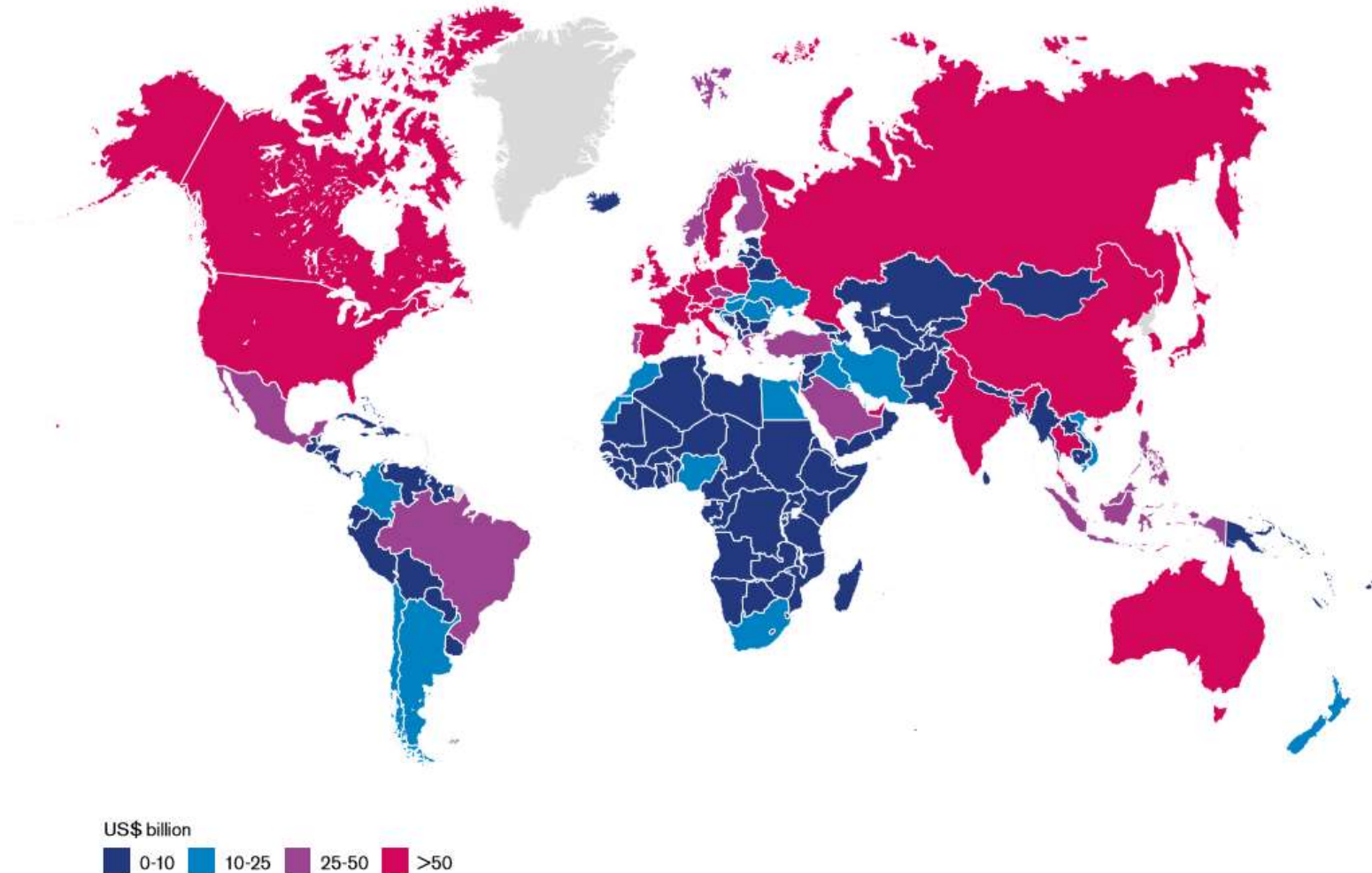


Note: GDP growth is calculated with market exchange rate weights.
Source: WTO Secretariat for trade, consensus estimates for GDP.

Introduction



Economies by size of trade in commercial services, 2018



INTRDODUCTION

Why this subject is Important

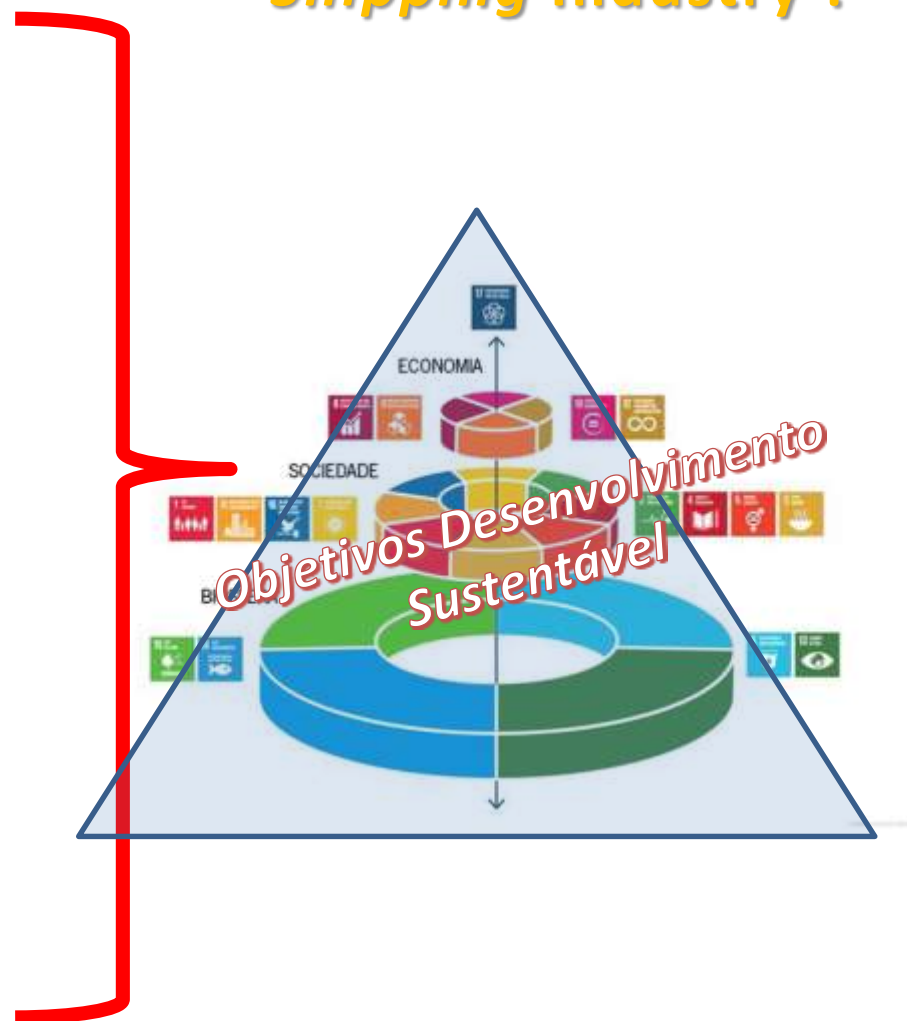
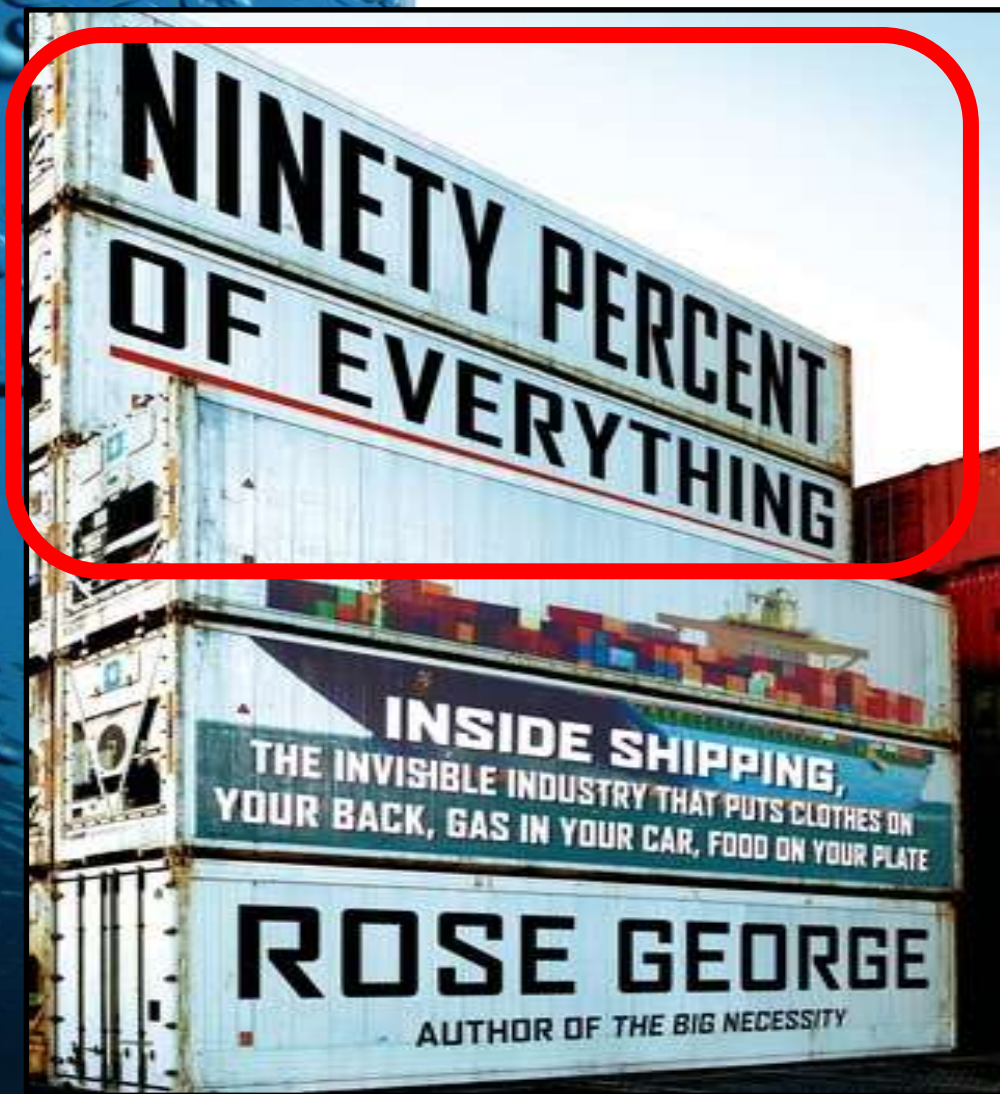


**Making the most of a
vital resource**

Important for every person in this room

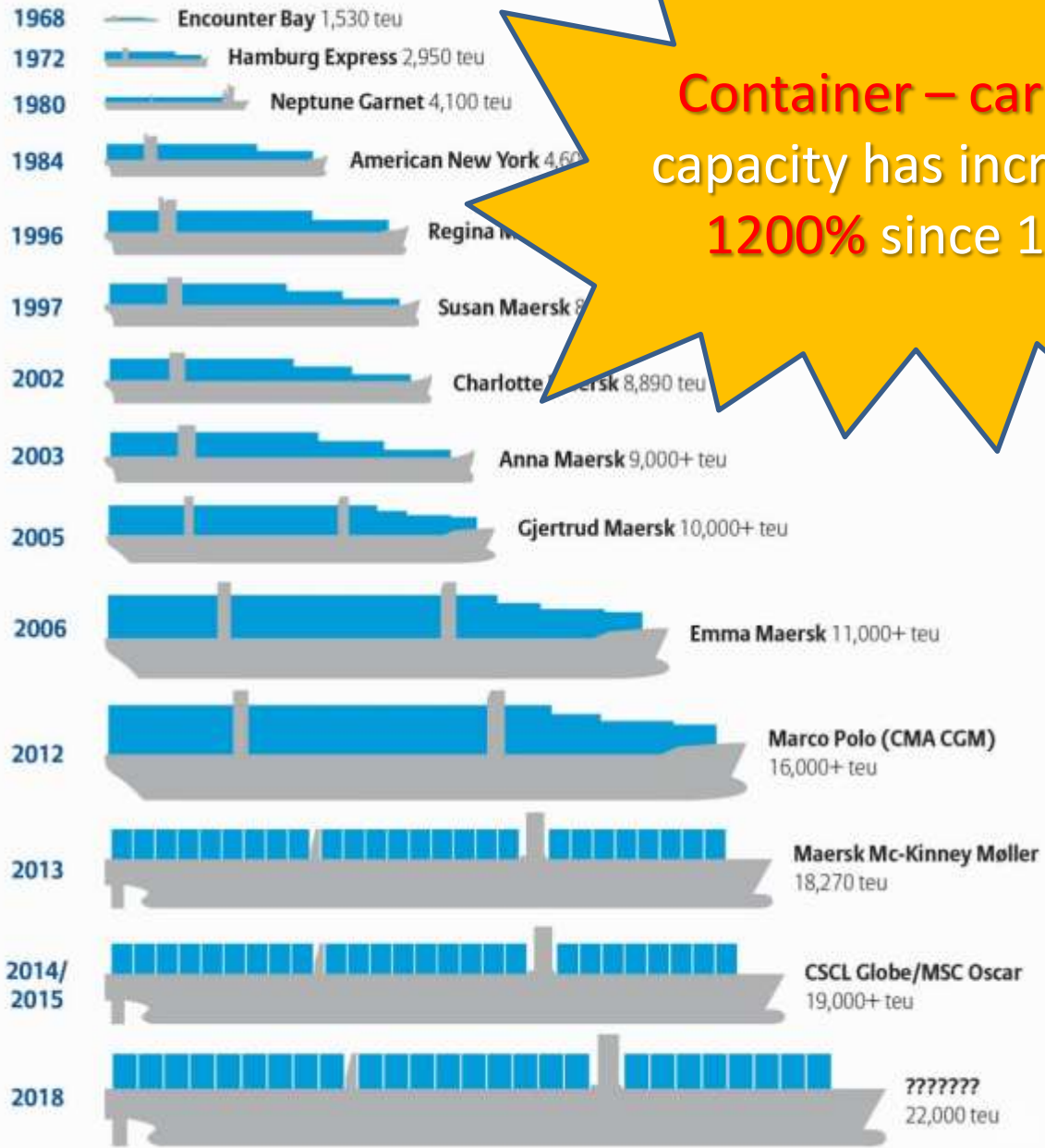
Introduction

Shipping Industry ?





50 years of Container Ship Growth



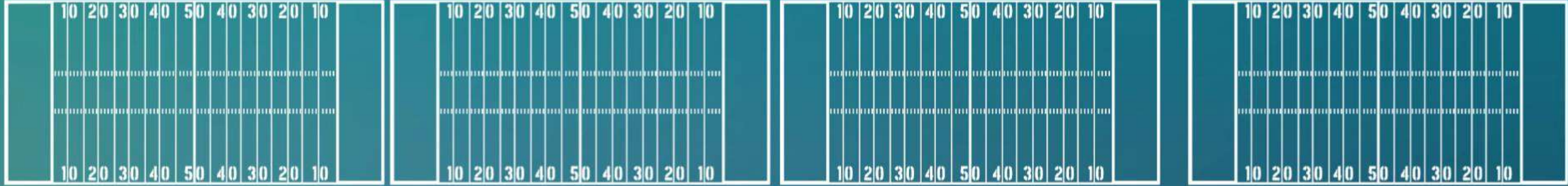
Container – carrying capacity has increased 1200% since 1968



23,756-TEU MSC Gulsun @ 2019

Graphic: Allianz Global Corporate & Specialty.
Approximate ship capacity data: Container-transportation.com

LONGER than



FOUR Football Fields

O desafio dos Mega Carriers



21000 Teu's * 30 m (camião + resguardo) =
630 Km de fila de transito
contínua



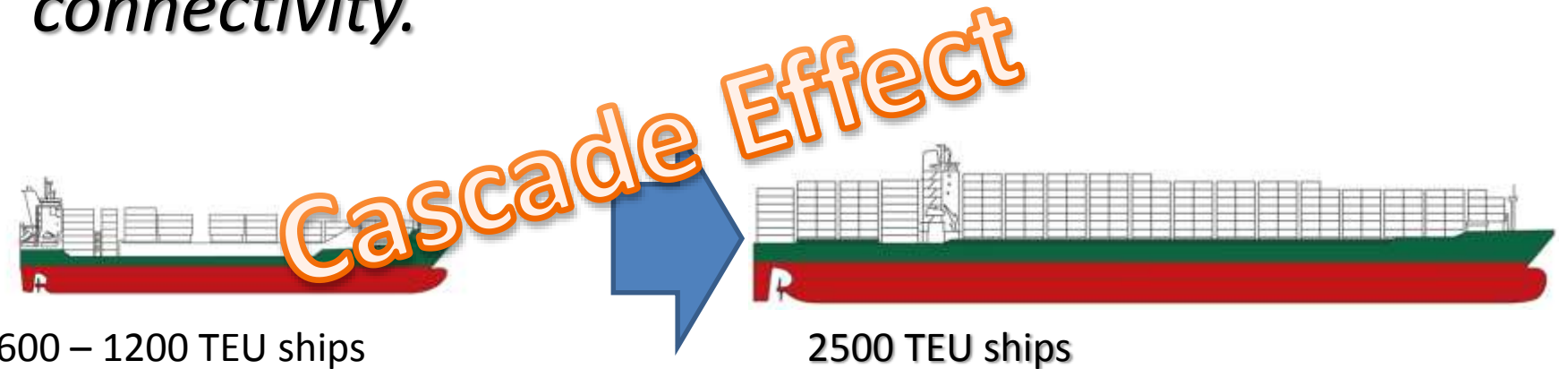
Introduction



The Future of Feeder Ports



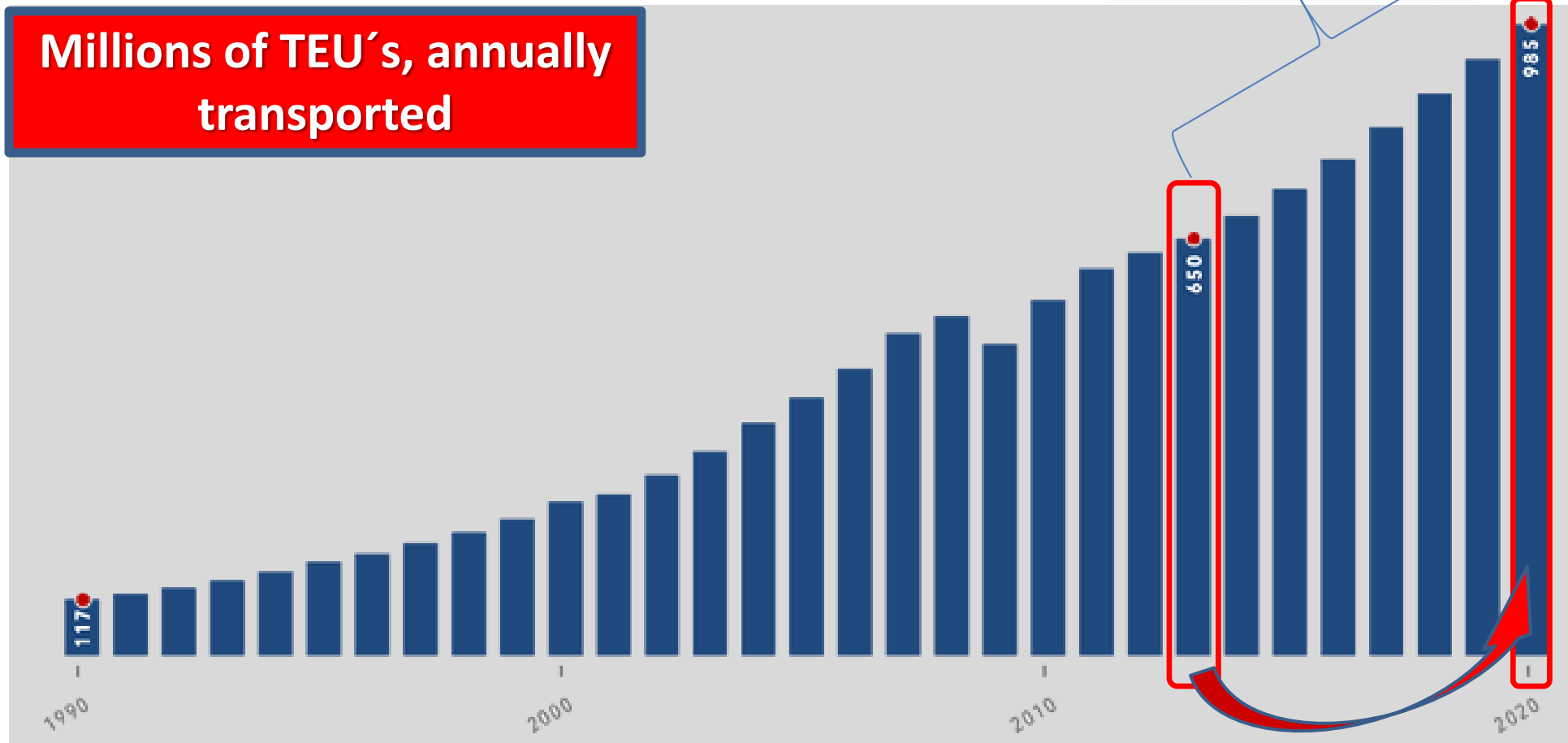
Feeder ports who *cannot* service *larger ships* will be marginalized, they may be dropped as port of call, will see reduced frequency, and connectivity.



Introduction

Challenges ?

Millions of TEU's, annually transported



Source: UNCTAD

Sustainable Development Goals - SDG



Maritime transport
associated with > + 8
SDG

 Leaving no consumers behind

 Leaving no consumers behind

Top 10 environmental priorities of European ports for 2018



Solutions ?

Manaus - Floating Ports

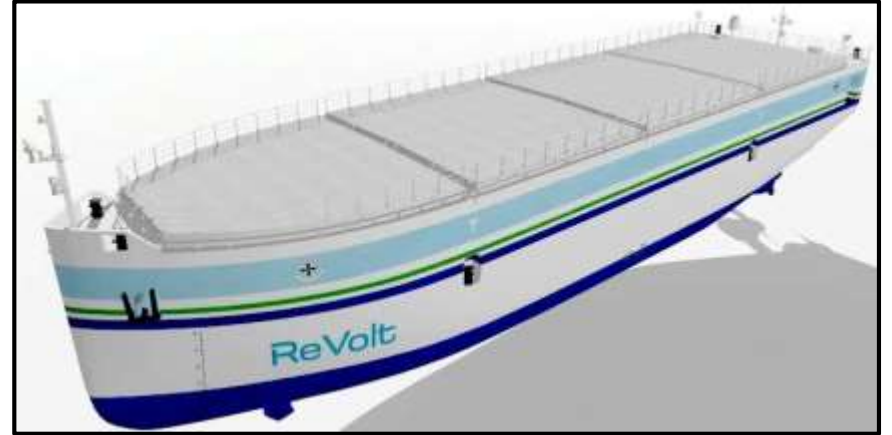


Solutions ?

Large platform's



“Driverless Cars” ...to... “Captainless Ships” !!!



Equilibrium





Blue economy of the future



Navios de Pesca
elétricos



Equipamentos
Portuários



Navegação
Autónoma



Abastecimento
Elétrico a navios



Telemanutenção
Naval



Energias Oceânicas

Questions to Answer :



Main challenge's in future port construction ?

Main challenge's in port maintenance

How can engineering knowledge help's ?

Whish are the topics that we need to address ?

