



# Investor Presentation

H1 2020 / Q3 2020 results



November 2020

Safety

Excellence

Innovation

Teamwork

Transparency

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# Agenda

- 1. Company overview & key highlights
- 2. Core business: Market & activity update
- 3. New businesses: LNG as fuel developments
- 4. Service activity
- 5. Strategic roadmap
- 6. Financials
- 7. Outlook
- Appendices

# 1

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## Company overview & Key highlights

# GTT at a glance

## Profile

- A French technology and engineering company with more than 50-year track record
- Expert in liquefied gas containment systems
- GTT is a public company listed on the Euronext Stock Exchange (Paris), compartment A
- 405 highly qualified people<sup>(1)</sup>

## Activities

- Designs and licenses membrane technologies for containment of liquefied gas
  - Core business: LNG transportation and storage
  - New business: LNG as fuel for vessel propulsion
- Provides design studies, construction assistance and innovative services

## Consolidated key figures

in € million

H1 2020

**Total Revenues**

**204**

*Royalties (newbuild)*

*198*

*Services*

*6*

**Net Income**

**116**



# 9M 2020 Key Highlights

## — Core business: sustained and diversified new orders

- Q3: **10 new orders** (6 LNGC, 4 VLEC)
- 9M: **28 new orders** (18 LNGC, 1 FSRU, 2 FSU, 4 VLEC, 3 Onshore storage)
- Since the beginning of the year: total of **38 new orders**

## - LNG as Fuel

- September 2020: **delivery of the first CMA CGM Ultra Large Container Ship**
- Still 17 vessels in the order book

## - New services contracts

- February 2020: services and support contract with CMA CGM group
- March 2020: global services agreement between GTT NA and Excelerate Energy (USA)
- July 2020: two global technical services agreements with Knutsen (Norway) and Fleet Management (Hong Kong)

## - Other contract

- September 2020: contract with U.S. Department of Defense for the Red Hill Bulk Fuel Storage facility.

## - New TALA

- June 2020: agreement with ZVEZDA, a major shipyard in Russia

## - Targeted key acquisitions

- February 2020: acquisition of Marorka (Iceland), an expert in Smart Shipping
- July 2020: acquisition of OSE Engineering, a French company expert in Smart Algorithms
- October 2020: **acquisition of Areva H2Gen**, a French company leader in PEM electrolysis.

## - KFTC Investigation

# 9M 2020: strong level of orderbook

## CORE BUSINESS

### Order book: 135 units

<b>108</b> LNGC	<b>1</b> FLNG
<b>10</b> VLEC	<b>6</b> Onshore storage
<b>5</b> FSRU	<b>3</b> GBS
<b>2</b> FSU	

### 9M 2020 movements in the order book

New orders: **28** (18 LNGC, 4 VLEC, 1 FSRU, 2 FSU, 3 onshore storage)

Deliveries: **26** (23 LNGC, 2 FSRU, 1 FLNG)

## NEW BUSINESS (LNG FUEL)

### Order book: 17 units

<b>13</b> ULCS	<b>1</b> Container vessel (conversion)
<b>1</b> Cruise ship	<b>2</b> Bunker ships

### 9M 2020 movements in the order book

No new order

Deliveries: **2** (1 ULCS and 1 bunker ship)

Notes: LNGC – Liquefied Natural Gas Carrier, VLEC – Very Large Ethane Carrier, FSRU – Floating Storage and Regasification Unit, RV – Regasification Vessel, FLNG – Floating Liquefied Natural Gas, ULCS – Ultra Large Container Ships



# COVID-19

- Health of our employees and their families

- No severe case reported
- The Group continues to apply recommendations to employees at head office and abroad, in line with those of the French and local authorities

- Operational level

- Head office: a large part of our workforce is currently working from home (from 30 Oct. 2020)
- Subsidiaries: depending on local recommendations and regulations

- Main risks:

- delays to the timetable for the construction of vessels, which may lead to a shift in the recognition of revenue from a year to another.

**Some delays but no significant impact anticipated on 2020 revenues**

- Risks related to the impact of the epidemic on the global economy remain today difficult to assess.
  - LNG market is mainly based on long-term prospects and financing.
  - The situation has improved in the Asian countries, which represent more than 60% of worldwide imports of LNG.

**Our business is operating normally, despite the particularly difficult circumstances.**

# Korea Fair Trade Commission update

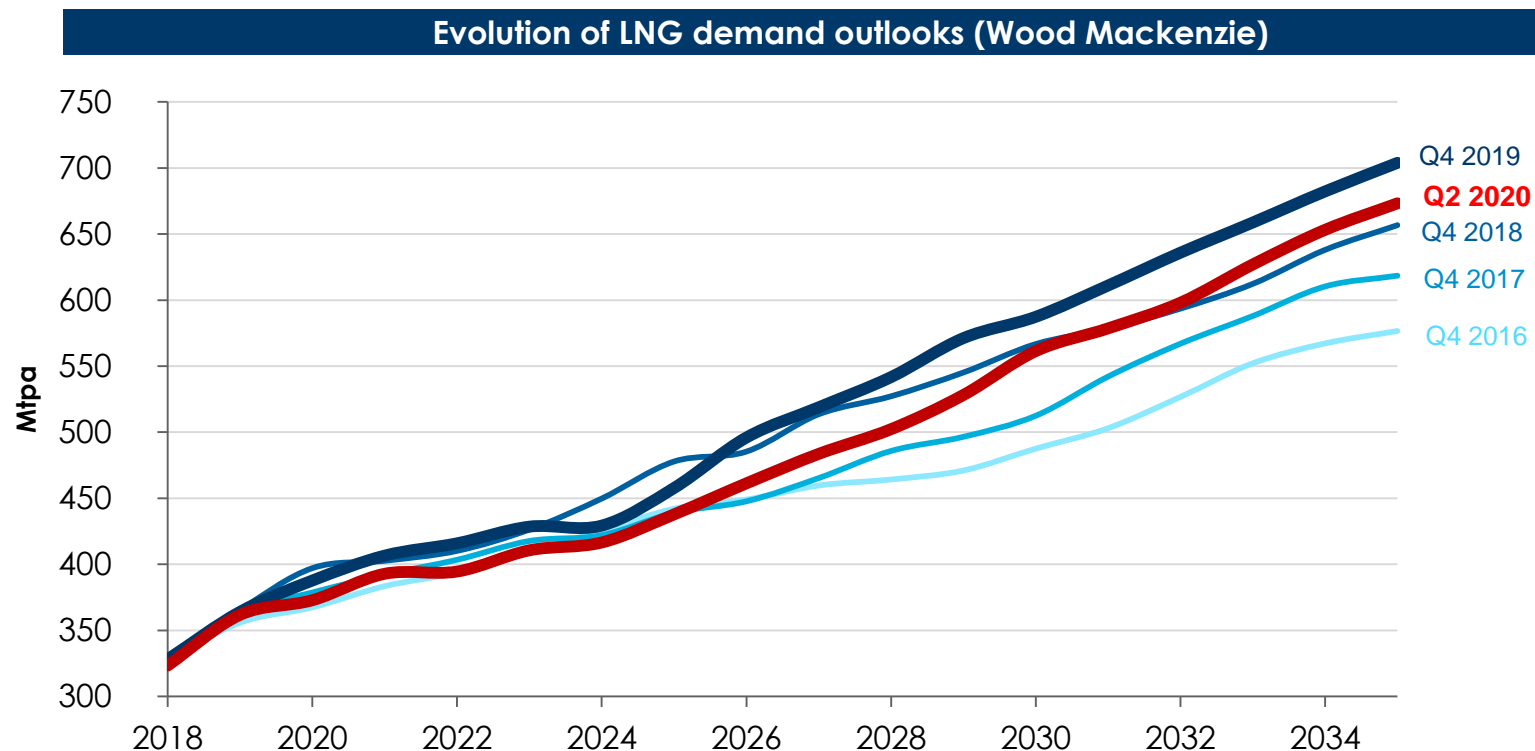
- A hearing of the case took place on October 21, 2020, following the issuance from the KFTC of a confidential Examiner Report
- GTT and its counsels have participated in this hearing and have responded in writing to the preliminary conclusions of the Examiner Report
- GTT will inform the market of the KFTC decision when it will be released

# 2

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Core business:  
Market & activity update

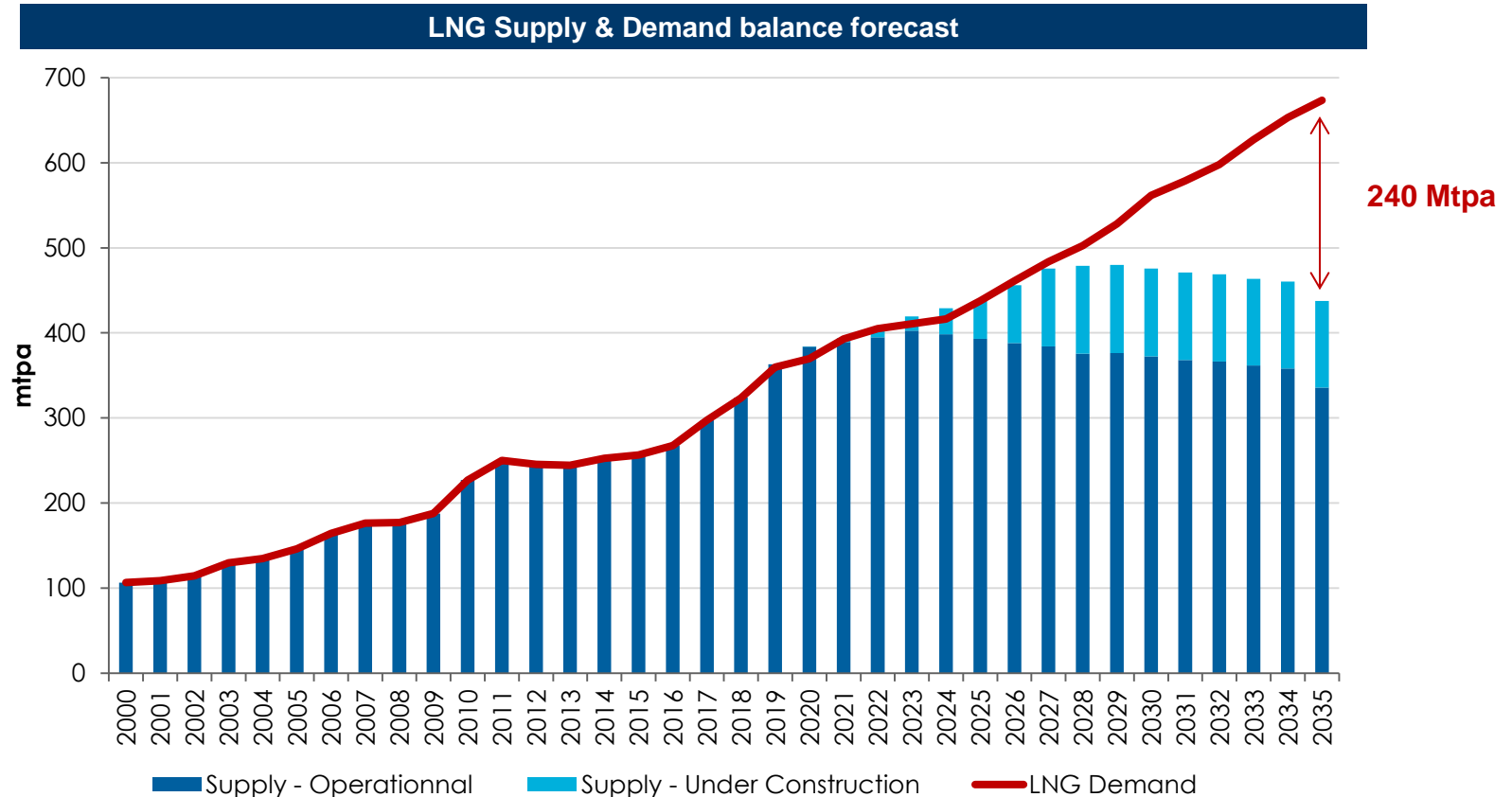
# LNG demand reforecast post Covid



Source: Wood Mackenzie

- Short term: despite Coronavirus, **LNG demand is still expected to increase by 3% in 2020** (vs +6% initially forecasted),
  - Sustained by low spot prices that favored coal to gas switching
- **Long term demand trend remains sustained** (CAGR of +3.9%/y between 2019 and 2035)

# LNG Supply & Demand: new capacity required from 2027

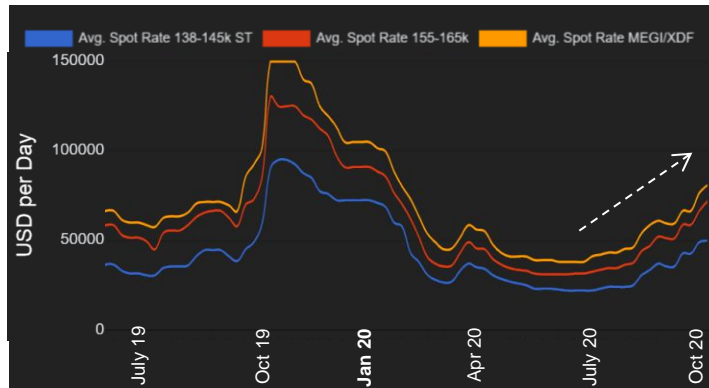


Sources: Wood Mackenzie Q3 2020

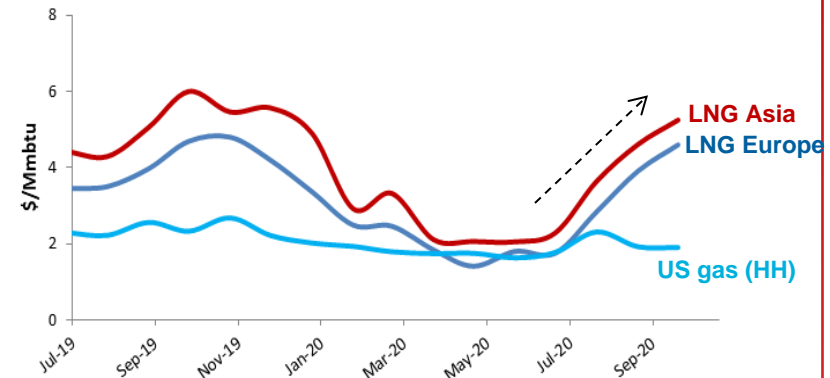
- LNG demand slowdown, due to Covid breakthrough, has postponed the supply/demand balance to 2027
- New FIDs have almost all been delayed to 2021, but remain necessary to fulfill the 240 Mtpa gap by 2035.
- Likely projects for 2021 FIDs: Costa Azul (Mexico), Qatar, Obsskiye (Russia), Corpus Christi Stage III (US), Mozambique LNG-4.

# LNG market rebalancing

## Spot charter rates



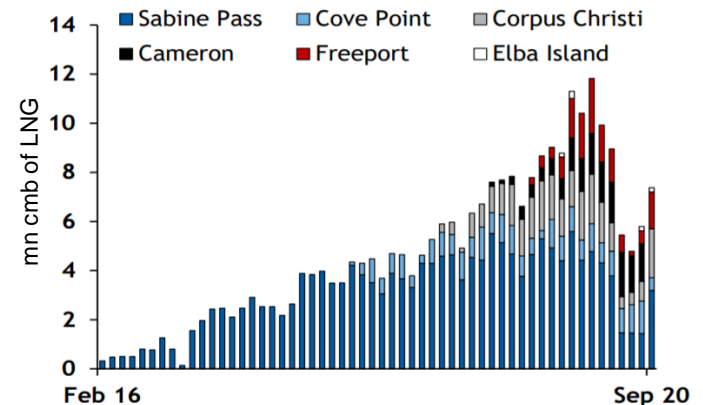
## LNG spot prices



- After very tough Q2 and Q3 due to Coronavirus, **spot LNG and spot charter rates are improving**
  - Pushed up by coming winter and economic activity restarting

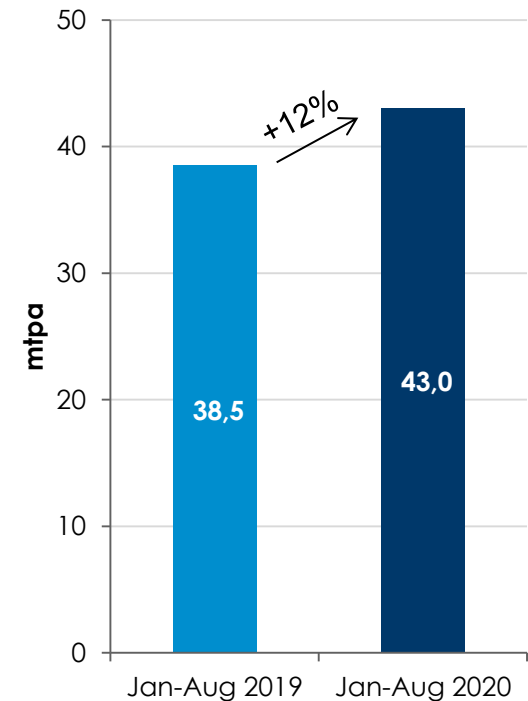
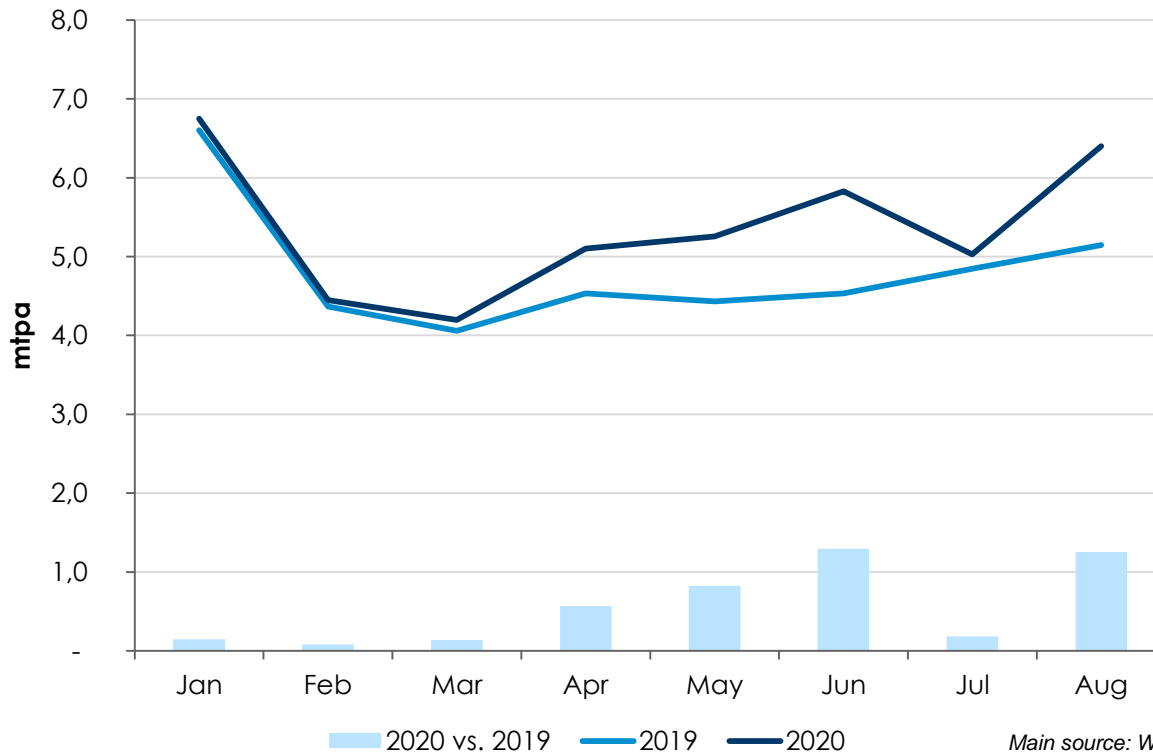
- Decrease in US cargo cancellations; full utilization expected by November 2020

## US LNG loadings



# Focus on China: LNG imports still increasing in 2020 vs. 2019 despite Covid breakthrough

China LNG imports



Main source: Wood Mackenzie

- Most of China LNG is imported on long term contracts basis, thus Covid breakthrough had a limited impact on imports in 2020 (+12% in 2020 vs. 2019 from January to August)

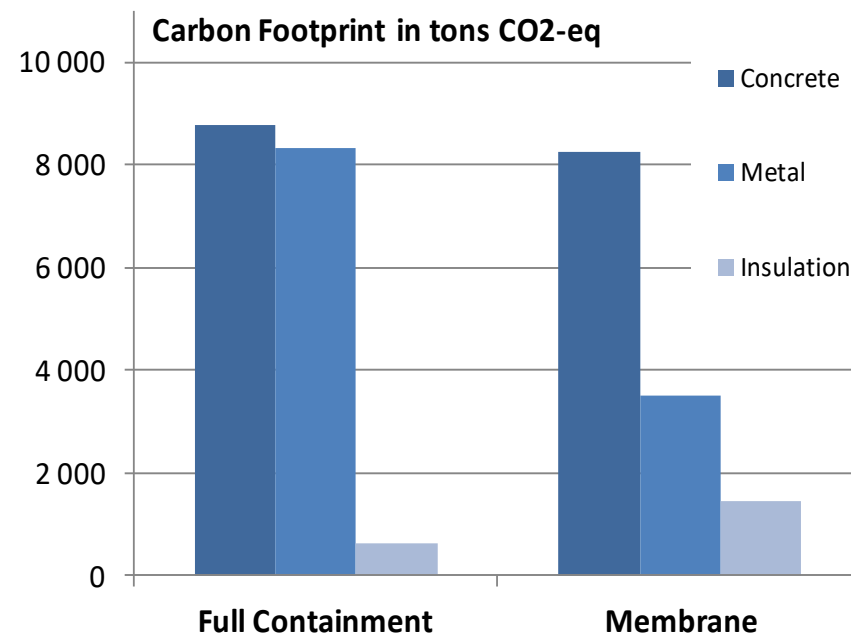
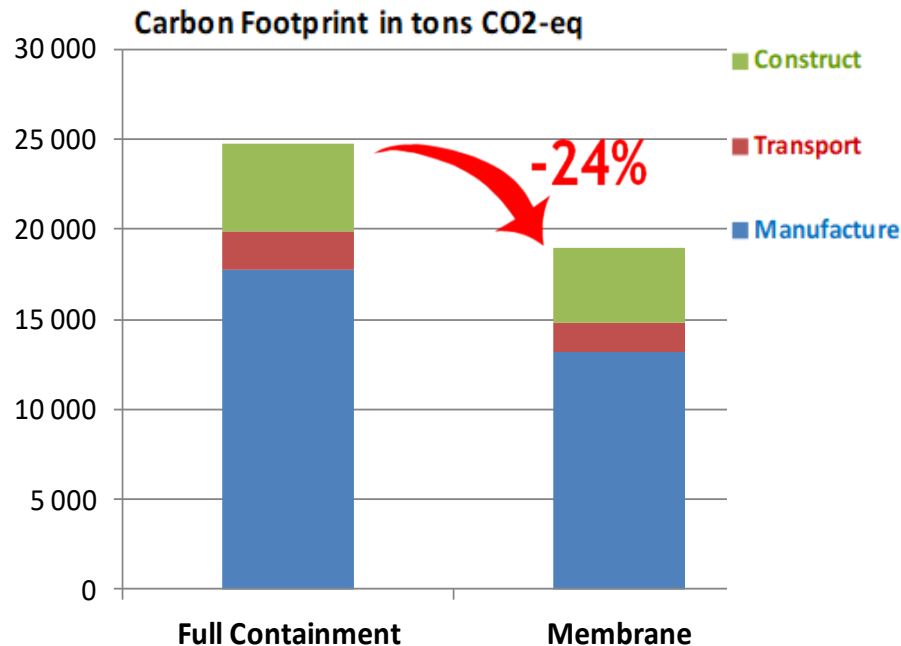
# Focus on Onshore storage

- GTT has received 2 orders for 3 Onshore tanks in China
  - 2 x 220k cbm GST with Chinese licensee HQCEQ for a new regas terminal of Beijing Gas in Tianjin (North East China)
    - Construction already began (foundations)
  - 1 x 29k cbm GST with CPECCNC for peak-shaving requirements for Hebei North
- GTT returns to the onshore tanks market with its GST technology, on the most dynamic country currently (China) with many new LNG import terminals and expansions expected in the coming years
- This success will contribute to open other new markets for GTT





# Onshore storage: GST technology for a reduced carbon footprint



Source: Bouygues TP, LNG17

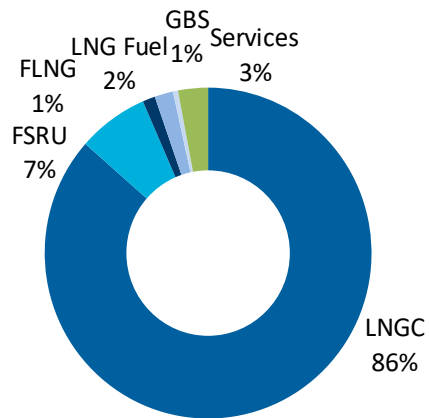
- Significant reduction of the environmental impact by using Membrane technology



Thanks to reduced content of metal

# Core business long term estimates

## GTT H1 2020 Sales



## GTT order estimates over 2020-2029

- LNGC: between 285 and 315 units<sup>(1)</sup>
- VLEC: between 25 and 40 units
- FSRU: between 10 and 20 units
- FLNG: Up to 5 units
- Onshore and GBS tanks: between 15 and 20 units

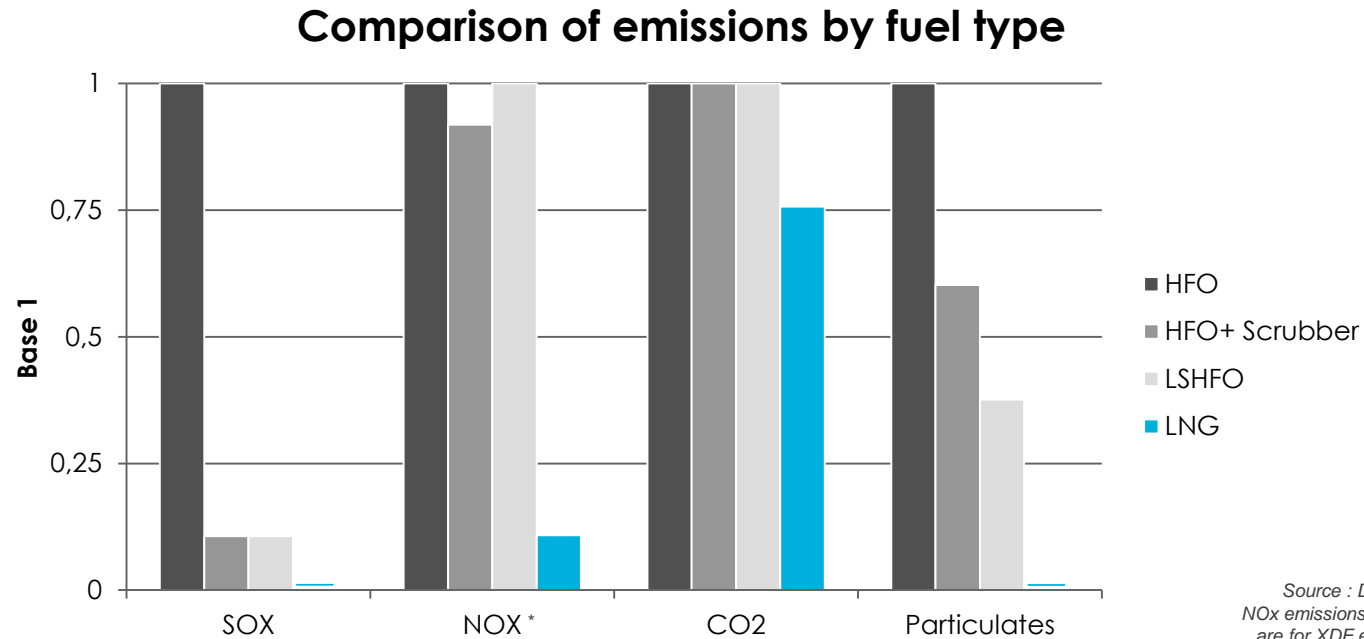


# 3

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New businesses:  
LNG as fuel developments

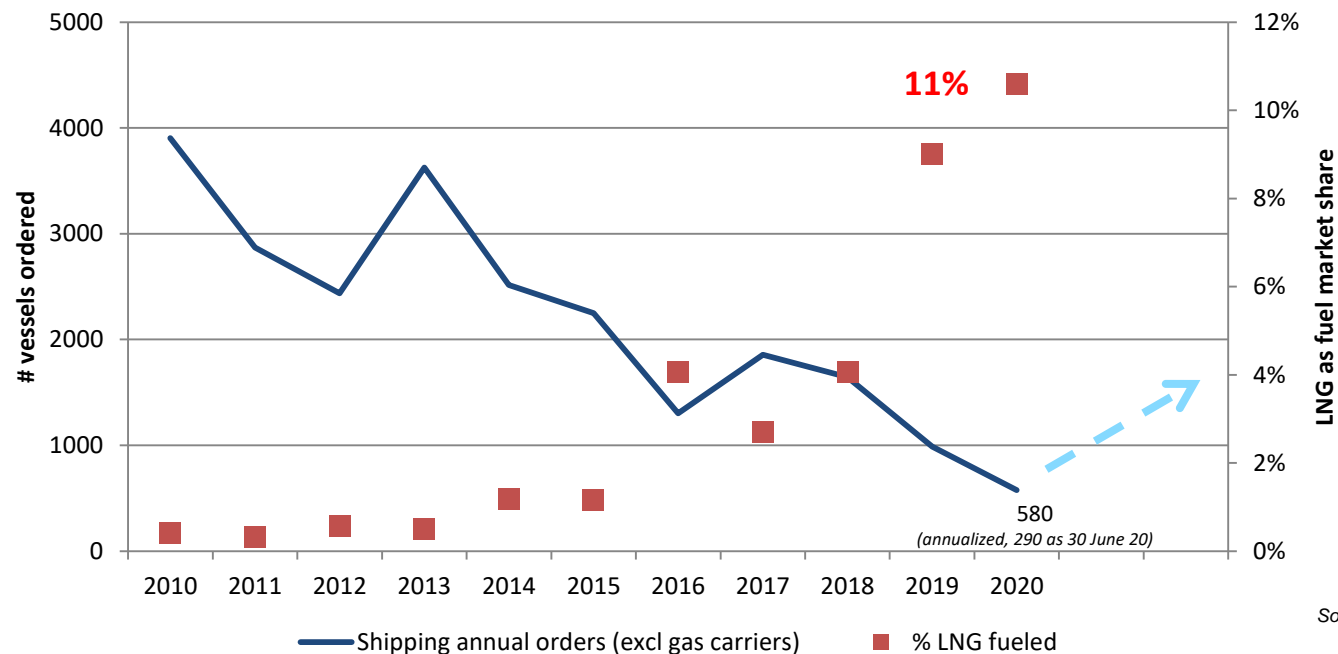
# LNG as fuel: LNG is the only mature solution allowing comprehensive environmental compliance



- LNG is in advance of existing and anticipated environmental regulations
  - No SOx, no particulates, low NOx, reduced CO<sub>2</sub> emissions
- Implementation in January 2021 of NOx reduction in North Sea and Baltic Sea will further degrade potential of oil fuels and scrubbers

# LNG fuel keeps expanding in a very challenging shipbuilding market

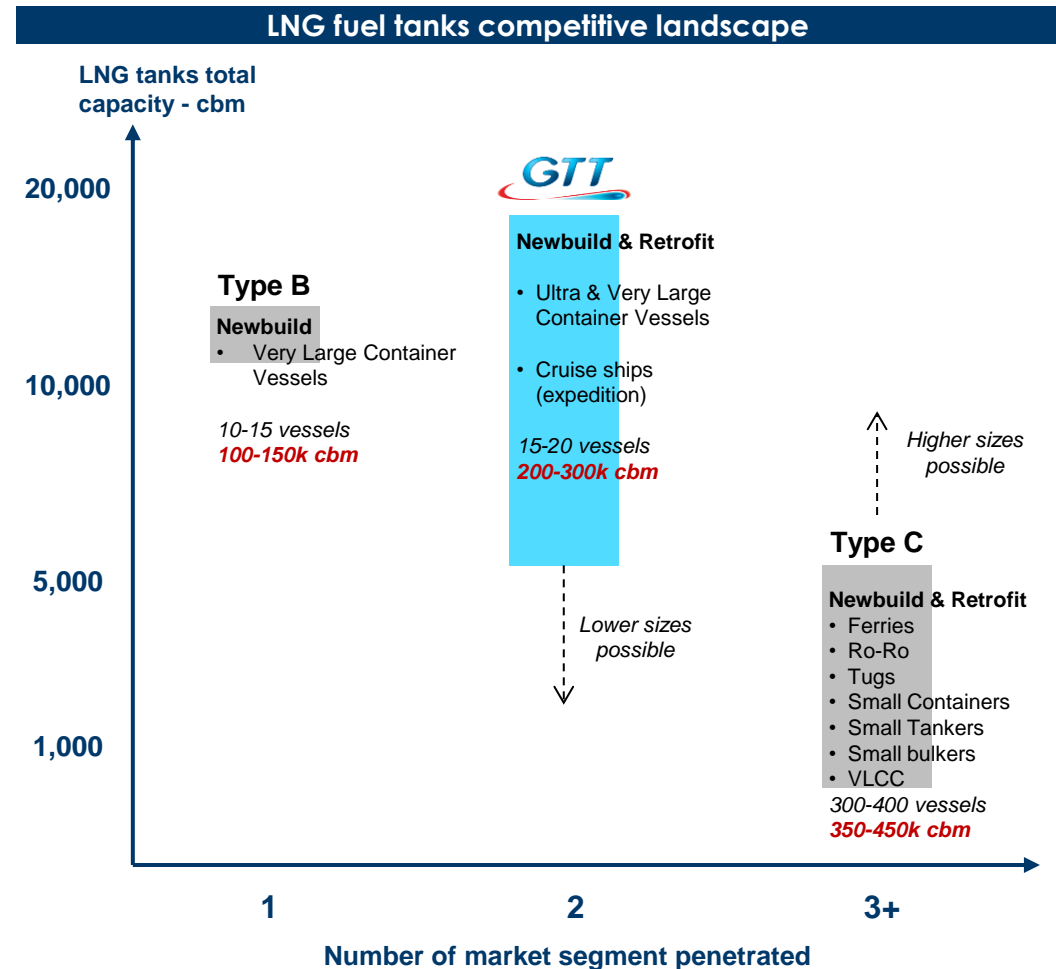
Annual shipping orders ( $\geq 20k$  dwt) and LNG as fuel market share



- Despite depressed shipping market with only 290 orders in 2020 (as at 30 June 2020) because of Coronavirus, LNG as fuel market keeps developing with 11% market share.
- Shipping market is expected to recover, with Clarksons forecasting between 1,500 and 2,000 orders annually over the next 10 years.

# Competition landscape of LNG fuel market

- LNG as a marine fuel continues its penetration in shipping market
  - 11% market share in 2020
- The c.30 LNG fuelled vessels ordered so far in 2020 have all been in Type C
  - Mainly oil/product tankers, with small/medium capacities (<3,000 cbm)
  - Two 7,500 cbm VLCCs and two 12,000 cbm for containerships have been ordered in 2020, marking an increase in Type C size.



Main sources: Clarksons, DNV GL

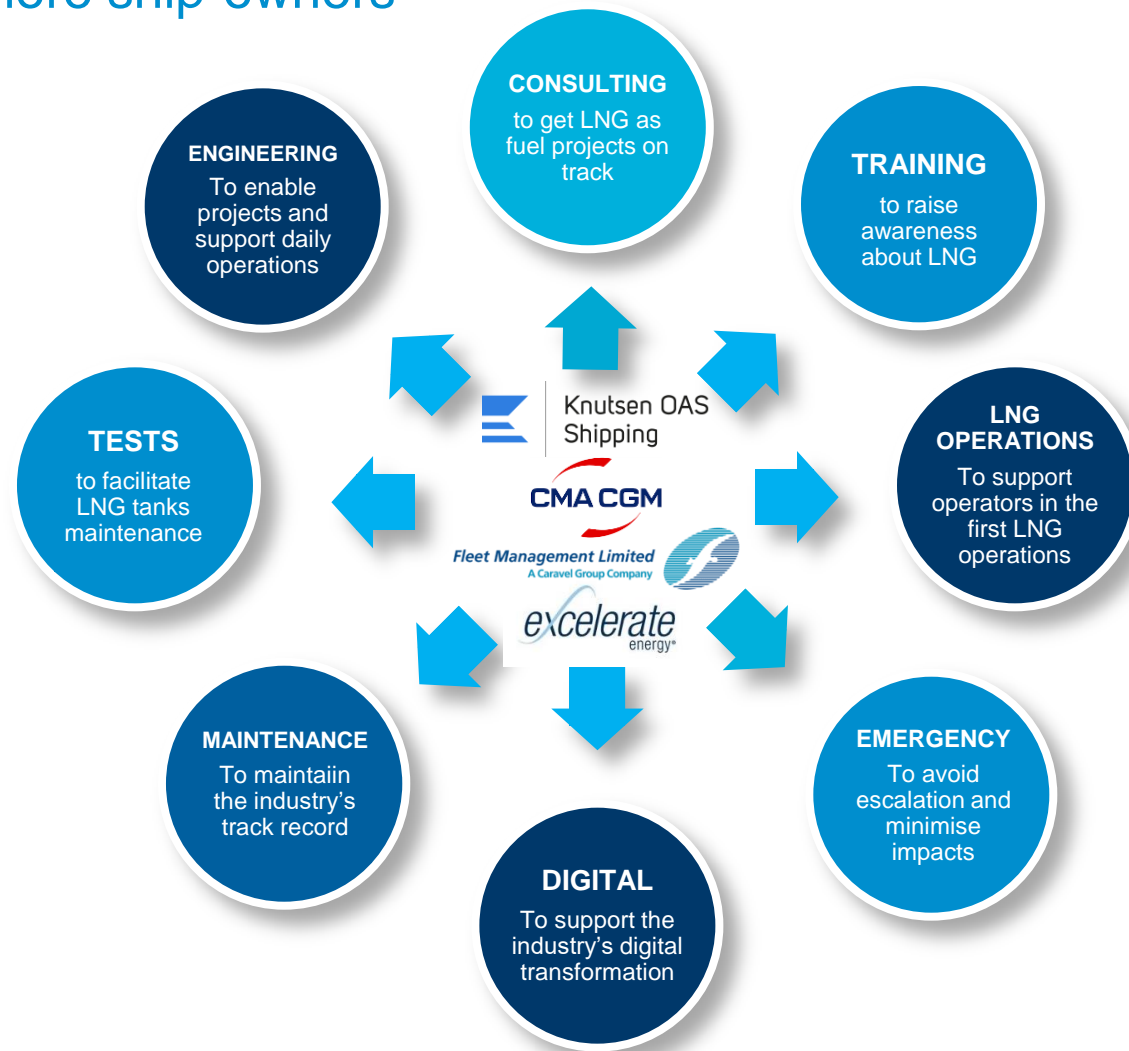
# 4

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Service activity

# Services to make LNG easy

- 4 new services contracts in H1 2020: GTT services platform attracts more and more ship-owners





# Acquisition of OSE Engineering



- **OSE Engineering is a French tech company specialised in “smart algorithms” applied to complex industrial and technical problems**



- Created in 2014
- Serious scientific expertise and credentials
- Dynamic relationship within top academic networks (talent pool)



- **studiOSE**: algorithms design, simulation & validation platform
- **bOSE**: Vessel Energy Flow Simulation module
- **OSERoad**: road transport emissions simulator for design validation and certification



Services based on data processing, modelling and simulation include:

- Engineering study
- Algorithm design
- Modelling: optimization, validation and calibration
- Product customisation and integration

# Acquisition of Areva H2Gen

**AREVA** H<sub>2</sub>Gen

French company leader in Proton Exchange Membrane (PEM) electrolysis  
Specialised in the design and assembly of electrolyzers for the production of green hydrogen

- Created in 2014
- Leader in PEM electrolyzers
- The only company to manufacture electrolyzers in France
- Design and assembly of electrolyzers
- Engineering and services
- Research and development
- Main applications: industry, mobility and energy storage
- Well positioned to benefit from the rapid growth of the green hydrogen market

**Confirms GTT's commitment to energy and environmental transition**

**Fully matches GTT's development strategy and mission statement**

**Synergies through technological expertise and knowledge of energy players**

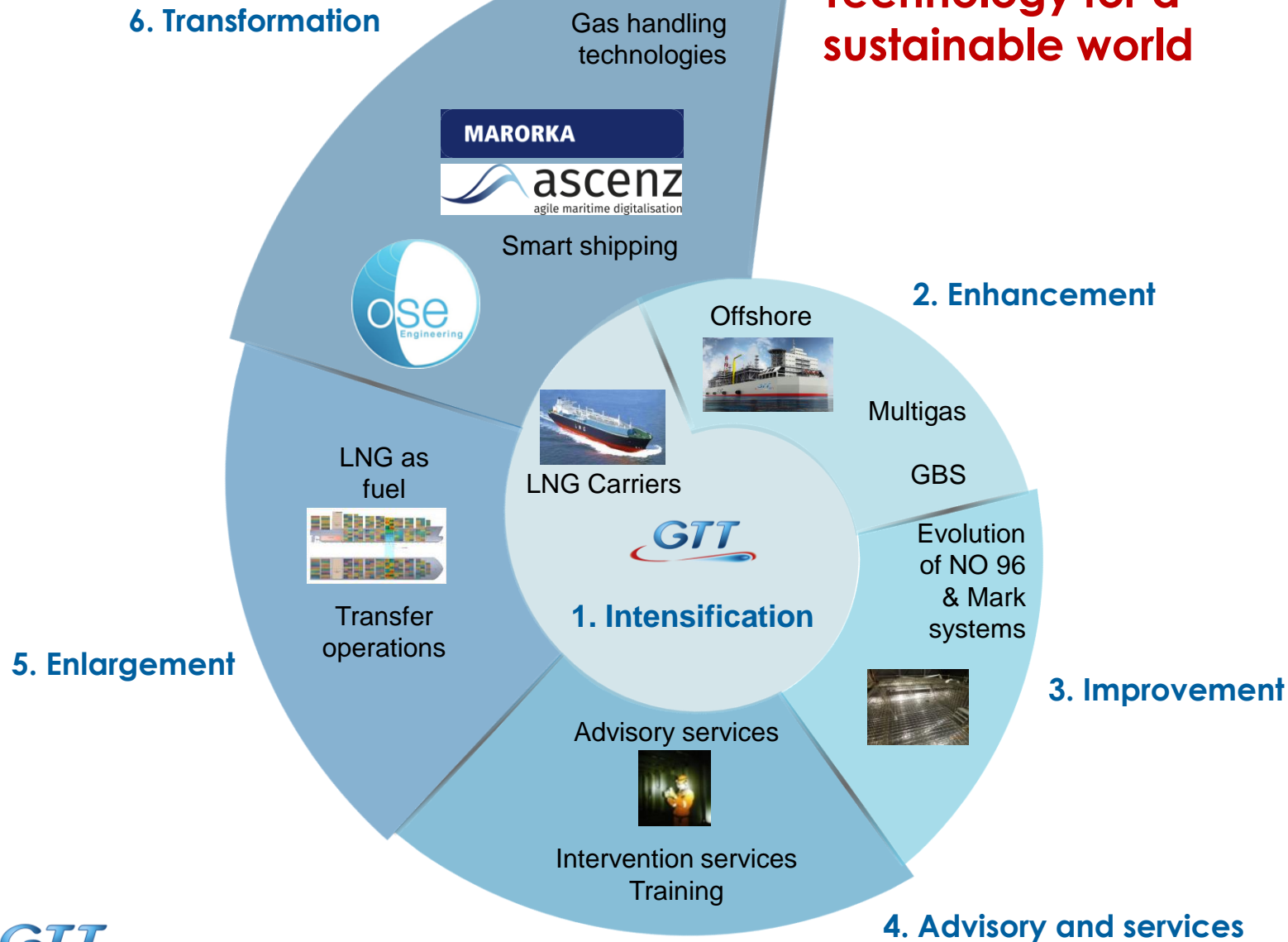
# 5

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## Strategic roadmap

# GTT's strategic roadmap

**Technology for a sustainable world**



# 6

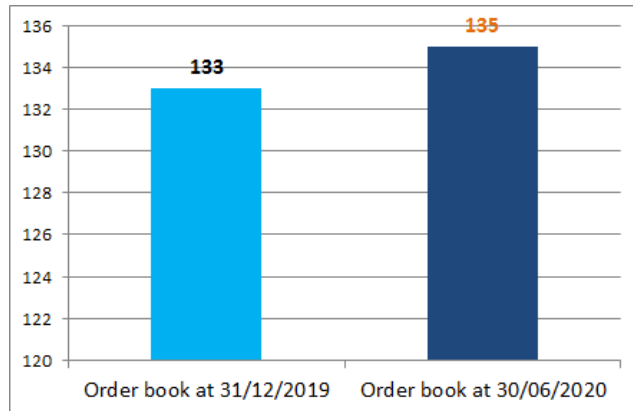
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## Financials

# H1 2020: Order book overview (core business)

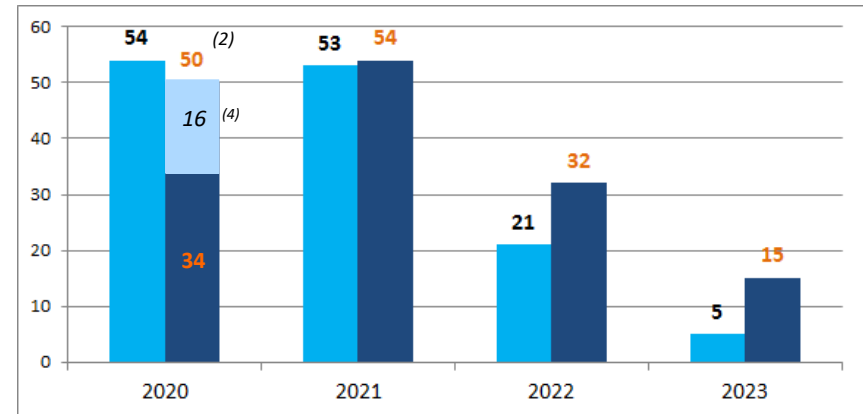
## Order book in units

In units



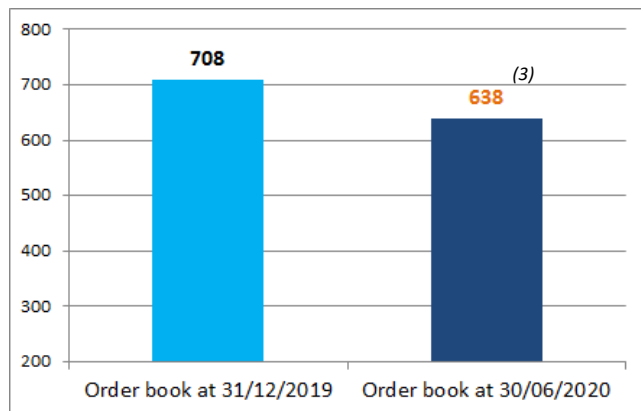
## Order book by year of delivery (units per year)

In units



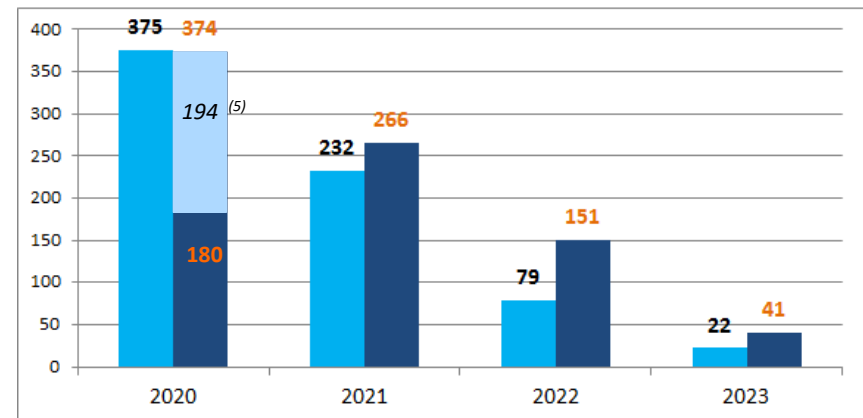
## Order book in value

In €M



## Revenues expected from current order book <sup>(1)</sup>

In €M



(1) Royalties from core business, i.e. excluding LNG as Fuel, services activity.

(2) 2020 deliveries include 16 vessels delivered until June 30, 2020 / Delivery dates could move according to the shipyards/EPCs' building timetables.

(3) Taking into account 2020 H1 revenues from royalties (€194M), the total amount would have been €832M

(4) 2020 H1 deliveries

(5) 2020 H1 revenues from royalties.

# H1 2020 financial performance

## Summary consolidated accounts

<i>in € M</i>	<b>H1 2019</b>	<b>H1 2020</b>	<b>Change</b>
<b>Total Revenues</b>	<b>122.6</b>	<b>203.8</b>	66.2%
<b>EBITDA <sup>(1)</sup></b>	<b>70.9</b>	<b>136.6</b>	92.7%
<i>Margin (%)</i>	57.8%	67.0%	
<b>Operating Income/ EBIT</b>	<b>68.9</b>	<b>133.9</b>	94.4%
<i>Margin (%)</i>	56.2%	65.7%	
<b>Net Income</b>	<b>56.6</b>	<b>115.5</b>	104.0%
<i>Margin (%)</i>	46.2%	56.7%	
<b>Free Cash Flow <sup>(2)</sup></b>	<b>62.2</b>	<b>103.6</b>	nm
<b>Change in Working Capital <sup>(3)</sup></b>	<b>5.5</b>	<b>26.0</b>	nm
<b>Capex</b>	<b>3.1</b>	<b>7.0</b>	125.0%
<b>Dividend paid</b>	<b>66.3</b>	<b>64.9</b>	-2.1%
<i>in € M</i>	<b>30/06/2019</b>	<b>30/06/2020</b>	
<b>Cash Position</b>	<b>155.6</b>	<b>199.0</b>	

## Key highlights

- Revenues: +66.2%
  - Newbuilds (royalties): +71%. Royalties from LNGCs fully benefit from the last two years strong flow of orders
  - Service revenue: -13%, mainly due to the decrease in maintenance and intervention services during the Covid crisis
- EBITDA: +92.7%
  - Increase of external charges: +28% due to increased number of new orders
  - Increase of staff costs: +33%
- Capex: Impact of Marorka acquisition
- 2020 interim dividend: **€2.50** to be paid in Nov. 2020

(1) Defined as EBIT + amortisations and impairments of fixed assets

(2) Defined as EBITDA - capex - change in working capital

(3) Defined as December 31 working capital – June 30 working capital

# H1 2020 Cost base

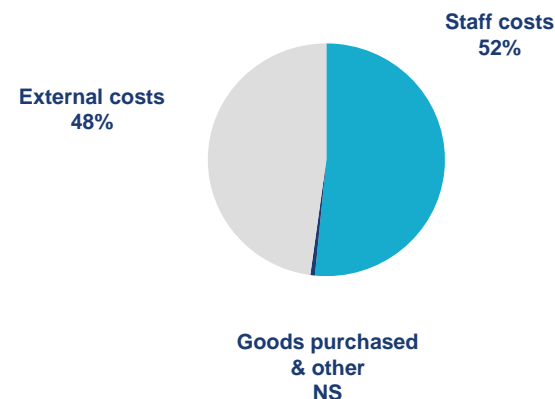
## GTT consolidated operational costs

in € M	H1 2019	H1 2020	Change (%)
<b>Goods purchased</b>	<b>-2.6</b>	<b>-2.8</b>	<b>7.5%</b>
<i>% sales</i>	-2%	-1%	
Subcontracted Test and Studies	-11.4	-17.6	54.7%
Rental and Insurance	-2.4	-2.8	16.6%
Travel Expenditures	-4.4	-3.5	-20.1%
Other External Costs	-5.8	-6.9	18.0%
<b>Total External Costs</b>	<b>-23.9</b>	<b>-30.7</b>	<b>28.3%</b>
<i>% sales</i>	-20%	-15%	
Salaries and Social Charges	-20.8	-26.1	25.6%
Share-based payments	-0.8	-1.4	72.6%
Profit Sharing	-3.2	-5.6	71.5%
<b>Total Staff Costs</b>	<b>-24.9</b>	<b>-33.1</b>	<b>33.2%</b>
<i>% sales</i>	-20%	-16%	
<b>Other(1)</b>	<b>2.3</b>	<b>3.2</b>	<b>39.9%</b>
<i>% sales</i>	2%	2%	

## Key highlights

- External costs: +28.3%
  - Subcontractors +54.7%, due to the increase of orderbook
  - Travel expenditures: -20.1% due to the Covid crisis
  - Other external costs +18.0% (mainly fees from external advisors and patent filing)
- Staff costs up 33.2%, mainly due to the increase in headcount and profit sharing

## GTT H1 2020 costs<sup>(1)</sup> by nature



(1) Excluding depreciations, amortisations, provisions and impairment of assets



# First nine months 2020 consolidated revenues

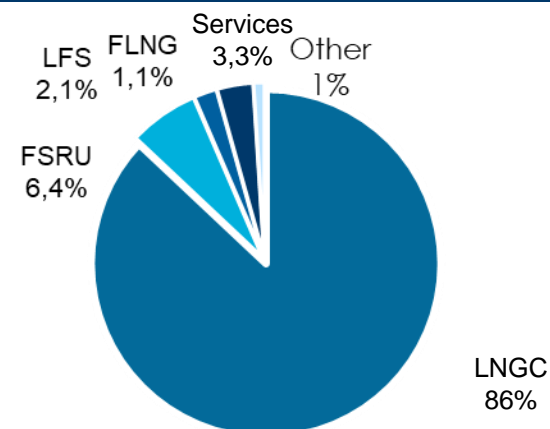
## Summary financials

in €M	9M 2019	9M 2020	Change (%)
<b>Revenues</b>	<b>199.7</b>	<b>305.6</b>	<b>+53%</b>
<b>Newbuilds</b>	<b>188.9</b>	<b>295.4</b>	<b>+56%</b>
% of revenues	95%	97%	
<b>LNG/Ethane carriers</b>	<b>157.6</b>	<b>263.5</b>	<b>+67%</b>
% of revenues	79%	86.2%	
<b>FSRU</b>	<b>19.3</b>	<b>19.7</b>	<b>+2%</b>
% of revenues	10%	6.4%	
<b>FLNG</b>	<b>3.8</b>	<b>3.3</b>	<b>-14%</b>
% of revenues	2%	1.1%	
<b>Onshore storage</b>	<b>2.0</b>	<b>0.6</b>	<b>-69%</b>
% of revenues	1%	0.2%	
<b>GBS</b>	<b>-</b>	<b>1.9</b>	<b>ns</b>
% of revenues	-	0.6%	
<b>Barge</b>	<b>0.5</b>	<b>-</b>	<b>-100%</b>
% of revenues	-	-	
<b>LFS</b>	<b>5.8</b>	<b>6.5</b>	<b>+12%</b>
% of revenues		2.1%	
<b>Services</b>	<b>10.8</b>	<b>10.2</b>	<b>-5%</b>
% of revenues	5%	3.3%	

## Key highlights

- Total revenues: €306 million (+53%)
  - Newbuilds (royalties): + 56%
    - Record level of royalties generated by high number of orders in 2018 and 2019
    - New activities generating revenues: LNG as fuel, GBS
  - Services: -5%
    - Maintenance and assistance in service vessels are impacted by the covid crisis
    - but certification and studies increased significantly their activity

## GTT 9M 2020 Sales



# 7

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## Outlook

# 2020 Outlook confirmed

## GTT revenue<sup>(1)</sup>

- 2020 consolidated revenue estimated in a range of **€375M to €405M**

## EBITDA

- 2020 consolidated EBITDA estimated in a range of **€235M to €255M**

## Dividend Payment<sup>(2)</sup>

- 2020 and 2021 payout of at least 80%

<sup>(1)</sup> In the absence of any significant delays or cancellations in orders. Variations in order intake between periods could lead to fluctuations in revenues

<sup>(2)</sup> Subject to approval of Shareholders' meeting. GTT by-laws provide that dividends may be paid in cash or in shares based on each shareholder's preference



Thank you for your attention



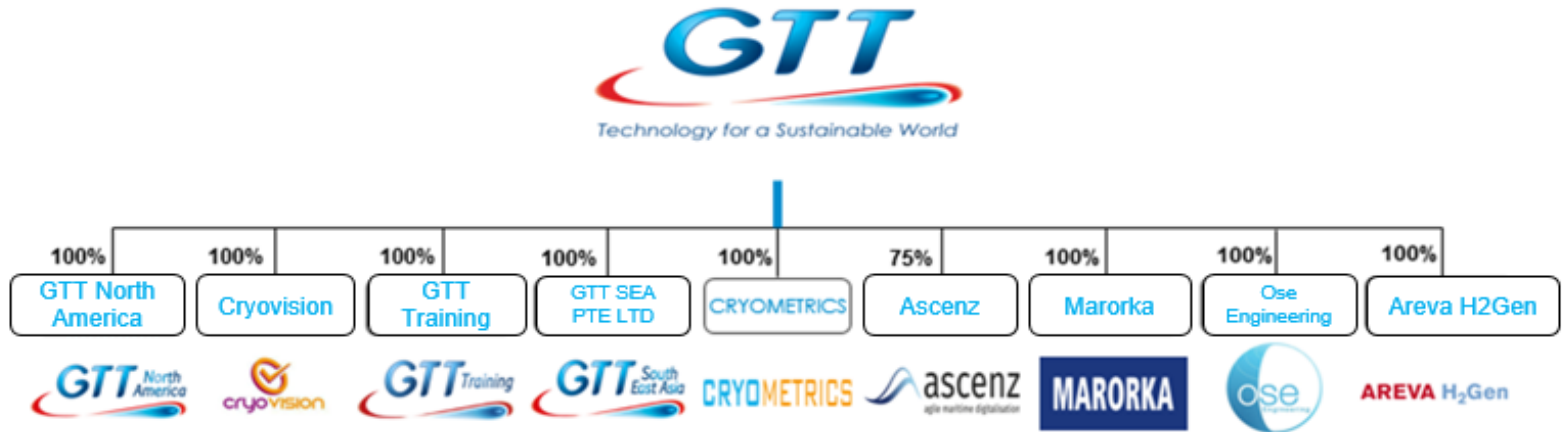
Image courtesy of STX, Engie, Excelebrate, Reliance, SCF Group, Shell, CMA CGM, Conrad

# Appendix

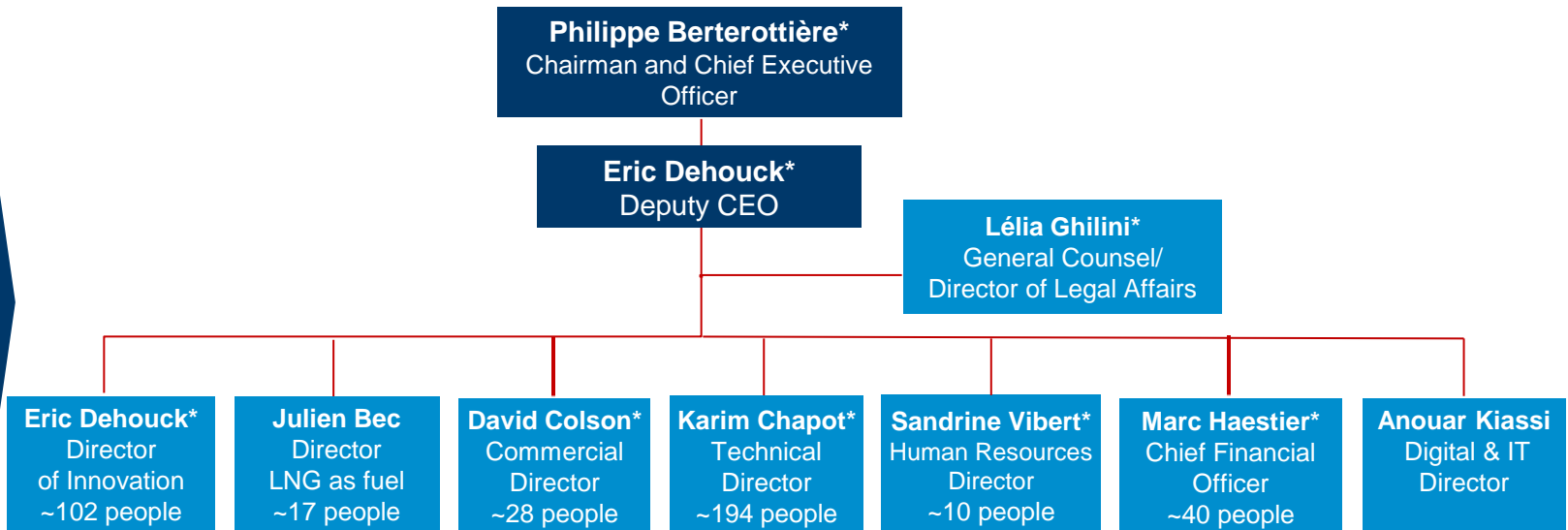
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# A streamlined group and organisation

## GTT Group

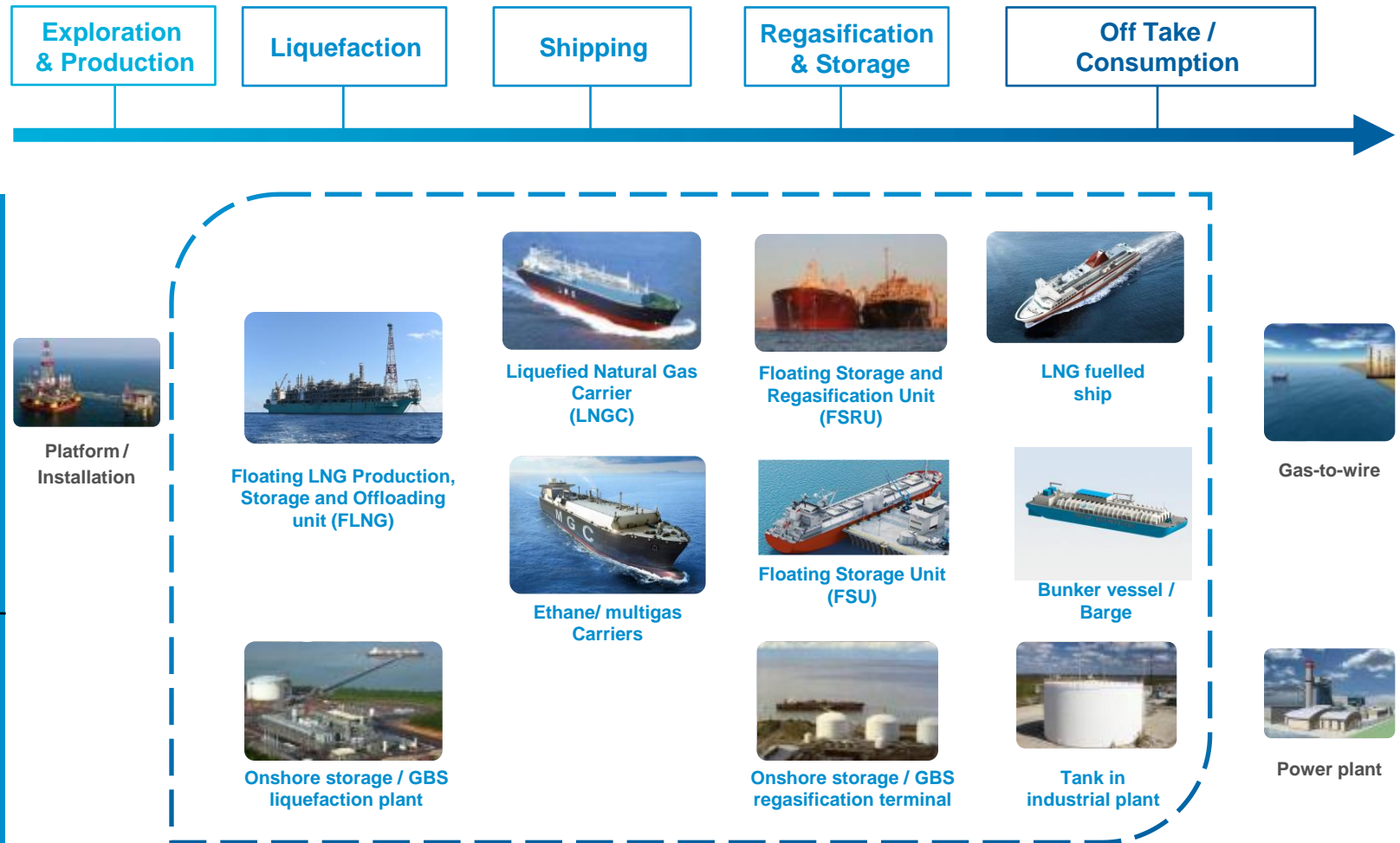


## GTT SA organisation



\* Member of the Executive Committee

# GTT exposure to the liquefied gas shipping and storage value chain



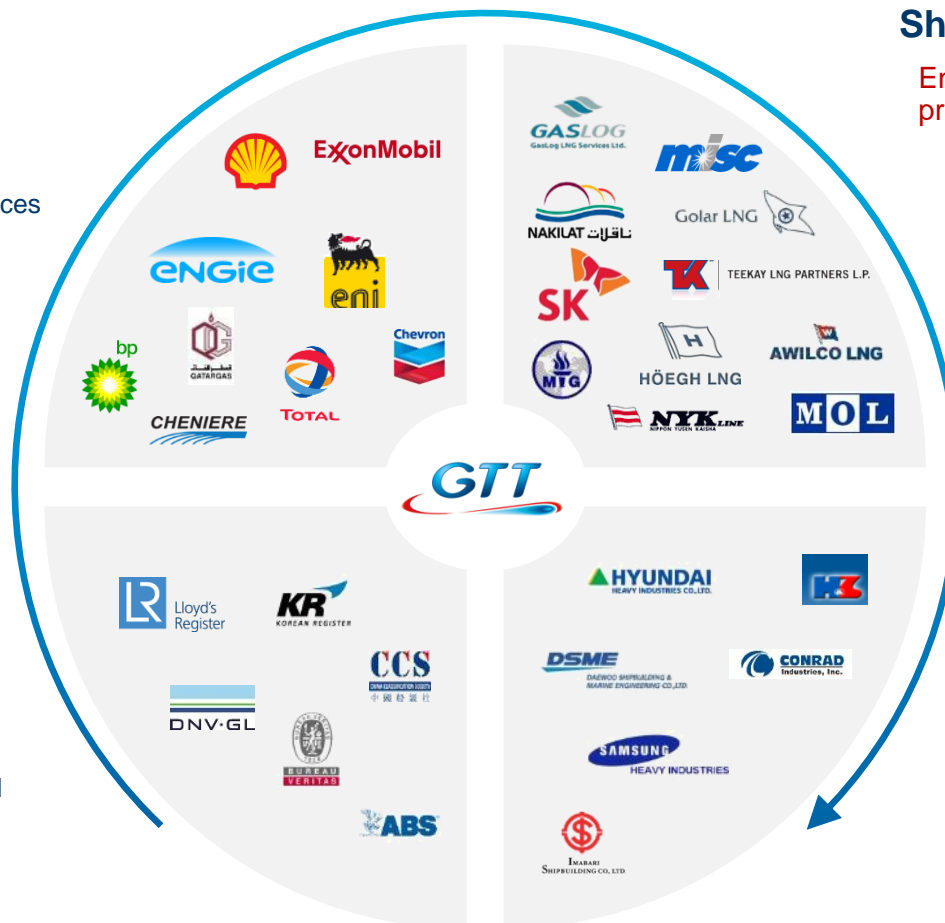
Source: Company data

# GTT ecosystem

## Oil & Gas Companies

End clients and prescribers

  
provides services



## Shipowners

End clients and prescribers

  
provides services  
and maintenance

## Classification Societies

Regulatory oversight  
of the industry

  
receives new  
technology  
certification and  
approval

## Shipyards

Direct clients

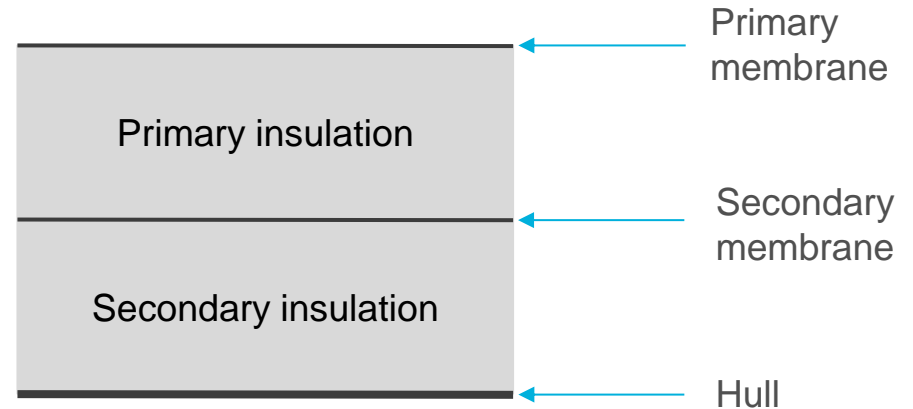
  
licences its membrane  
technology and receives  
royalties  
provides engineering  
studies, on-site technical  
and maintenance  
assistance



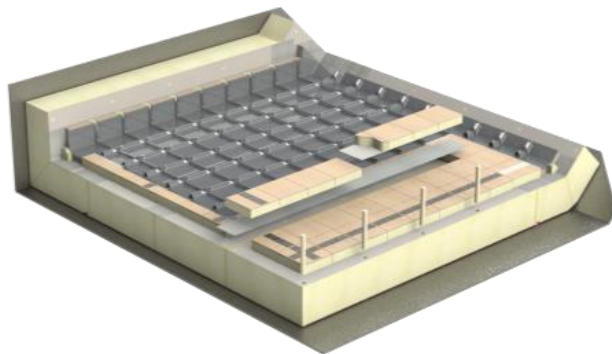
# GTT membrane technologies

## General principle:

- Two membranes
- Two layers of insulations
- Containment system anchored to the inner hull



Mark III system



NO96 system



# H1 2020: c.75-80 more LNGCs required for liquefaction projects under construction

## LNGCs supply demand balance of Under Construction liquefaction plants

Project	Location	Expected delay (in months, due to Covid19, according to WoodMackenzie)	Forecasted Start-Up	Contracted Capacity (mtpa)	LNGCs requirement
Cameron T3	US East	0	2020	4	<div></div>
Freeport Train 3	US East	0	2020	4,6	<div></div>
PFLNG 2	Asia Pacific	0	2020	1,4	<div></div>
Corpus Christi T3	US East	3	2021	4,5	<div></div>
Tangguh Phase 2	Asia Pacific	8	2022	4,5	<div></div>
Coral FLNG	East Africa	6	2023	3,4	<div></div>
Sabine Pass T6	US East	3	2023	4,5	<div></div>
TortueFLNG	West Africa	12	2023	2,4	<div></div>
Calcasieu Pass	US East	6	2024	8	<div></div>
Arctic LNG-2	Russia	3	2024	19,8	<div></div>
Mozambique LNG (Area 1)	East Africa	12	2025	11,2	<div></div>
LNG Canada	Canada West	6	2025	14	<div></div>
Golden Pass	US East	6	2025	15,6	<div></div>
NLNG T7+expansion	West Africa	12	2026	8	<div></div>
		Average: <u>5,5 months</u>			
TOTAL					171

- Current Orderbook	87
- Available vessels in operation	7
<b>Expected orders</b>	<b>77</b>

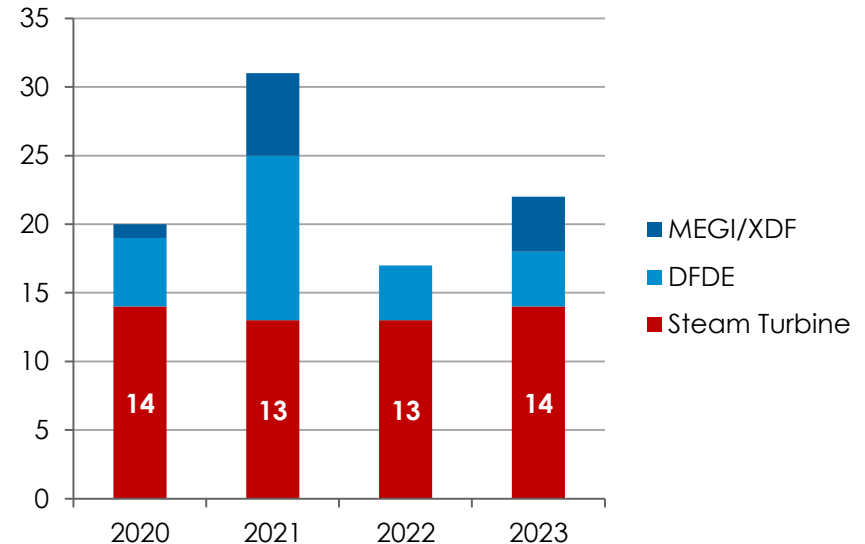
Source: Wood Mackenzie / GTT

- Market still requires around 75-80 more LNGCs for contracted supply of LNG plants under construction
- Expected fleet replacement could increase that number
- US LNG projects are less delayed than other projects thanks to their track record.

# 54 ageing vessels with charter contract ending by 2023

- 90 LNGC chart contract to end by 2023
  - Of which **54 equipped with steam turbine propulsion**; also smaller vessels (<140k cbm)
- Charterers and ship-owners to prepare the shift to more modern vessels
  - Better economics
- Some Majors already started selling and replacing part of their ageing fleet (e.g. Shell, NWS project)

LNGCs carriers\* with charter contract ending by 2023



\* Above 50k cbm

Source: Wood Mackenzie

# LNGCs – Our main business

- Vessels equipped for transporting LNG
- Existing GTT fleet: 384 units<sup>1</sup>
- In order: 113 units<sup>1</sup>
- 26 construction shipyards under license<sup>1</sup>



## Our strengths

- Technological leadership, boil-off divided by 2 in the last 5 years
- Long term industrial partnerships with major shipyards
- A unique position in the LNG ecosystem, nurtured by 50 years of experience, expertise and customer orientation

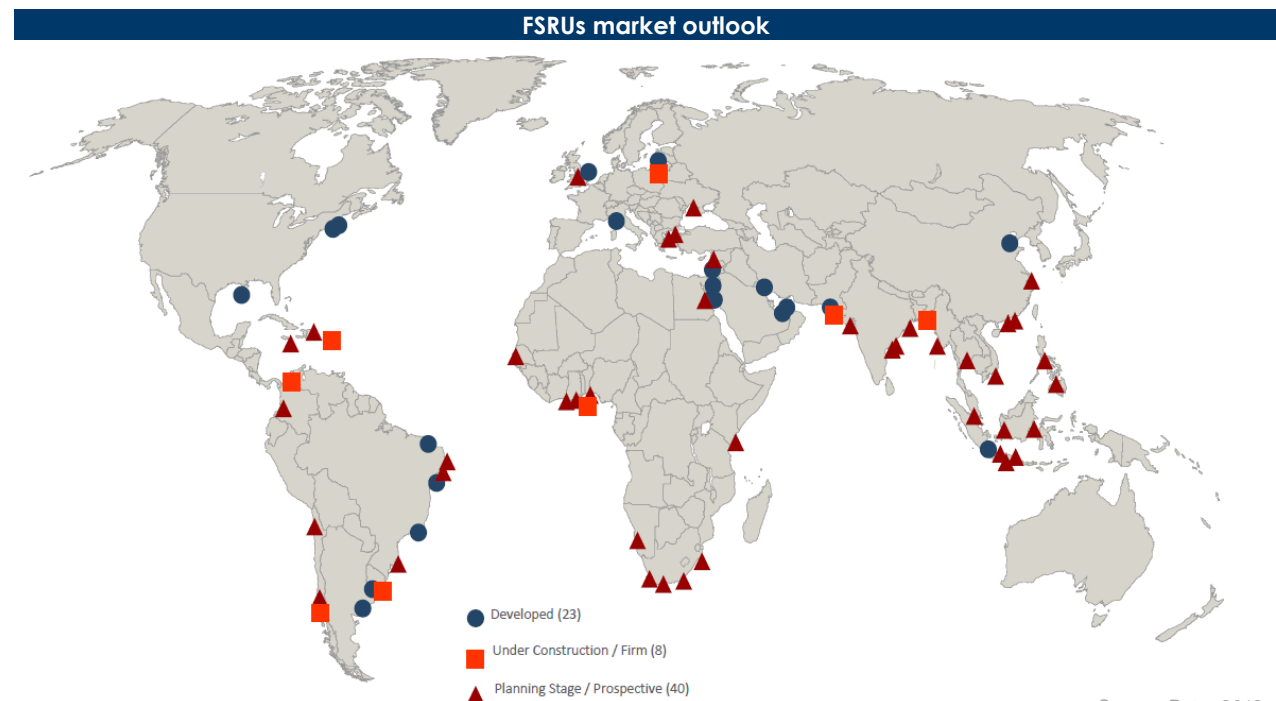
<sup>1</sup> As at 30 December 2019

# FSRUs – A flexible solution for opening quickly new access to energy

- Major competitive advantage vs. land-based terminals:
  - Quick to build/deploy & mobile
  - Better local acceptability & easier permitting
  - Affordable / no upfront CapEx
  - Adapted to more volatile LNG prices
  - Quality controlled construction in shipyards with available and skilled workforce

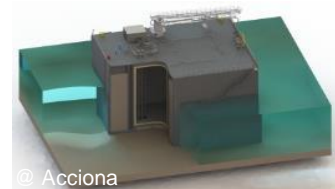
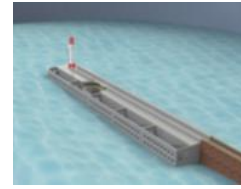
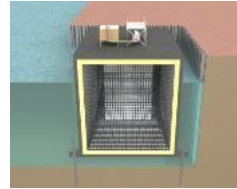


- More than 40 FSRUs currently in service or under construction
- Worldwide development
  - Asia (India, China, ...)
  - Europe (Turkey, Croatia, ...)
  - South & West Africa
  - LatAm & Carribeans



Source: Poten 2018

# GBS is suitable for a very wide range of applications



*Concrete or steel, installed in jetty, breakwater dike or nearshore*

**GBS range**

**5k**

**50k**

**200k+**

*Storage capacity (cbm)*

**Markets**



## **LNG SUPPLY CHAIN**

- Liquefaction or regasification plants
- Peak Shaving
- Satellite Station
- Inland distribution



## **POWER**

- Industry Company
- Captive Power



## **BUNKERING**

- LNG as fuel

**Location**







## **LOCATION**

- Islands, remote costal areas, isolated industrial needs (ex.: mining), ...

# Focus on GTT's competitive advantages on LNGCs

## GTT's technology positioning <sup>(1)</sup>

	GTT 	Moss 	SPB 	KC-1 
Technology	<ul style="list-style-type: none"> <li>▶ Integrated tank (membrane)</li> <li>▶ Atmospheric pressure</li> </ul>	<ul style="list-style-type: none"> <li>▶ Self supported spheric tank</li> <li>▶ Atmospheric pressure</li> </ul>	<ul style="list-style-type: none"> <li>▶ Self supported prismatic tank</li> <li>▶ Atmospheric pressure</li> </ul>	<ul style="list-style-type: none"> <li>▶ Integrated tank (membrane)</li> <li>▶ Atmospheric pressure</li> </ul>
CAPEX	<ul style="list-style-type: none"> <li>▶ Requires <b>less steel and aluminum</b> than tanks for a given LNG capacity</li> </ul>	<ul style="list-style-type: none"> <li>▶ Higher costs</li> </ul>	<ul style="list-style-type: none"> <li>▶ Higher costs</li> </ul>	<ul style="list-style-type: none"> <li>▶ Slightly higher costs than GTT</li> </ul>
OPEX	<ul style="list-style-type: none"> <li>▶ <b>More efficient use of space</b></li> <li>▶ <b>Limited BOR (0.07%)</b></li> </ul>	<ul style="list-style-type: none"> <li>▶ Higher fuel / fee costs</li> </ul>	<ul style="list-style-type: none"> <li>▶ Higher fuel / fee costs</li> </ul>	<ul style="list-style-type: none"> <li>▶ Higher opex due to BOR (0.16%)</li> </ul>
LNGCs in construction	<ul style="list-style-type: none"> <li>▶ <b>115</b></li> </ul>	<ul style="list-style-type: none"> <li>▶ 0</li> </ul>	<ul style="list-style-type: none"> <li>▶ 0</li> </ul>	<ul style="list-style-type: none"> <li>▶ 0</li> </ul>
LNGCs in operation	<ul style="list-style-type: none"> <li>▶ <b>384</b></li> </ul>	<ul style="list-style-type: none"> <li>▶ 129</li> </ul>	<ul style="list-style-type: none"> <li>▶ 4 (+2 small)</li> </ul>	<ul style="list-style-type: none"> <li>▶ 2 (on repair)</li> </ul>
Other	<ul style="list-style-type: none"> <li>▶ <b>Value added services</b></li> </ul>	<ul style="list-style-type: none"> <li>▶ Higher centre of gravity; harder to navigate</li> </ul>	<ul style="list-style-type: none"> <li>▶ Huge losses and delays on vessels in orderbook. No significant experience</li> </ul>	<ul style="list-style-type: none"> <li>▶ Korean technology with little experience at sea</li> </ul>

GTT technologies : cost effective, volume optimisation and high return of experience

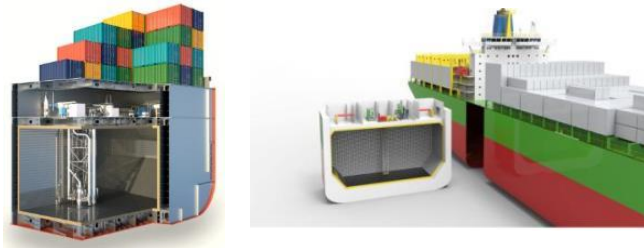
Source: Company data and comment (December 31, 2019), Clarksons

(1) Other technologies are being developed, however are not known to have obtained final orders to date (e.g. DSME's Solidus). Excludes vessel orders below 50,000 m³

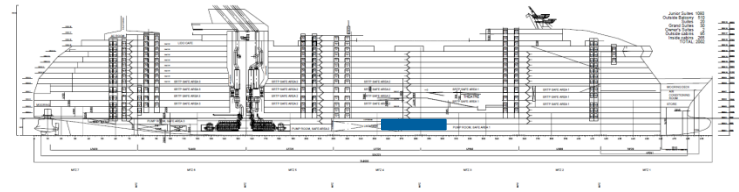


# GTT's LNG Fuel solutions offering

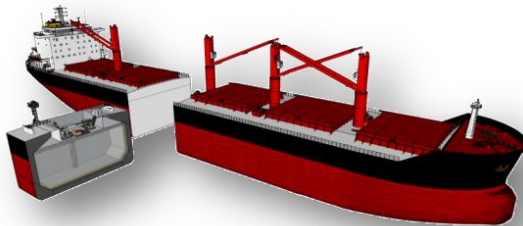
- GTT has developed solutions for the main applications of LNG Fuel



Solutions for Container Vessels new build and retrofit



Cruise Ship – optimizing the space for additional passengers

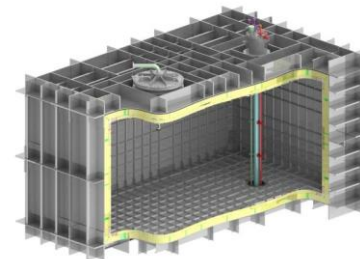


Cost effective solution for bulk carriers



Lean bunker barge to standardize the market

- **New LNG Brick®**
  - dedicated to medium-sized merchant vessels
  - test phase completed





# LNG Fuel: wide network of partnerships

## — 25 shipyards under licensed agreements



## — Network of membrane tank outfitters



## — A close relationship with engine makers and FGHS<sup>1</sup> providers



# Focus on GTT's competitive advantages on LNG fuel

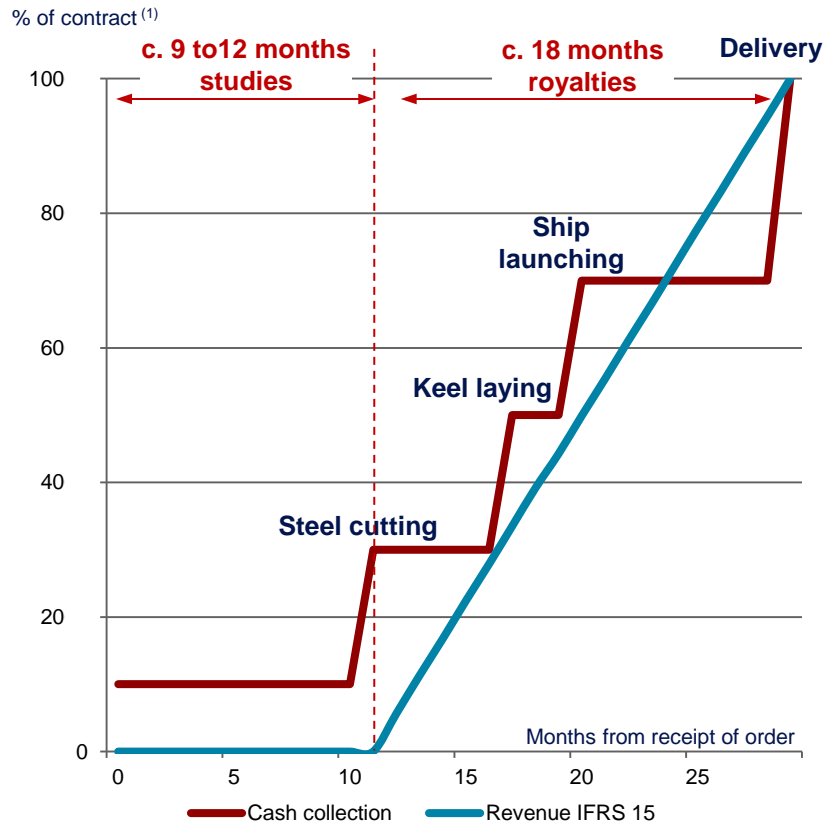
## GTT's technology positioning on LNG fuel

	GTT Membrane	Prismatic Type B	Type C
Technology principle	<ul style="list-style-type: none"> <li>▶ Integrated tank</li> <li>▶ Atmospheric pressure</li> </ul>	<ul style="list-style-type: none"> <li>▶ Self supported tank</li> <li>▶ Atmospheric pressure</li> </ul>	<ul style="list-style-type: none"> <li>▶ Self supported Cylindrical tank</li> <li>▶ Pressurized</li> <li>▶ Insulation: vacuum (smaller tanks) or foam (larger tanks)</li> </ul>
Space optimization	<ul style="list-style-type: none"> <li>▶ High: Integrated tank and unique design for each vessel</li> </ul>	<ul style="list-style-type: none"> <li>▶ Moderate to high : Inspection space, restricted filling limits (heel)</li> </ul>	<ul style="list-style-type: none"> <li>▶ Low: Cylindrical design, restricted filling limits (pressurized)</li> </ul>
Boil off	<ul style="list-style-type: none"> <li>▶ Low</li> </ul>	<ul style="list-style-type: none"> <li>▶ Low to medium</li> </ul>	<ul style="list-style-type: none"> <li>▶ Uncertain on real value during operation</li> </ul>
CAPEX	<ul style="list-style-type: none"> <li>▶ Moderate cost: Requires <b>less steel and aluminum</b> than other tanks for a given LNG capacity</li> </ul>	<ul style="list-style-type: none"> <li>▶ <b>Higher cost</b>, as much metal is used (Aluminum or Nickel) and many workers required for welding</li> </ul>	<ul style="list-style-type: none"> <li>▶ Lower cost (foam), high cost for vacuum</li> </ul>
Sloshing	<ul style="list-style-type: none"> <li>▶ Reinforced foam for LNG fuel tanks</li> <li>▶ Chamfers</li> </ul>	<ul style="list-style-type: none"> <li>▶ Tank shape</li> <li>▶ Metallic structure</li> </ul>	<ul style="list-style-type: none"> <li>▶ Tank shape</li> <li>▶ Metallic structure</li> </ul>
LNG fueled vessels in operation	<ul style="list-style-type: none"> <li>▶ <b>High experience</b> with &gt;400 vessels in operation (LNGCs, FSRUs, ...)</li> </ul>	<ul style="list-style-type: none"> <li>▶ <b>Limited experience at sea</b> (few LNGCs, with delays and high cost overrun during construction)</li> </ul>	<ul style="list-style-type: none"> <li>▶ 175 (mainly with tanks &lt;1k cbm, vacuum)</li> </ul>
LNG fueled vessels in construction	<ul style="list-style-type: none"> <li>▶ <b>19 (18 + 1 conversion)</b></li> </ul>	<ul style="list-style-type: none"> <li>▶ 11</li> </ul>	<ul style="list-style-type: none"> <li>▶ 200 (mainly with tanks &lt;1k cbm, vacuum)</li> </ul>
Others	<ul style="list-style-type: none"> <li>▶ High end design</li> </ul>	<ul style="list-style-type: none"> <li>▶ High metal content =&gt; high price and weight, complex welding, thermal resistance, long cooling down,...</li> <li>▶ Potential outer tank corrosion</li> </ul>	<ul style="list-style-type: none"> <li>▶ Exposed to salinity, meteorology (if tank on deck)</li> <li>▶ Easier for conversion if tank on deck</li> <li>▶ Generic technology</li> </ul>

# An attractive business model supporting high cash generation

## Invoicing and revenue recognition

## Business model supports high cash generation



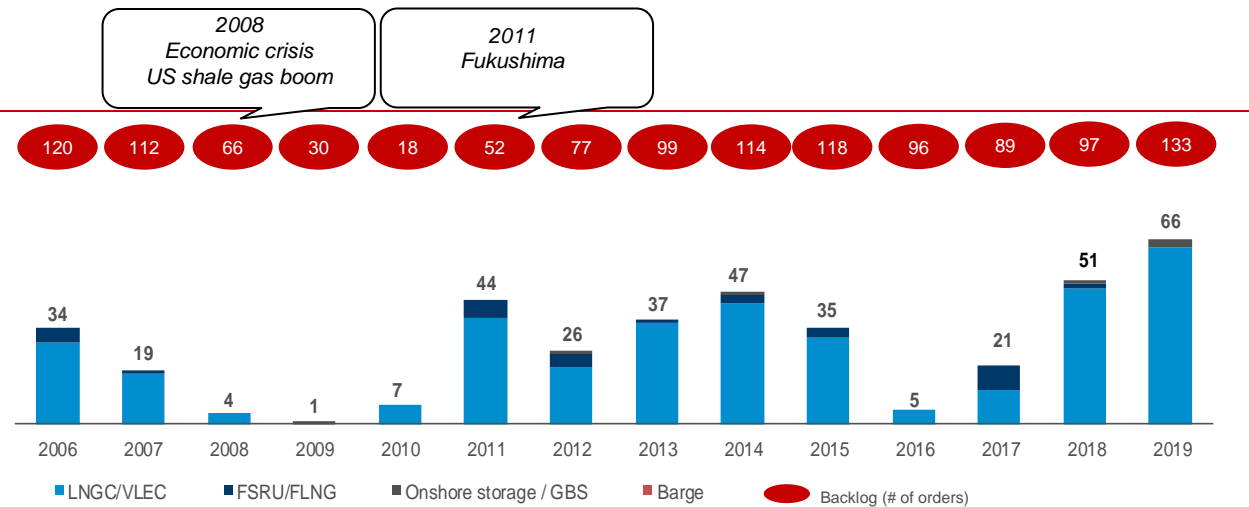
- Revenue is recognized pro-rata temporis between construction milestones
- Initial payment collected from shipyards at the effective date of order of a particular vessel (10%)
  - Steel cutting (20%)
  - Keel laying (20%)
  - Ship launching (20%)
  - Delivery (30%)

Source: Company

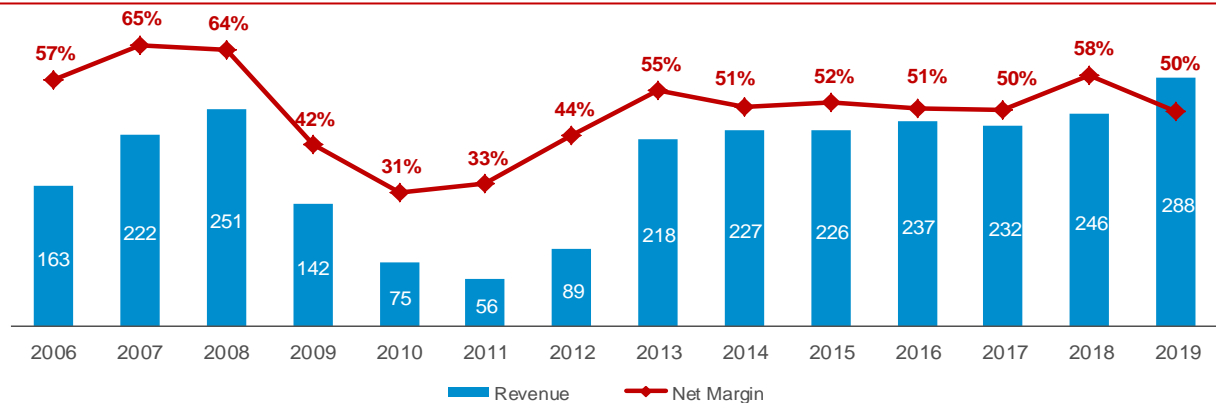
(1) Illustrative cycle for the first LNGC ordered by a particular customer, including engineering studies completed by GTT

# Appendix: track record of high margin and strong backlog

## Evolution of new GTT orders (1)(2)



## Evolution of revenue (in € M) and net margin (4)



Source: Company

(1) Orders received by period / Core business

(2) Excl. vessel conversions

(3) Represents order position as at December based on company data, including LNGC, VLEC, FLNG, FSRU and on-shore storage units

(4) Figures presented in IFRS consolidated from 2016 to 2018, IFRS from 2010 to 2015, French GAAP from 2006 to 2009



Technology for a Sustainable World

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Safety

Excellence

Innovation

Teamwork

Transparency