



EXMAR's Floating Liquefaction Solutions

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Agenda



1 Exmar at a glance

2 Tango FLNG Terminal

3 Exmar's future FLNGs

4 Conclusions

1. EXMAR at a glance

- Provider of marine logistic solutions within the global oil and gas industry, listed on the Euronext Stock Exchange, Brussels
- From Shipbuilder (founded 1829) to Shipowner & Energy Infrastructure Solution Provider
- Pioneer with distinguished track record and a fleet of + 35 assets
- Fully integrated: successful and innovative asset management with EXMAR Shipmanagement



1.1 EXMAR is a diversified shipping & infrastructure provider

Leading provider of marine logistic solutions within the global oil and gas industry

1. EXMAR at a glance



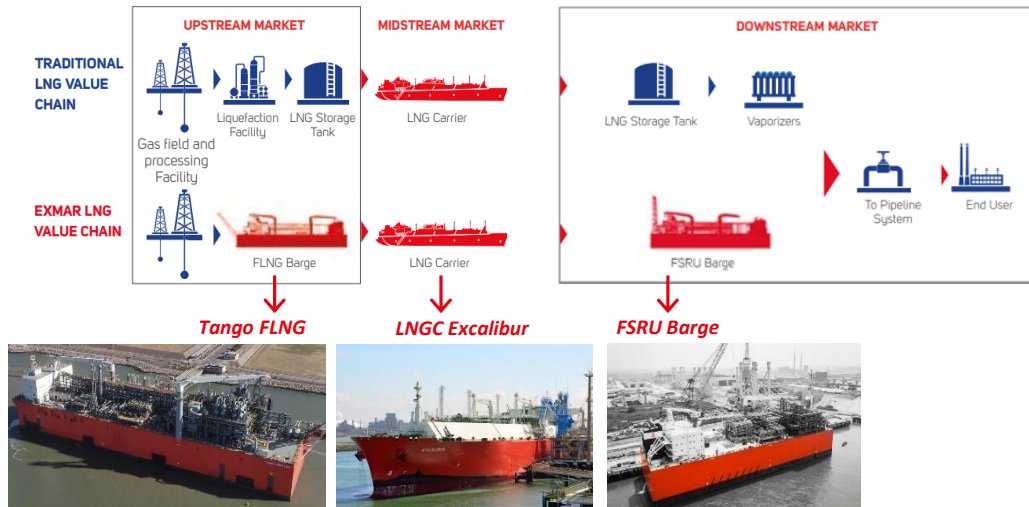
	LPG / NH ₃	LNG	Offshore
Assets	<div> <div>10 Fully Pressurized LPG Carrier</div> <div>20 Midsize LPG Carrier</div> <div>1 VLGC</div> <div>1 Semi-ref.</div> </div>	<div> <div>1 FLNG (barge-based)</div> <div>1 FSRU (barge-based)</div> <div>1 LNG Carrier</div> </div>	<div> <div>2 Accomm. Barges</div> </div>
Achievements	<ul style="list-style-type: none"> World Leader in Midsize LPGC's 6th generation design for LPGC midsize 2 VLGCs LPG-fuelled on order Ships from 3,500 up to 86,000 m³ 	<ul style="list-style-type: none"> Pioneer in FSRU (2005) Pioneer in STS Transfer (2006) Pioneer in FLNG (2016) World leader of FSRU operations 	<ul style="list-style-type: none"> FPSO's OPTI™, flexible and cost-effective proven hull design Innovative patented mooring solutions
EBITDA by segment (2018)			
Customers			

1.1 EXMAR is a diversified shipping & infrastructure provider

LNG Shipping & LNG Infrastructure

EXMAR LNG value chain and business approach

- Pioneered FSRUs, Ship-to-Ship and FLNG.
- Exmar built, owned and operated 9 FSRUs in the past 15 years. Largest independent operator of FSRUs in the world.
- Only independent FLNG owner providing newbuilding FLNGs.



**Diversified & committed
LNG asset portfolio**

Contract coverage

Vessels	Built	Share	Charterer	2019	2020	2021	>>	2029
Tango FLNG	2017	100%	YPF				>>	
FSRU Barge	2017	100%	GUNVOR				>>	
LNGC Excalibur	2002	50%	excelerate energy					

1.2

Evolution of EXMAR: Milestones

From Shipbuilder to Shipowner to LNG Infrastructure Solution Provider

1. EXMAR at a glance



1829

Boel Shipyard close to Antwerp



2002

Delivery of 138,000 m³ LNGC "Excalibur"



2005

Delivery of first FSRU "Excelsior"



2011

Delivery of FPO "OPTI-EX" LLOG USA



2019

Tango FLNG deployed in Argentina for a 10-year agreement to produce and export LNG



History demonstrates EXMAR's ability to deliver innovations to the energy supply chain

1978

Construction of 130,000 m³ LNGC "Methania"



2003

Delivery of FPSO "Farwah" Total Libya



2006

First offshore LNG STS transfer solution



2016

Commissioning of world's first FLNG terminal at shipyard



2017

Delivery of world's first barge based FSRU under a 10-year Time Charter agreement



1.3

EXMAR fleet and involvement around the world

1. EXMAR at a glance





2. Tango FLNG terminal

Unlocking Argentina's strategic gas resources

2. Tango FLNG terminal

Converting a LNG import nation into a LNG exporter

Project info and status

- **10 year tolling agreement** with YPF SA from Argentina
- Tango FLNG valorizes the resources extracted from Vaca Muerta, world's 2nd largest shale gas deposit*
- Yearly production of about **500,000 tons** LNG or about 6 – 8 cargoes of a conventional LNG carrier
- **Commissioning** currently ongoing
- Brings Argentina in the exclusive club of **LNG exporters**



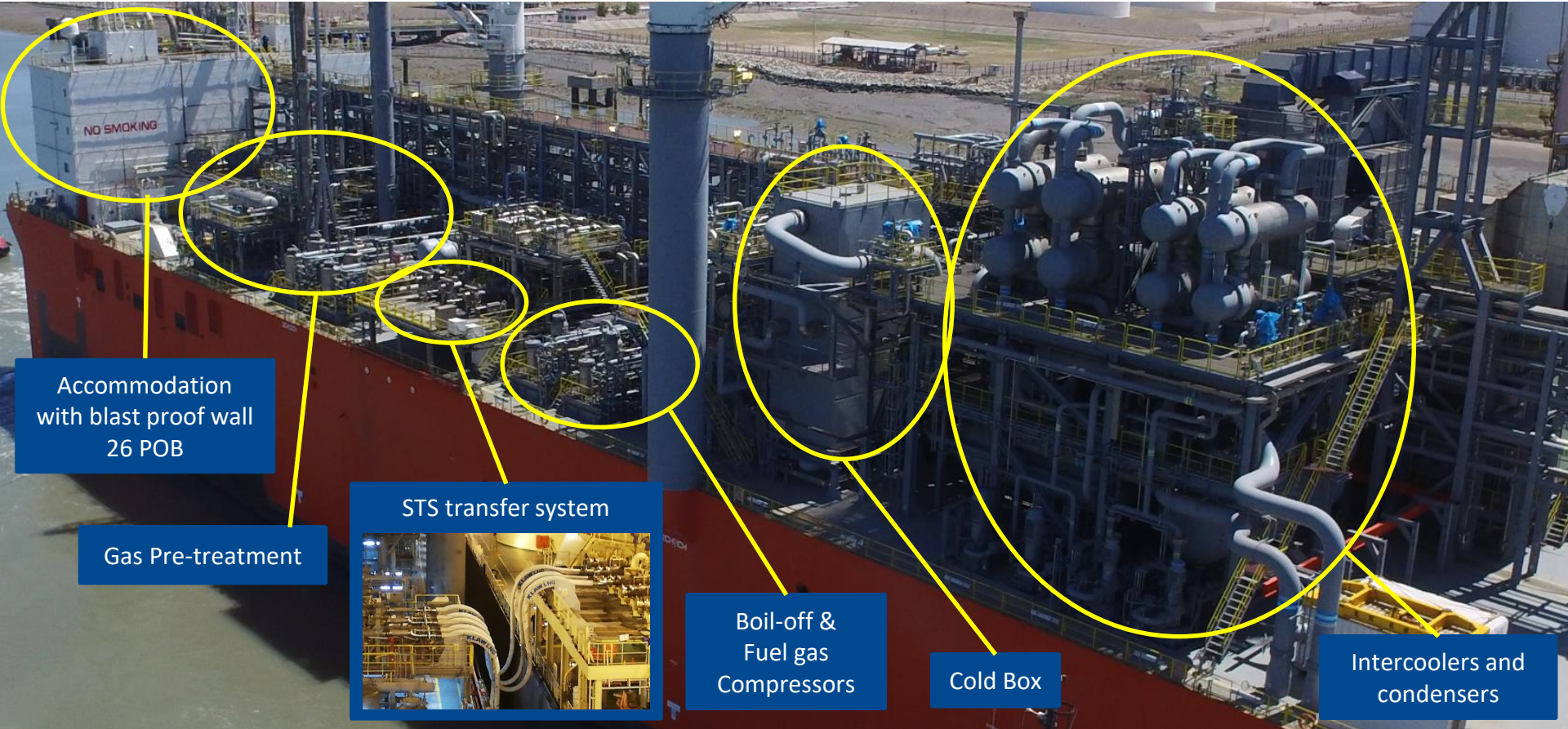
*source EIA

2. Tango FLNG – A world record from LNG Import to Export

Project Implementation in 6 months, less than 10 months after project initial discussions



2. Outline - 0.5 MTPA with SMR Liquefaction technology



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Gas turbine and
refrigerant
compressor

High pressure
gas manifold

Power generation with 3 DFDE engines



Flare System

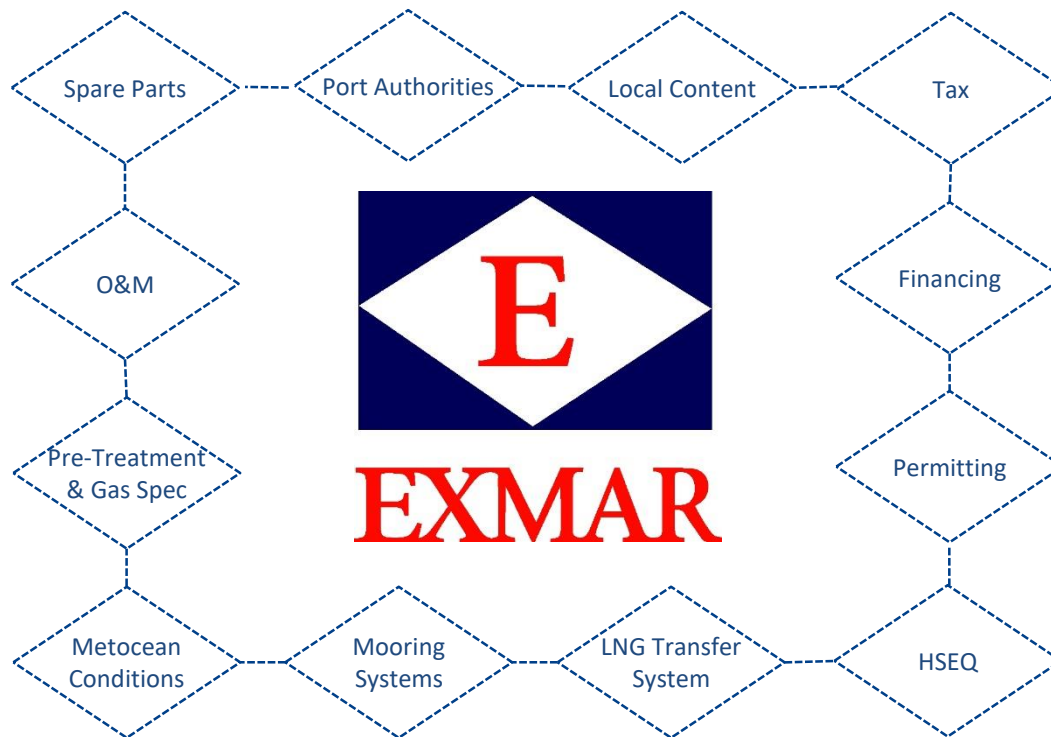
16,100 m³ storage in 3 Type C tanks



2. Tango FLNG terminal: One Stop Shop Solution

EXMAR & YPF, connecting the dots for the LNG export project

2. Tango FLNG Terminal





3. EXMAR's future FLNGs

Standardization of FLNG solution

3. EXMAR FLNG Developments

EXMAR's unique position on the FLNG market

FLNG Market Outlook

- The **need for natural gas, and especially LNG** keeps on growing with the growing energy demand
- The vast amount of remote, stranded gas reserves nearshore and offshore continues to drive the **momentum for small to medium scale FLNG**,
- The market requirement for a **quick gas to market solution, in about 3 years**
- **Easier funding** for small to medium FLNG projects

FLNG project costs in USD/ton LNG*

- EXMAR is uniquely position as it is the only independent infrastructure provider with **FLNG newbuilding experience**
- EXMAR can leverage its **FLNG track record**:
 - Having commissioned its FLNG at yard and currently on site in 2019
 - Analysing several FLNG projects during the past years
- Several **FLNG leads under development**

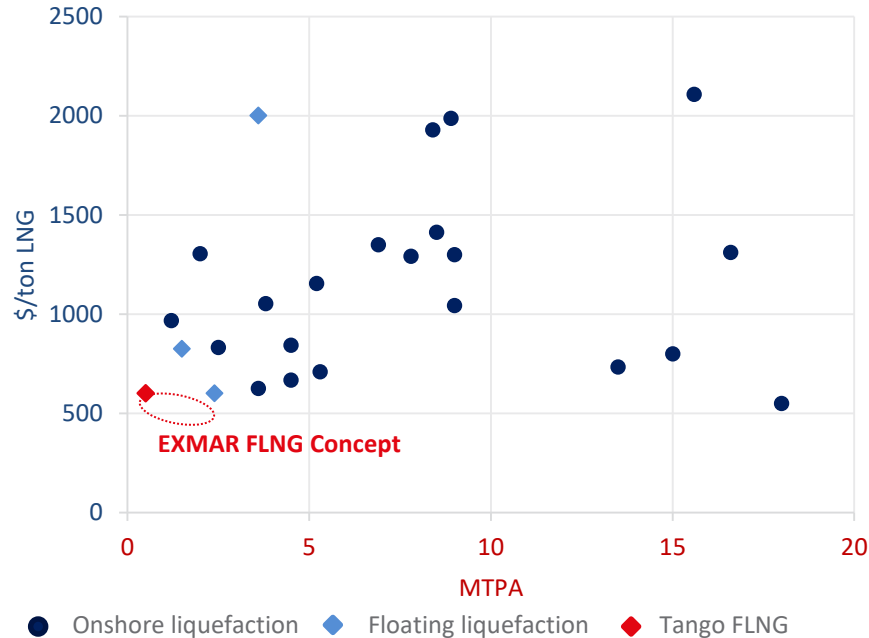


EXMAR has developed various cost efficient and fast track FLNG solutions

3. Advantages of EXMAR FLNG Concept

Floating LNG, a Cost Competitive and Proven Solution

FLNG project costs in USD/ton LNG*



Advantages EXMAR's FLNG concept

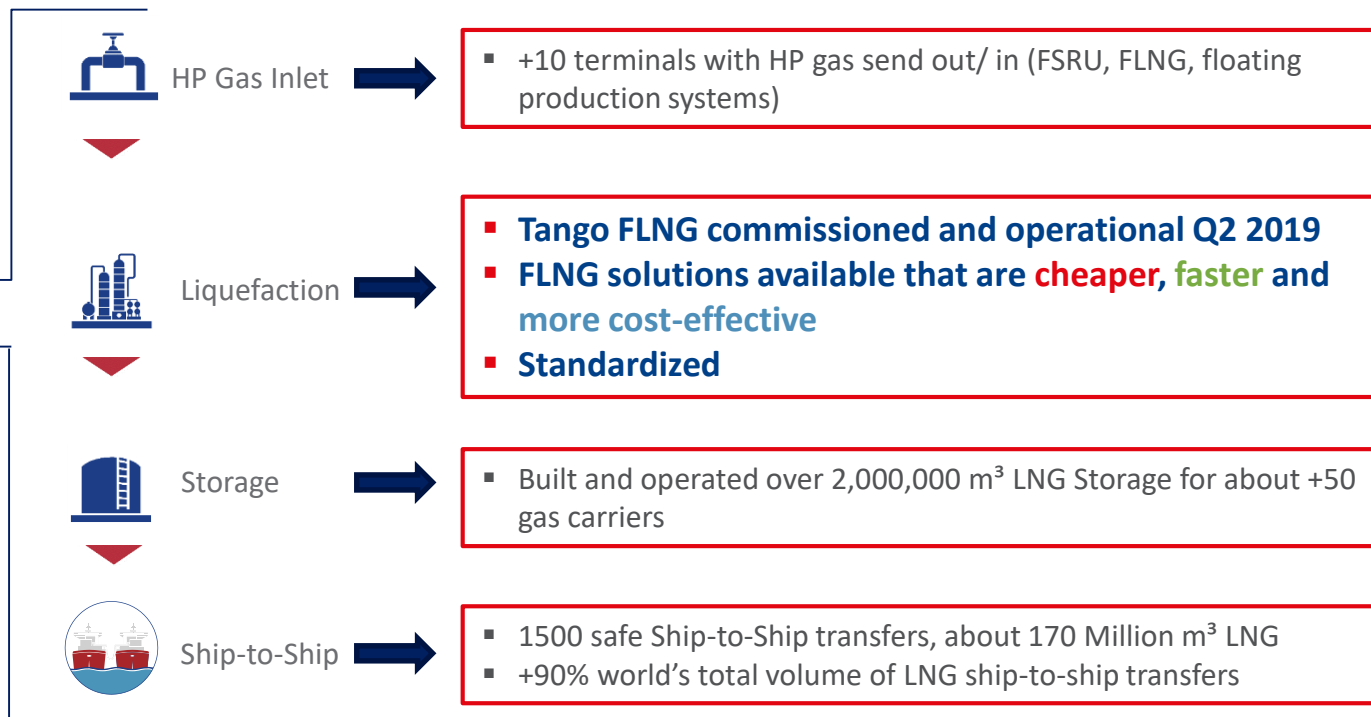
- Low USD/ton cost, FLNG nearshore is competitive
- Risk based approach resulting in a **lean and mean** solution
- Standardization of codes and regulations in order to obtain a **design adaptable** for small to medium scale FLNG
- Re-deployable and Low execution risk
- Broad in-house expertise ranging from Design engineering to O&M
- Proven solution/Guaranteed performance

*source Oxford University for energy studies

4.

Conclusions

Perfectly geared for future FLNG developments





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