



**Investor group visit to
CWEC, Shanghai, China
24 September, 2019**



CSSC WÄRTSILÄ (SHANGHAI) ENGINE CO., LTD.

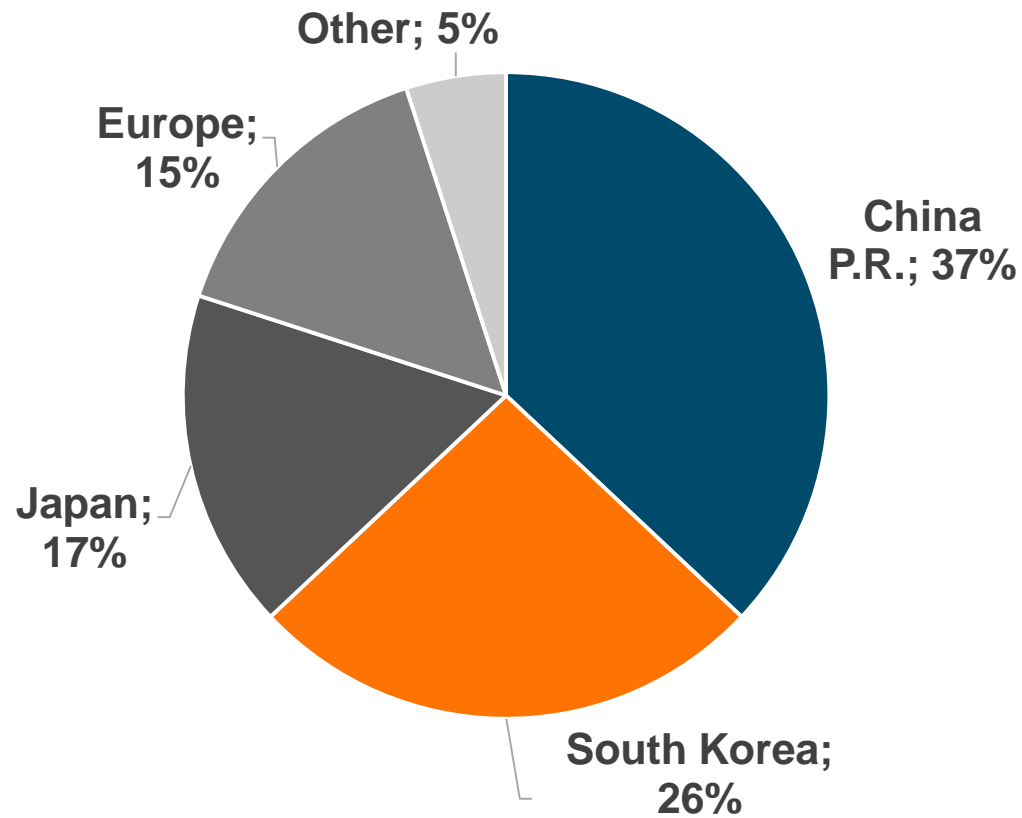


- 13:00-14:45 Buss transport Hotel – CWEC
- 14:45-15:30 Chinese marine market and CWEC
- 15:30-16:00 Factory tour
- 16:05-17:50 Buss transport CWEC – Hotel

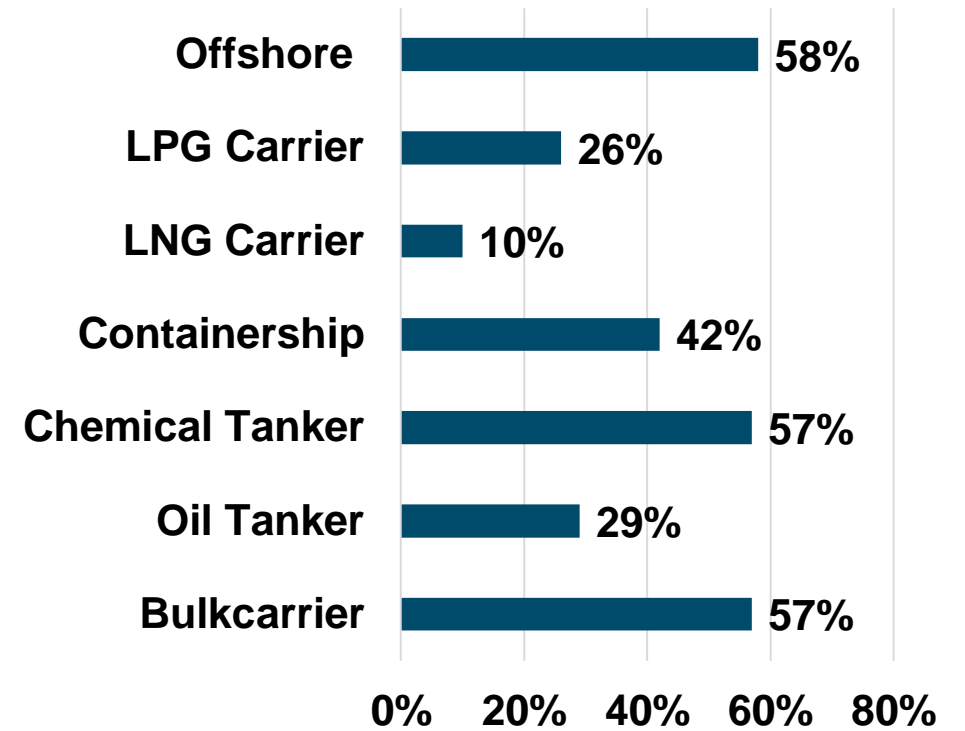
SHIPBUILDING IN CHINA



Order book per yard country
CGT

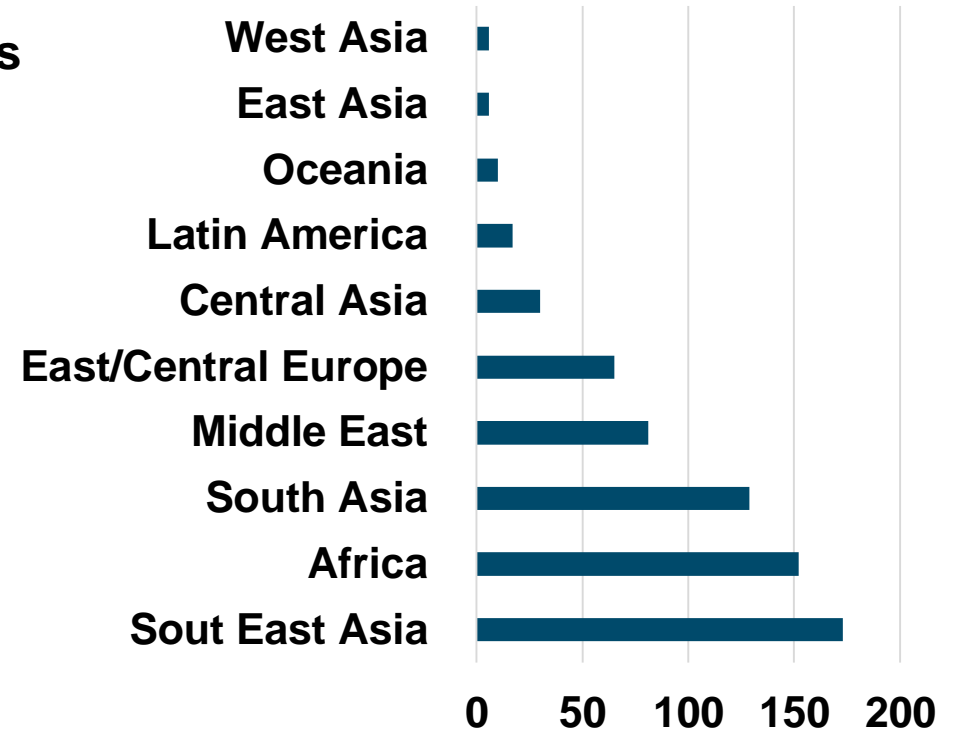
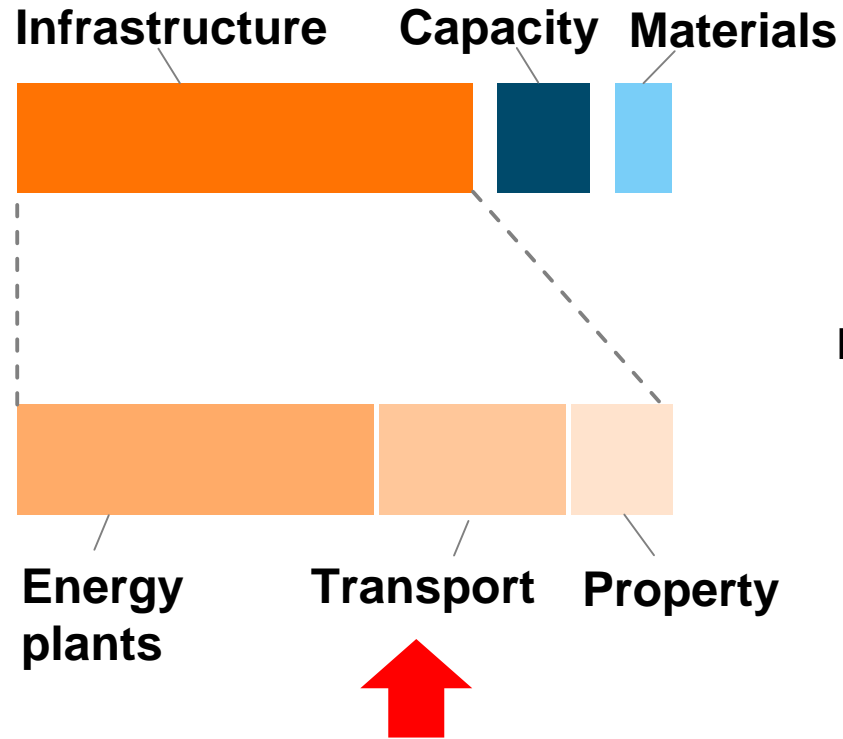


Chinese Market Share Orderbook per vessel type
CGT



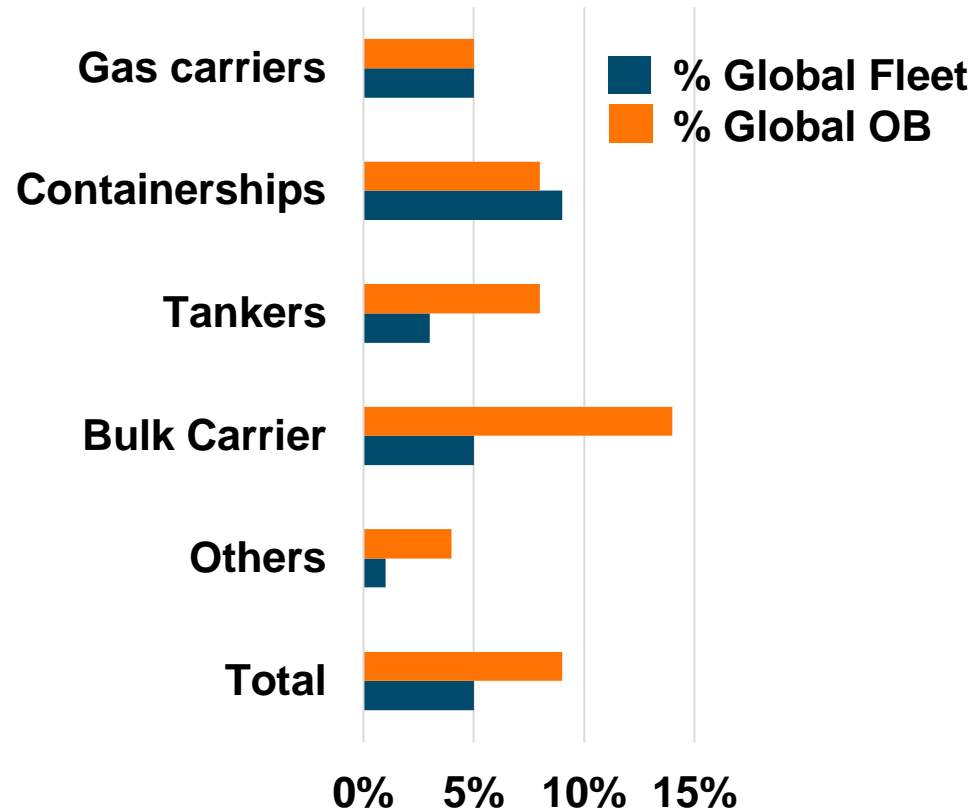
Source: Clarkson, per Apr-2019

> 600 projects

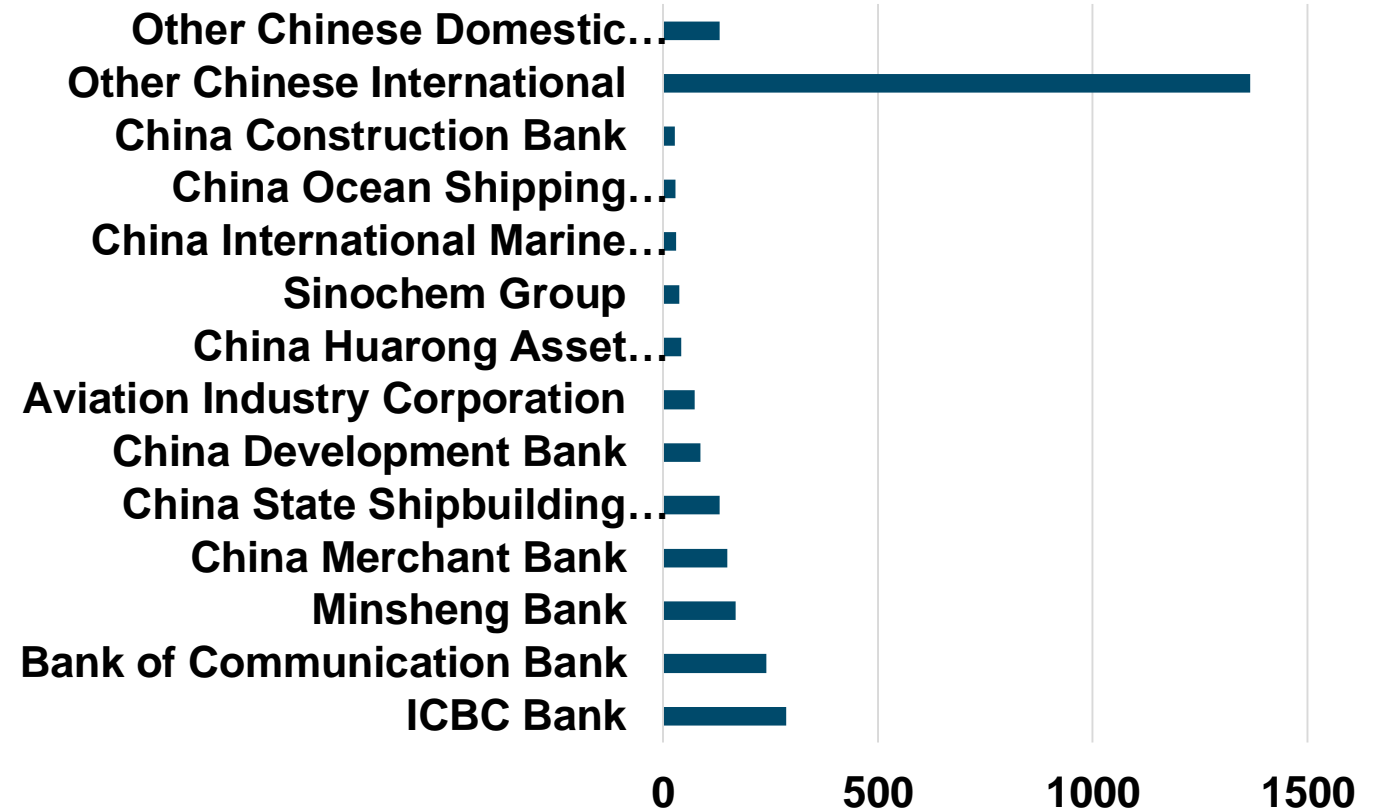


Source: Clarkson, Lit search

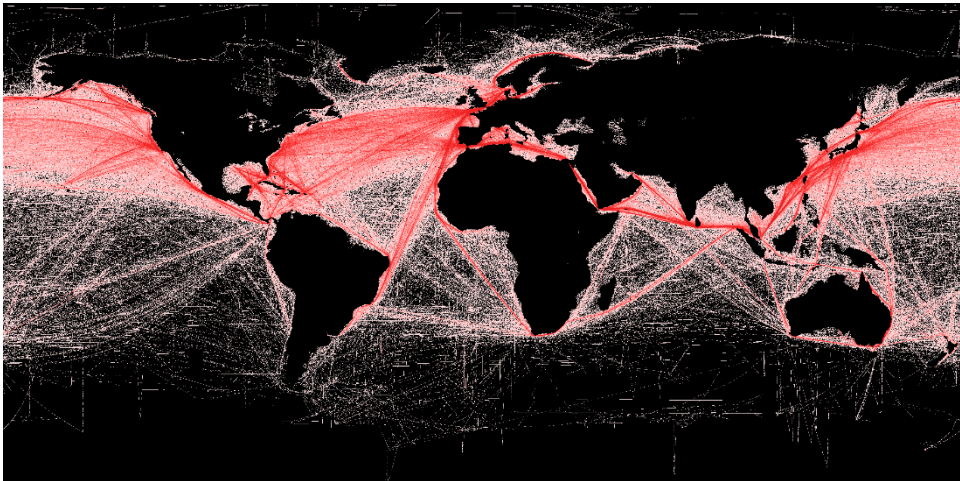
Global share of tonnage financed by Chinese Leasing Companies
CGT



Major Chinese Leasing Companies
Number of ships recorded



Source: Clarkson, per Mar-2019



CWEC

Established by 2 major industry players



- Product demand
- Local network



51%

Investment



WÄRTSILÄ

49%

- Product
- Global reach



CSSC Wärtsilä Engine (Shanghai) Co., Ltd (CWEC)

An overview of CSSC (China State Shipbuilding Corporation)

- Established in 1999
- 70+ member units, 2 listed on Shanghai stock exchange
- 10 major shipyards
- 2 major design institutes; MARIC, SDARI
- Over 11 million DWT capacity
- In the 2018 Fortune 500 world rankings, CSSC was ranked No. 393



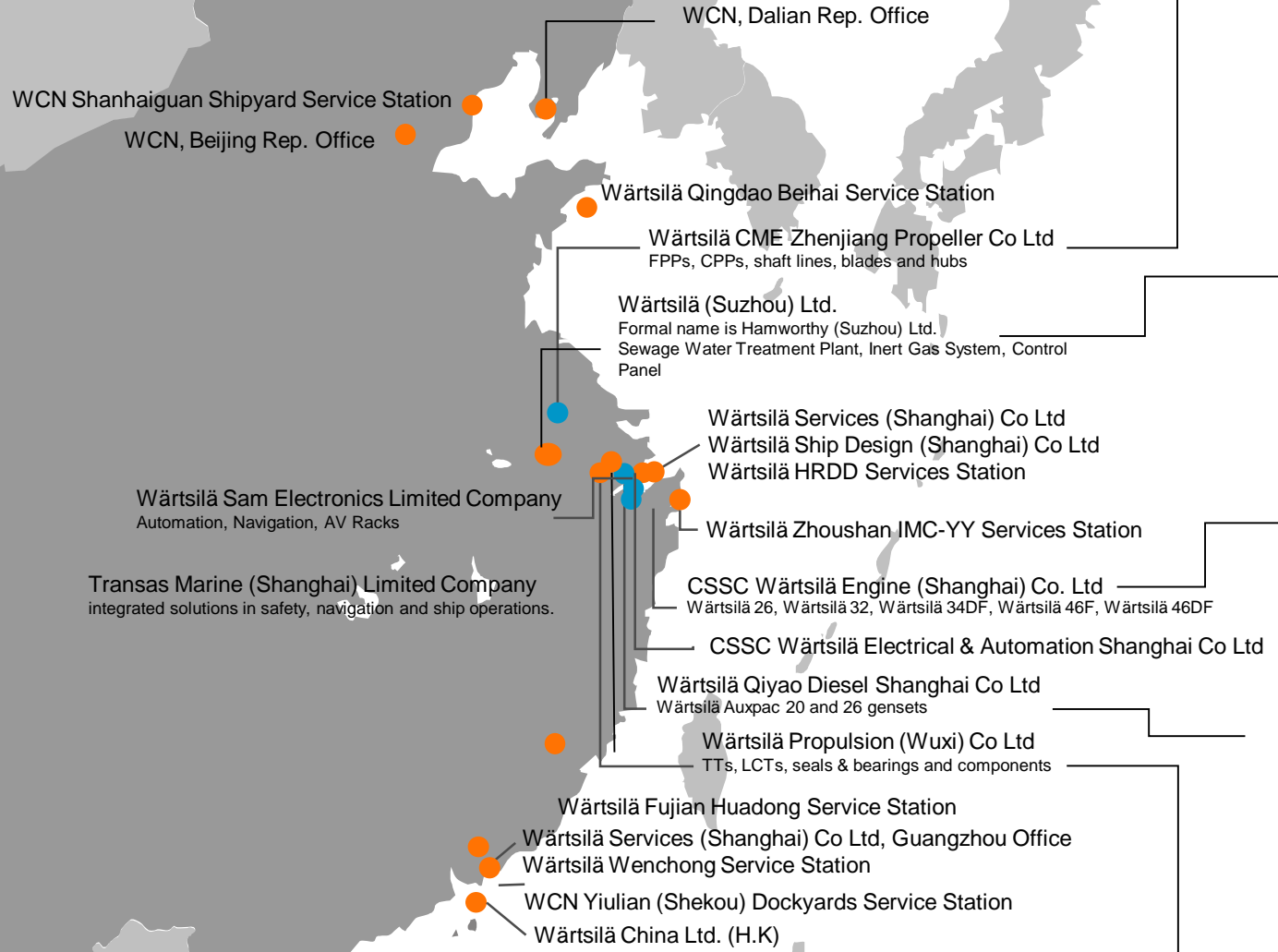
CSSC Group
CSTC

Shipyards
Ship Repair Yards
Design Institutes
CSTCI/CSTC Shanghai
Equipment Manufacturer

Shipyards
Ship Repair Yards
Leasing Company

Source: CSSC

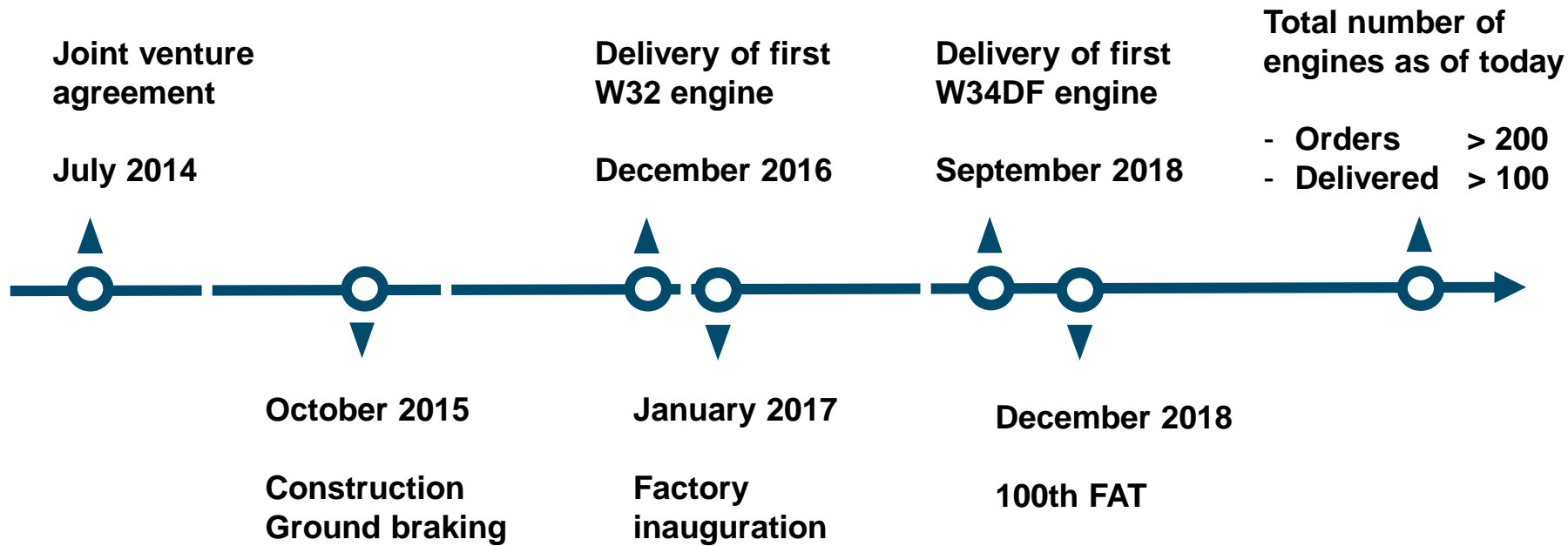
WÄRTSILÄ FOOTPRINTS IN CHINA



● Wärtsilä Ventures
● Joint Ventures

• 1,300+ employees in Wärtsilä China

The joint venture started production in 2016



Focus on customer expectations

Wärtsilä proven products



State of the art facility build to purpose



Skilled and committed personnel



Strong focus on quality, health, and safety

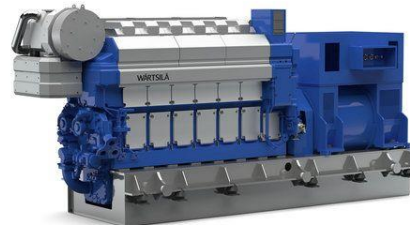


Broad product portfolio, including leading Wärtsilä 34DF and 46DF

Wärtsilä 26 V



Wärtsilä 32



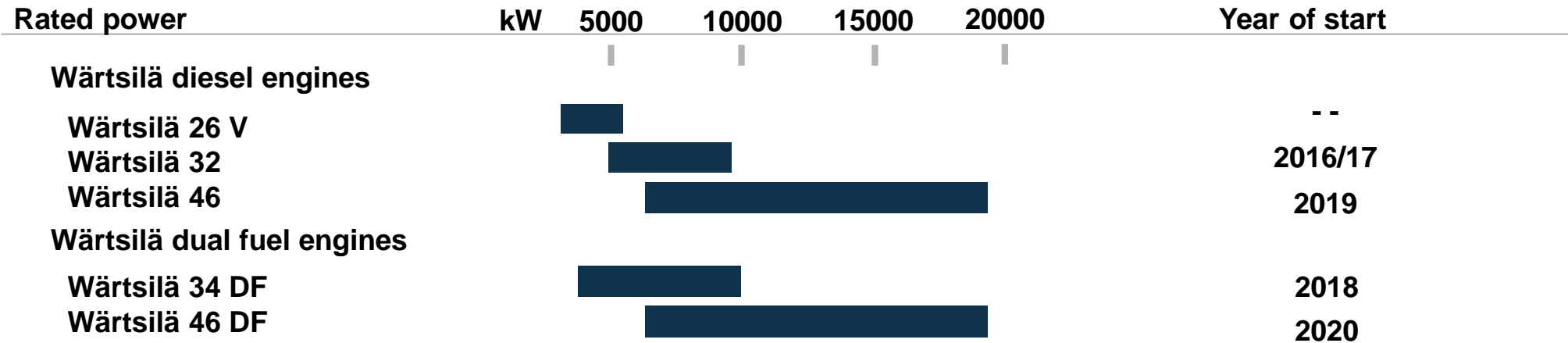
Wärtsilä 34 DF



Wärtsilä 46F

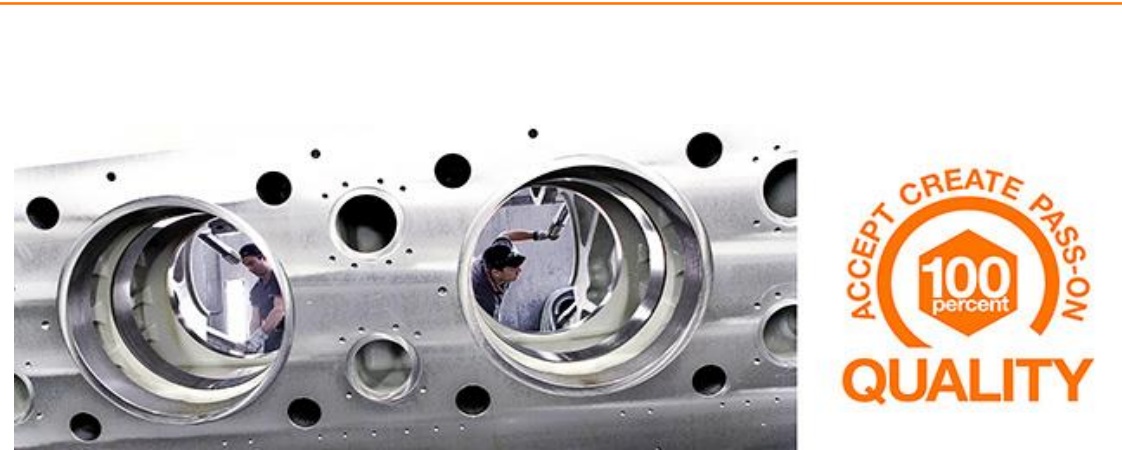


Wärtsilä 46DF



CWEC follow 100% Wärtsilä standard design, no modifications by CWEC

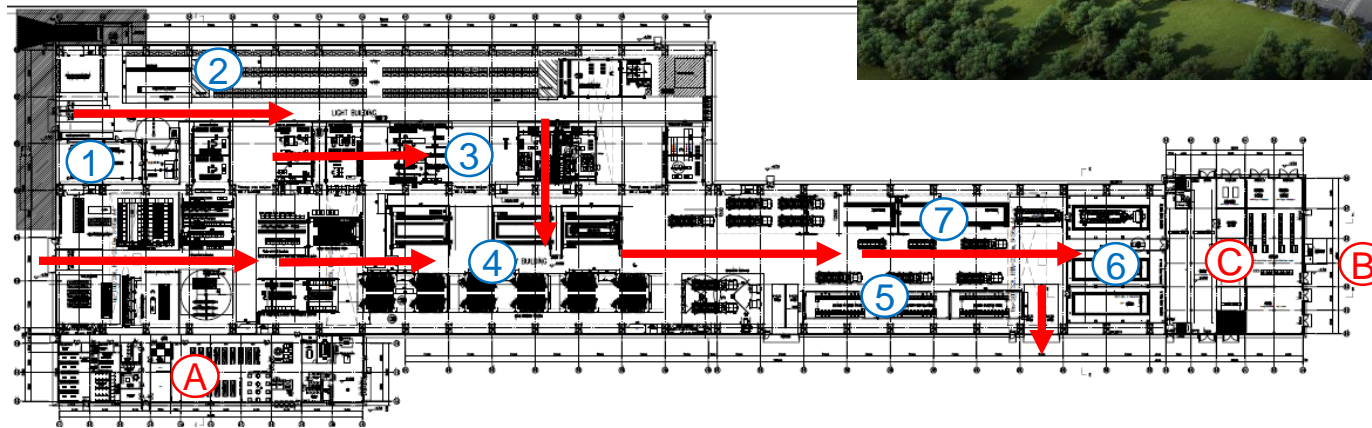
CWEC not a
licence maker but
a Joint Venture



- All bill of materials (BoM) and drawings are made, approved and managed by Wärtsilä
- Non-standard request should be approved by Wärtsilä
- Wärtsilä engineering site support at CWEC

State of the art factory

- Land plot: 80 000 m²
- Factory buildings: 21 000 m²
- Build to purpose



Ⓐ Office

Ⓑ Fuel supply

Ⓒ Technical building

➔ Work flow

① Measuring room

② Logistics

③ Pre assembly

④ Main assembly

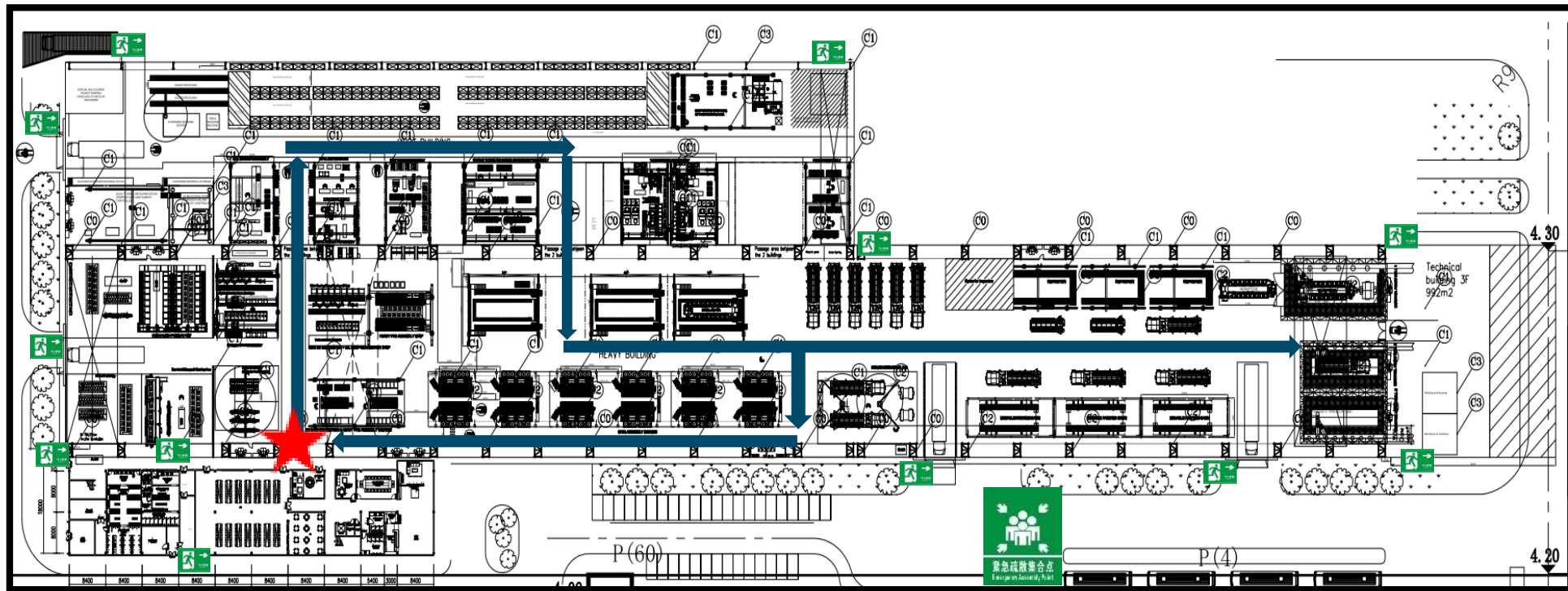
⑤ Painting

⑥ Test cell x 3

⑦ Finishing

CWEC location





★	Starting point		Evacuation assembly point			
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