



# Expansion in Subsea Worldwide

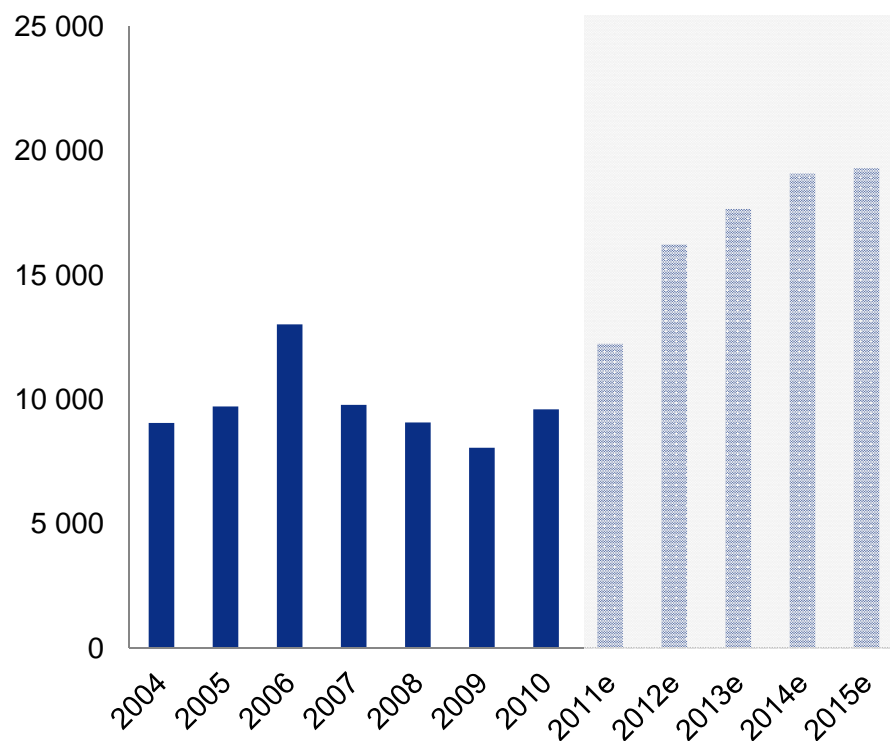


**Frederic Delormel**, Executive VP and COO Subsea

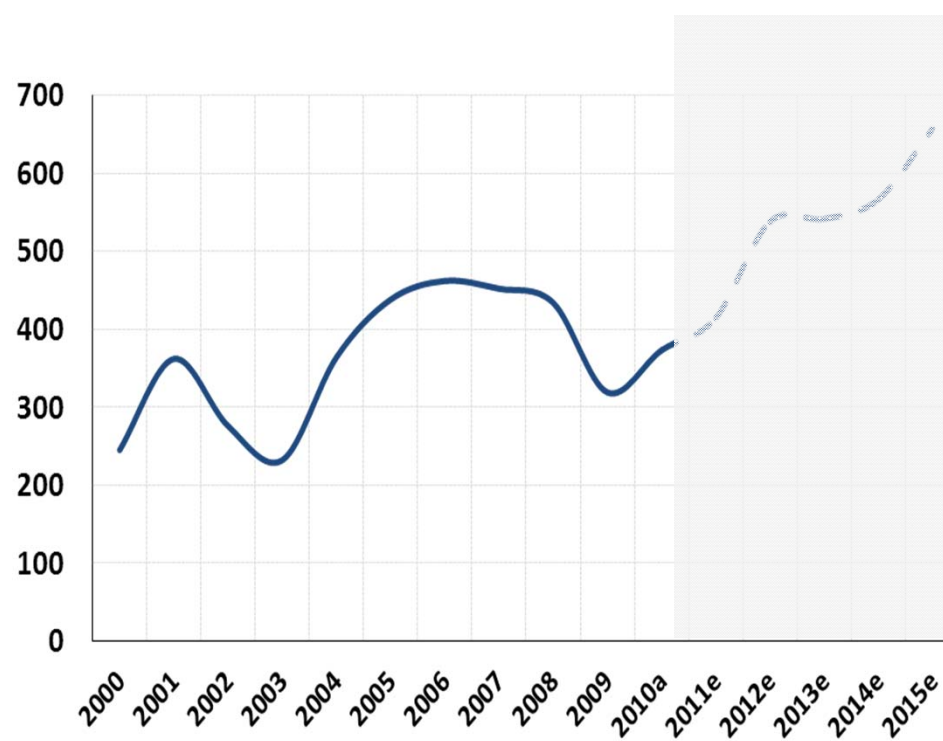
Investor Day in Brazil, October 4, 2011

# Continuous Subsea Market Improvement

**Offshore Pipelines**  
(km installed per year<sup>(1)</sup>)



**Subsea Tree Orders**  
(number per year<sup>(2)</sup>)



(1) Offshore Pipelines include: conventional lines associated with SURF & Trunklines/Export lines (diameter = or >24" and length >75 km); Source: Infield Systems'

(2) Source: Quest Offshore (Mean Case)

# More Integrated and Complex Prospects in the Subsea Market...

## North Sea & Canada

- A mix of floating & fixed facilities and longer tie-backs
- Increase of new field approvals in the UK
- Development in Norway moving further North

## Gulf of Mexico

- A rebound in activity post Macondo
- Other countries emerging (Mexico, Venezuela, ...)

## Middle East & India

- Flexible pipe opportunities in Middle East
- Major deepwater discoveries in Indian East Coast
- Marginal fields on the West Coast of India

## Brazil

- Huge developments constrained by capacity limitations
- Pre-salt ultra deepwater development

## Africa & Mediterranean Sea

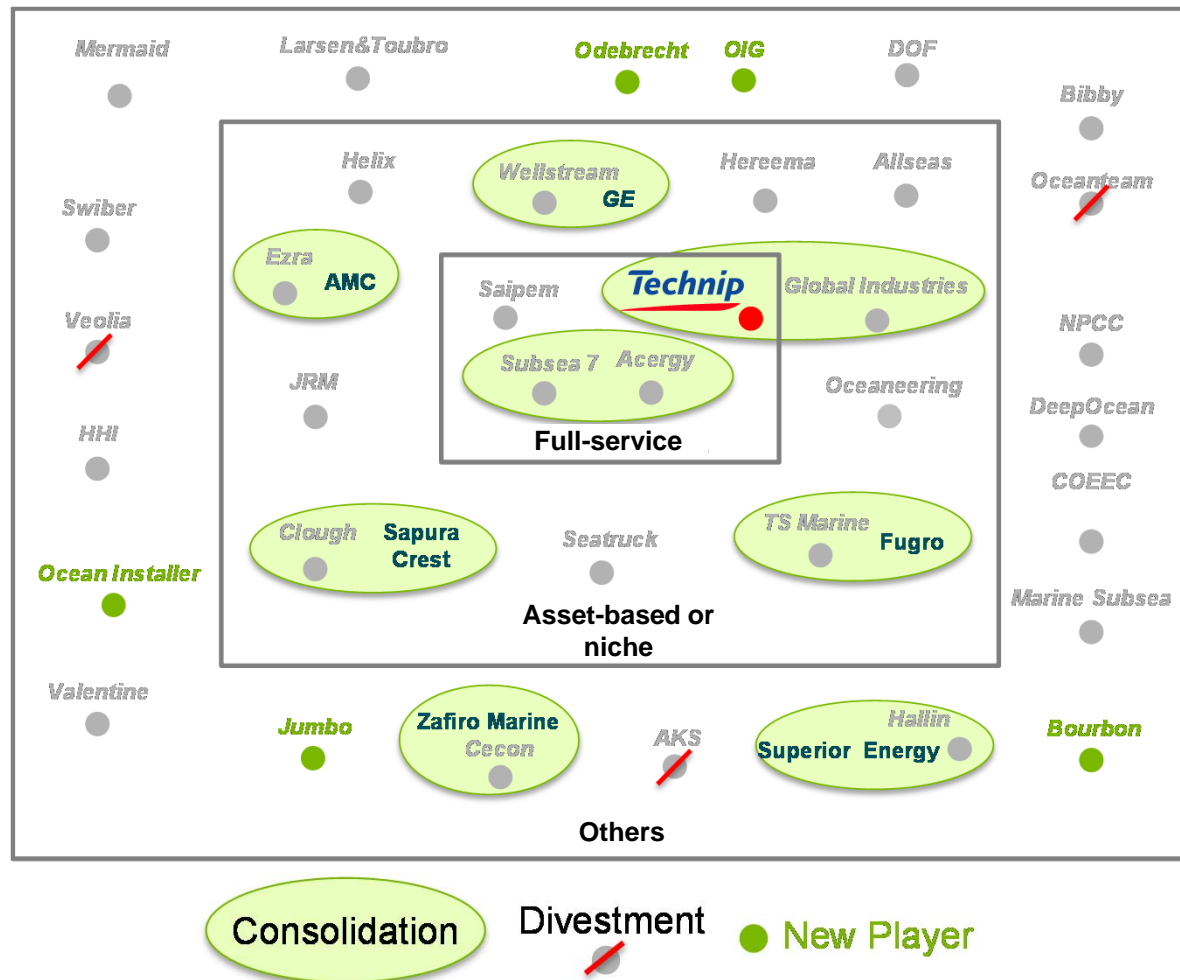
- Increase of local content requirements
- Pre-salt in Angola and Gabon
- Deep water gas discoveries in Nile Delta, Israel, Mozambique, Tanzania, Kenya

## Asia Pacific

- Increasing number of mega projects
- Deepwater driven by Indonesia and Malaysia
- Flexible pipe market under development

**... requires integrated capabilities and world-class assets**

# Competitive Landscape



## ■ Consolidation for

- Economy of scale & global footprint
- Product line expansion

## ■ New entrants to focus on

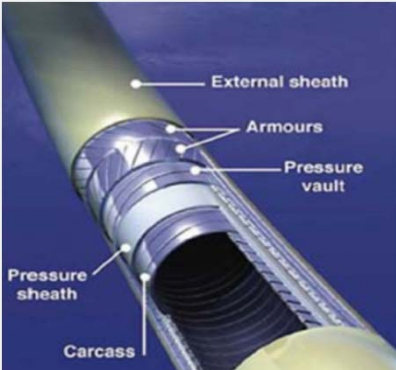
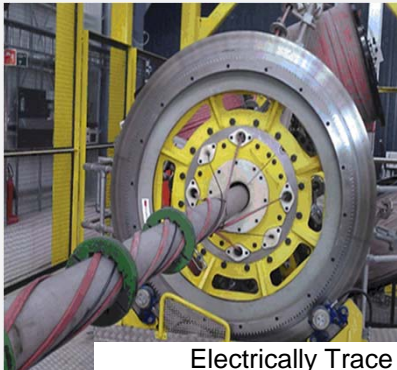






- Mid & low-end Subsea activities
- Specific local markets

Source: Technip





# Technip's Product Portfolio

Flexible Pipe	Rigid Pipe	Umbilical	DRAPS*
 <p>Typical Flexible Pipe Structure</p>	 <p>Electrically Trace Heated Pipe-in-Pipe</p>	 <p>Thermoplastic Umbilical</p>	 <p>Drain Pipe System</p>
 <p>IPB (Integrated Production Bundle)</p>	 <p>Reeled Mechanically Lined Pipe</p>	 <p>Steel Tube Umbilical</p>	 <p>Choke &amp; Kill Lines</p>

\* Drilling & Refining Applications

# Expand SURF\* Capability Through Organic Growth

## MANUFACTURING CAPACITIES



New flexible plant, Asia



New high-end flexible plant, Brazil



Steel tube umbilical upgrade, UK



Upgrade of umbilical plant, Angola

## VESSELS



Skandi Arctic, North Sea



New Skandi Vitória, Brazil



Apache II, UK



New Skandi Niteroi, Brazil



New Asia Pacific flexlay vessel



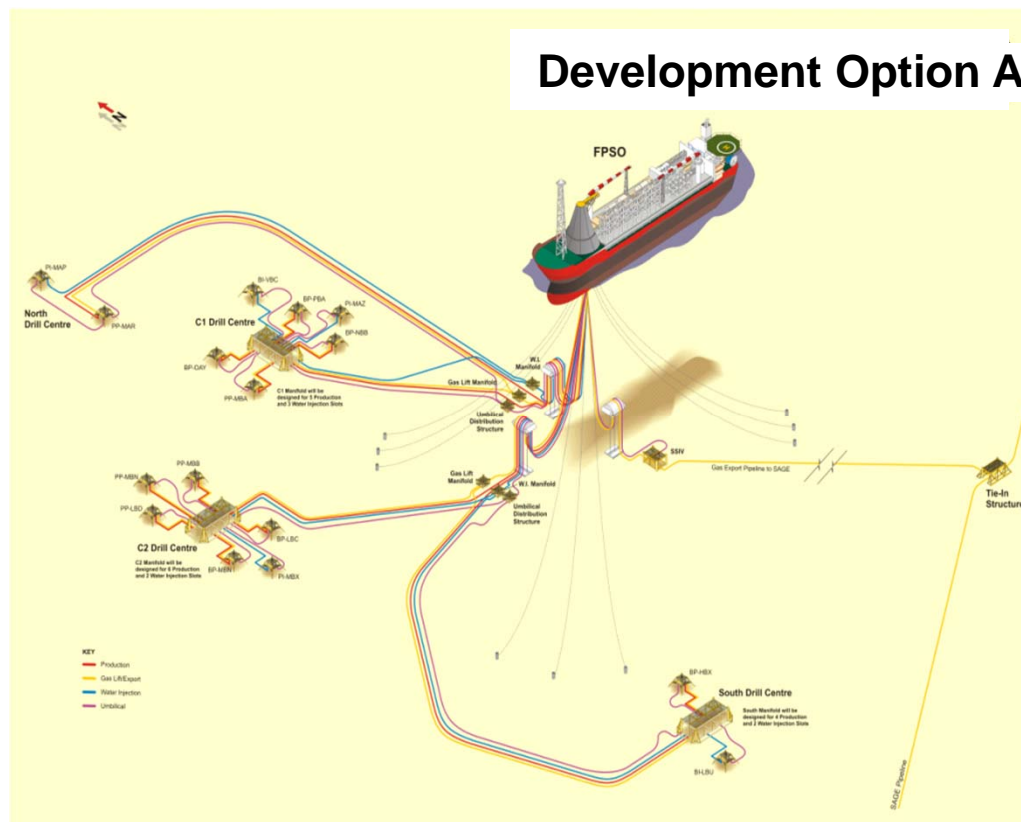
Deep Energy

Over €1,400 million  
invested since 2007

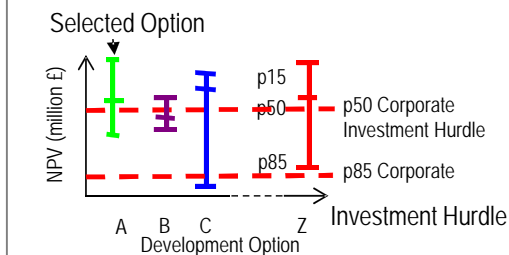
-  Investments completed since January 2010
-  Investments under development

\* Subsea Umbilicals, Risers and Flowlines

# Upstream Field Engineering Capability



## Life Cycle and Risk Analysis



## Option Selection and Project Execution





# Full Range of Rigid Pipelay Capabilities

## J-Lay

- Large Pipe-in-Pipe
- Export line
- Inter-field line
- Heavy pipeline in deep water



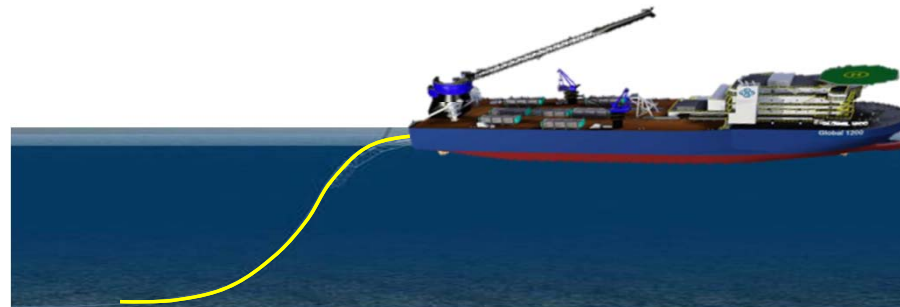
## Reel-Lay

- Infield line
- Tie backs
- Pipe-in-Pipe
- Fast installation capacity

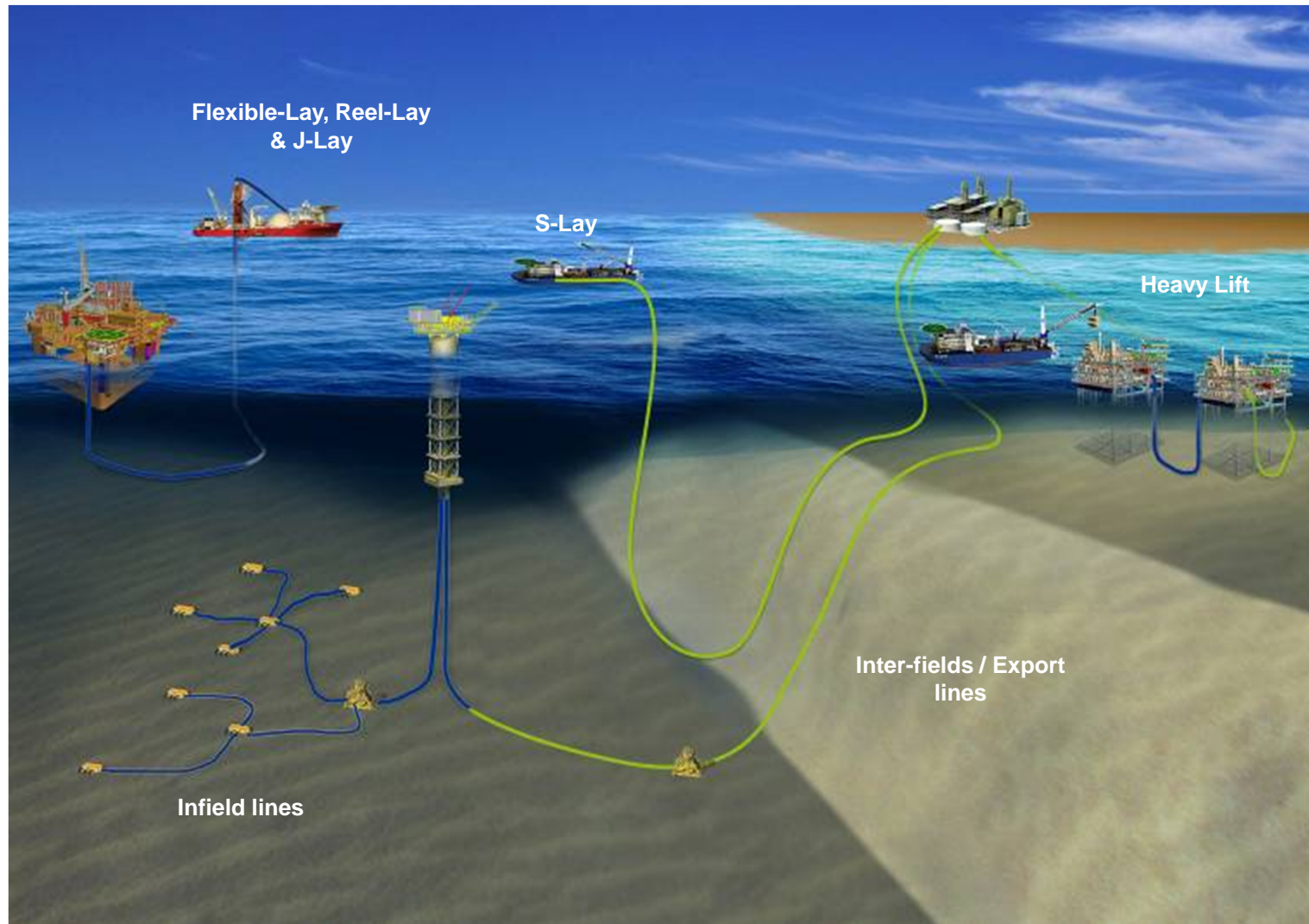


## S-Lay

- Deep-to-shore projects
- Export line
- Inter-field line

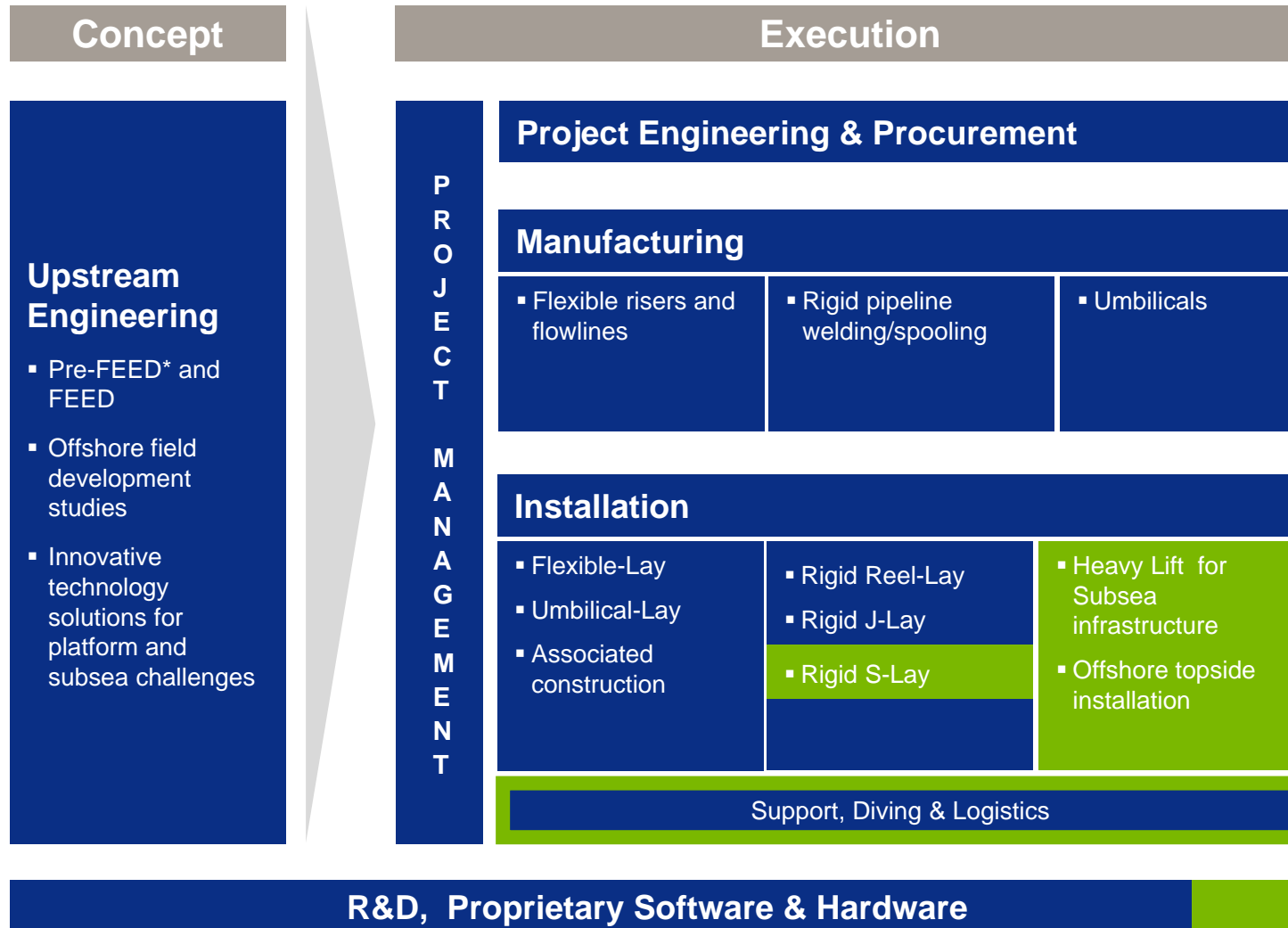


# Global Industries in line with Technip's Priorities: Deepwater and Integrated Projects



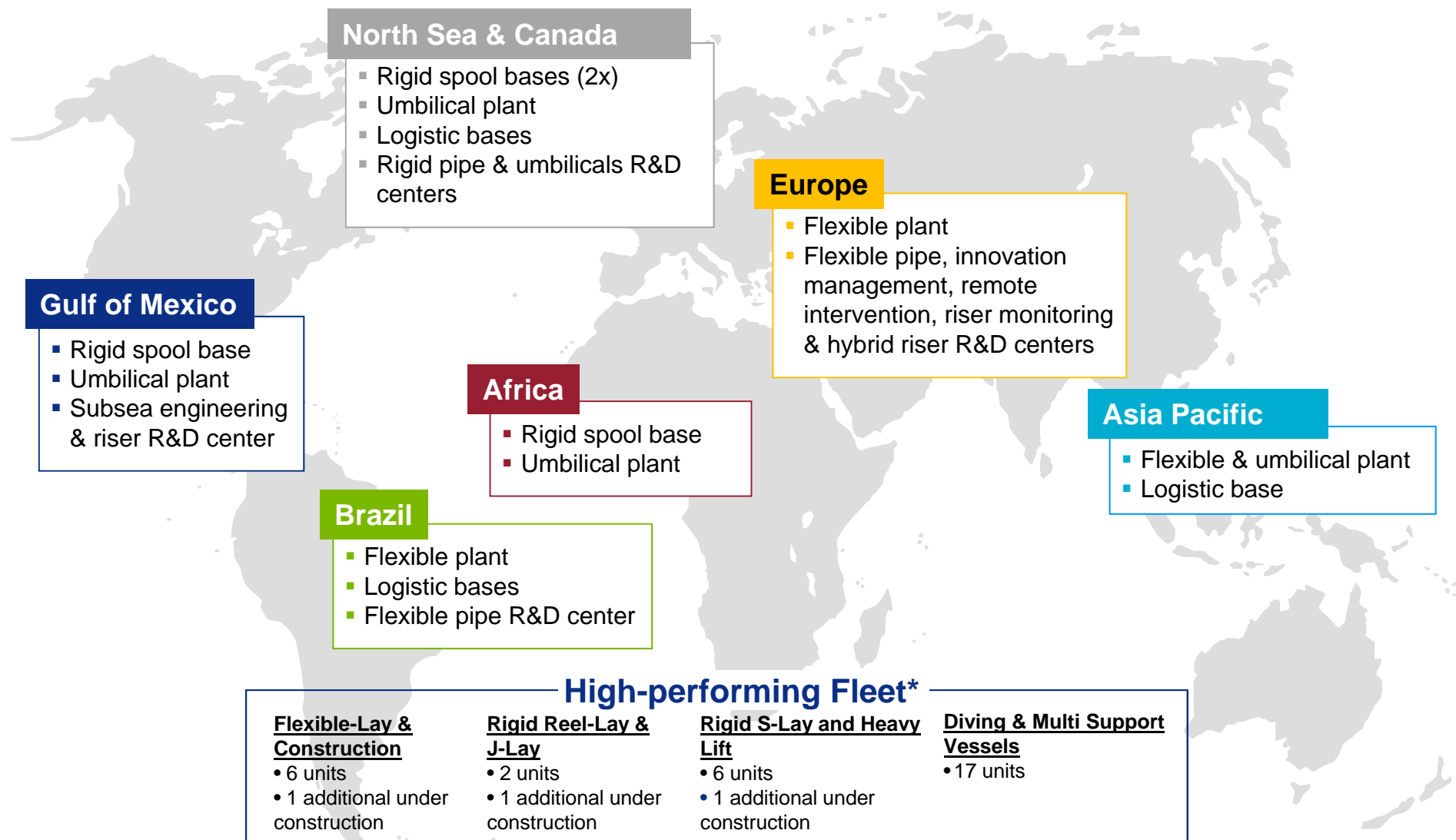


# Technip Customer Support from Concept to Execution



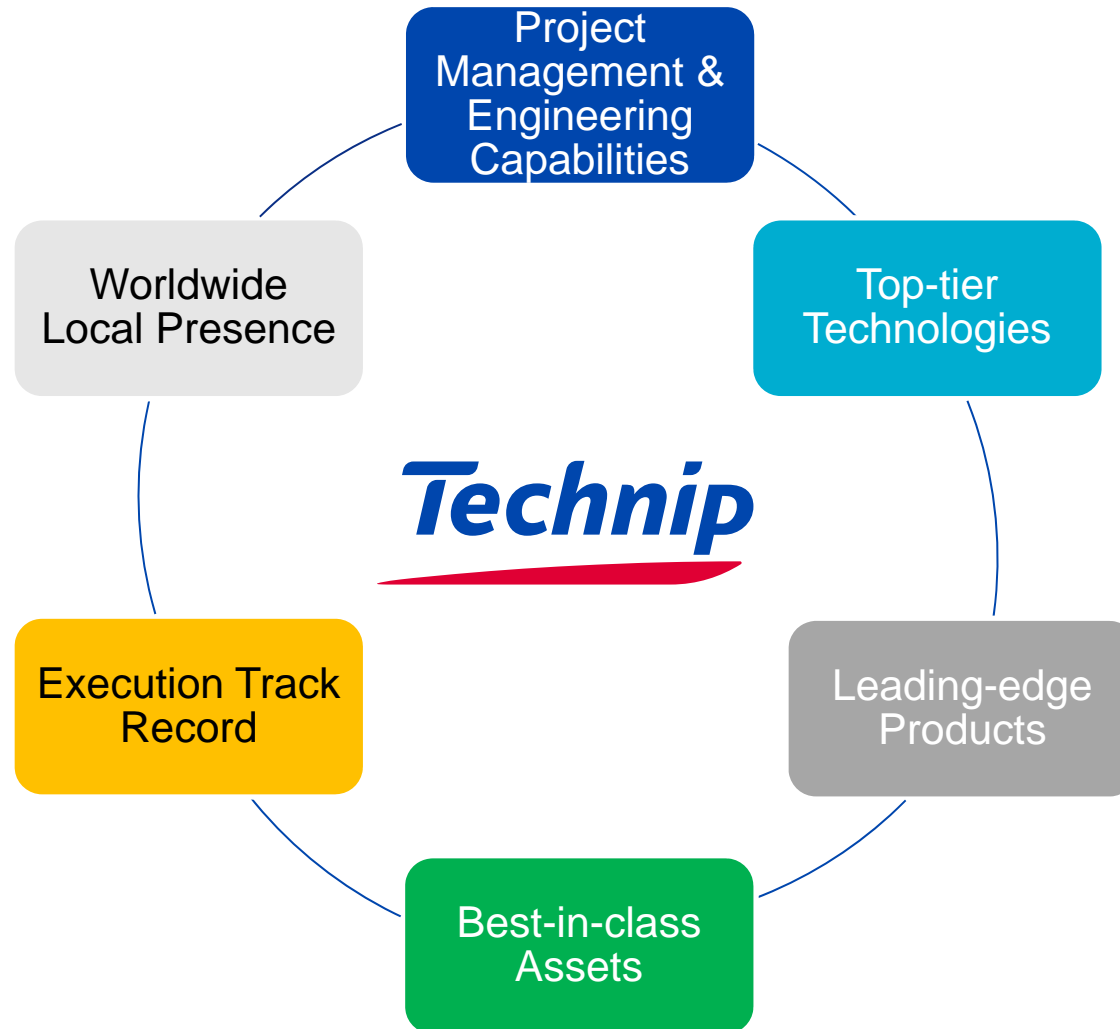
\*FEED: Front End Engineering Design

# Technip's Leading Position in the Subsea Market





## Technip Subsea: Strong Potential for a Promising Future



## And Last but Never Least...



...People at Technip



# Thank you

