

## EXMAR – OSLO - March 2016

Patrick De Brabandere - COO

# EXMAR Company Introduction

Shipping & Energy Infrastructure Provider



	<ul style="list-style-type: none"><li>°1829 shipbuilding</li><li>°1981 shipping</li><li>°2003 floating terminals</li><li>°2003 Listed on Euronext</li></ul>		<p>WORLDWIDE presence with around 1,700 EMPLOYEES of diverse nationalities</p>	
<p>Owning/Operating 33 LPG carriers 10 FSRUs 5 LNGC's 5 Offshore Units</p>		<p>Newbuilding program of 6 LPG carriers 2 FLNG's 1 FSRU</p>		<p>Fully Integrated Group of Companies</p>

# EXMAR Company Introduction

+185 Years of Experience in Marine Industries



**1978**  
Construction 130,000 m<sup>3</sup>  
LNGC "Methania"



**2003**  
Delivery FPSO "Farwah" Total  
Libya



**2006**  
First offshore LNG STS transfer  
solution



**2011**  
Delivery FPO "OPTI-EX" LOGG  
USA



**2017**  
World's first barge based FSRU



**°1829**  
°Shipyard close to Antwerp



**2002**  
Delivery of 138,000 m<sup>3</sup> LNGC "Excalibur"



**2005**  
Delivery of first LNG regas vessel  
"Excelsior"



**2008**  
Start FLNG developments



**2016**  
World's first FLNG terminal



# EXMAR Business Overview



Overview of EXMAR NV's divisions				
	LNG	LPG / NH <sub>3</sub>	Offshore	Services
				
EBITDA by segment (2015E)	 45%	 44%	 10%	1%
Overview / business approach	<ul style="list-style-type: none"> <li>LNG transportation, liquefaction, storage and regasification</li> <li>Customized service with significant added value</li> <li>Long-term time-charter contracts of 15+ years</li> <li>Limited opex exposure</li> <li>1<sup>st</sup> class in-house technical management and crewing</li> </ul>	<ul style="list-style-type: none"> <li>Niche position in LPG, chemical gases and ammonia transportation</li> <li>Long-term relationships with blue-chip customers</li> <li>Balance between TC, COA and spot commitments</li> <li>1<sup>st</sup> class in-house technical management and crewing</li> <li>Established 50/50 JV with Teekay LNG to focus on midsize gas carriers</li> </ul>	<ul style="list-style-type: none"> <li>Provides innovative solutions in the field of offshore oil &amp; gas production</li> <li>Cost effective approach with standardized design &amp; engineering</li> <li>Large geographical coverage, with a focus on Gulf of Mexico and West Africa</li> </ul>	<ul style="list-style-type: none"> <li>In-house engineering departments in Antwerp, Houston and Paris with in-house ship management offices in Antwerp and Singapore</li> <li>Provides management services for a multitude of blue-chip clients</li> </ul>
No. vessels (owned / managed only)	6 / 9	33 <sup>1</sup> / 6	3 / 2	n/a
Key customers				

<sup>1</sup> Includes 6 vessels under construction

# EXMAR around the world



# Company Profile and Strategy



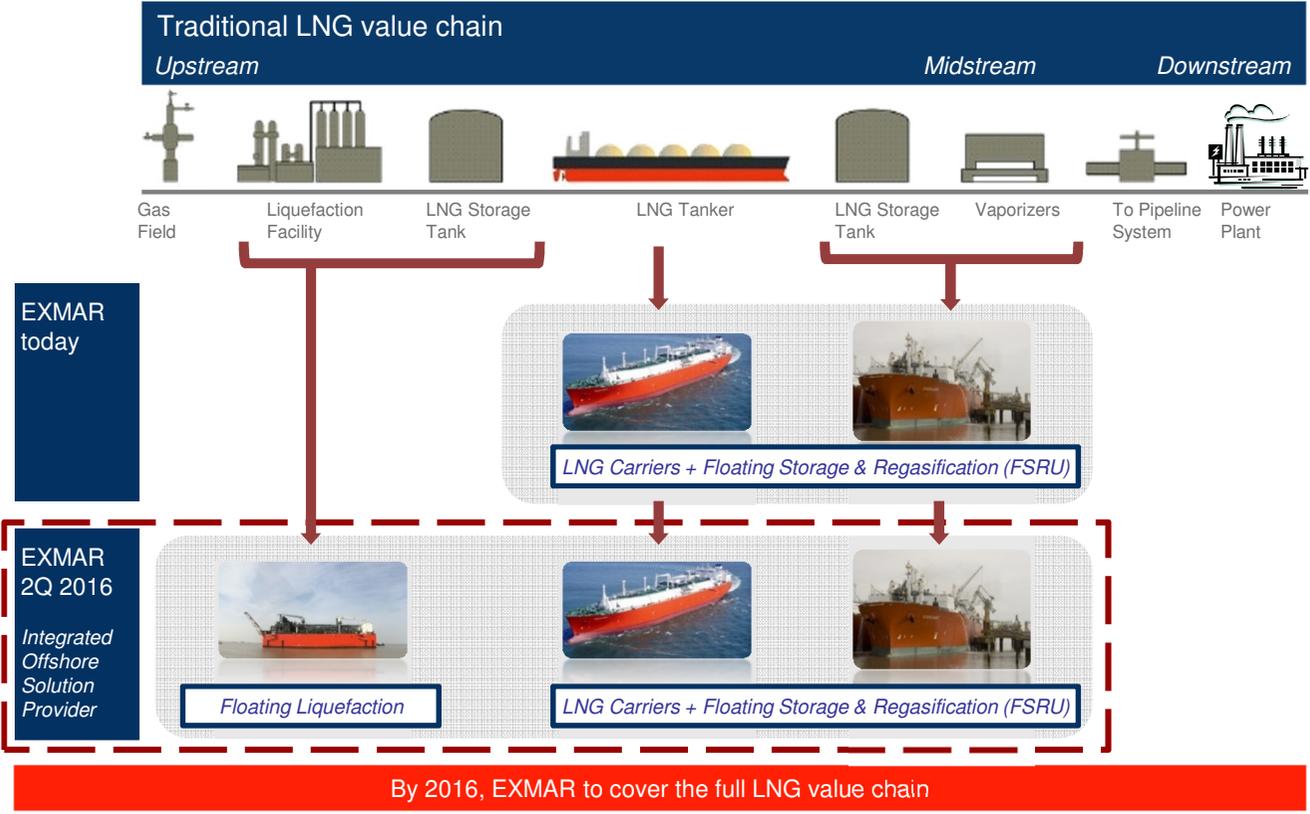
Strategy
<ul style="list-style-type: none"><li>• Provider of industrial marine and energy logistics solutions for transport, regasification and liquefaction within the oil and gas industry</li><li>• Transitioning from pure shipping to a provider of a full value chain of infrastructure and integrated logistics to address the industry's need for competitive energy solutions</li><li>• Create value by balancing long- and short term operations to counteract volatility in the freight market</li></ul>

LNG	LPG	Offshore
<ul style="list-style-type: none"><li>• Being a full service provider within the LNG value chain</li><li>• Bring LNG as a competitive and green alternative to coal and oil to the market</li><li>• Maintain a leading position to provide floating LNG infrastructure solutions</li></ul>	<ul style="list-style-type: none"><li>• Strengthen EXMAR's already substantial commercial portfolio in the midsize segment and stay ahead of the upcoming amendments in environmental legislation</li><li>• Looking actively at all ancillary gas transportation sector (ethane, etc.)</li></ul>	<ul style="list-style-type: none"><li>• Develop projects along the E&amp;P value chain with specific focus on offshore floating operations</li><li>• Capitalize on the growing Floating Production and Storage Unit market</li></ul>



**Creating Value through the LNG Value Chain**

# Innovating Along the LNG Value Chain



# EXMAR to lease out floating LNG solutions



## Advantages of Floating LNG



Fast track – Enables earlier market access

Competitive – Reduction of CAPEX investment cost

Price-Stable – Reduced risk for cost blowouts

Quality – Controlled shipyard environment

Flexible – Floating asset can be redeployed

Lower risks – safety and environmental conditions

# LNG asset overview EXMAR



## Commitment overview of a diverse and high-quality portfolio

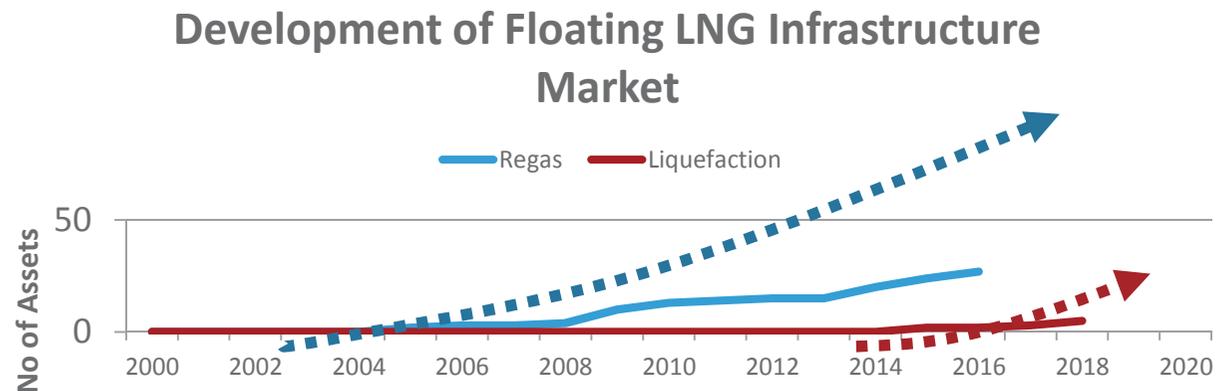
Asset	Type	Delivery	Capacity (m <sup>3</sup> )	Production Capacity	Ownership	2015	2020	2025	2030	2035
<b>FLNGs</b>										
Caribbean FLNG	FLNG	2016	16,100	0.5 MTPA	100%	█	█	█	█	█
FLNG barge	FLNG	2019	20,000	0.6 MTPA	100%	█	█	█	█	█
<b>FSRUs</b>										
Excelsior	FSRU	2005	138,000	600 mm cu ft. gas	50%	█	█	█	█	█
Excelerate	FSRU	2006	138,000	600 mm cu ft. gas	50%	█	█	█	█	█
Explorer	FSRU	2008	150,900	600 mm cu ft. gas	50%	█	█	█	█	█
Express	FSRU	2009	150,900	600 mm cu ft. gas	50%	█	█	█	█	█
FSRU barge	FSRU	2017	26,000	600 mm cu ft. gas	100%	█	█	█	█	█
<b>LNGCs</b>										
Excalibur	LNG/C	2002	138,000	n.a.	50%	█	█	█	█	█
Excel	LNG/C	2003	138,000	n.a.	50%	█	█	█	█	█

█ Under construction  
 █ Chartered  
 █ Min revenue undertaking with first class counterpart  
 █ Option  
 █ Uncommitted

## Floating LNG Infrastructure: From New Concept to Proven Technology



- It took some years before floating regasification (“FSRU”) really took off
- Floating liquefaction (“FLNG”) is only just starting despite lower energy prices



Source: EXMAR data

# EXMAR Liquefaction Solution

## First Mover Advantage in FLNG

- 2 FLNGs on order
- Caribbean FLNG contract
  - FLNG commissioning to start Q1/2016
  - 15 years contract with Pacific Rubiales
- Supporting several O&G Companies and Project Developers:
  - Studies and technical support in different stages of development
  - Joint Development as FLNG Project Partners
  - Develop Flexible Solutions, Tailored to the Client/Partner's Needs (size, process, mooring, ...)



# The World's First FLNG is Developed by EXMAR



## Caribbean FLNG project (CFLNG)

- EXMAR to build, operate and maintain the world's first Floating LNG ("FLNG") unit
- Alternative locations / projects being actively pursued
- FLNG is cheap, fast and flexible way to monetize gas reserves
- Export capacity: 0.5 MMt per year
- Storage: 16,100 m<sup>3</sup>
- Dimensions:
  - Length: 144 m
  - Breadth: 32 m
  - Depth: 20 m
  - Draught: 5.4 m
- Black & Veatch PRICO® technology
- EXMAR's proven STS transfer technology

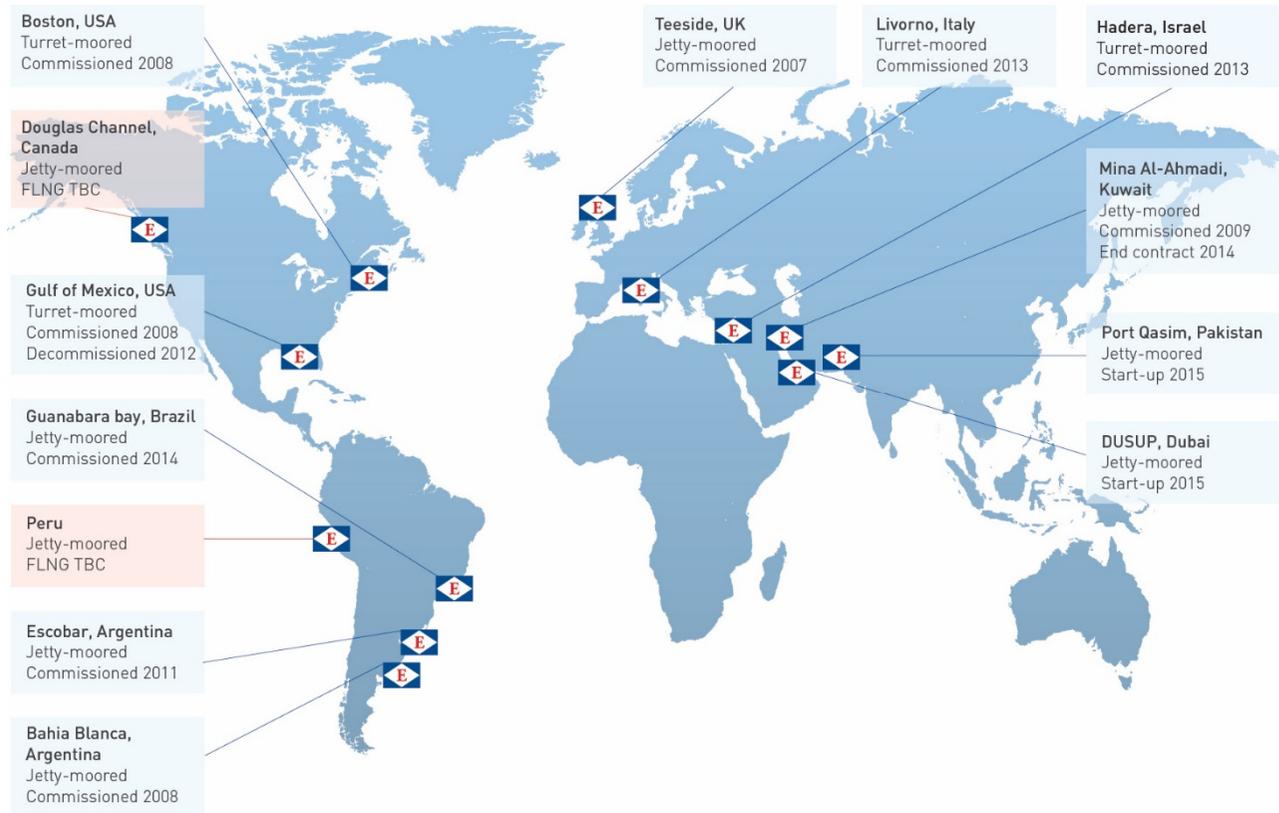


# EXMAR & Floating Regasification



Established player always working on innovative solutions

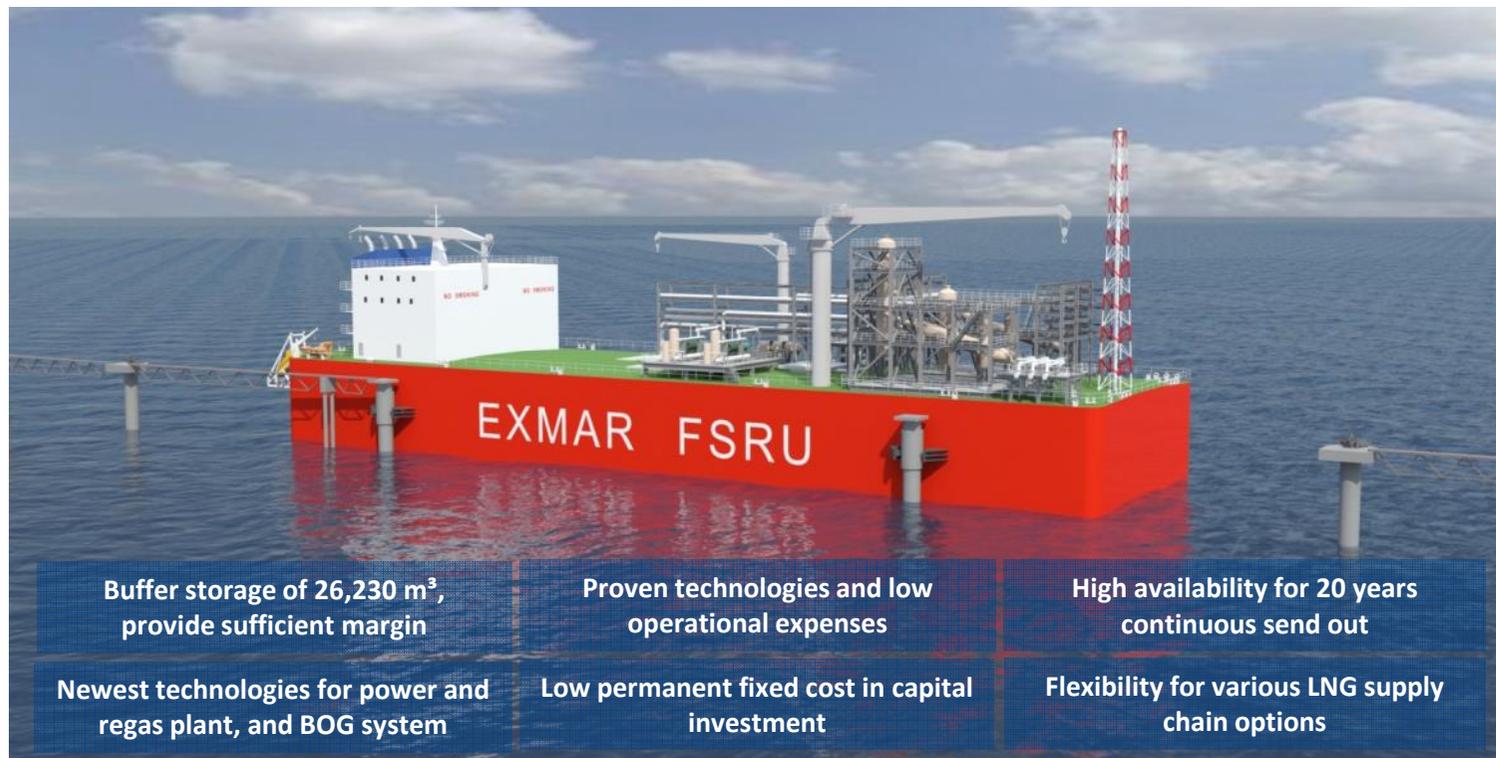
- Pioneered floating regasification solutions, introduced world's first FSRU in 2005
- Currently operating 10 FSRUs
- 1 barge-based FSRU under construction, still commercially available
- Unrivalled track record



## FSRU barge on a stand alone basis



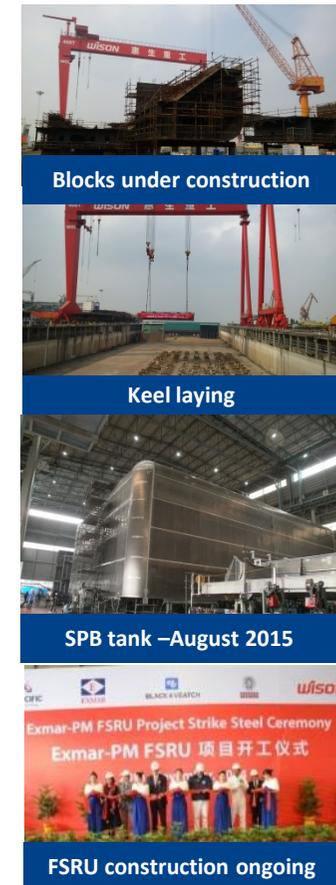
Already under construction, cost efficient and tailored



## Fast track solution: first gas Q2 2017

Timely delivery guaranteed

Key Milestones	Dates	
Contract Award	02/2014	✓
Detailed Engineering Start	04/2014	✓
Production Engineering Start	06/2014	✓
Steel Cutting	11/2014	✓
Keel Laying	10/2015	✓
Cargo tanks installed	12/2015	✓
Delivery	Q2 2017	

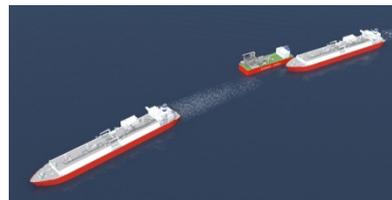


## Small is beautiful



EXMAR's FSRU barge perfectly fits the needs of today's market

- 26,000 m<sup>3</sup> FSRU barge lowers overall costs while increasing flexibility for our customers
- Both small AND large scale projects can be served by this unit (25-600 mmscfd)
- Storage volume can be tailored according project needs:
  - Small scale supply chain
  - Floating storage unit (FSU)
- Cheap tonnage from the market can be utilized as storage
- The unit is currently under construction at Wison's Shipyard in Nantong, China





Swan LNG

# P15-015 Jafrabad LNG Port Project Presentation



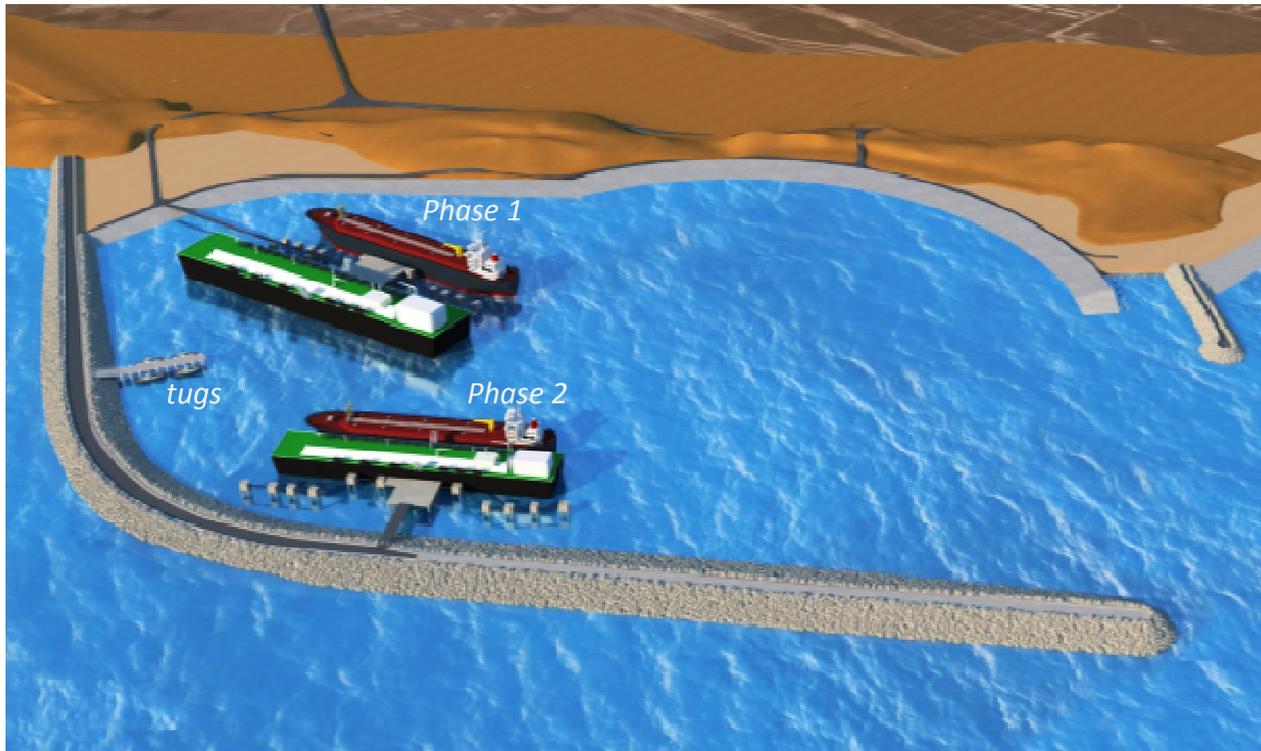
- Partnership on equal basis between SWAN Energy Limited and EXMAR
- Site selection
  - Proximity to the NG market (Gujarat, New Delhi and North of India)
  - Lower pipeline cost to reach the prime market (compared to Dahej and Hazira)
  - Short connection to the grid (6 km to the existing pipeline grid)
  - Proximity to LNG supply (Qatar, Mozambique, Iran?)
- Project Status:
  - **Concession** given by the State of Gujarat for 30 years (build – own – operate – transfer (price to be determined by an independent expert after 30));
  - **Environmental Clearance** has been obtained in 2013;
  - Studies have been made for the EPC of the marine infrastructure and dredging and tender process is underway with experienced **EPC Contractors**;
  - Discussions with **Indian / International banks** ongoing (80/20 – INR loan);
  - **Heads of agreement** signed. Negotiations on the Regas Agreements on take-or-pay basis with 4 major Indian Oil & Gas companies in progress
  - FID expected mid-2016
  - Start-up operations expected early 2020





# Jafrabad LNG Port Project

## Terminal layout

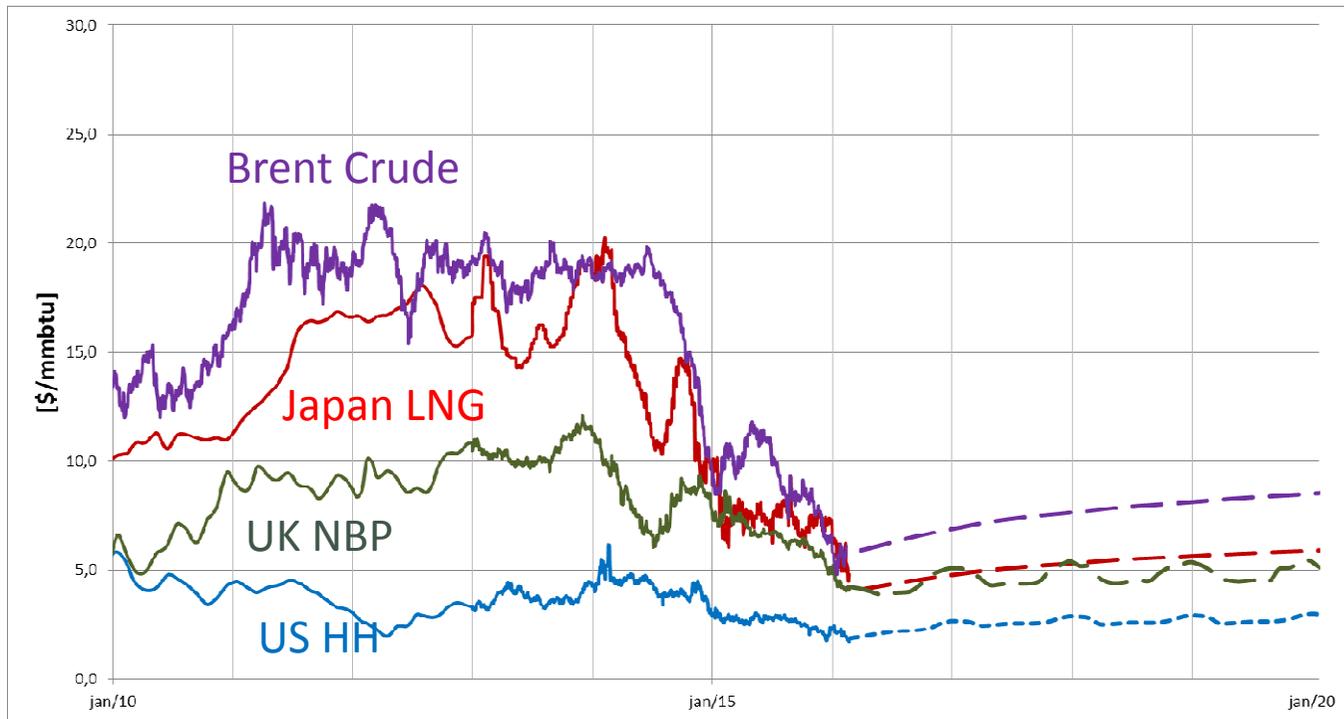


- 2.2 km breakwater, protecting the terminal from strong winds, current, ciltation, monsoon, ...;
- 1 Jetty for the permanent mooring of 1 5MTPA FSRU + 1 FSU and capable of receiving LNGCs up to Q-Max sizes;
- 1 Jetty for the permanent mooring of 1 5 million tons per year (MTPA) FSRU (in phase 2);
- Onshore receiving facilities, accommodation, firefighting station, ...
- Capital and maintenance dredging needed to receive any LNGCs irrespective of tide.

# Energy markets today



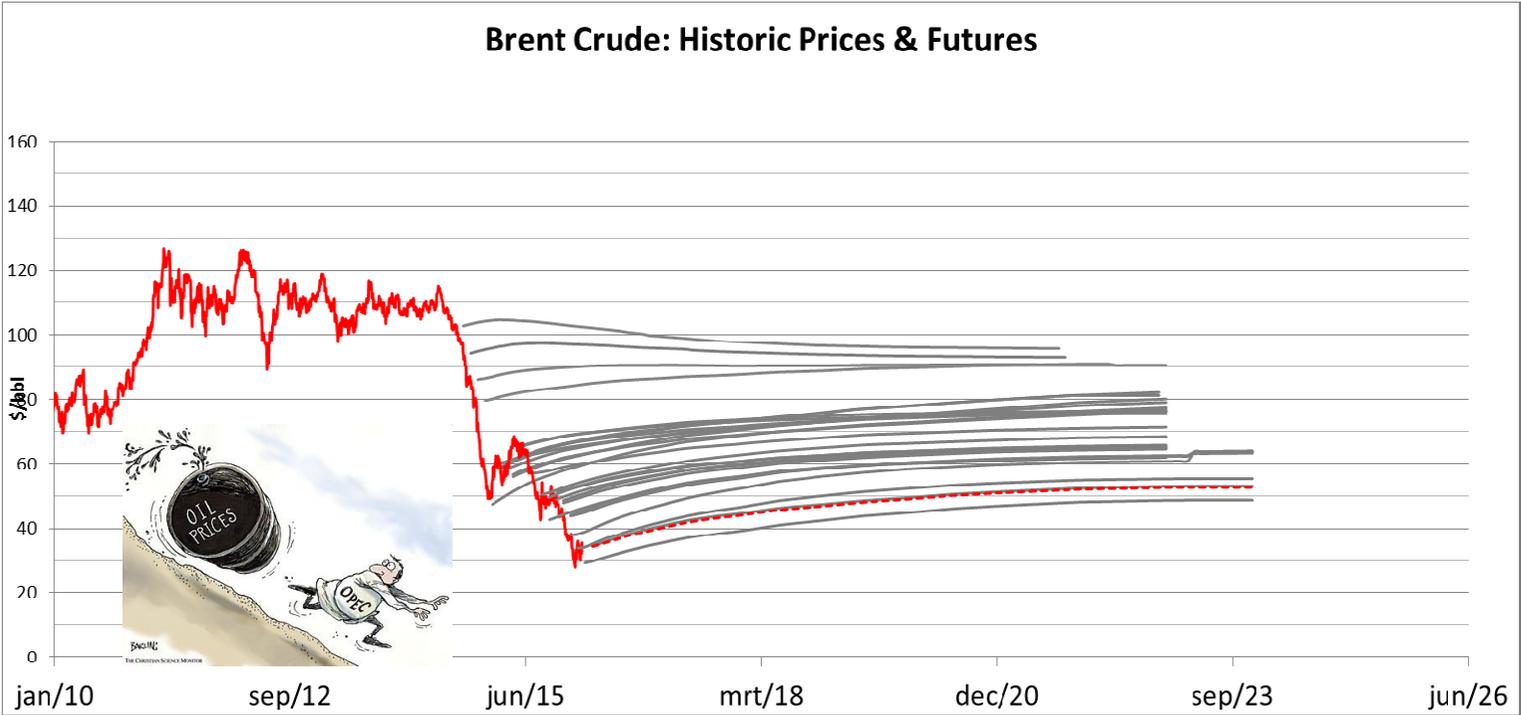
## Gas, LNG and Oil Prices Converging



# Energy markets: Plummeting oil prices



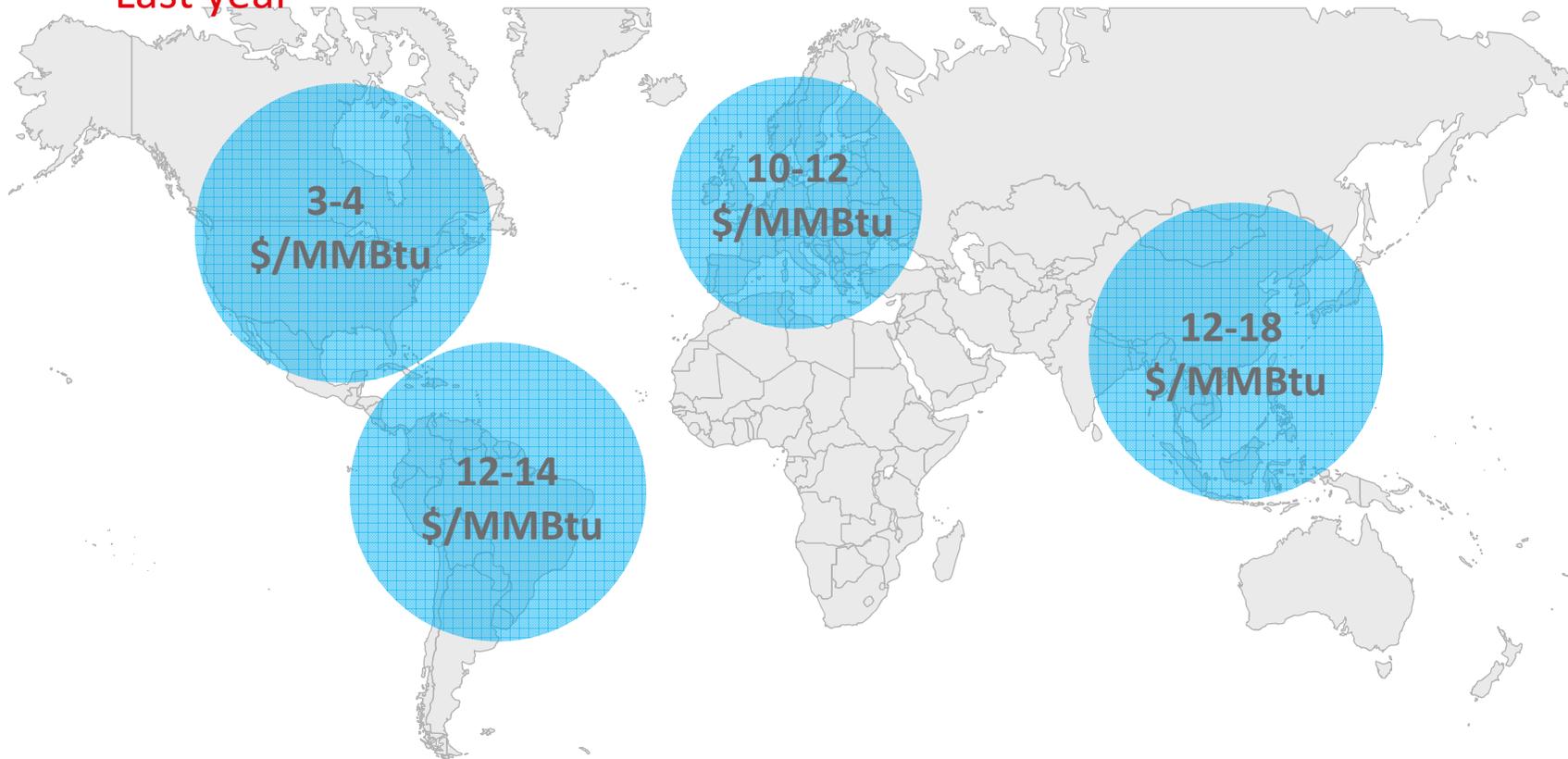
## Brent Crude: Historic Prices & Futures



# Gas & LNG Pricing Environment



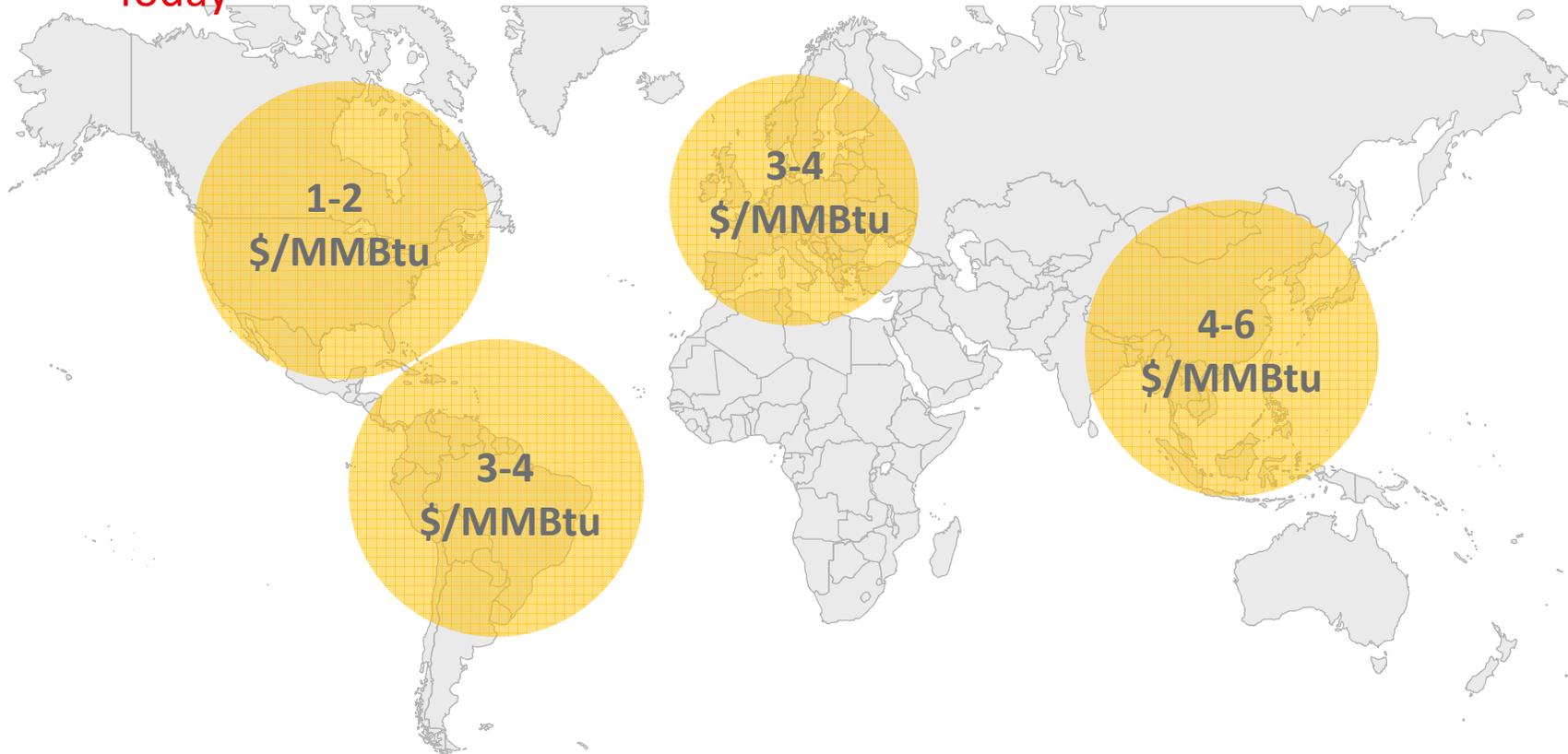
Last year



# Gas & LNG Pricing Environment



Today



## Illustrating the current impact of low prices



Only highly competitive (F)LNG projects will be able to compete!

	TODAY	LAST YEAR
115% Henry Hub	2,3	4,4
Liquefaction@3\$/mmbtu	3,0	3,0
Shipping from US GOM (spot)	1,3	2,4
<b>TOTAL COST</b>	<b>6,6</b>	<b>9,8</b>
<b>Asian spot prices</b>	<b>6,0</b>	<b>15</b>
MARGIN	<b>-0,6</b>	+ 5,2



## EXMAR LPG Activities

# EXMAR LPG Shipping



## Business Approach

- Niche position in LPG, ammonia and chemical gases transportation
- Focus on midsize carriers
- Long-term relationships with blue-chip customers
- Balance between Time-Charter, COA and spot commitments
- 1<sup>st</sup> class in-house ship management and crewing

## First class client base



# LPG Activities

## LPG Fleet



### Owner/Operator of LPG carriers

- Transportation of LPG, Chemical Gases and Ammonia;
- Flexible commercial proposition; (Time-Charter, COA and spot commitments);
- VLGC and MGCs integrated in a JV with Teekay LNG (February 2013)



### Fleet of 33 LPG carriers (Owned and Time-Chartered):

- 1 VLGC (85,000 m<sup>3</sup>);
- 22 LPG/NH<sup>3</sup> Midsize (38,000 m<sup>3</sup>);
- 1 Semi-Refrigerated (12,000 m<sup>3</sup>);
- 10 Pressurized (3,500 – 5,000 m<sup>3</sup>)



### Market leader in Midsize segment (20,000 - 40,000 m<sup>3</sup>):

- Transports 14% of the world's seaborne Ammonia

### Newbuilding program of 12 midsize vessels (38,000 m<sup>3</sup>):

- 4 newbuild vessels at HHI and 2 at Hanjin (HHIC) have been delivered
- 6 vessels under construction with Hanjin



# LPG Market Outlook



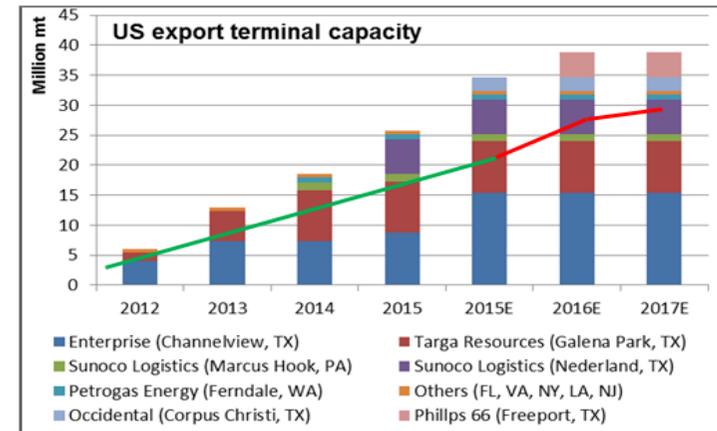
- **General Market Developments: Another quantum leap in US LPG exports has driven the market to historical heights**
  - The combination of a strong Chinese LPG import expansion with a rapidly increasing portion of it sourced ex USA has been the main driver to comfortably absorb as many 30 VLGC delivered during 2015.
  - Except for small Pressurized tonnage, all segments have enjoyed historically high freight / hire markets on the back of virtually full capacity utilization.
  - However, a major newbuilding wave will hit the market throughout '16 / '17 and it remains to be seen whether export volumes and trading patterns in various segments will be able to digest the latter by way of a soft landing or not.
  - **Exmar currently has an average TC employment coverage of 72% across the LPG fleet for 2016**

- **Seaborne LPG demand: LPG trading continues to dominate the market mainly based on**

- Substantially increasing US terminal capacity and export volumes
- China's rapidly expanding long-haul imports ex USA
- Steadily growing Indian LPG imports

- **Seaborne Ammonia demand: A gradual change in trading patterns should improve on otherwise slow growth prospects :**

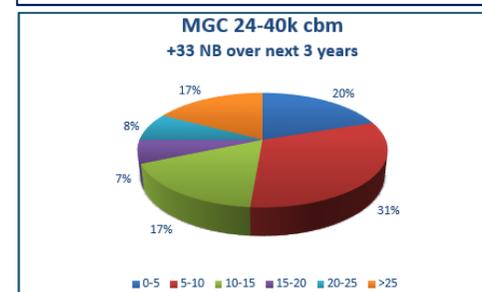
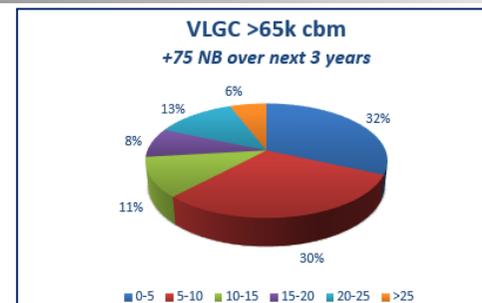
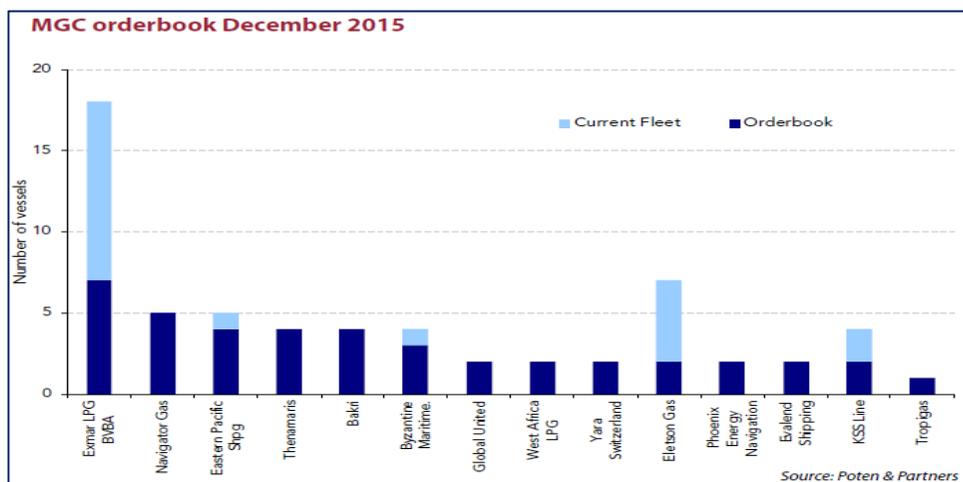
- Export growth forecasts remain modest in volume but are likely to go together with a shift in trading patterns, which should positively impact trading liquidity and vessel utilization
- The foreseen substantial reduction of US imports is expected to re-route Ammonia traditionally being sourced ex Caribbean and Black Sea to other outlets as far as East of Suez



## 2.3. LPG - Overall Fleet Supply (VLGC – Midsize – Handysize)

### Bullish market expectations + aggressive financial conditions have led to an excessive orderbook

- The combined proportion of newbuildings (to be) delivered within '16 - '19 is the largest ever within a 3-year period:
  - 75 VLGC = 37 % (of which 40 scheduled within Dec '16 *excl.* 7 VLEC)
  - 33 Midsize = 43 % (*excl.* 4x 27,000 m<sup>3</sup> + 7x 35 - 36,000 m<sup>3</sup> Ethane carriers) (\*)
  - 34 Handysize = 36 % (*incl.* 17 Ethylene carriers)
- Such orderbook will unavoidably affect vessel utilization and spark strong competition not only within but also between various segments





## EXMAR Offshore Activities

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# EXMAR Offshore



## Business Approach

- Provides engineering and design services, asset leasing and operating and management services
- Cost effective approach with standardized design & engineering
- Large geographical coverage, with a focus on Gulf of Mexico and West Africa

## First class client base



# EXMAR's Activities in the Offshore Sector



## Build, own, operate model

- Owned assets: 3 accommodation barges
- Development of FPSO's and FSO's
- Development of Semi-submersible platforms
- Development of Accommodation barges



## Services

- Pre-Operations Engineering
- Marine and Maintenance Services
- Operational Services
- Staffing and Technical Services
- Procurement and Logistical Services
- Asset Integrity Management

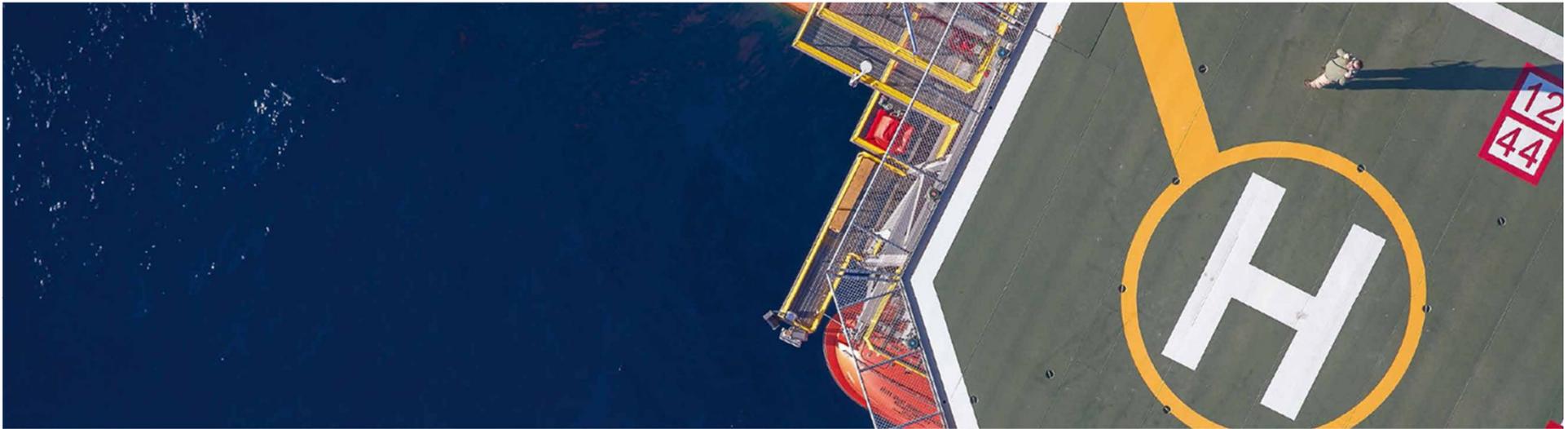


# Conclusions

## EXMAR and Floating LNG solutions



<p>35 years experience in gas shipping and handling with 40+ vessels</p>		<p>Pioneer in the oil &amp; gas industry with strong in-house engineering teams</p>	
<p>World's first FLNG to be delivered 1H 2016</p>	<p>Turnkey floating LNG solutions, tailored to the needs of the client</p>		<p>Innovation and Investment to create Shareholders' Value</p>
	<p>Market leader in LPG midsize segment</p>	<p>Benefitting from a unique position in growing markets</p>	



**Do you have any question?  
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