



# Mid-term Business Plan 2020

February 7th, 2018



## Review of Previous Mid-term Business Plan (2015-2017)


- Environment
- Result
- Activity

## Mid-term Business Plan 2020

- Outlook of Long Term Energy Consumptions
- Current Market
- Strategy of Mid-term Business Plan 2020
- Target for 2020 - Quantitative Goals
- Mission and Vision

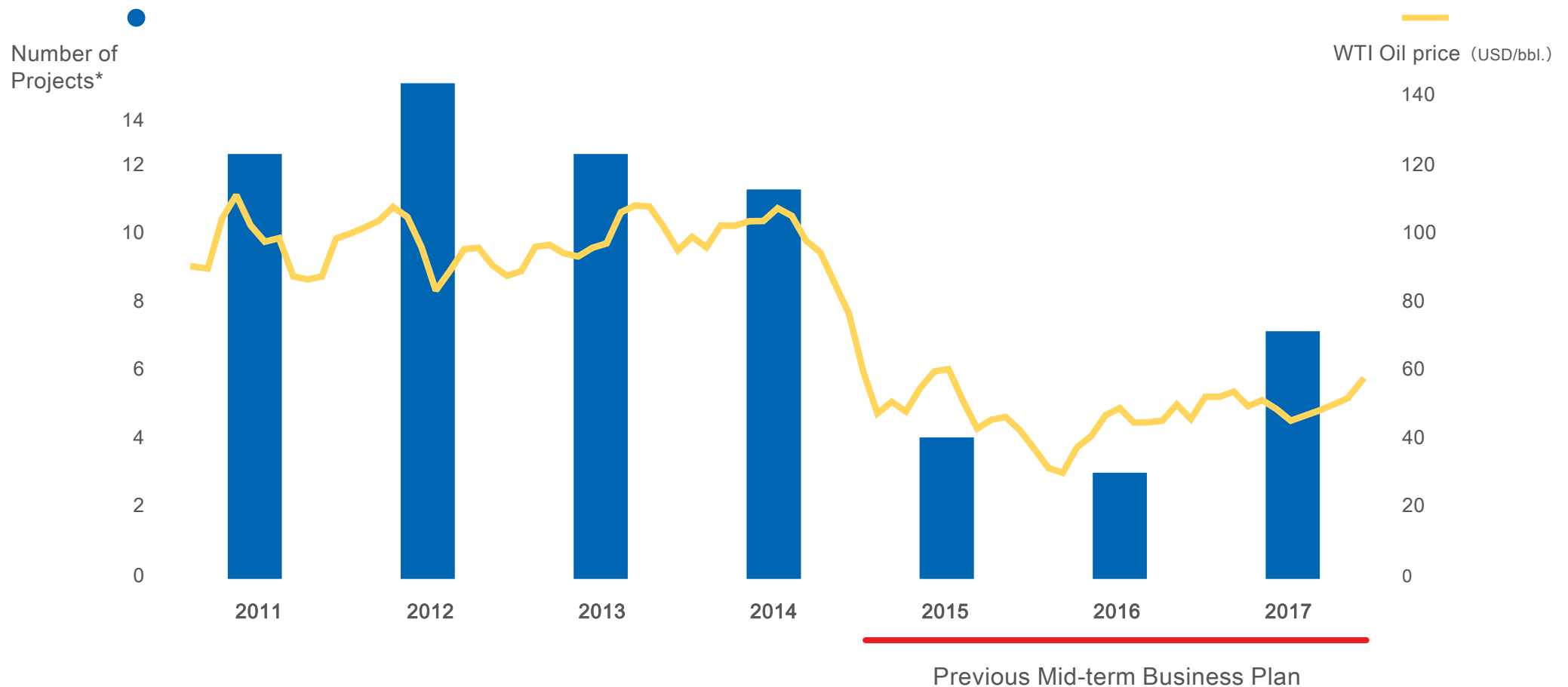
## APPENDIX

## Review of Previous Mid-term Business Plan (2015-2017)

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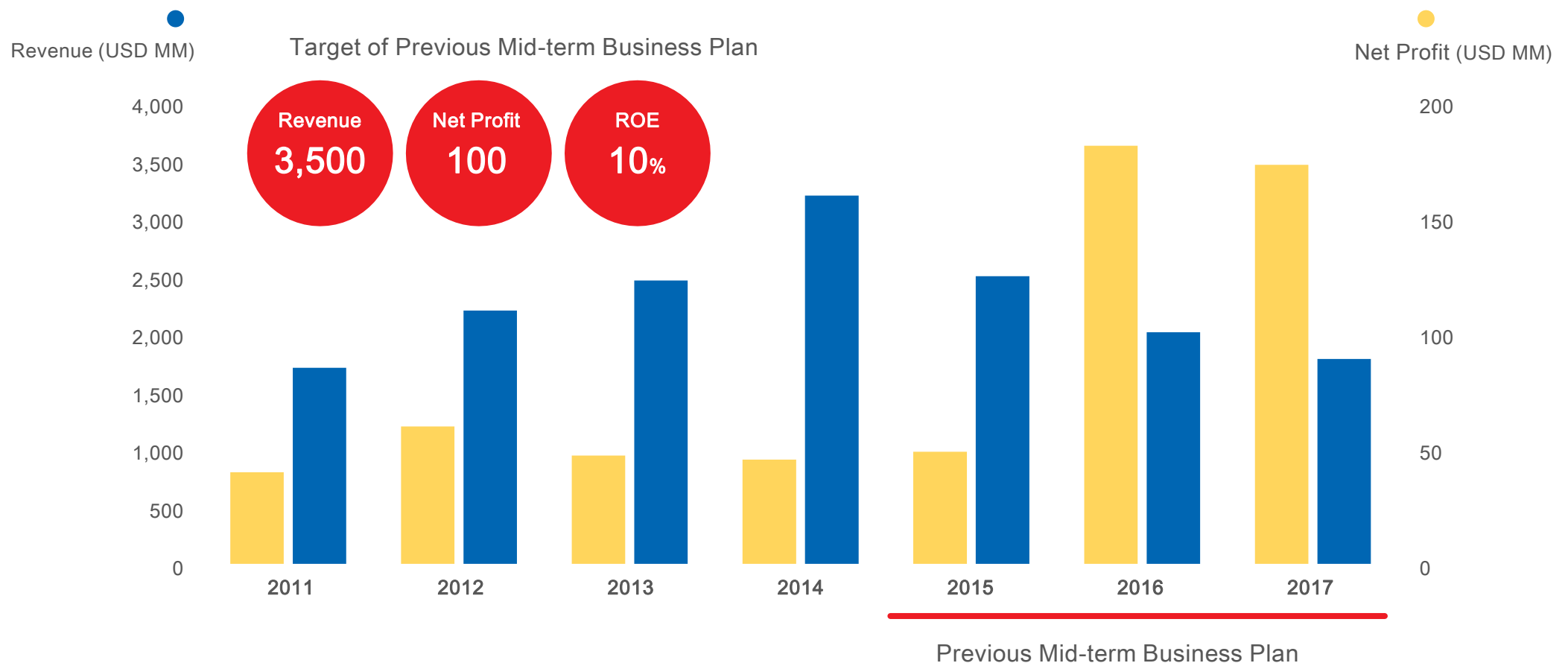
# Review of Previous Mid-term Business Plan (2015-2017) - Environment

Reduced number of projects due to low oil price and political instability in Brazil



# Review of Previous Mid-term Business Plan (2015-2017) - Result

Strong increase of net income despite the revenue drop



# Review of Previous Mid-term Business Plan (2015-2017) - Activity



Action Plans were steadily achieved, and will be evolved into the new Mid-term Business Plan.

## Asset Integrity Enhancement

- Enhanced asset management with active resource allocation.
- Achieved EPCI and O&M service which enable longer and more stable production by effective use of accumulated know-how in O&M for each FEED/EPCI/O&M.

## Strengthened Competitiveness

- Improved EPCI cost competitiveness and shortened delivery time.
- Reduced cost of O&M.

## Execution of R&D

- Continued research of technology for seabed mining.
- Continued R&D of technology for offshore wind power.
- Developed FSRWP®.

## Efficient Organization

- Enhanced group cash management for efficient use of funds.

Asset Integrity: To provide with design, facility and production service  
for long-term safe & steady oil and gas production.

FEED: Front End Engineering Design

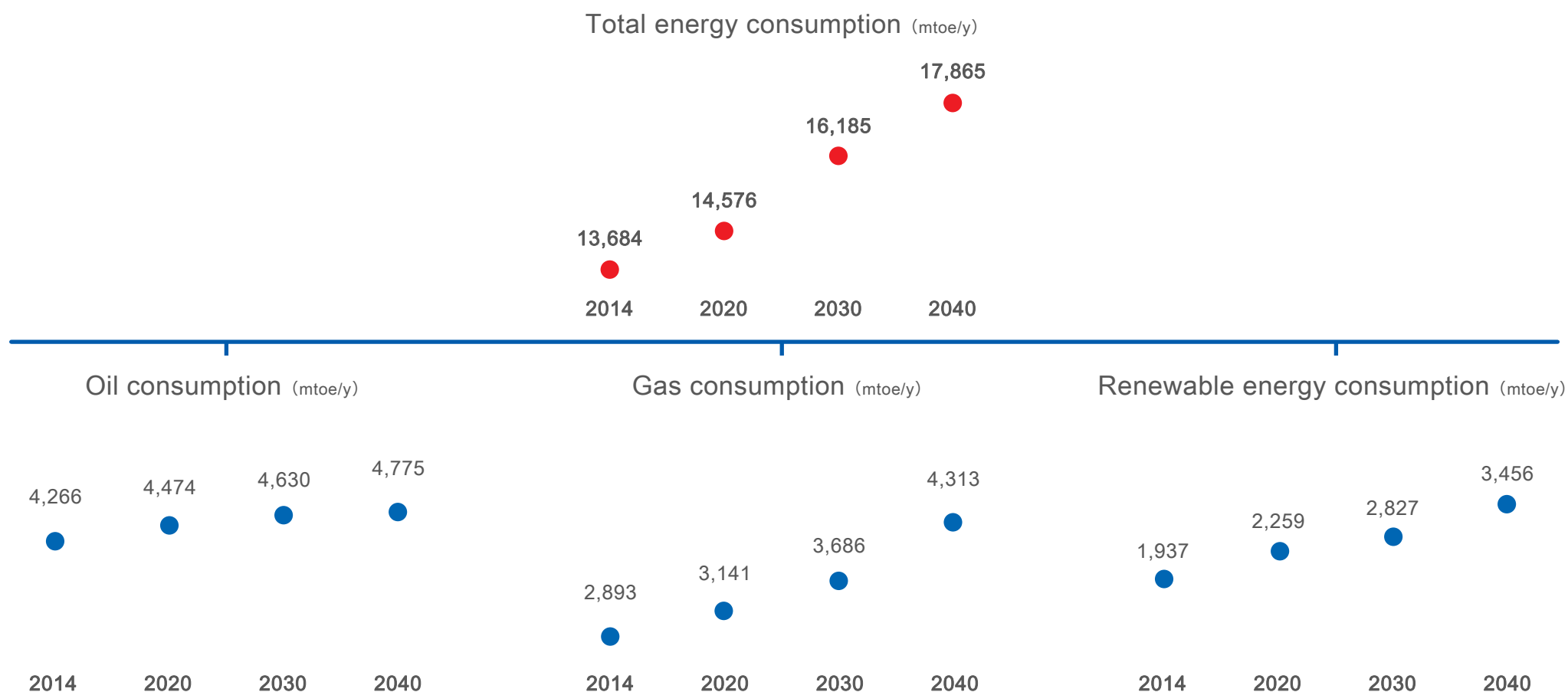
EPCI: Engineering, Procurement, Construction & Installation  
O&M: Operation & Maintenance

# Mid-term Business Plan 2020

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# Outlook of Long Term Energy Consumption

Oil will stay as an important source of energy, whereas Gas will rise sharply.

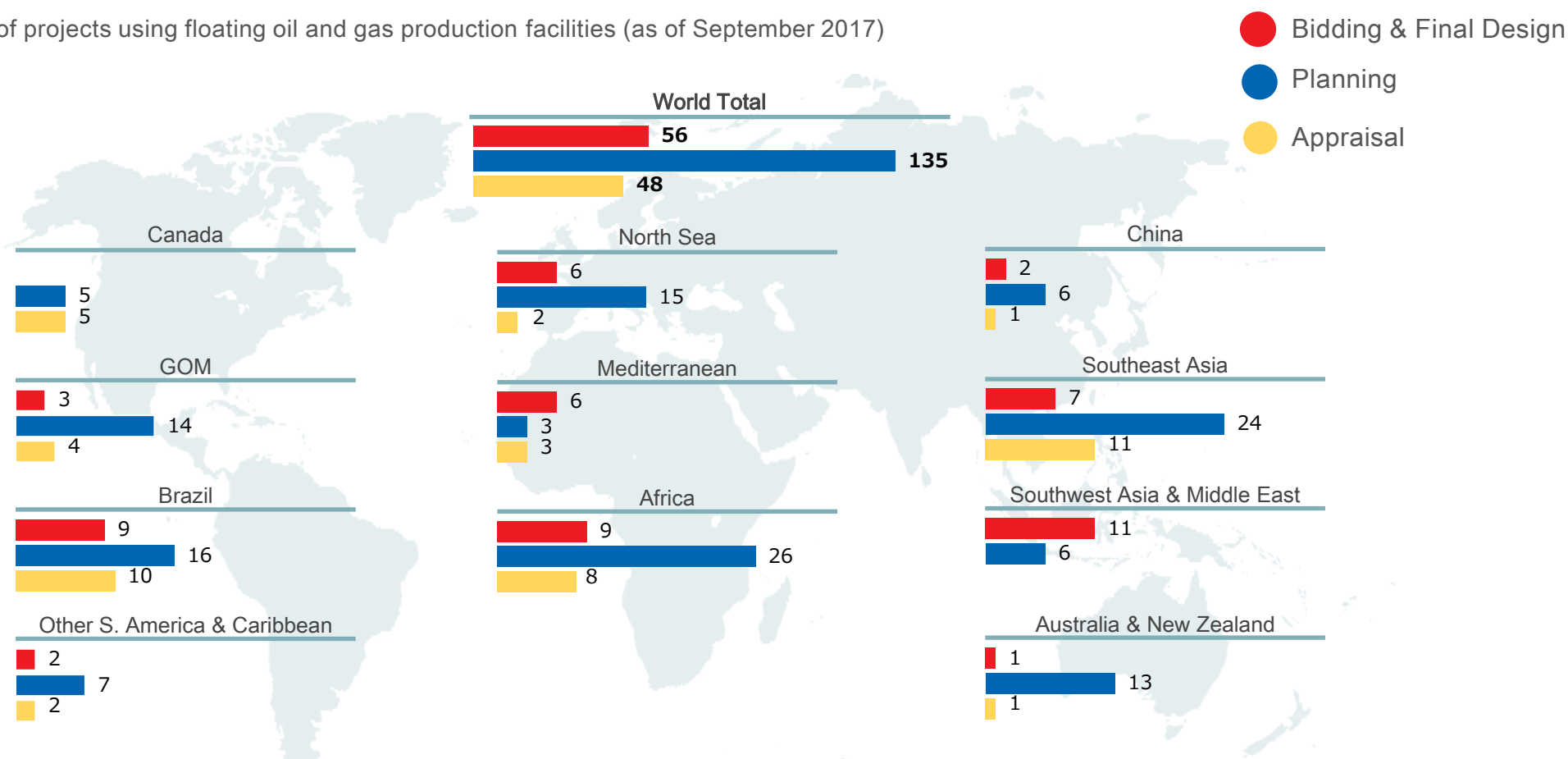


from : IEA, "World Energy Outlook 2016" \*mtoe: million tonnes of oil equivalent

# Current Market

Business conditions have improved and numbers of prospective projects are coming.

Numbers of projects using floating oil and gas production facilities (as of September 2017)



from : EMA, "2017 Q4 FPS Report" \*Australia & New Zealand includes one project in bidding and final design stage in Pacific.

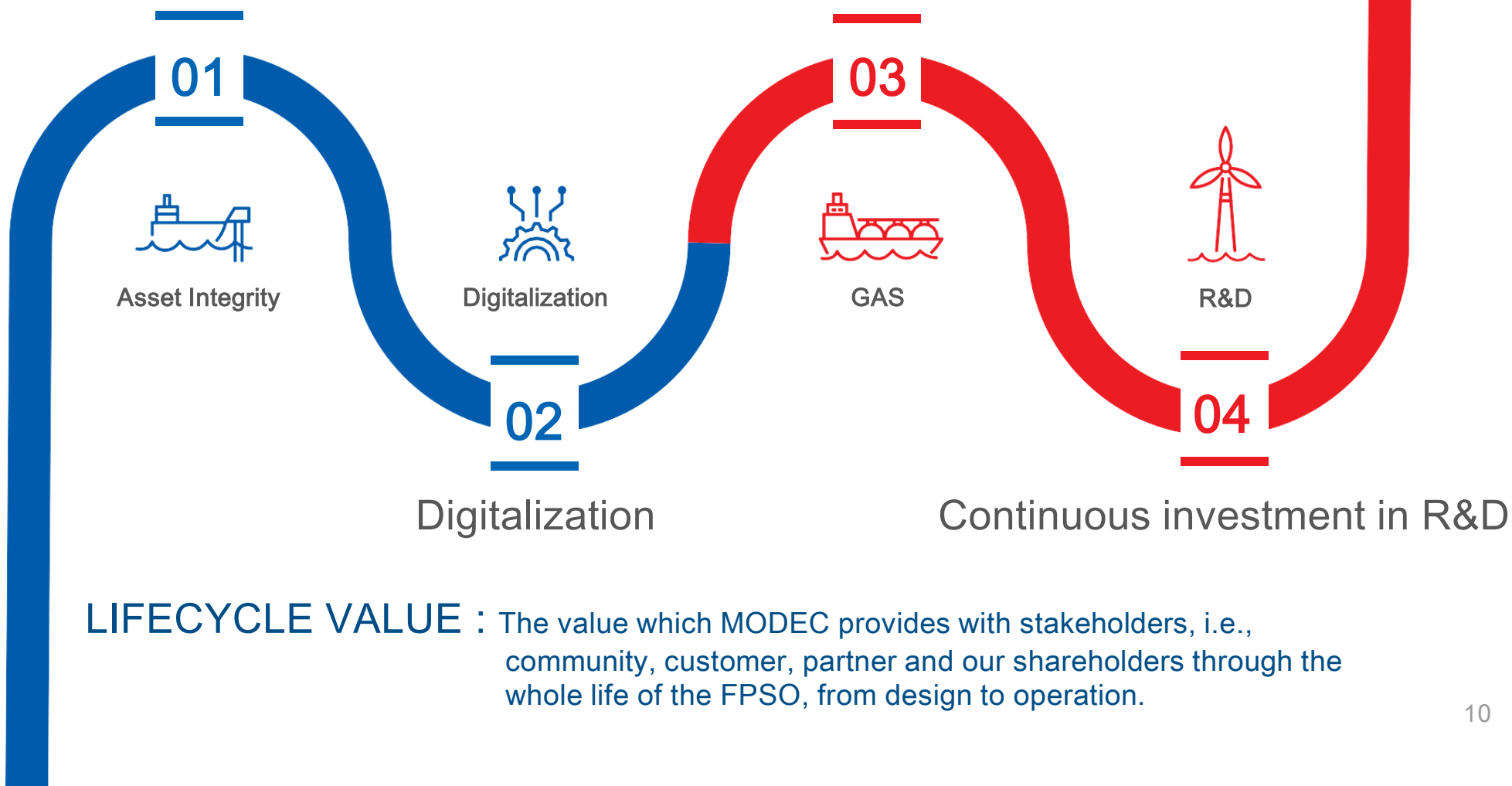
# Strategy of Mid-term Business Plan 2020

## Maximize LIFECYCLE VALUE

## Development of new business

Evolution of Asset Integrity

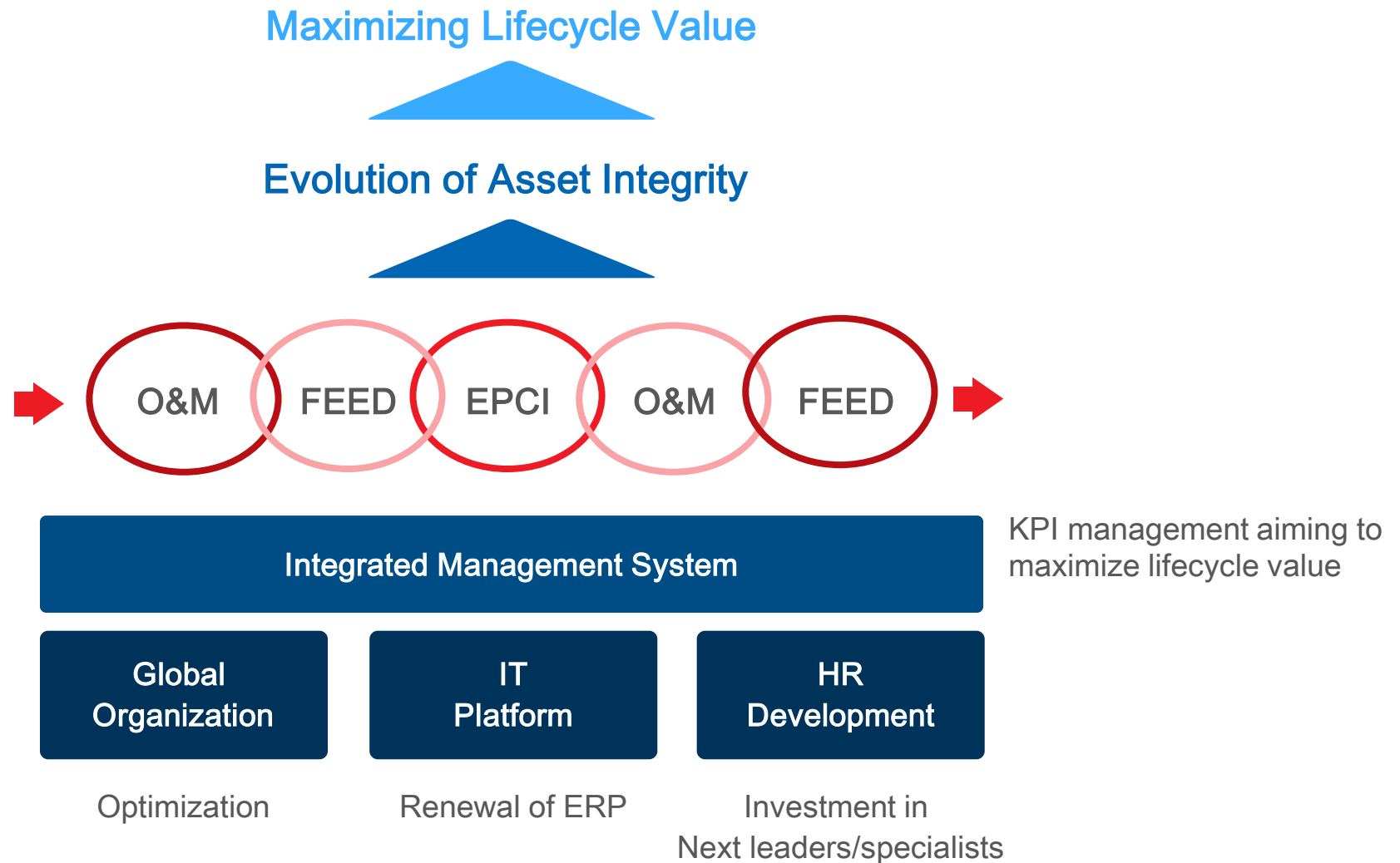
Penetrate into gas market



**LIFECYCLE VALUE** : The value which MODEC provides with stakeholders, i.e., community, customer, partner and our shareholders through the whole life of the FPSO, from design to operation.

# Strategy of Mid-term Business Plan 2020

## 1. Evolution of Asset Integrity

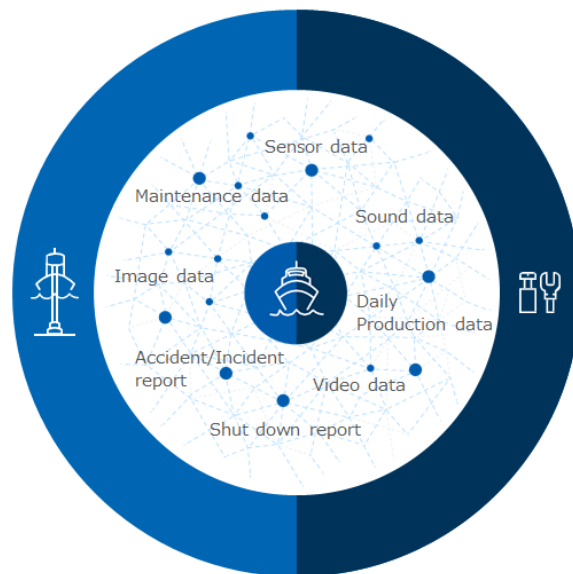


# Strategy of Mid-term Business Plan 2020

## 2. Digitalization

Massive amount of operational data is our key asset of competence.  
We will move forward with a digitalization program to enhance the lifecycle value.

### Advanced Analytics

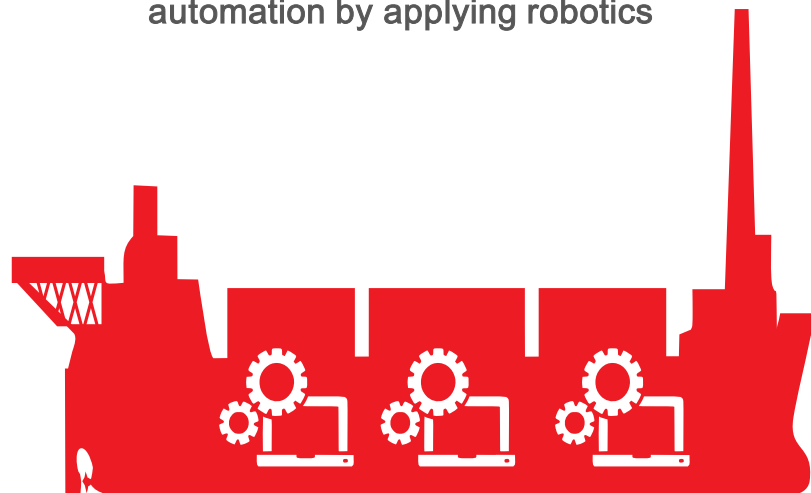
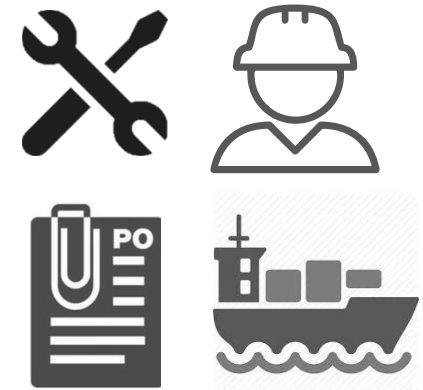


FPSO operational data

Reduced maintenance cost  
Safe & Steady operation  
Increased uptime

Optimized FPSO design & EPCI  
- Targeting to achieve O&M automation by applying robotics

### Enhanced efficiency leveraging IoT

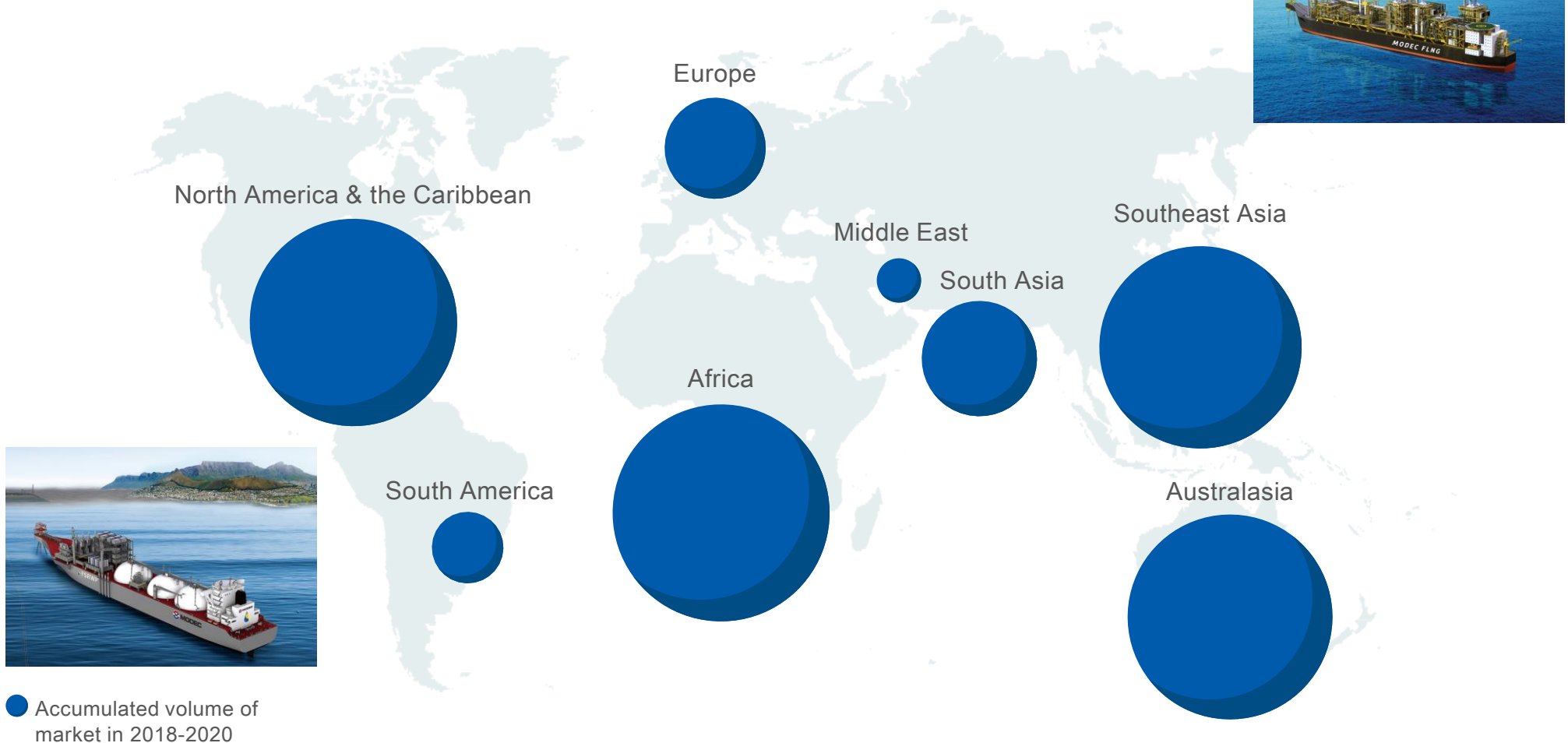


# Strategy of Mid-term Business Plan 2020

## 3. Penetration into gas market

Expected volume of investment in floating gas related facility

■ Considering alliance/collaboration with 3<sup>rd</sup> parties if necessary.



● Accumulated volume of market in 2018-2020

from : MODEC

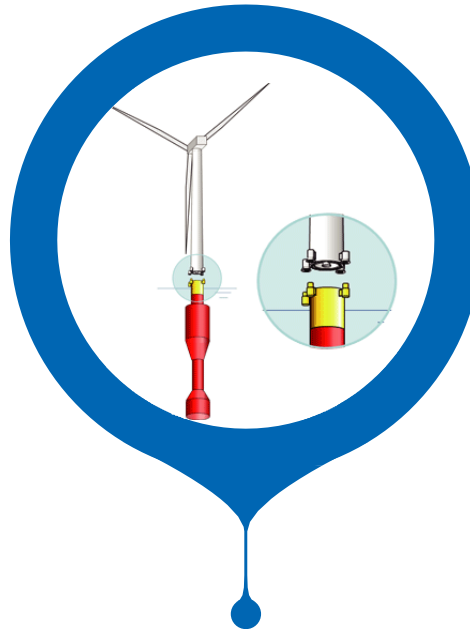
# Strategy of Mid-term Business Plan 2020

## 4. Continuous investment in R&D



### Offshore fleet repair

Development and materialization of innovative in-situ fleet repair method using CFRP



### Offshore wind power

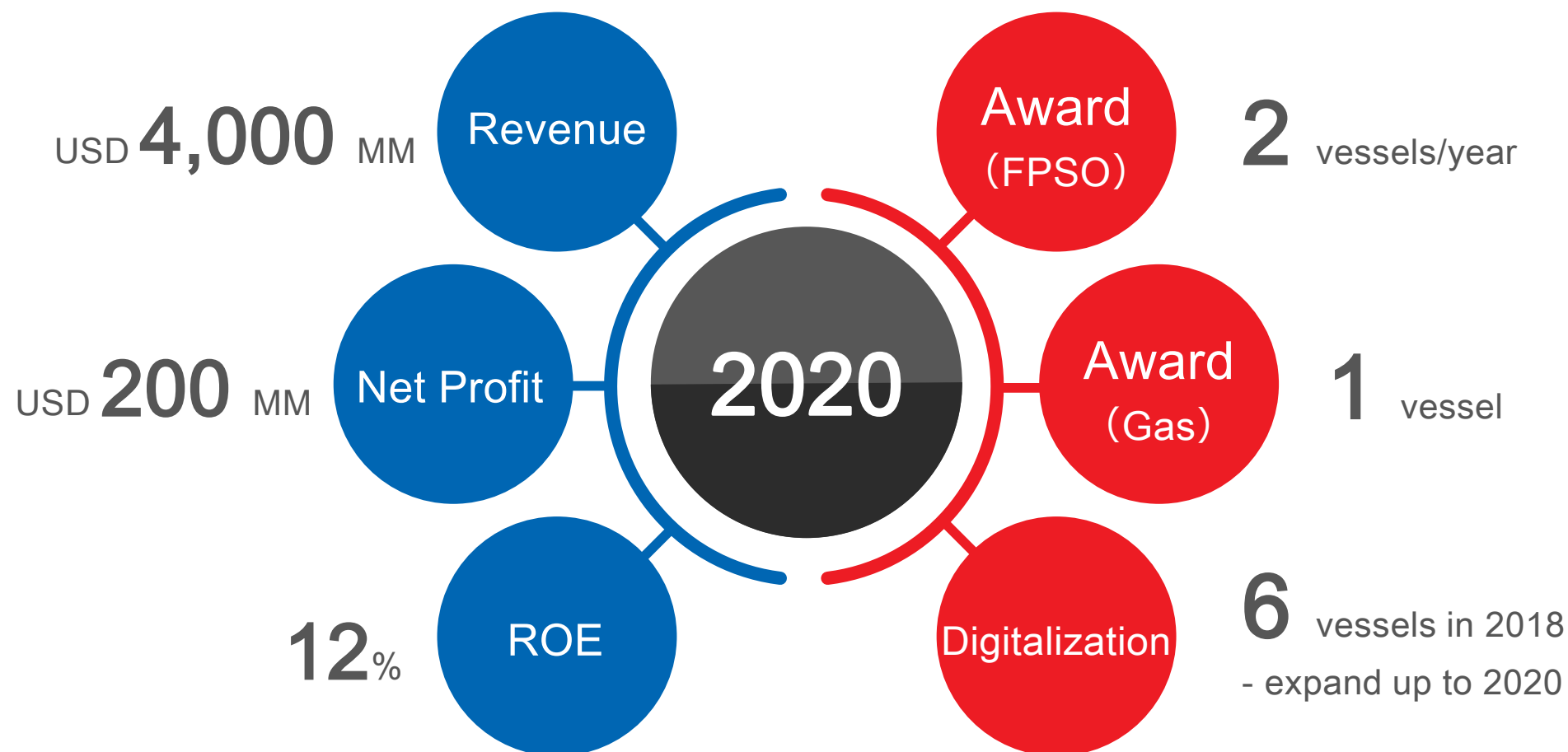
Research for low cost offshore installation



### Seabed mining development

Leading a Japanese national project

# Target for 2020 - Maximize LIFECYCLE VALUE



## Mission and Vision

- Commitment to leading the offshore industry



### MISSION

MODEC delivers and safely operates high-quality, innovative floating solutions for the offshore industry.

### VISION

To be the global leader in delivering and operating innovative and reliable floating solutions by cultivating diverse and talented teams that work with integrity, communicate openly, serve the community and protect the environment.

# APPENDIX

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# Outlook of Oil Price

Both scenario 1 and 2 show steady oil price.

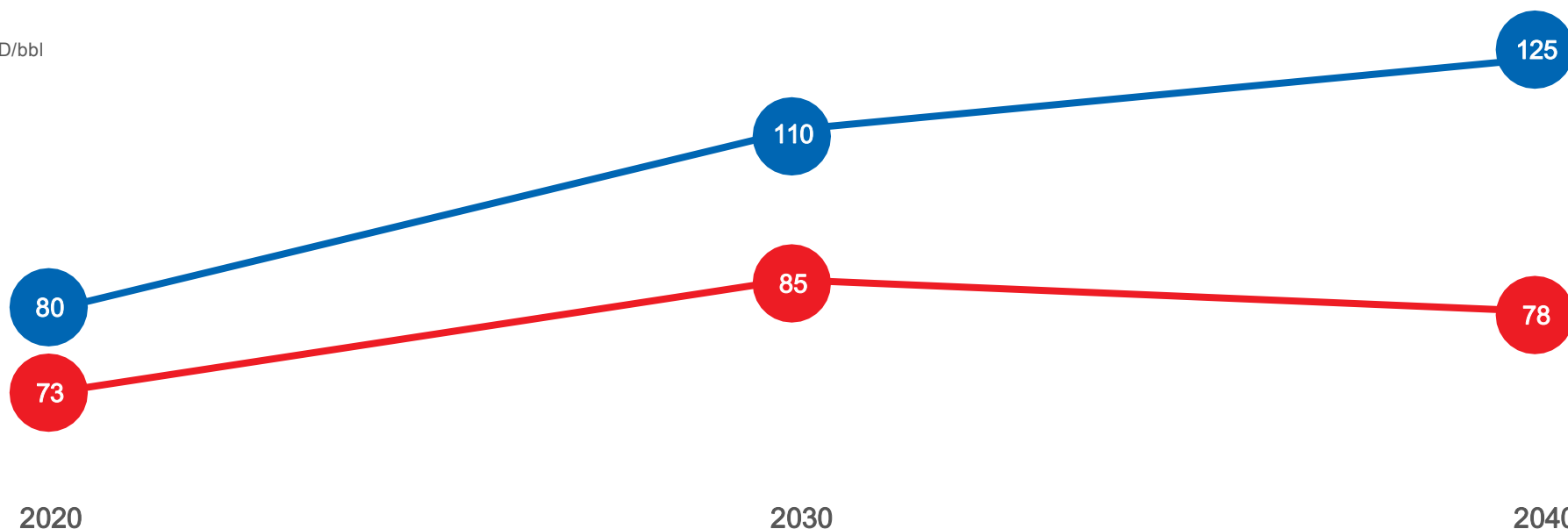
## ● Scenario1

Energy demand will increase steadily due to the rise of world population, growth of living standards and urbanization in developing countries.

## ● Scenario2

Energy demand will increase but that will be offset by improved energy efficiency in industry and home, which is enabled by widespread low-energy-consuming equipment.

Unit : USD/bbl



from : IEA, "World Energy Outlook 2016"

# Continue to accumulate experience

## Charter/O&M (as of February 2018)

- (1) Petrobras Mero Pilot FPSO
- (2) FPSO Carioca MV30
- (3) FPSO Cidade de Campos dos Goytacazes MV29
- 1 FPSO Prof. John Evans Atta Mills
- 2 FPSO Cidade de Caraguatatuba MV27
- 3 FPSO Cidade de Itaguaí MV26
- 4 FPSO Cidade de Mangaratiba MV24
- 5 FPSO Cidade de São Paulo MV23
- 6 FPSO Cidade de Angra dos Reis MV22
- 7 FPSO Cidade de Santos MV20
- 8 FPSO Cidade de Niterói MV18
- 9 FSO Rang Dong MV17
- 10 FSO Cidade de Macaé MV15
- 11 FPSO Cidade do Rio de Janeiro MV14
- 12 FSO Rong Doi MV12
- 13 FPSO Baobab Ivoirien MV10
- 14 FPSO MODEC Venture 11
- (15) FPSO Stybarrow Venture MV16
- 1 FPSO Raroa
- 2 FPSO Kwame Nkrumah MV21
- 3 FPSO Pyrenees Venture
- 4 FPSO Fluminense

Petrobras  
Petrobras  
Petrobras  
Tullow  
Petrobras  
Petrobras  
Petrobras  
Petrobras  
Petrobras  
Petrobras  
Petrobras  
JVPC  
Petrobras  
Petrobras  
KNOC  
CNR  
Santos  
available  
OMV  
Tullow  
BHPB  
Shell



## Disclaimer

The information contained in this material is based on a set of assumptions and it is not guaranteed as to its materialization of financial visions or corporate strategies.