

# **Investor Presentation**

## H1 2019 Results / Q3 2019 Activity update



13 January 2020

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# Agenda

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

# 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
- 368 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 a fuel for vessel propulsion
- Provides design studies, construction assistance and innovative services



## Consolidated key figures

in € million	H1 2019		
Total Revenues	123		
Royalties (newbuild)	116		
Services	7		
Net Income	57		



# 2019 Key Highlights

- Strong level of new orders
  - 9M: 40 LNGC, 6 VLEC and 3 GBS
  - Q4: 17 additional LNGC orders
- New commercial successes in LNG Fuel business including:
  - 9M: 1 bunker ship, 1 container ship converted to LNG on behalf of Hapag Lloyd,
     5 container ships on behalf of a European ship-owner
  - Q4: 1 additional bunker ship
- New TALA with Chinese shipyard WISON Offshore & Marine (Dec. 2019)
- Technology
  - The American Bureau of Shipping classification society issued the "LNG Cargo Ready" rating to GTT for its latest VLEC model
  - Approval in principle from the classification society Bureau Veritas for icebreaker vessels using Mark III Flex and N096 L03+ technology sailing in Arctic waters
  - GTT signed a joint agreement for the design of a very large crude carrier(VLCC) using LNG as fuel with Lloyd's Register (classification society) and several partners
  - GTT announced the new name of its latest technology: **GTT NEXT1** (formerly NO96 Flex)



## Core Business as at September 30, 2019 A strong order book



## 9M 2019 movements

	40 LNGC
49 new orders	6 VLEC
	3 GBS
26 deliveries	23 LNGC 3 FSRU

## Order book of 120 units

100 LNGC
6 VLEC
6 FSRU
2 FLNG
6 Onshore storage / GBS

Notes: LNGC – Liquefied Natural Gas Carrier, VLEC – Very Large Ethane Carrier, FSRU – Floating Storage and Regasification Unit, FLNG – Floating Liquefied Natural Gas , GBS – Gravity Based Structure



# New Business (LNG as Fuel) as at September 30, 2019 A growing order book





## Order book of 18 units

- **14** ULCS (Ultra Large Container Ships)
  - 1 Container vessel (converted to LNG)
  - 1 Cruise ship
  - 2 LNG bunker ships

## 9M 2019 movements

7 new orders

LNG Bunker ship
 Container vessel
 ULCS

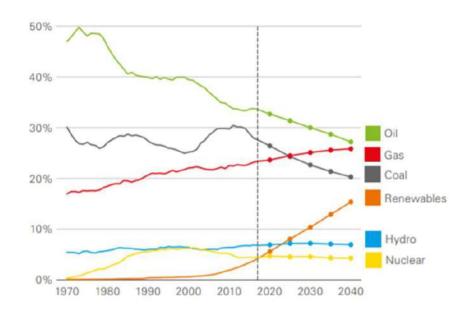


# Core business: Market & activity update

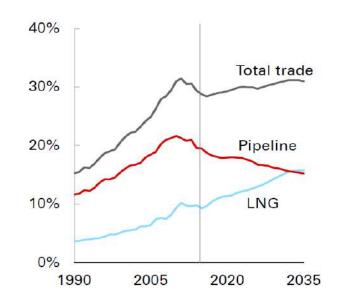


# Overall long term outlook bright for gas and LNG

### Gas share in the energy mix



### LNG share in total gas trade



Gas is the only fossil energy to increase share in the energy mix

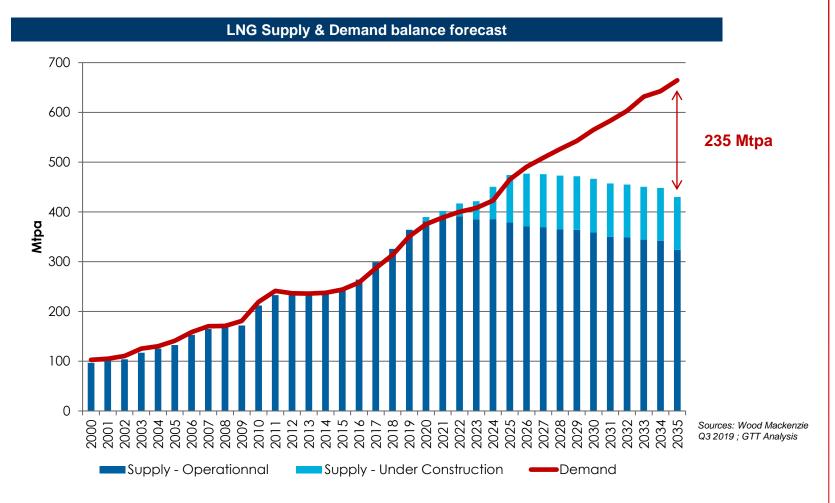
- Gas is expected to exceed coal by 2025, and could become 1<sup>st</sup> source of energy in the early 2040's
- Drivers: environmental properties, price and availability

Gas is increasingly exported thanks to LNG

- LNG to overpass pipeline trade by 2035
- Driver: greater flexibility



# LNG Supply & Demand: new capacity needed



 More FIDs expected as Supply/Demand gap widens from 2025, to reach around 235 Mtpa by 2035

# Liquefaction projects: 2 new FIDs in Q3, more in the offing

	Project	Country	Operator	Volume <i>(Mtpa)</i>	Comments
	Golden Pass	US	Exxon, QP	15.6	
	Sabine Pass T6	US	Cheniere	4.5	Cheniere has now 36 Mtpa capacity at Sabine Pass and Corpus Christi
FID taken in 2019	Mozambique LNG-1	Mozambique	Anadarko	12.9	Ownership transfered to Total
	Calcasieu Pass	US	Venture Global	10	First LNG expected in 2022
	Arctic LNG-2	Russia	Novatek	19.8	3 GBS ordered, 15 ice class LNG carriers required
N de et libeler	Qatar LNG expansion	Qatar	QP	33	11 Mtpa unbottlenecking have been added to the 22 Mtpa extension project
Most likely FIDs by 2020	Mozambique LNG-4	Mozambique	Exxon	15.2	EPC contractor chosen; \$500mln to be spent on initial construction phase
	PNG expansion	Papua N Guinea	Exxon	8	Government's approval in September 2019
	Port Arthur	US	Sempra	11	SPA of 2Mtpa with PGNiG + HoA of 5 Mtpa signed with Saudi Aramco
	Cameron expansion	US	Sempra	5	
	Freeport T4	US	Freeport	5.1	
Otherslitesha	Corpus Christi Stage III	US	Cheniere	9.5	2 Feedgas contract signed with Apache
Other likely FIDs	Lake Charles	US	Energy Transfer	16	2 SPA totalling 3 Mtpa signed with Shell
	Plaquemines	US	Venture Global	10	2.5 Mtpa signed with PGNiG
	Woodfibre	Canada	Pacific O&G	2.1	SPA signed with BP in June 19 for 0.75 Mtpa
	Tortue Phase 2	Senegal/Mauritania	BP	2.4	
	Pluto expansion	Australia	Woodside	4.7	

Latest FIDs : Calcasieu Pass in August 2019 and Artic LNG-2 in September 2019

- 63 Mtpa sanctionned in 2019, an all time record.



### Arctic LNG-2 recent FID: a great opportunity for GTT to expand in the LNG value chain with 1st GBS ordered То From liquefaction Regasification plant Trans shipment Regas terminal: **Onshore or FSRU Conventional** Ice class GBS LNG carrier LNG carrier GTT GTT GTT

The Arctic LNG-2 project sanctioned in September 2019 represents a great achievement for GTT who will equip 3 GBS of 229k cbm each

GTT could be present all along the value chain, by equipping GBS, Ice class LNG carriers and conventional LNG carriers



## GBS is suitable for a very wide range of applications 9 ..... Concrete or steel, installed in jetty, breakwater dike or nearshore 5k **50k** 200k+ **GBS range** Storage capacity (cbm) LNG SUPPLY CHAIN Liquefaction or regasification plants Peak Shaving Satellite Station Inland distribution **POWER Markets** Industry Company Captive Power **BUNKERING** LNG as fuel LOCATION Location • Islands, remote costal areas, isolated industrial needs (ex.: mining), ... 15

## Ethane: Order of 6 VLEC in September 2019

### An increasing ethane transportation market

Transportation of Liquefied Ethane is an increasing market, driven by the strong development of shale gas and shale oil production in the US

- Excess supply of ethane (byproduct of shale oil and shale gas) and interdiction to flare have pushed the US to start exporting ethane in 2014
- Market to further develop and exports to rise

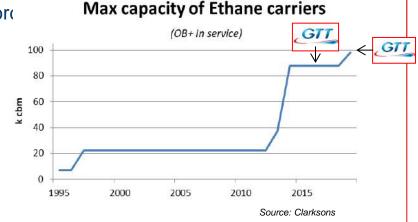


#### US ethane production, consumptions and exports

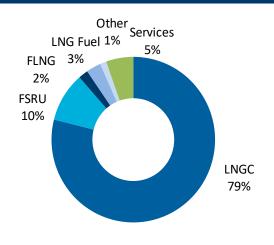
#### Vessels size increase make GTT membrane very competitive

## With the 6 VLEC, GTT breaks its own capacity record for VLECs

- 98k cbm vs 88k cbm for the 6 Reliance ordered in 2014
- Increasing size of vessels is favorable to GTT technology



## Core business long term estimates



### GTT 9M 2019 Sales

### GTT order estimates over 2019-2028

- LNGC: between 280 and 310 units<sup>(1)</sup>
- FSRU: between 30 and 40 units
- FLNG: Up to 5 units
- Onshore and GBS tanks: between 10 and 15 units





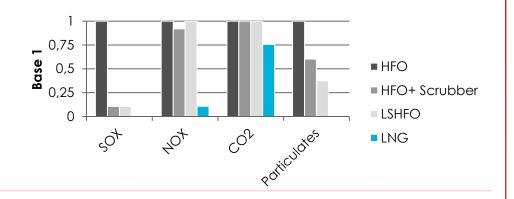


# New businesses: LNG Fuel developments



# IMO 2020: different approaches to reduce the emissions, among them LNG

LNG is the only solution allowing comprehensive environmental compliance



Improving availability

- New LNG bunkering infrastructure under development
- International O&G companies new offer

Technology availability

- Around 320 LNG fueled ships in operation or on order, mainly small tanks
- Used for years by LNG Carriers



# LNG Fuel: open loop scrubbers banned in key areas



Source : GTT, Lloyd's list NB: Not exhaustive list - Other ports in Ireland and the US ban open loop scrubbers

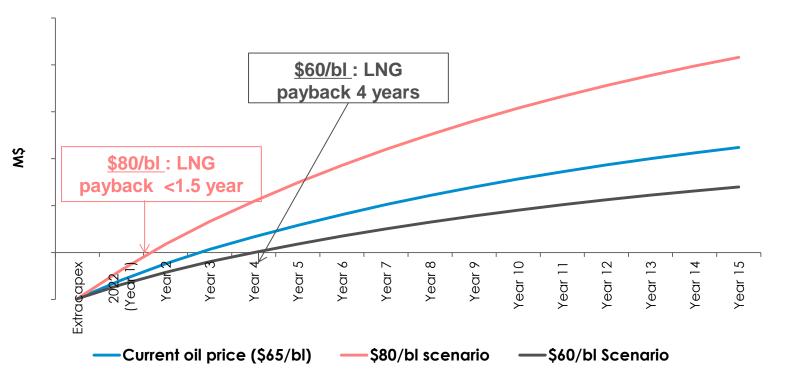
- Major announcements on open loop scrubbers ban over the last months, including China, Singapore and Fujairah (UAE)
  - Singapore and Fujairah are 2 of the 3 biggest bunker ports in the world
- Alternative: closed loop scrubber are more expensive and logistically more complicated (washed waters to discharge in ports).

# GTT

## Room for LNG as fuel to speed up development

# LNG as fuel is a short payback solution

Payback of LNG as fuel vs compliant fuels



- At \$80/bl, payback is very short (≈18 months)
- Even with low oil price (\$60/bl), LNG as fuel is paid back in just 4 years

### **Assumptions:**

- Large Containership: 14,000 TEU
- Discount rate: 8%
- Vessel ordered today, delivered early 2022
- Route: Asia <-> Europe, bunkering in Rotterdam
- Avg. consumption: 150t/d HFO
- LNG prices are indexed prices (Oil, HH, NBP) +\$100/toneqHFO bunkering
- Prices until 2020 based on futures (Platts)
- Oil price assumed stable at today's price (\$65/bl)
- Oil fuel Prices stabilized at today's level by 2025

# 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



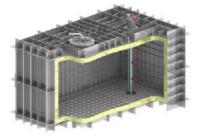
Cost effective solution for bulk carriers



Lean bunker barge to standardize the market

## New LNG Brick<sup>®</sup>

- dedicated to medium-sized merchant vessels
- test phase completed





# LNG Fuel: dedicated GTT Services are key for our new customers

## LNG Training Services: courses and software

Particularly suited for newcomers in LNG Fuel

## Assistance to first bunkering operations

Advising the world's first LNG bunkering operations

## HEARS – Hotline for emergency situations

 Available 24/7 to manage any emergency situation involving the LNG tank









# LNG Fuel: wide network of partnerships

## - 25 shipyards under licensed agreements



IMABARI

SHIPBUILDING CO. LTD.







Network of membrane tank outfitters



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









(1) Fuel Gas Handling System

# Commercial successes: container ships...



# European ship-owner ULCS – Newbuilds – 14,000 m<sup>3</sup>

- **5 ships** in June 2019
- Built at Jiangnan Shipyard



## Hapag Lloyd VLCS - LNG Retrofit – 6,700 m<sup>3</sup>

- 1 ship in April 2019
- Hudong-Zhonghua as membrane outfitter



## CMA CGM ULCS – Newbuilds – 18,600 m<sup>3</sup>

- 9 ships in November 2017
- Shipyards :
  - 5 ships in Hudong-Zhonghua
  - 4 ships in Jiangnan Shipyard



## ... Cruise ships and bunker vessels



## PONANT Expedition Ship – 4,500 m<sup>3</sup>

- 1 ship in July 2018
- Built at VARD Norway
- GTT acting as EPC for the LNG tank



## MOL<sup>1</sup> LNG Bunkering Vessel – 18,600 m<sup>3</sup>

- 1 ship in January 2018
- Built at Hudong Zhonghua Shipyard

## MOL<sup>1</sup> LNG Bunkering Vessel – 12,000 m<sup>3</sup>

- 1 ship in March 2019
- Built at SembCorp Marine Shipyard

<sup>1</sup> Mitsui OSK Lines

G

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# Service activity



# Services to make LNG easy

- Support of GTT's LNG core activities
- Support for the development of LNG as fuel



### CONSULTING

to get LNG as fuel projects on track



TRAINING

to raise awareness about LNG

MAINTENANCE

to maintain the industry's

track record



### LNG OPERATIONS

to support operators in the first LNG operations



TESTS

to facilitate LNG tanks maintenance

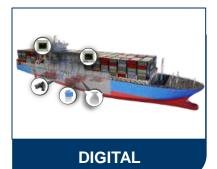


to avoid escalation and minimise impacts



### ENGINEERING

to enable projects and support daily operations



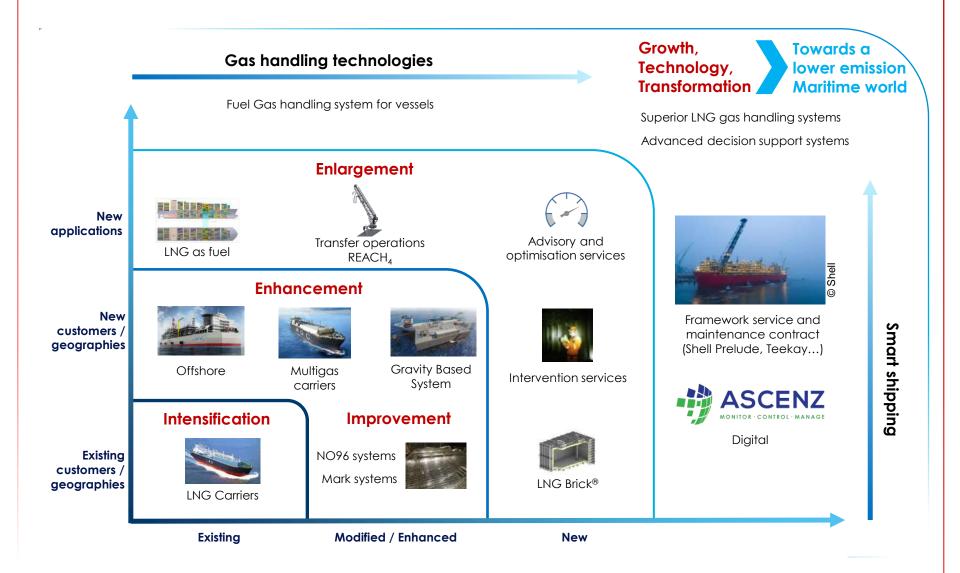
to support the industry's digital transformation



# Strategic roadmap



# GTT's strategic roadmap



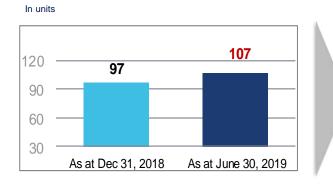


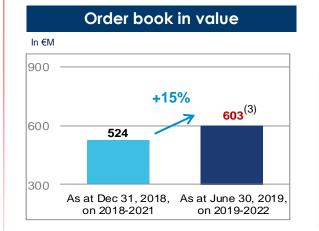
# Financials



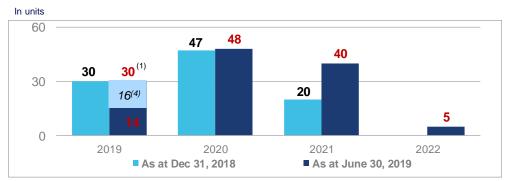
# H12019: Order book overview (core business) – IFRS 15

### Order book in units

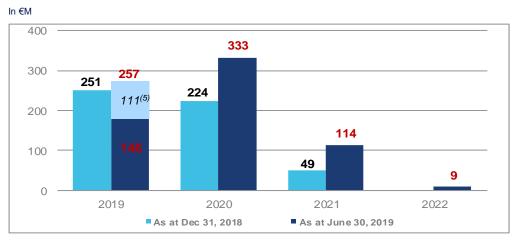




#### Order book by year of delivery (units per year)



### Revenues expected from current order book (royalties<sup>2</sup>)



(1) 2019 deliveries include 16 vessels delivered until June 30, 2019 / Delivery dates could move according to the shipyards/EPCs' building timetables.

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

(3) Taking into account 2019 H1 revenues from royalties (€111M), the total amount would have been €713M

(4) 2019 H1 deliveries

(5) 2019 H1 revenues from royalties.

## H1 2019 financial performance

### Summary consolidated accounts

In € M	H1 2018	H1 2019	Change
Total Revenues	127.2	122.6	-3.6%
EBITDA <sup>(1)</sup>	84.2	70.9	-15.8%
Margin (%)	66.1%	57.8%	
Operating Income	82.4	68.9	-16.4%
Margin (%)	64.8%	56.2%	
Net income	75.7	56.6	-25.3%
Margin (%)	59.5%	46.2%	
Free Cash Flow <sup>(2)</sup>	91.6	62.3	nm
Change in Working Capital <sup>(3)</sup>	(17.7)	5.5	nm
Capex	10.3	3.1	-69.9%
Dividend paid	49.3	66.3	+34.5%
in € M	30/06/2018	30/06/2019	

in € M	30/06/2018	30/06/2019	
Cash Position	125.3	155.6	

### Key highlights

#### - Revenues

- Newbuilds (royalties): -4%
  - Royalties from LNGCs and FSRUs will fully benefit from the 2018 strong flow of orders from H2 2019
  - Increase of revenues on Q/Q basis
- Service revenue: +2%, mainly due to increase in maintenance and intervention services, and to the integration of Ascenz
- EBITDA: -16%
  - Increase of external charges: +32% due to increased number of new orders
  - Increase of staff costs: +5%
- Net profit: impact of H1 2018 Tax refund (one-off)
- Capex: Impact of Ascenz acquisition in H1 2018
- Dividend paid: strong increase of final dividend (+35%)
- 2019 interim dividend: €1.50 to be paid in Sept. 2019

GTT

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

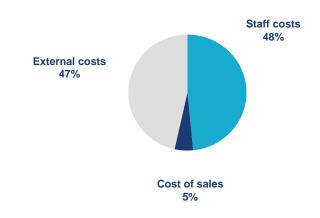
## H1 2019 Cost base

GTT consolidated operational costs				
in € M	H1 2018	H1 2019	Change (%)	
Goods purchased	(1.3)	(2.6)	+98.8%	
% sales	-1%	-2%		
Subcontracted Test and Studies	(7.2)	(11.3)	+56.7%	
Rental and Insurance	(2.1)	(2.4)	+15.3%	
Travel Expenditures	(4.0)	(4.4)	+9.5%	
Other External Costs	(4.9)	(5.8)	+19.2%	
Total External Costs	(18.2)	(23.9)	+31.5%	
% sales	-14%	-20%		
Salaries and Social Charges	(19.6)	(20.8)	+5.9%	
Share-based payments	(0.2)	(0.8)	nm	
Profit Sharing	(3.9)	(3.2)	-17.4%	
Total Staff Costs	(23.7)	(24.9)	+4.7%	
% sales	-19%	-20%		
Other <sup>(1)</sup>	(1.6)	(2.3)	+43.8%	
% sales	-1%	-2%		

### Key highlights

- External costs: +32%
  - Subcontractors +57%, due to strong flow of orders
  - Other external costs +19% (mainly fees from external advisors and patent filing)
- Staff costs up 5%, mainly due to the increase in headcount

### GTT H1 2019 costs<sup>(1)</sup> by nature



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



# First nine months 2019 consolidated revenues

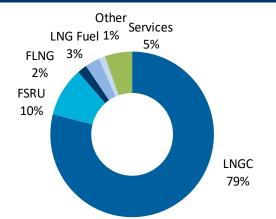
Summary financials				
in €M	9M 2018	9M 2019	Change (%)	
Revenues	183.7	199.7	+8.7%	
Newbuilds	173.0	188.9	+9.2%	
% of revenues	94%	95%		
LNGC/VLEC	149.9	157.6	+5.1%	
% of revenues	82%	79%		
FSRU	19.6	19.3	-1.8%	
% of revenues	11%	10%		
FLNG	2.0	3.8	+92.3%	
% of revenues	1%	2%		
Onshore storage	0.7	2.0	+188.3%	
% of revenues	-	1%		
Barge	0.3	0.5	+76.0%	
% of revenues	-	-		
LNG Fuel	0.5	5.8	ns	
% of revenues	-	3%		
Services	10.6	10.8	+1.2%	
% of revenues	6%	5%		

### Key highlights

### Total revenues: €200 million (+8.7%)

- Revenues from newbuilds: the increase is mainly explained by the strong flow of LNG carrier orders since 2018 and by the growth of LNG Fuel new business activities
- Revenues from services: the service activity benefited from a good performance from maintenance and assistance in service vessels. On the other hand, preliminary engineering studies were significantly less important.







# Outlook



2019 Outlo	ok confirmed
GTT revenue <sup>(1)</sup>	<ul> <li>2019 consolidated revenue estimated in a range of €260M to €280M</li> </ul>
EBITDA	<ul> <li>2019 consolidated EBITDA estimated in a range of €160M to €170M</li> </ul>
Dividend Payment <sup>(2)</sup>	<ul> <li>2019 and 2020 payout of at least 80%</li> </ul>

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

(2) 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



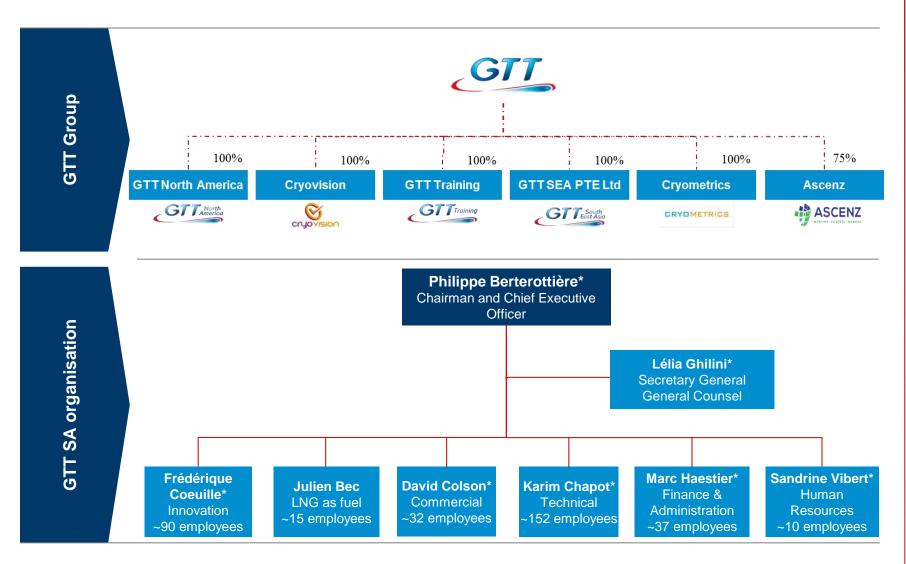
Image courtesy of STX, Engie, Excelerate, SCF Group, Shell, CMA CGM, Matthieu Pesquet, Conrad



# Appendix



# A streamlined group and organisation



\* Member of the executive committee

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





## GTT ecosystem

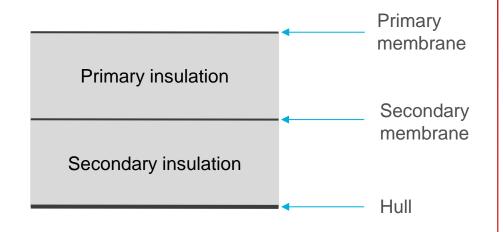


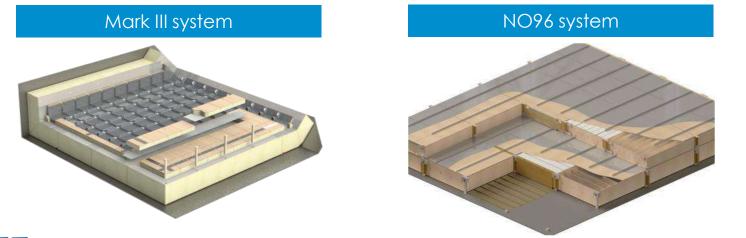


# GTT membrane technologies

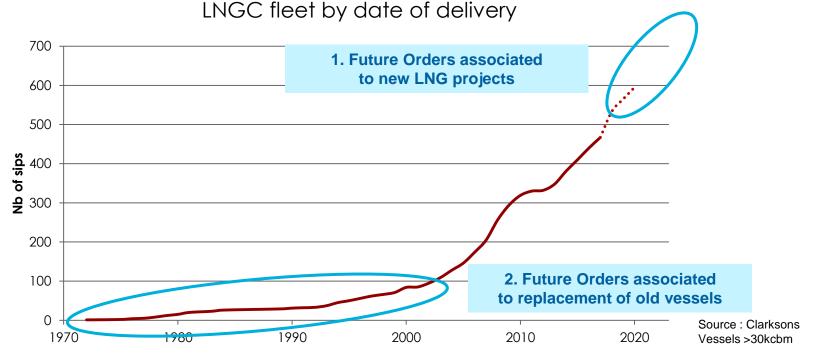
### General principle:

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





# Ageing LNGCs represent an additional market potential for GTT



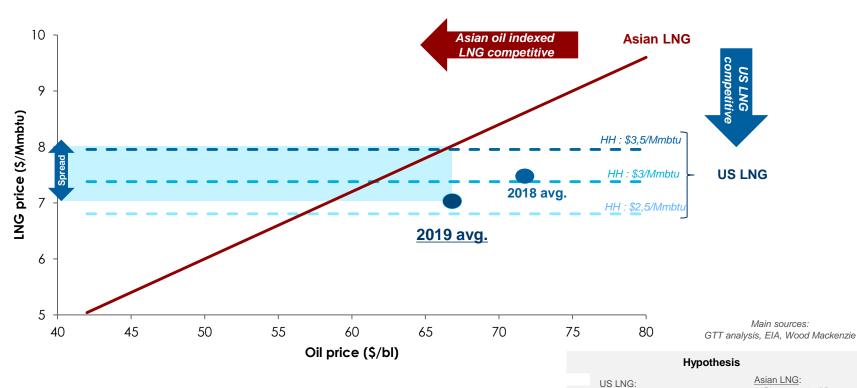
- Vessels built before 2000's are becoming less and less economically adapted

- Reduced size
- Inefficient motorization: Old ST can consume twice more fuel than modern MEGI/XDF
- High Boil Off
- 55 ageing vessels with charter contract ending by 2022

### Replacement of old vessels will represent an increasing share of orders



# US LNG still competitive in Asia



### US LNG vs. Asian LNG price depending on Henry Hub and Oil prices

### – Despite 2019 oil ≈\$65/bl, US LNG remains competitive in Asia

- Approximately \$1/Mmbtu spread advantage vs oil indexed contracts

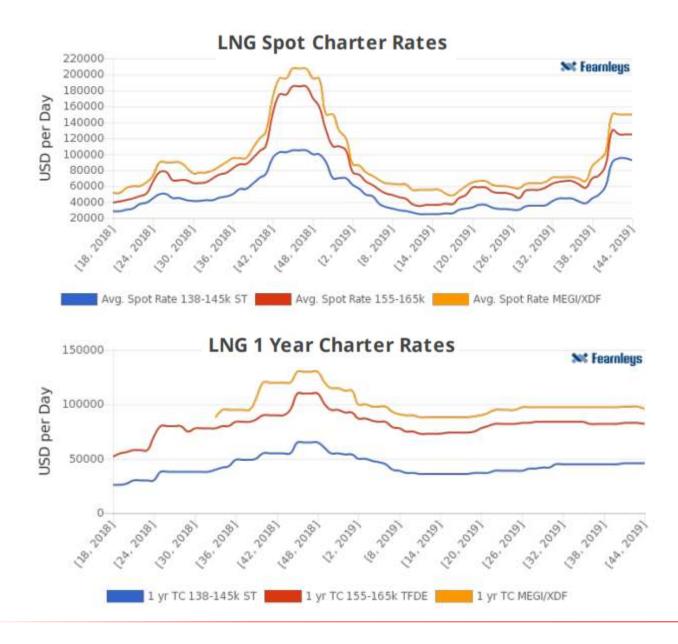
Asian LNG: • Slope: 12% of Brent price

Tolling Fee: 2.5\$Shipping: 1.43\$ (US East ->Japan,

174k cbm Me-GI or X-DF)

• HH+15%

### LNG short term charter rates





### LNGCs – Our main business

- Vessels equipped for transporting LNG
- Existing GTT fleet: 390 units<sup>1</sup>
- In order: 100 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

1 As at 30 Sept 2019



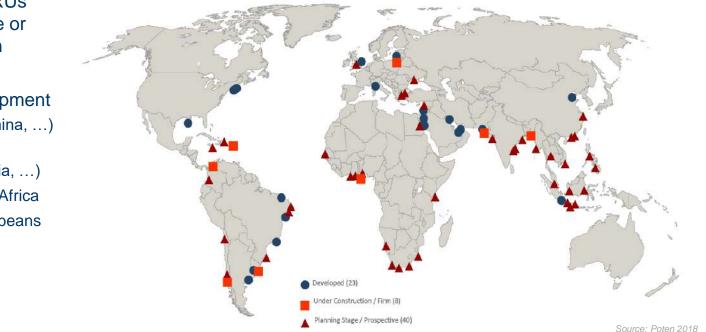
# FSRUs – The game changer for new importing countries

### - 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



#### FSRUs market outlook



### More than 40 FSRUs currently in service or under construction

### Worldwide development

- Asia (India, China, ...)
- Europe (Turkey, Croatia, ...)
- South & West Africa
- LatAm & Carribeans

## FLNGs – the new frontier of the LNG world

- Floating units which ensure treatment of gas, liquefy and store it
- Existing GTT fleet: 2 units<sup>1</sup>
- In order: 2 units<sup>1</sup>



### Main drivers

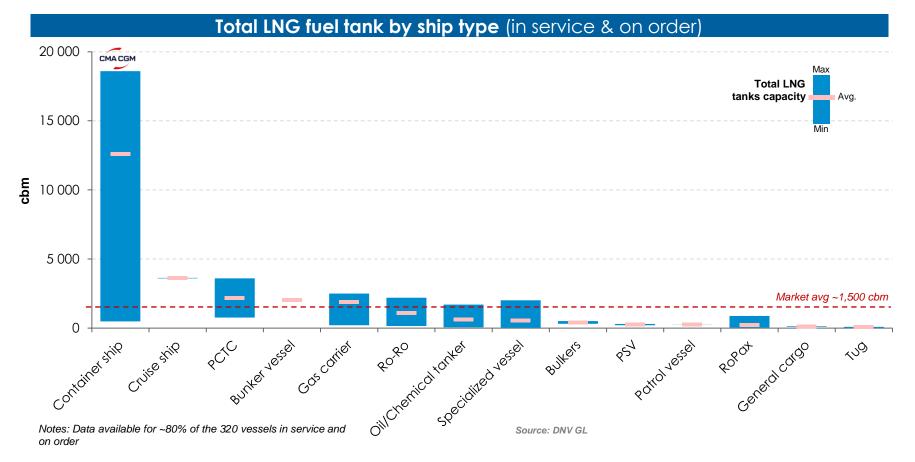
- Monetisation of stranded offshore gas reserves
- Better acceptability (no NIMBY syndrom)

### GTT key advantages

- Extended amortization perspectives
- Deck space available for liquefaction equipment
- More affordable cost



# Current LNG Fuel tank market situation



- Recent market that started with small ships and where Type C tanks has been preferred (tugs, ferries, PSV, ... with LNG tanks up to several hundreds of cbm)
- Large vessel segment, where GTT technologies are the most relevant, is now emerging (container ships, bulkers, ... with several thousands of cbm and more)
- Recent order of 9 Very Large Container Ships with 18,600 cbm membrane LNG tank propelled the market to a new level



# LNG Fuel market potential for GTT

Shipping Markets	Relevant Market Segments for GTT	Historical 10y annual orders	Fleet at end 2018			
MAIN TARGETS						
<b>Container Ships</b>	3-20+ kTEU	~260	~5,400			
Bulkers	100+ kdwt					
Oil Tankers	125+ kdwt					
Cruise Ships	All size	~40	~1,200			
Car & Truck Carriers	All Size	~40	~1,200			
TOTAL SHIPPING MARKET						
All vessels (excl. LNGC, FSRU)	100 GT+	2,600	~95,000			

Source: GTT analysis, Clarksons

Global market represents a pool of ~2,600 ships per year (newbuilds)

- GTT is particularly focusing on a segment of ~ 300 ships per year (newbuilds)
- LNG as Fuel penetration will mainly depend on spread between LSHFO and LNG price

GTT is confident in the development of this market and is working hard to be prepared for its ramp-up



# Focus on GTT's competitive advantages

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

	GTT	Moss 💾	SPB 😐	KC-1 🔝
Technology	Membrane	<ul> <li>Spherical tank</li> </ul>	▶ Tank	Membrane
Construction costs	Requires less steel and aluminum than tanks for a given LNG capacity	<ul> <li>Higher costs</li> </ul>	<ul> <li>Higher costs</li> </ul>	<ul> <li>Slightly higher costs than GTT</li> </ul>
Operating costs	<ul> <li>More efficient use of space</li> <li>Limited BOR (0.07%)</li> </ul>	Higher fuel / fee costs	Higher fuel / fee costs	<ul> <li>Higher opex due to BOR</li> </ul>
LNGCs in construction	▶ 95	▶ 4	▶ 2	▶ 0
LNGCs in operation	▶ 390	▶ 128	▶ 6	2 (on repair)
Other	Value added services	<ul> <li>Higher centre of gravity; harder to navigate</li> </ul>	<ul> <li>Huge losses and delays on vessels in orderbook.</li> <li>No significant experience</li> </ul>	<ul> <li>Korean technology with little experience at sea</li> </ul>

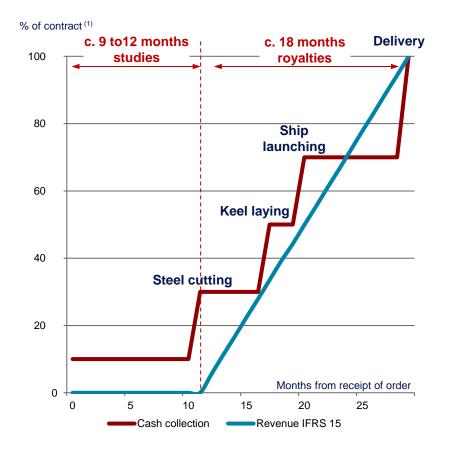
GTT technologies : cost effective, volume optimisation and high return of experience

Source: Company data and comment (Sept 30, 2019), Clarksons

(1) Other technologies are being developed, however are not known to have obtained orders to date (e.g. DSME's Solidus). Excludes vessel orders below 30,000 m<sup>3</sup>

# An attractive business model supporting high cash generation

#### Invoicing and revenue recognition



### Business model supports high cash generation

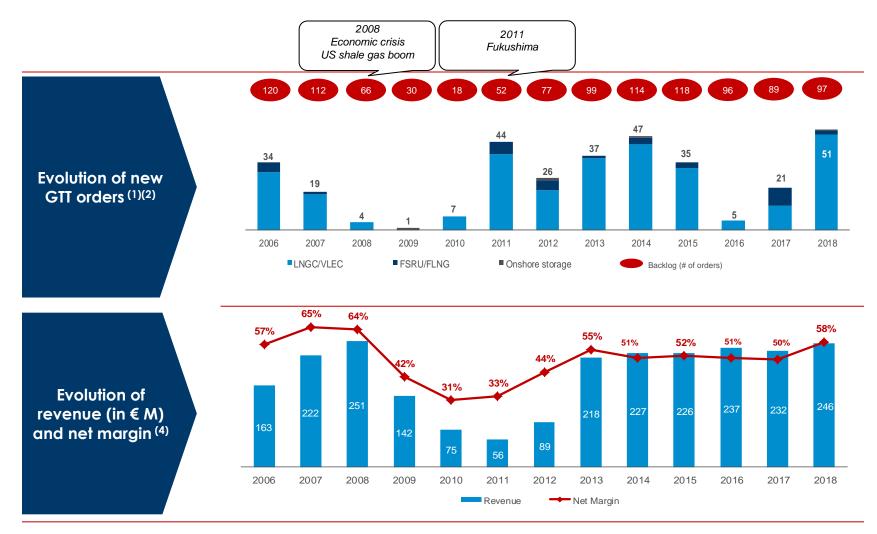
 Revenue is recognized pro-rata temporis between construction milestones

 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%)



# Appendix: track record of high margin and strong backlog



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





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