Marine Money – TANGO FLNG: The First Floating Liquefaction Unit in the Americas
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
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.
- Independent FLNG owner providing newbuilding FLNGs.

Diversified & committed LNG asset portfolio

<table>
<thead>
<tr>
<th>Vessels</th>
<th>Built</th>
<th>Share</th>
<th>Charterer</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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<th>2029</th>
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<tbody>
<tr>
<td>Tango FLNG</td>
<td>2017</td>
<td>100%</td>
<td>YPF</td>
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<td>FSRU Barge</td>
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<td>LNGC Excalibur</td>
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Evolution of EXMAR: Milestones
From Shipbuilder to Shipowner to Energy Infrastructure Solution Provider

1829
Boel Shipyard (Belgium)

2002
Delivery of 138,000 m³ LNGC “Excalibur”

2005
Delivery of first FSRU “Excelsior”

2003
Construction of 130,000 m³ LNGC “Methania”

2006
Delivery of FPSO “Farwah” Total Libya

2011
Delivery of FPO “OPTI-EX” LLOG USA

2017
First offshore LNG STS transfer solution

2017
Commissioning of world’s first FLNG terminal at shipyard

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
Tango FLNG terminal
Unlocking Argentina’s strategic gas resources
CARIBBEAN or TANGO?
The Road to Success is not Paved with Smooth Gold!

- First customer in 2012 was Pacific Rubiales
- The CARIBBEAN FLNG was supposed to start operations in Colombia end 2016
- In April 2016 our customer filed for Bankruptcy protection
- We lost the financing
- We had a bond maturing 12 months later....
- Luckily the unit is FLOATING so movable!
- With some discipline to keep going when the work is tough and the end nowhere in sight....
Tango FLNG terminal
Converting a LNG import nation into a LNG exporter

- **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
- **D-Day: Commissioning** done on June 6th 2019
- Brings Argentina in the exclusive club of **LNG exporters**
- **Strategic importance** for a country like Argentina

*source EIA
Tango FLNG – A world record from LNG Import to Export
Project Implementation in 6 months, less than 10 months after project initial discussions

- **November 2018**: Project initial intro over a coffee
- **December 2018**: Announced 10 year contract with YPF
- **February 2019**: Started voyage from China to Bahia Blanca, Argentina
- **June 6th 2019**: Tango FLNG arrived, installed and safely moored
- **April 2019**: Under commissioning and has already received its first gas and LNG cool down cargo
- **August 2018**: Under commissioning and has already received its first gas and LNG cool down cargo
- **December 2018**: Finaly accepted under charter contract
- **~3 months**: ~3 months
- **~6 months for the project implementation**: ~6 months for the project implementation

First Argentinian LNG export cargo!
EXMAR’s future FLNGs

Standardization of FLNG solution
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 increasing cleaner 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:
  - Fully commissioned FLNG
  - Analysing several FLNG projects during the past years
  - Record project implementation timing
  - In-house operations
- Several FLNG leads under development

EXMAR has developed various cost efficient and fast track FLNG solutions
Advantages of EXMAR FLNG Concept
Floating LNG, a Cost Competitive and Proven Solution

FLNG project costs in USD/ton LNG*

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<tr>
<th>MTPA</th>
<th>Onshore liquefaction</th>
<th>Floating liquefaction</th>
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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*
Conclusions

Perfectly geared for future FLNG developments

- Be willing to be a beginner every morning

- TANGO is the first FLNG in the Americas and definitely not the last!

- As everything starts with a good coffee; feel free to harass me during the coffee break!