

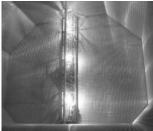
# **Investor Presentation**











November, 2017

Safety Excellence Innovation Teamwork Transparency

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# GTT, a French engineering company, global leader in liquefied gas containment systems

#### Profile

- Leading engineering company
- Expert in liquefied gas containment systems
- More than 50-year track record

#### Activities

- Designs and licenses membrane technologies for containment of liquefied gas during shipping or onshore and offshore storage
- Provides design studies, construction assistance and innovative services

#### **Key figures**

in € million	H1 2016	H1 2017
Total Revenues	116.9	111.3
Royalties	111.1	103.4
Services	5.8	7.9
Net Income	60.5	61.2
Net margin (%)	51.8%	55.0%



#### As at June 2017

► 344 employees<sup>(1)</sup>



(1) Excluding interns

# **Key Highlights**

- Revenues for the first nine months 2017: €168.5 million (-4.6%)
- Movements in the order book during the first nine months 2017
  - Deliveries: 24 (21 LNGC/VLEC, 2 FSRU, 1 FLNG)
    - Among deliveries, the Prelude FLNG and the first icebreaking LNGC
  - New orders: 14 (8 LNGC, 5 FSRU, 1 FLNG)
    - Including 1 FSRU order received in Q3 2017
- Order book of 86 units as at Sept 30, 2017
  - 70 LNGC<sup>(1),</sup> 11 FSRU/RV<sup>(1),</sup> 2 FLNG, 2 Onshore storage and 1 LNG bunker barge
- New service offering
  - Global service agreement with Teekay
  - Engineering services to improve LNGC performance
  - Services contract for Shell Prelude FLNG
- One new FSRU order in October 2017







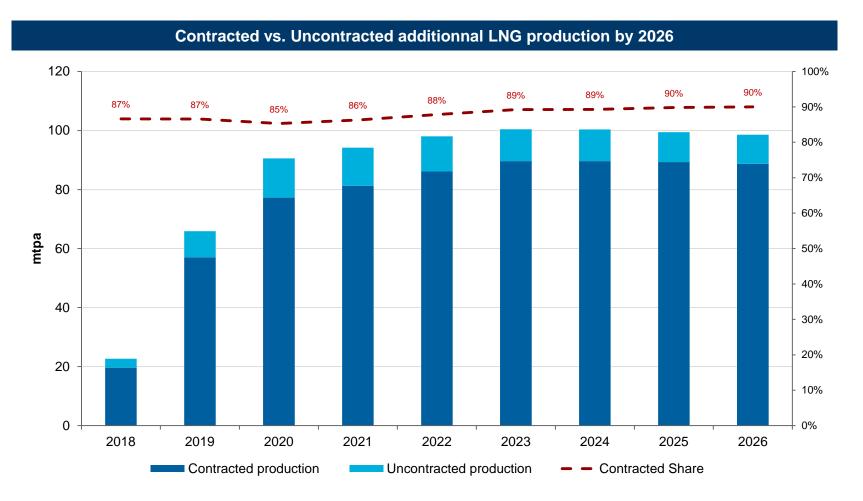
(1) Including a LNGC order conversion into a FSRU order Notes: LNGC - Liquefied Natural Gas Carrier, VLEC - Very Large Ethane Carrier, FSRU - Floating Storage and Regasification Unit, RV - Regasification Vessel, FLNG -Floating Liquefied Natural Gas





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# Most of additional LNG production is already contracted



► ~90% of additional volumes is already contracted by 2026

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- ▶ High enough to secure financing
- Remaining production to be sold on the spot market

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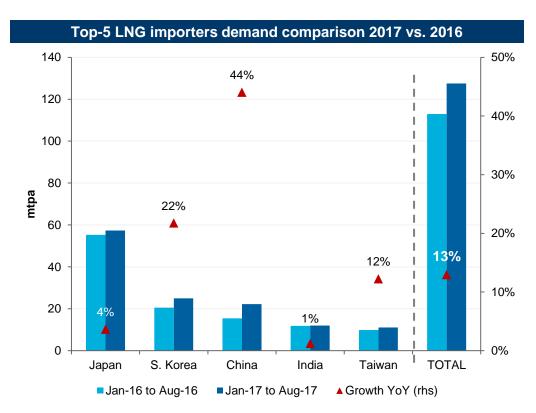
Sources: Wood Mackenzie

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# Asian LNG imports continue to grow in 2017 vs. 2016 due to structural energy mix evolution

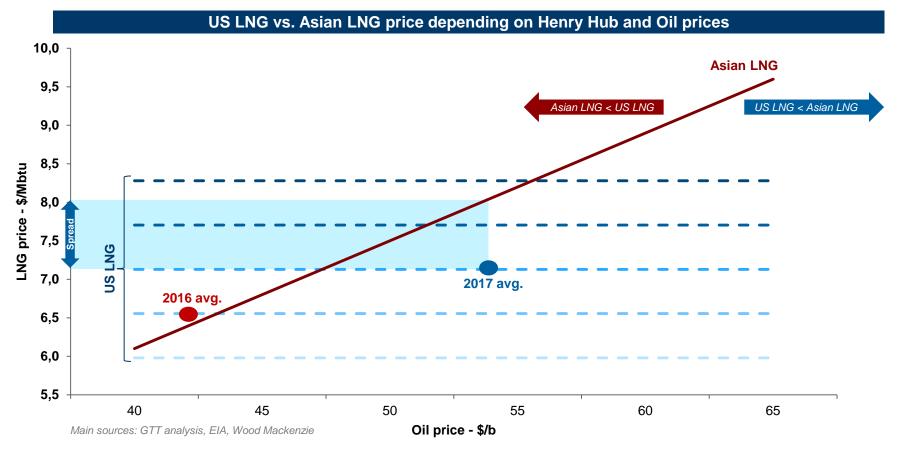


Main sources: National Custody Agencies and Ministries; Wood Mackenzie

- ▶ Demand of top-5 LNG importing countries (~70% of imports in 2016) grew by 13% in 2017 vs. 2016 (Jan to Aug. YoY), mainly due to:
  - Coal to Gas switch, especially in China due to environmental considerations and LNG competitiveness vs. coal
  - ► Lower nuclear restart, especially in Japan due to social and legal issues
- ► Coal progressive slowdown in China and South Korea expected to strengthen in the mid/long term
- ► India growth expected to fully materialize from 2018



# **US LNG** is competitive in Asia



#### 2017 avg. : JCC = 53,3\$/b and Henry Hub = 3,0\$/Mbtu

- US LNG ≈ 7.1\$/Mbtu
- Asian LNG ≈ 8.0\$/Mbtu

#### **Hypothesis**

#### US LNG:

- HH+15%
- Tolling Fee: 2.25\$
- · Shipping: 1.43\$ (US East -> Japan, 174k cbm Me-GI or X-DF)

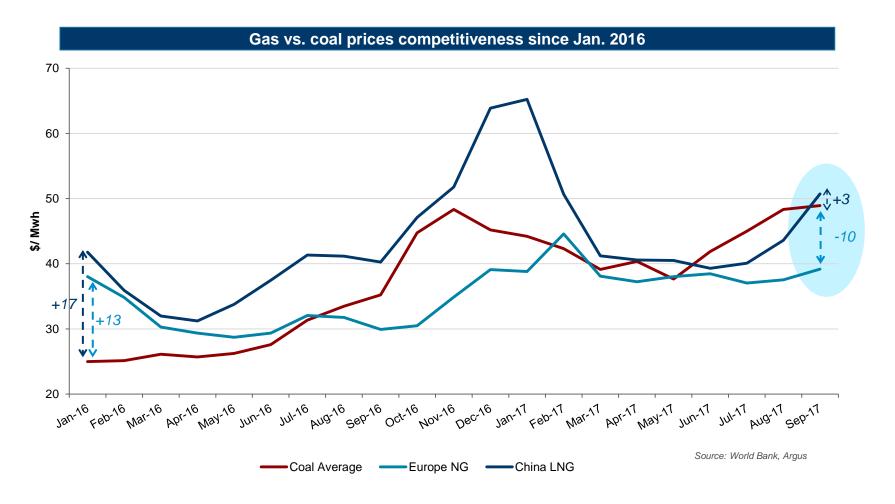
#### Asian LNG:

- · Slope: 14% of JCC price
- Constant: 0.5\$



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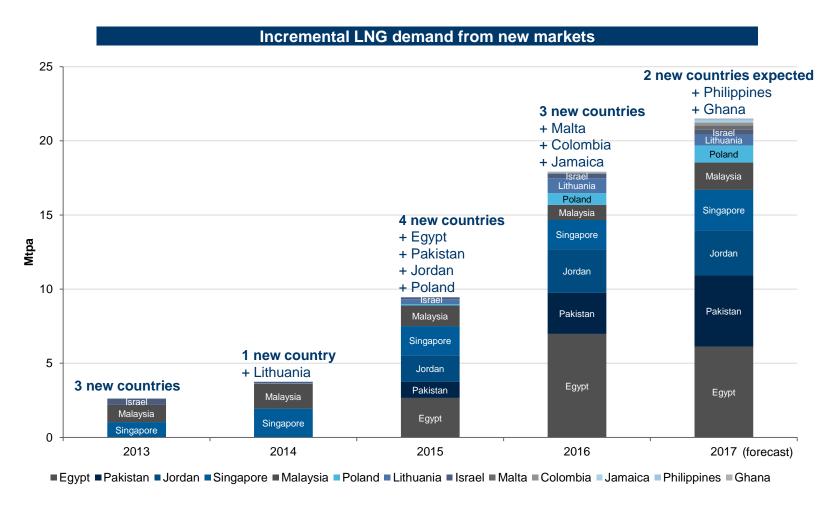
# Gas and coal prices trend is accelerating the coal-to-gas switch





\*Including power plant efficiency: with coal = 34%; with natural gas = 48%

## Low LNG prices attract new importing countries

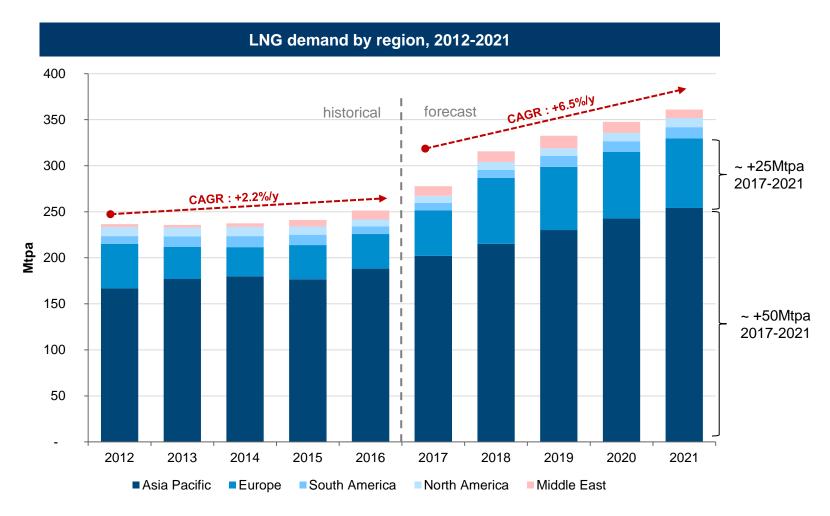


- ► 13 new importing countries since 2013
- ► ~18 Mtpa in 2016 ; ~7% of worldwide demand



Source: Wood Mackenzie

# LNG trade forecast is buoyant

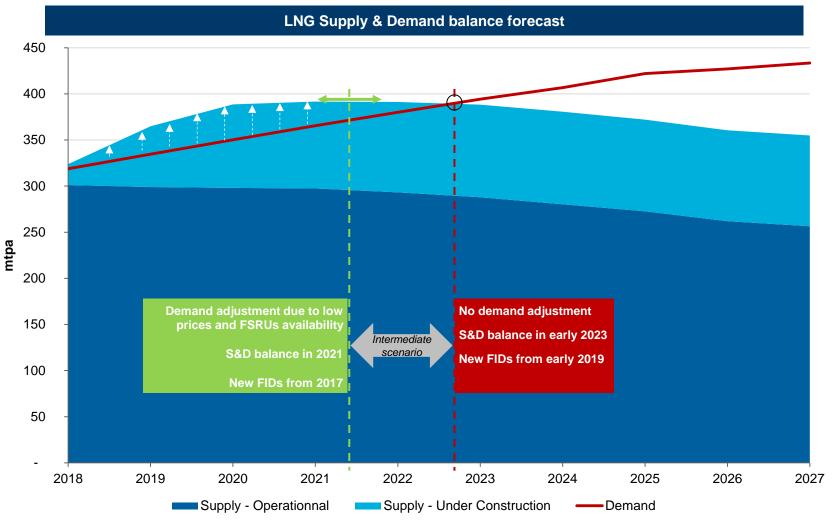


Majority of volumes expected to flow mainly in Asia and also Europe



Source: Wood Mackenzie

# LNG Supply & Demand could balance from 2021



Sources: Wood Mackenzie; GTT Analysis

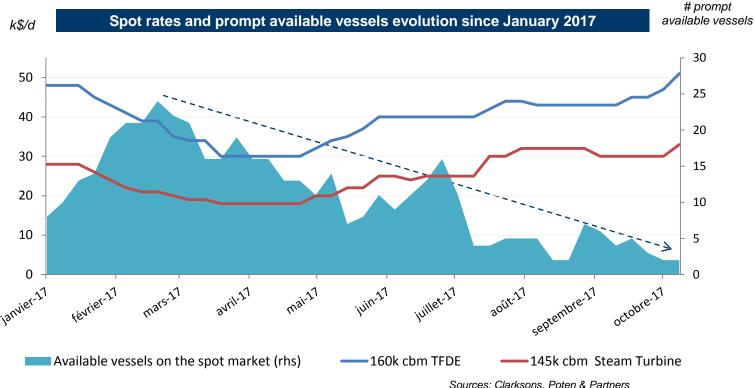






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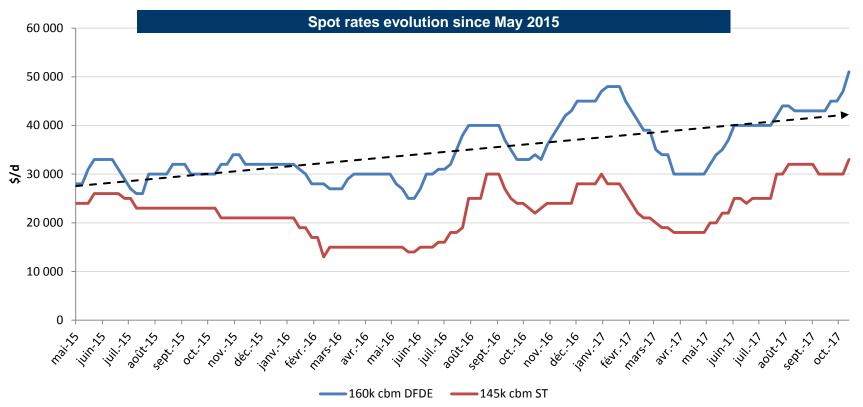
# **LNG Shipping – Positive trend is firming on the** spot market



- Sources: Clarksons, Poten & Partners
- Chart rates improving since May supported by vessel's availability reduction trend since **February** 
  - End of October 2017: 51k\$/d for 160k cbm TFDE vs. 30k\$/d in April 2017



# LNG Shipping - Positive trend is firming on the spot market



- Positive trend on the mid-term (average May 2015 October 2017)
- Trend expected to continue as new supply projects starting-up in Q4-17 (Sabine Pass T4, Wheatstone, Yamal)



# LNG Shipping – Liquefaction projects are underway

- A large majority of liquefaction projects currently under construction expected to start-up in time
  - c.50 vessels to be ordered from these under construction projects
  - Main downside risks
    - Additional LNG contracts swapping (shorter routes)
    - Start-up delays and/or slow ramp-up
- New FIDs ahead<sup>1</sup>
  - 2017: Fortuna FLNG (2.2 Mtpa)
  - ▶ 2018: Sabine Pass T6, Corpus T3, Cameron T4, Magnolia, Golden Pass and Delphin are the near term contenders for sanction
    - Uncertainties related to Qatar ambitions



<sup>1</sup> Source Wood Mackenzie

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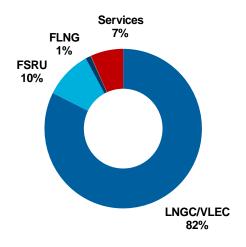
# **Business Activity**



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# Core business and adjacent markets

#### **GTT Q3 2017 Sales**



#### GTT order estimates over 2017-2026

- LNGC: between 235 and 255 units
  - Already 8 orders secured during H1 2017
- FSRU: between 30 and 40 units
  - Already 4 orders secured during H1 2017
- FLNG: between 5 and 10 units
  - Already 1 order secured during H1 2017
- Onshore tanks: between 5 and 10 units







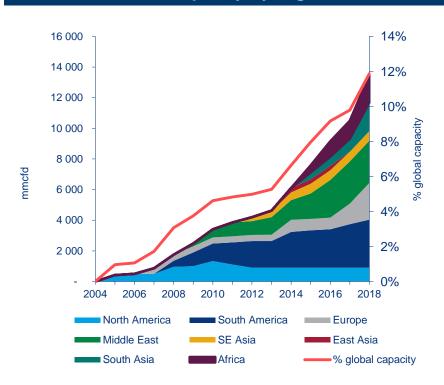


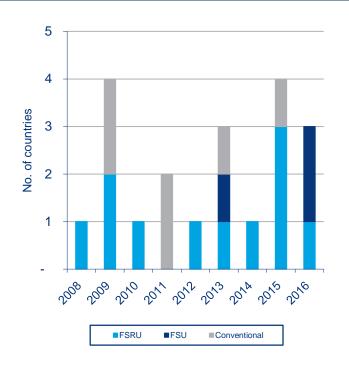
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# Strong potential: FSRUs are clearly preferred by new LNG importers



#### New LNG importing countries first terminal





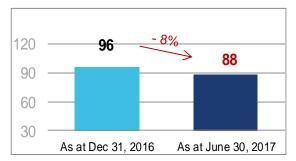


Source: Wood Mackenzie

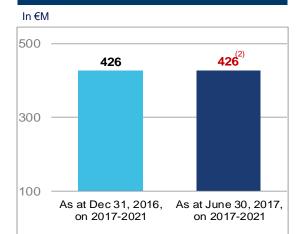
### Order book overview (H1 2017)

#### Order book in units

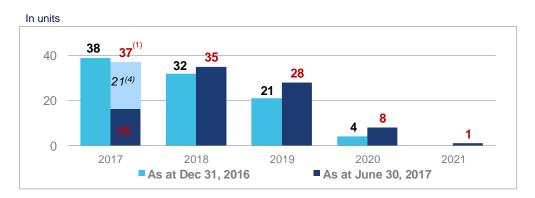
#### In units



#### Order book in value

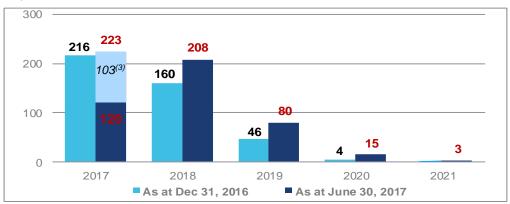


#### Order book by year of delivery (units per year)



#### Revenues from current order book

#### In €M



(1) 2017 deliveries include 21 vessels delivered until June 30, 2017 / Delivery dates could move according to the shipyards/EPCs' building timetables.

(2) Taking into account 2017 H1 revenues from royalties (€103M), the total amount would have been €529M

<sup>(3)</sup> 2017 H1 revenues from royalties.

(4) 2017 H1 deliveries



### Strategy and activity: expand innovative services

**Advisory and optimisation services** Intervention services **TRAINING TIBIA** Training tool Inspection tool for LNGC for **FLNG** crew members inspection **HEARS GTT ON SITE LNG Advisor Technical** Hotline Boil-off Gas Emergency assistance monitoring MOON Assistance & maintenance system Response & repair **MOtorized** Service **GLOBAL AND** BalloON for **primary CUSTOMIZED G77** membrane **SERVICE** inspection **OFFERING TAMI STUDIES SLOSHIELD** Thermal camera **PRE-PROJECT** for secondary Sloshing Vessel modification membrane prediction & feasibility studies inspection **SUPPLIERS**' monitoring **G-SIM** front end **APPROVAL** system engineering LNG cargo Materials quality management simulator Large range of services to support ship-Software Test owners and oil & gas companies

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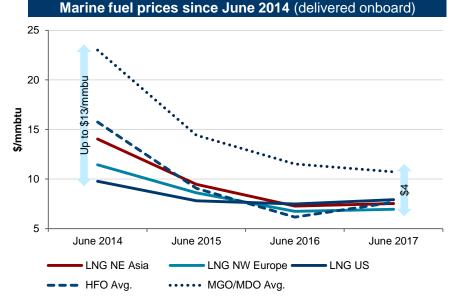
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# LNG as fuel & Bunkering: GTT ideally positioned to take full benefit of expected market development

- Fuel prices spread narrowing since 2014 favouring small-mid vessels projects ('000 cbm LNG tanks)
- Larger vessels market (>10,000 cbm LNG tanks) expecting better price environment to see major investments
- GTT's solution highly suited and competitive for this market
  - Space efficiency
  - Cost
  - Weight
  - **Planning**



Bunkering cost hypothesis: \$2/mmbtu Liquefaction fees for US LNG: \$2.5/mmbtu HFO and MDO avg. based on Singapore, Rotterdam and Los Angeles prices

Main sources: GTT Analysis, Argus LNG, Bunker Index









# **Financials**

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### H1 2017 financial performance

Summary financials				
In € M	H1 2016	H1 2017	Change	
Total Revenues	116.9	111.3	-4.7%	
EBITDA <sup>(1)</sup>	73.7	74.6	+1.2%	
Margin (%)	63.1%	67.0%		
Operating Income	72.1	73.0	+1.2%	
Margin (%)	61.7%	65.6%		
Net income	60.5	61.2	+1.2%	
Margin (%)	51.8%	55.0%		
Free Cash Flow <sup>(2)</sup>	42.0	64.5	+53.6%	
Change in Working Capital <sup>(3)</sup>	30.5	8.8	nm	
Capex	1.2	1.3	+10.0%	
Dividend paid	50.4	49.3	-2.2%	
in € M	31/12/2016	30/06/2017		
Cash Position	73.4	77.3	+1.2%	
Working Capital Requirement <sup>(4)</sup>	18.9	27.8	+46.8%	

#### **Key highlights**

- Decrease in revenues (-4.7%)
  - Revenues derived from royalties: -6.9%
    - Impacted by the low level of orders during 2016
  - Revenues from services: +36.4%
- **Strong margins** 
  - High level of margins (>50%)
  - Increase of 1.2% in EBITDA, EBIT and net income
- Free Cash Flow
  - H1 Free cashflow impacted by working capital movement linked to a seasonal effect (payment under profit sharing scheme)
- High cash position of €77 M (+ €13 M classified in financial assets)
- Interim dividend: 1.33€ per share to be paid in September 2017

Defined as trade and other receivables + other current assets - trade and other payables - other current liabilities



Defined as EBIT + the depreciation charge on assets under IFRS

Defined as EBITDA - capex - change in working capital

Defined as December 31 working capital - June 30 working capital

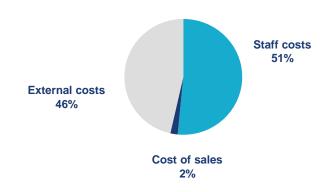
### **Cost base**

GTT operational costs			
in € M	H1 2016	H1 2017	Change (%)
Cost of sales	(1.4)	(0.9)	-12%
% sales	(1%)	(1%)	
Subcontracted Test and Studies	(8.7)	(7.1)	-18%
Rental and Insurance	(2.7)	(2.7)	+3%
Travel Expenditures	(4.4)	(4.0)	-9%
Other External Costs	(5.0)	(4.7)	-7%
Total External Costs	(20.7)	(18.5)	-11%
% sales	(18%)	(17%)	
Salaries and Social Charges	(17.6)	(17.1)	-3%
Share-based payments	(0.5)	(0.4)	-12%
Profit Sharing	(3.0)	(3.1)	+4%
Total Staff Costs	(21.0)	(20.6)	-2%
% sales	(18%)	(19%)	
Other	(1.6)	1.8	nm
% sales	(1%)	2%	
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#### **Key highlights**

- **External costs** 
  - Down 11% mainly due to a decrease in subcontracted tests and studies and in legal fees
  - -1pt in % of sales
- Staff costs down 2% due to a decrease in staff count
- A cost base offering a high operating leverage

### GTT H1 2017 costs by nature



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## 9 months 2017 revenues at €169 million

Summary financials				
in € M	9M 2016	9M 2017	Change (%)	
Revenues	176.7	168.5	-4.6%	
Royalties	167.7	157.1	-6.3%	
% of revenues	95%	93%		
LNGC/VLEC	151.3	138.8	-8.2%	
% of revenues	86%	82%		
FSRU	14.3	16.4	+14.8%	
% of revenues	8%	10%		
FLNG	1.6	1.8	+12.7%	
% of revenues	1%	1%		
Onshore storage	0.2	0.0	ns	
% of revenues	0%	0%		
Barge	0.3	0.1	-67.6%	
% of revenues	0%	0%		
Services	9.0	11.4	+26.6%	
% of revenues	5%	7%		

#### **Key highlights**

- Total revenues: €168.5 million
- Revenues from royalties: -6.3% at €157.1 million
  - LNGC: -8.2%, impacted by the low level of orders in 2016
  - FSRU: + 14.8%
  - FLNG: +12.7%
- Revenues from services: +26.6% at €11.4 million
  - Mainly driven by studies and maintenance contracts for ships in service





# **Outlook**



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### 2017 Outlook confirmed

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

≥ 2017 revenue estimated in a range of €225 M to €240 M

Net margin<sup>(2)</sup>

► Net margin above 50%

Dividend Payment<sup>(3)</sup>

- 2017 dividend amount at least equivalent to 2015 and 2016
- ▶ 2018 2019: payout of at least 80%

- 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) Excluding potential acquisitions effect and at constant scope
- (3) 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



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**Onshore tank** 



Ice breaking LNG carrier



**FLNG** 



**LNG** carrier



**Multigas carrier** 

# Thank you for your attention



**Gravity-based system** 



LPG carrier



Small scale LNG carrier at import terminal

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Bunker barge



Power barge



**FSRU** 



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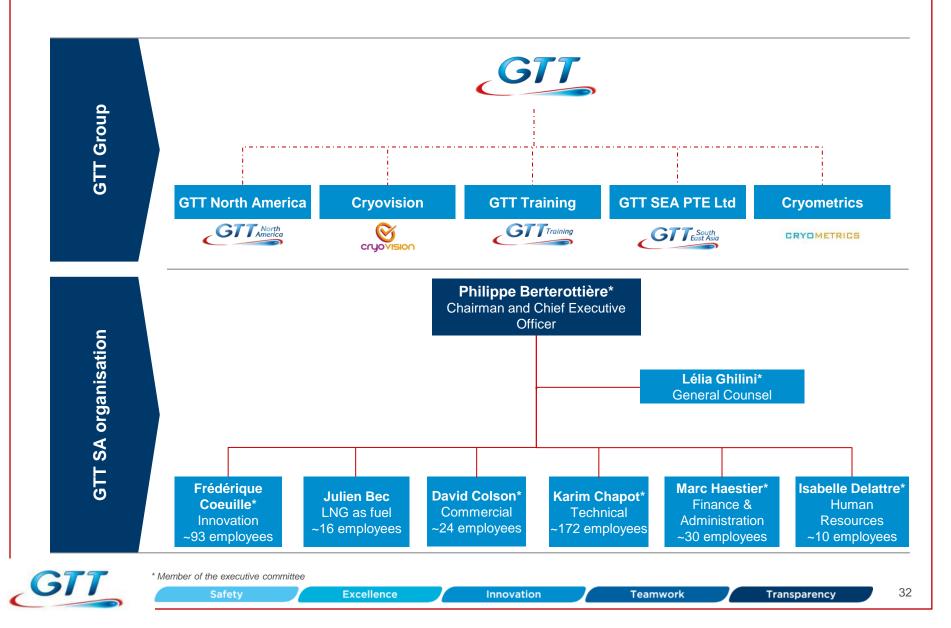


# **Appendices**



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# Appendix: a streamlined group and organisation



### Appendix: a responsible company

- Social and societal responsibility
  - Social
    - ▶ Employment: recruit, retain and develop talents >>> 6.6% of turnover in 2016
    - Compensation: implement an attractive and evolutive system
    - ▶ Training: develop employability and expertise >>> 13,654 hours of training in 2016
    - Safety: improve preventive measures through action plans
    - ► Health: annual survey on working conditions >>> Satisfaction rate of 81% in 2016
  - Societal: continuous and constructive dialogue with all the LNG stakeholders

### Environmental responsibility

- Stakeholders
  - Performance of GTT systems
  - Safety of installations and crew
  - LNG training sessions for customers and partners
  - Hotline for shipowners
- GTT
  - Environmental responsibility at site

A proactive sustainable development policy

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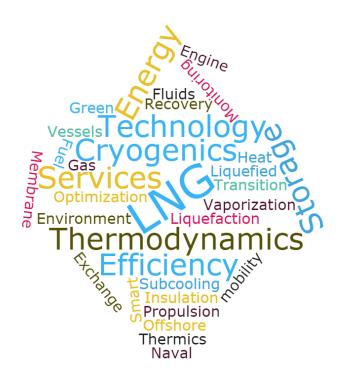
# **Appendix: external growth policy**

**Support the mainstays of GTT strategy** 

**Consolidate** our position in **LNG** shipping industry

Capitalise on the expected potential in adjacent sectors

**Expand innovative service offering** to shipowners and oil & gas companies



A continuous approach, towards selective acquisitions

Key criteria include sector attractiveness; business model; differentiation through technology; size and profitability; ease of integration



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

**Exploration** & Production

Liquefaction

**Shipping** 

Regasification

Off Take / Consumption

Offshore clients: shipyards



Platform / Installation



**Floating LNG Production, Storage** and Offloading unit (FLNG)



**Onshore storage** liquefaction plant



**Liquefied Natural Gas** Carrier (LNGC)



Ethane/ multigas **Carriers** 



Floating Storage and **Regasification Unit** (FSRU)



**LNG** fuelled

ship

**Barge** 



Onshore storage regasification terminal



Tank in industrial plant



Gas-to-wire



Power plant

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**Onshore** clients: **EPC** 

contractors

Source: Company data

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## **Appendix: GTT ecosystem**

#### Oil & Gas **Shipowners Companies** End clients and ▶ End clients and prescribers prescribers **GAS**LOG GTT **E**‰onMobil M 56 GTT provides services provides services Golar LNG and maintenance engie TEEKAY LNG PARTNERS L.P. AWILCO LNG H HÖEGH LNG MOL TOTAL NYK... CHENIERE **GTT** Classification **Societies** ► Regulatory oversight **AHYUNDAI** Register KR of the industry **Shipyards** CCS CONRAD Direct clients DNV-GL GTT receives new technology licences its membrane certification and technology and receives ABS approval royalties provides engineering studies, on-site technical



and maintenance assistance

# Appendix: c.50 LNGC orders expected from under construction projects

#### LNGC requirement for under construction liquefaction projects

Project	Location	Forecasted Start-Up	Total Capacity (Mtpa)	LNGC requirement
Wheatstone LNG T1	Australia	Q3-17	4.5	
Sabine Pass Export Phase 2 - T4	USA	Q3-17	4.5	
Yamal LNG T1	Russia	Q4-17	5.5	
Sengkang LNG	Indonesia	Q4-17	0.5	
Cove Point Export	USA	Q4-17	5.3	
Prelude FLNG	Australia	Q2-18	3.6	
Cameroon GoFLNG	Cameroon	Q2-18	2.2	
Wheatstone LNG T2	Australia	Q3-18	4.5	
Ichthys	Australia	Q3-18	8.9	
Cameron LNG Export T1	USA	Q3-18	5.0	
Yamal LNG T2	Russia	Q4-18	5.5	
Cameron LNG Export T2	USA	Q4-18	5.0	
Elba Island LNG Export	USA	Q4-18	2.5	
Freeport T1	USA	Q4-18	5.1	
Corpus Christi LNG T1	USA	Q1/Q2-19	4.5	
Sabine Pass Export Train 5	USA	Q2-19	4.5	
Freeport T2	USA	Q2-19	5.1	
Corpus Christi LNG T2	USA	Q2-19	4.5	
Cameron LNG Export T3	USA	Q3-19	5.0	
Yamal LNG T3	Russia	Q3-19	5.5	
Freeport T3	USA	Q4-19	5.1	
Tangguh Phase 2	Indonesia	Q4-20	3.8	
PETRONAS FLNG 2	Malaysia	Q4-20	1.5	
Coral LNG	Mozambique	Q1-22	3.4	
			TOTAL	177.3
	115.3			

- Current Orderbook 115.3
- Overcapacity (= Laid Up & Idle vessels < 30 years old)\* 10.3

Expected orders 51.7

Project ahead of schedule or catching-up

Project behind schedule or slowing-down

- Most liquefaction projects under construction expected to start-up in time
- c.50 LNGCs to order to lift additional volumes
  - Vessels to be ordered by 2018-2019(3 years construction time)
  - Downside risks:
    - LNG contracts swapping (shorter routes)
    - Start-up delays and/or slow ramp-up
    - Spot vessels utilization as a bridging solution (e.g. Gail)
    - Extensive use of under-used less efficient vessels

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- Wide majority of 2016 and 2017 LNGC orders were dedicated to under construction projects
- Still some speculative orders reflecting a short/mid term market high confidence

Note: All LNGCs numbers normalized to 164.4k cbm net capacity (174k gross)

Main sources : GTT analysis, Wood Mackenzie, Clarksons

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Projects associated with 2016 – 2017 LNGCs orders

<sup>\*</sup> Vessels available on the spot market no to be considered here

## **Appendix - LNGCs**

#### Our core business

- Vessel equipped for transporting LNG
- ► Existing GTT fleet: 318 units<sup>(1)</sup>
- ► In order: 73 units
- **▶** 21 construction shipyards under license
- ▶ GTT order estimates over 2017-2026:
   235-255 units<sup>(2)</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

% sales<sup>(3)</sup> H1 2017

80.4%

- (2) Including orders received in H1 2017.
- 3) Including ethane carriers.



<sup>(1)</sup> As of June 30, 2017, Excludes vessel orders below 30,000 m<sup>3</sup>.

## **Appendix - FSRUs**

## The solution for emerging countries

- Stationary vessel capable of loading, storing and re-gasifying LNG
- Existing GTT fleet: 20 FSRU<sup>(1)</sup>
- In order: 10 units
- GTT order estimates over 2017-2026: 30-40 units<sup>(2)</sup>



#### **Main drivers**

- New buyers
- Competitive advantage vs. landbased terminals
  - Better acceptability
  - Reduced construction time / availability
  - Flexibility / no upfront capex
  - Adapted to more volatile LNG prices

## **GTT** key advantages

- Competitive cost
- Volume optimisation
- High return of experience

% sales H1 2017

11.5%

As of June 30, 2017.

Including orders received in H1 2017

**Innovation** 



## **Appendix - FLNGs**

#### The new frontier of the LNG world

- Floating unit which ensure treatment of gas, liquefy and store it
- Existing GTT fleet: 2 units<sup>(1)</sup>
- ► In order: 2 units
- ► GTT order estimates over 2017-2026: 5-10 units<sup>(2)</sup>



% sales H1 2017

0.9%

### Main drivers

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

## GTT key advantages

Extended amortization perspectives

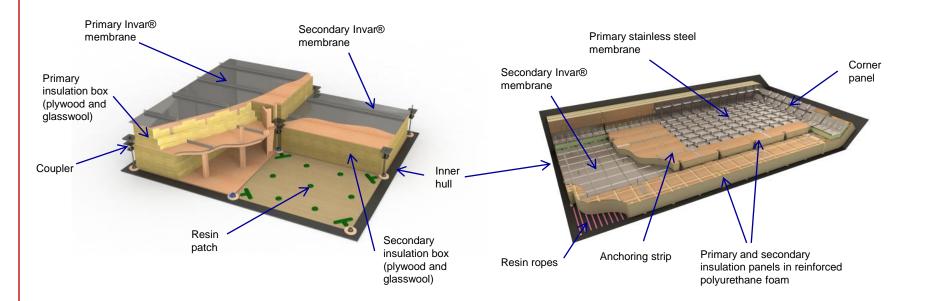
Teamwork

- Deck space available for liquefaction equipment
- More affordable cost



## **Appendix: GTT membrane technologies**

NO96 Max Mark V



**GTT**'s two latest core technologies

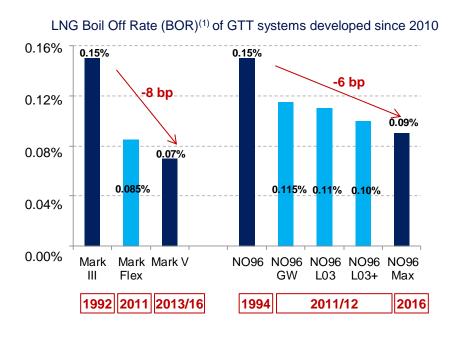
**Excellence** 

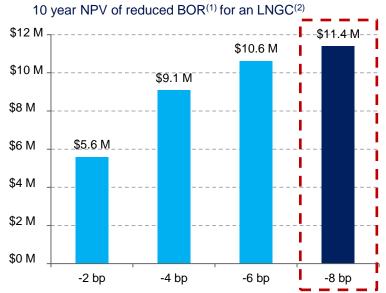


## **Appendix: focus on GTT's competitive advantages**

#### **Performance of GTT technologies**

### Value of reducing BOR<sup>(1)</sup> to a charterer





BOR currently represents ~1/3 of LNG shipping costs (~55% being charter rate)

Reduction of BOR<sup>(1)</sup> represents significant savings for the charterer (up to \$11.4M in a 10-year period)

Source: Company

Boil off rate per day

Assuming 174,000 m3 vessel equipped with NO96 membrane; using 6% discount rate; \$7.15/Mbtu Asian gas price assumption. NPV calculated vs. a BOR of 0.15%



## Appendix: focus on GTT's competitive advantages

#### GTT's technology positioning (1)

	GTT	Moss 🏪	SPB •	KC-1 🤼
Technology	► Membrane	► Spherical tank	► Tank	► Membrane
Construction costs	<ul> <li>Requires less steel and aluminum than tanks for a given LNG capacity</li> </ul>	► Higher costs	► Higher costs	<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	► Higher opex due to BOR (0.16%)
LNGCs in construction	▶ 82	▶ 19	<b>4</b>	▶ 2
LNGCs in operation	► 312	▶ 109	▶ 2 small	► None
Other	► Value added services	<ul> <li>Higher centre of gravity; harder to navigate</li> </ul>	<ul> <li>Japanese technology developed 25 years ago.</li> <li>No significant experience</li> </ul>	<ul> <li>Korean technology with no experience at sea</li> </ul>

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



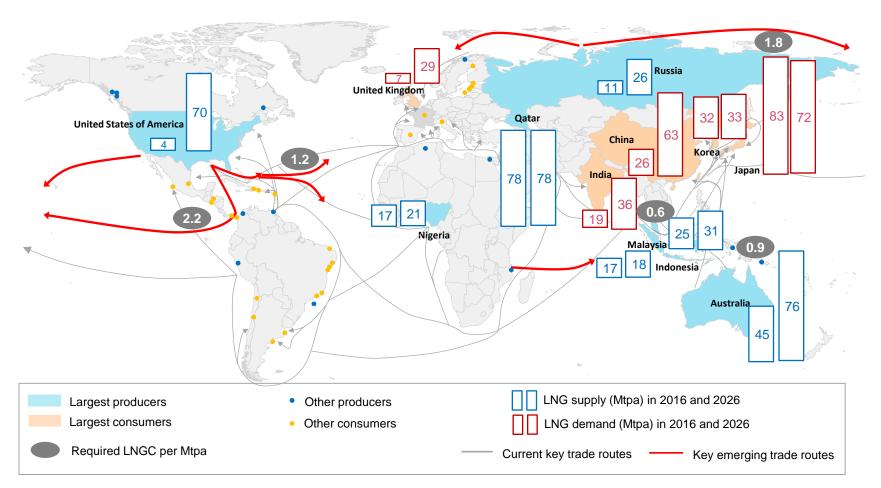
Source: Company data and comment (Dec. 31, 2016)

(1) Other technologies have been developed, however are not known to have obtained final certification or orders to date. Excludes vessel orders below 30,000 m<sup>3</sup>

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## **Appendix: key emerging LNGC trade routes**



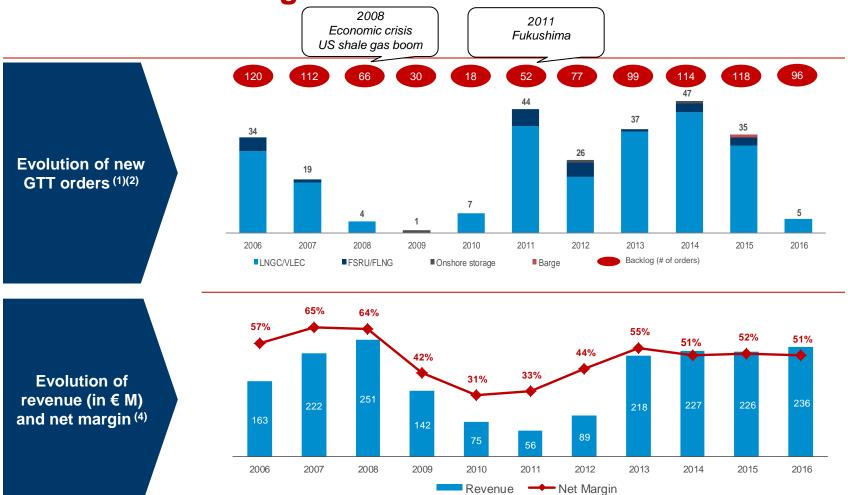
► Increasing distance between export and import areas is supporting demand for LNG carriers



Source: Company

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# Appendix: track record of high margin and strong increase in backlog since 2010



Source: Company

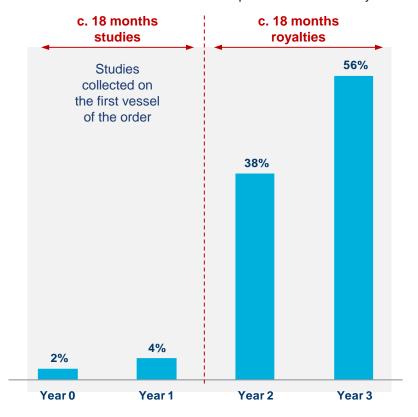
- 1) Orders received by period
- Excl. vessel conversions
- (3) Represents order position as at December based on company data, including LNGC, VLEC, FLNG, FSRU and on-shore storage units
- 4) Figures presented in IFRS from 2010 to 2015, French GAAP from 2006 to 2009



# Appendix: illustrative LNGC revenue recognition summary

#### Illustrative revenue /cash recognition

% of total revenues – order of 4 LNGCs placed on June 30 of year 0



#### 2016 key statistics





Source: Company

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## Appendix: 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 milestones
- Timing of invoicing and cash collection according to 5 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

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



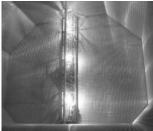
# **Investor Presentation**











November, 2017

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