



SEZIONE LOGISTICA,
TRASPORTI
E SPEDIZIONI ANIMP



9° Convegno Annuale

Sezione Logistica, Trasporti e Spedizioni (LTS) ANIMP

• LOGISTICA ...QUO VADIS?

Criticità del mercato attuale: Il punto di vista di un contractor

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*Crowne Plaza Hotel, San Donato Milanese (MI)
1° dicembre 2015*



Today the General Contractors in the oil & gas industry face numerous complex challenges

- Broadly lower demand for new capital investments, particularly in upstream
- Pressure to reduce costs of Capex vs. recent cost explosion
- Decreasing project execution success on mega-projects



A world turned upside down

- Major market uncertainties
- Shifting markets and opportunities, globally
- Impact of geopolitics
- Often unclear new policies (e.g. Local content, permitting, environmental)

Emphatic search for lower costs, new execution solutions, advanced technologies

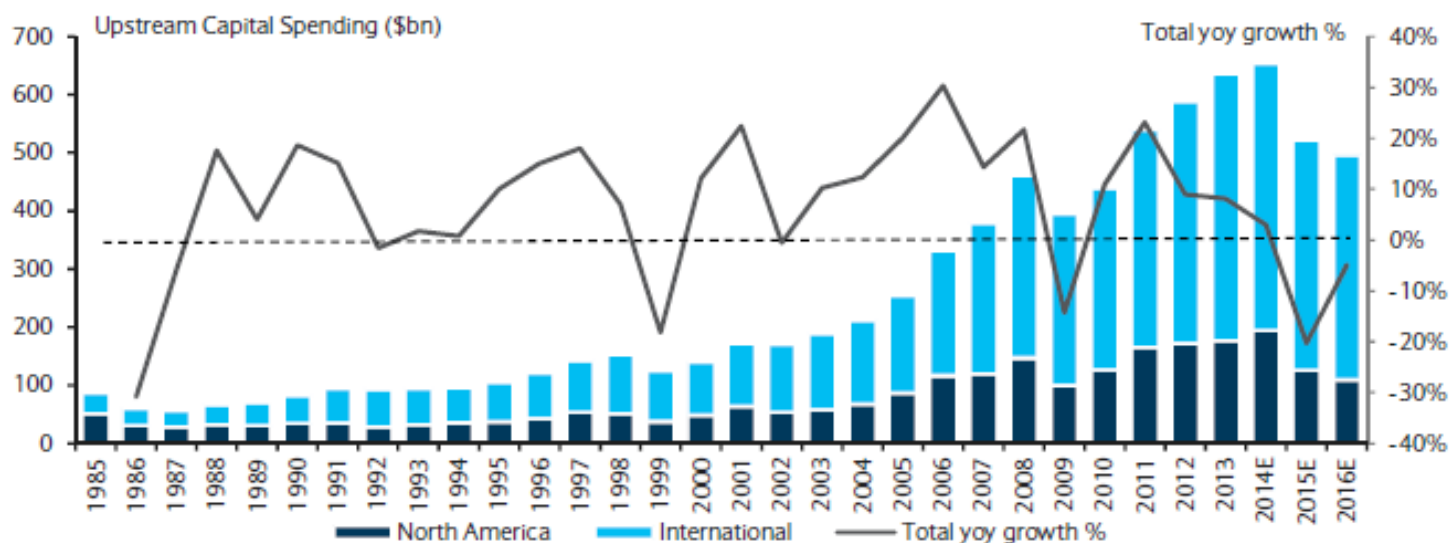
➤ Focus on key problems today for the E&C industry

- Reduced business volume
- Decreasing project execution success
- Spiralling costs



We are at the end of a very long growth cycle

Barclays Upstream Spending Survey

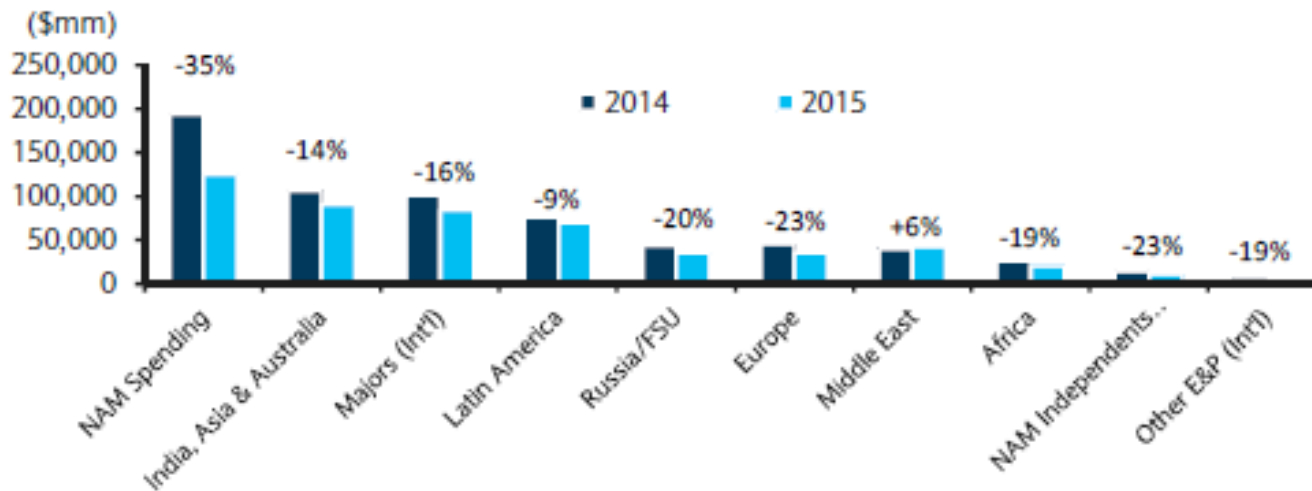


Source: Barclays Research (Sept. 2015)

But note: the negative trend is not homogenous

Middle East continues to invest, even in upstream

Worldwide E&P Capital Spending by Company Type/Region, 2014A-2015E



Source: Barclays Research and Company Reports (Sept. 2015)

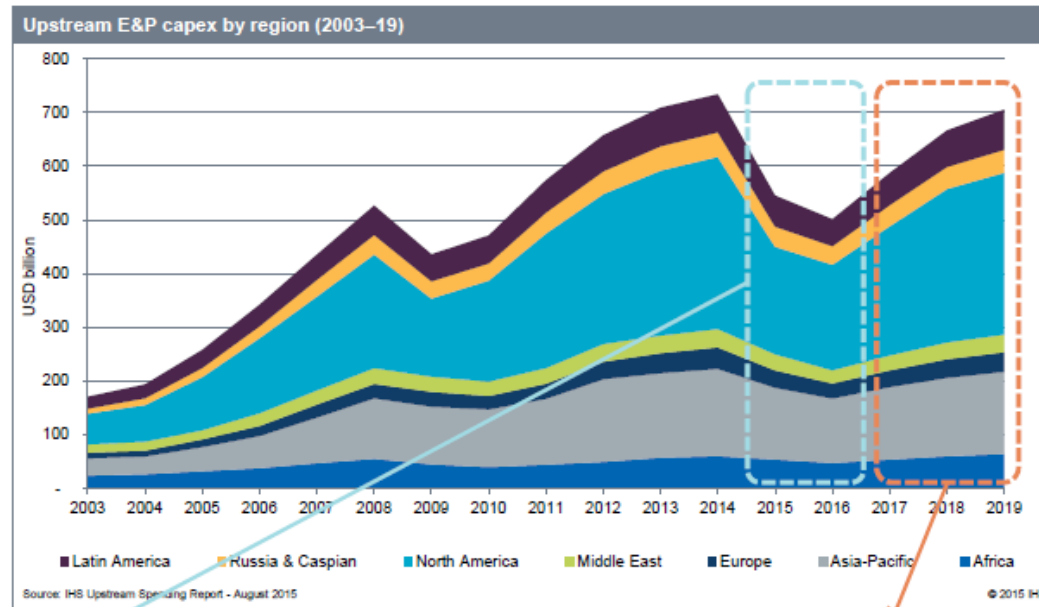
Note: Major oil companies do not break out international regions of upstream spending

Our medium and long-term forecasts remain optimistic

- Global energy demand expected to rise ~40% by 2035
- Important changes in the energy mix
 - More gas, more renewables
- Impact of:
 - Depletion (e.g. ~30% in 5 Y)
 - Replacement of old, obsolete facilities
- Lower energy prices to foster higher demand
- The oil & gas markets will continue to dominate

The world will need more investments in energy facilities

Our medium term investment forecasts remain optimistic for E&P...



Short term (2015-16)

- Near term looks very negative
- We will see large number of projects pushed back
- Large readjustment needed in industry: Cost cutting and moving away from high cost projects

Longer term (2017-19)

- Not all dark – we do expect an upturn towards 2020 in line with improving oil prices.
- Should start seeing delayed projects potentially coming back on the drawing board in 2017-18, and a rebound in spending in 2018-20.
- E&P capex is not expected to return to its 2014 levels until 2019.

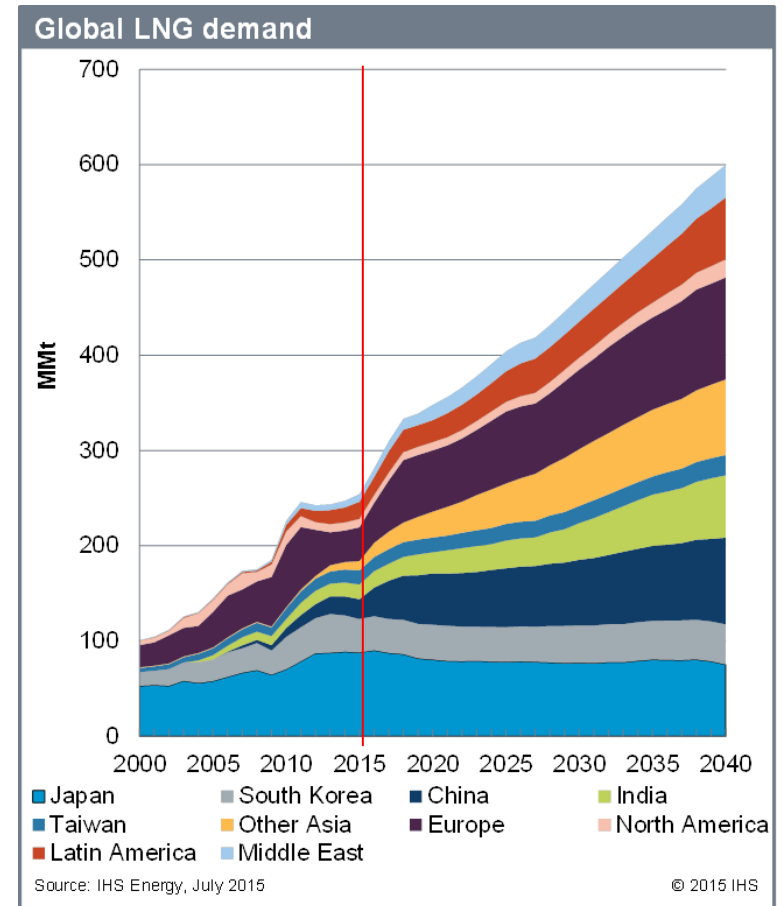
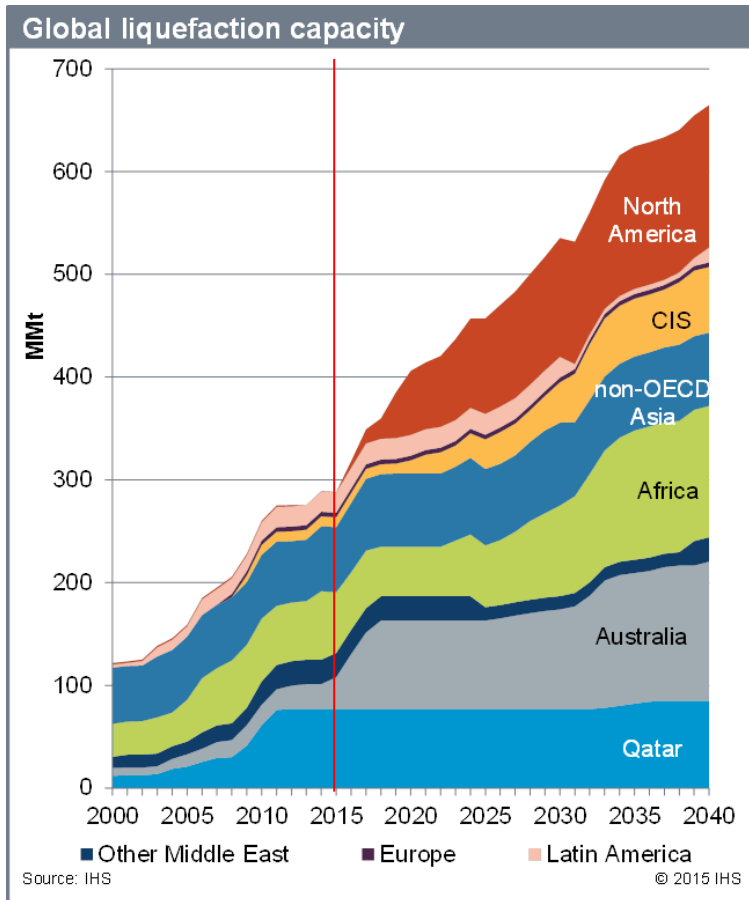
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...with relatively stable growth for downstream

More attractive picture for investments in midstream...

Major plans for new LNG capacity, based on optimistic demand forecasts which could be tempered in practice



Source: IHS CERA July 2015

...and downstream: refining, petrolchemicals, power (1/3)

Refining

- **Growing fuel demand** in non-OECD nations (mostly in Asia, ME)
- Many new **'world-class' export mega-refineries**
- **'Clean Fuels'** legislation-a major driver everywhere
Less emissions, more stringent product quality
- **Revamps/modernizations:** more flexibility for broader crude choice,
declining residual fuel oil markets

Overall Polyolefines market outlook (2/3)

- **PE and PP demand growth** of 4.4 and 4.7 %/y **to exceed world GDP growth** (expected 3.6 %/y in 2016)

- In the short term, **considerable uncertainties** in new investments
 - ✓ Temporary overcapacity – till 2017?
 - ✓ Slow-down of some key economies and cash strategy (China, CIS, Brazil, M.East)
 - ✓ Political instabilities
 - ✓ Sanctions on Russia and Iran

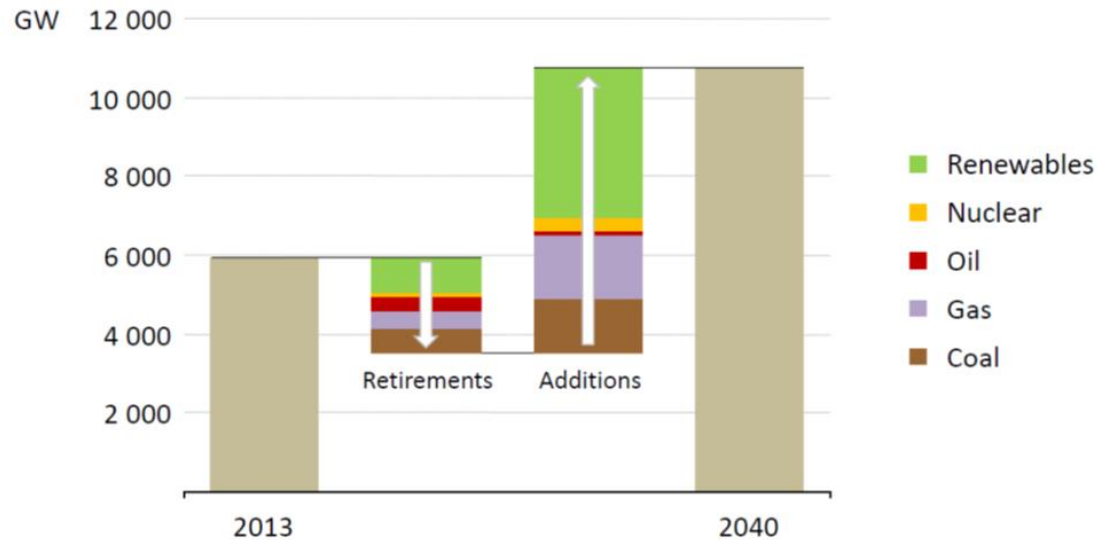
- But **also projects in newly industrialized countries**: Oman, Malaysia, Caspian ...

- In the medium term, a **2nd investment wave** in USA, Russia, China

Retirements add to the investment challenge in the power sector

World Energy Outlook 2014

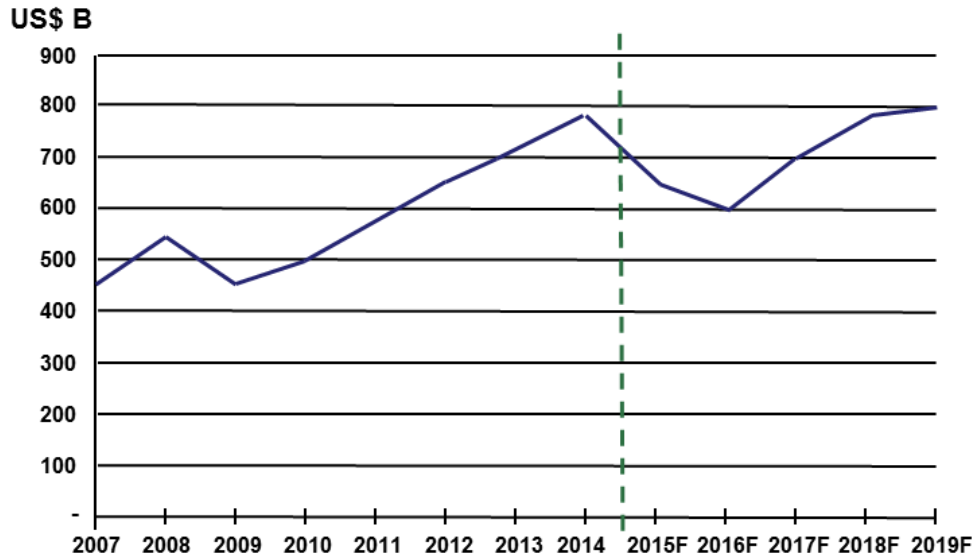
Power capacity by source, 2013-2040



Despite limited demand growth, OECD countries account for one-third of capacity additions – to compensate for retirements & to decarbonise

Overall market picture

Upstream Capex (B \$)

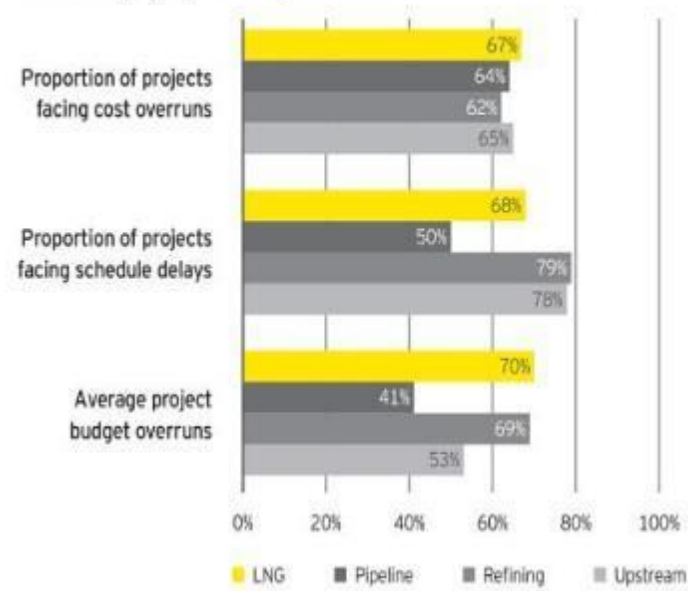


- In Upstream markets, we are in the middle of an oil&gas industry **downturn**, to worsen in 2016
- Significant **recovery prospects** after **2017**
- **Midstream and downstream** markets affected, but generally, **buoyant**
- **NA, ME** and **Asia/China** continue to grow strongly

**Our industry needs to face the downturn,
yet restructure and maintain its longer term capabilities**

Drama in “mega projects” execution: increasing cost overruns and delays

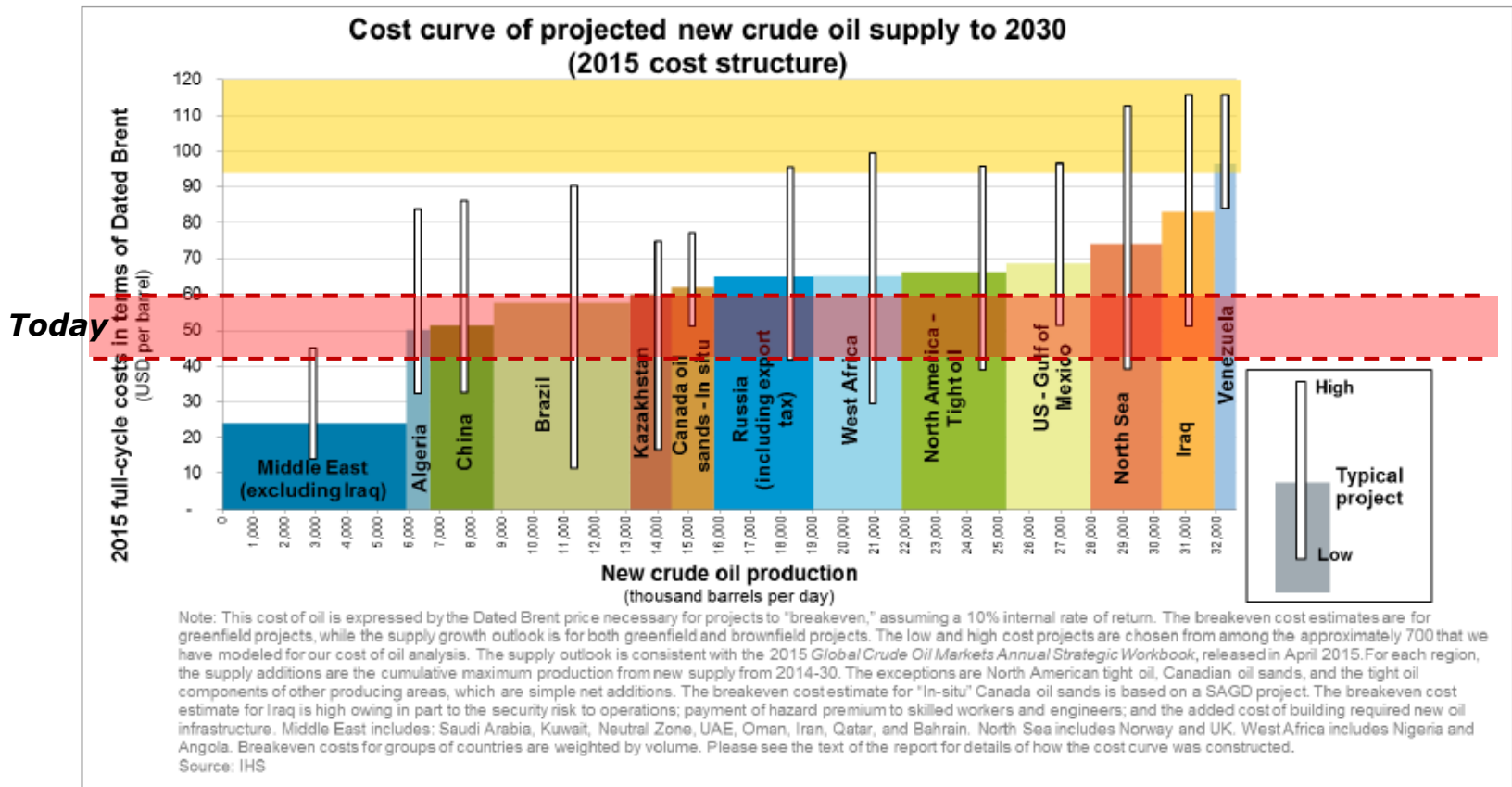
Proportions of projects facing cost overruns, schedule delays and average project budget overruns



Source: EY research and analysis - August 2014

Project delivery success is decreasing, especially in industry segments where complexity and risks are considerably higher

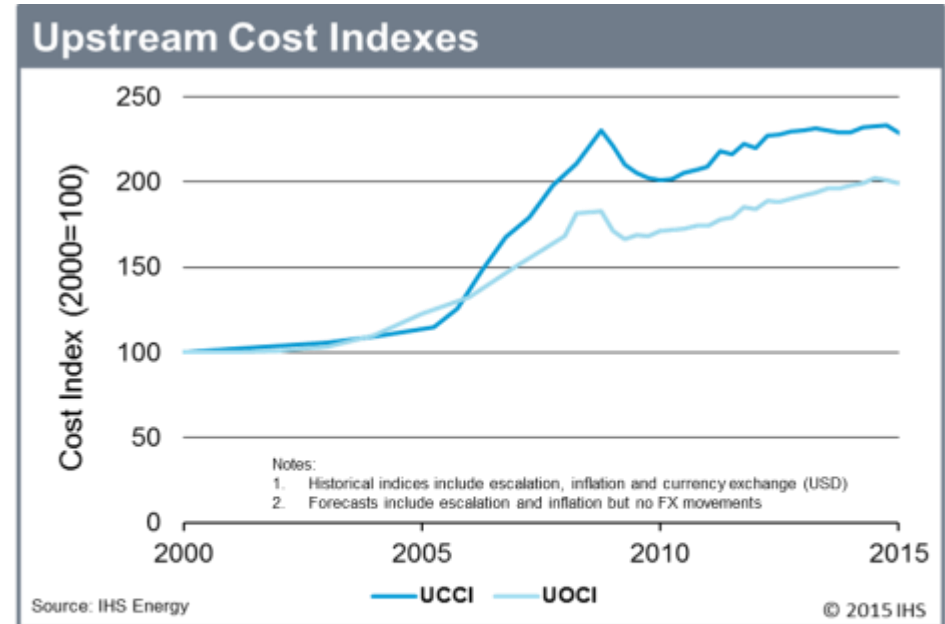
Under today's circumstances, new investments can still be economical in several markets onshore and offshore...
 ...but big increases in cost-efficiency will be needed in the new scenarios



IHS (September 2015)

Spiralling project execution costs

- More complex and remote environments
- Tight skilled labor market
- Decrease in efficiency and productivity



UCCI monitors project construction cost movement and tracks 10 main markets, which are made up of over 500 sub indices.

UOCI monitors operations costs, with 4 main markets which are made up of over 900 sub indices

Cost Reduction?

Overall onshore and offshore cost evolution ^(o)

2014	2015	2016	2017	2018
- 1 ÷ 2	- 11 %	+3 %	+7 %	+5 %



- Some unit cost reduction has materialized in 2015, but costs are expected to rise again in the medium term
- **Supply chain savings** based on 'squeezing' the service sector are possible, but probably limited to **~ 10 ÷ 15 %** (vs. 2014 levels)
- In order to ensure that new projects are economically viable, **further cost improvements** sought by the operators will rather have to be obtained from **optimized and innovative project design** and **execution** approaches

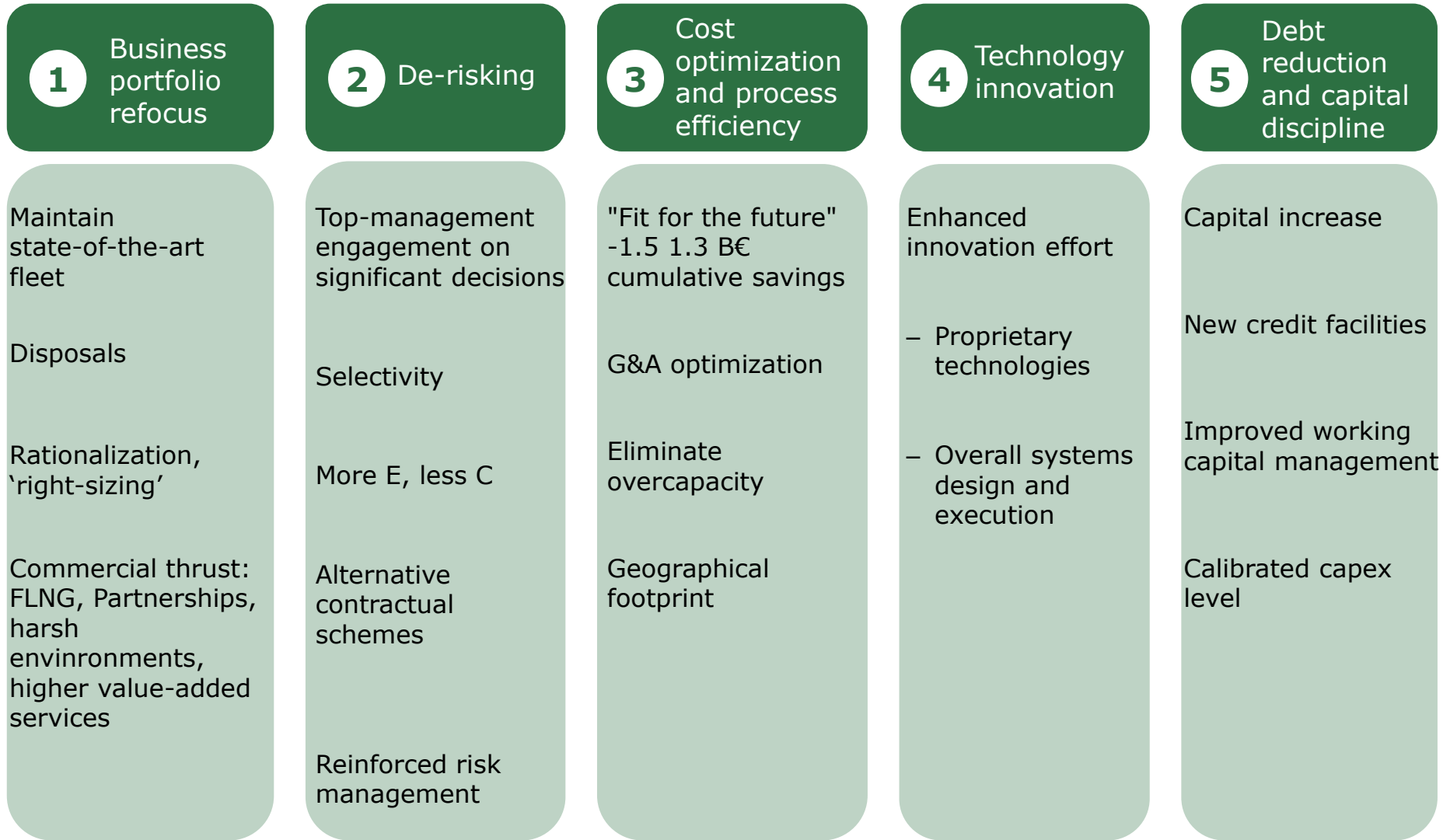


^(o) Selection of industry indices

↘ Saipem's turnaround and new strategic thrust



Saipem's new strategic pillars



Towards an improved project execution approach

- **"Saipem Digital Contractor"**
Focus on capitalization of Information and Intellectual Assets
- **Supply chain management** overhaul
Digitalization, Post-order management, Material tracking solutions, training for supervision
- **'Vendor Federation and Fidelization'** to reduce costs, allow easier data transfer, standardization and reuse
- **New execution and contracting strategies**
- **Management process** overhaul
Focus on organizational structure, leadership and human behavior



↙ Saipem's recommendations to the oil&gas and E&C Industry



Intensify Owner-Contractor cooperation and mutual trust

Only a tighter E&C/Owner cooperation will improve execution cost and project success



- Set and clearly communicate Owner's **project goals**
- Maximize **investments** in Pre-FEED and **FEED**
Then stop any changes
- Encourage **design competitions**, if desired
- Utilize **experienced contractors** with thorough **construction** experience
- Form **integrated teams** with "**win-win**" objectives throughout project execution
- Involve **critical equipment vendors** and **certification companies** throughout the process
- Join forces to broaden **vendors lists**

**The most critical factors of project success
are decided before starting EPC**

Maximize the application of **standardized solutions**

From the earliest project phases

- Reach consensus on **common industry specifications**, reduce personal or company preferences
At least for key components or 'units'
- **Right-size**: Update the standards, reduce traditional conservatism and 'design fat'
- **Avoid repeatedly re-qualifying** each time the same technologies and solutions for similar situations ("Prototype syndrome")
- **Modularize, standardize** as much as possible

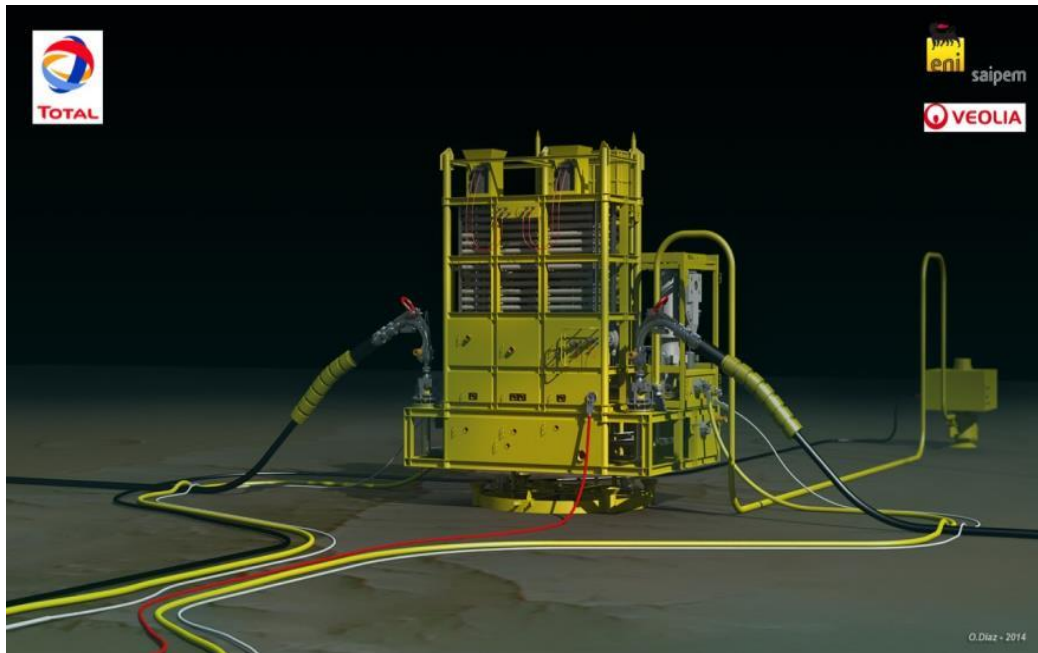
Share the risks

Particularly in high risk contexts



- All **risks** cannot be apportioned only to one side
- Jointly review and optimize **open-book** price estimates and project execution schemes
- Hybrid, '**convertible**' **schemes** could be a good alternative in today's uncertain situations
- Maintain a "**win-win**" **attitude** throughout the entire project execution process

Intensify joint innovation efforts



- Most advanced mega-projects today are based on “new” or “breakthrough” technologies
- Gradually the R&D effort is being outsourced to contractors and suppliers
- **Sharing Oil Companies’ needs, criteria, targets is essential** for the service providers
Goals, feedback, certification, guidance

Oil Companies’ guidance to contractors and suppliers is essential in new technology development

Capitalize on investments in local content

- + Necessary, indispensable, strategic
- + Cornerstone of Saipem's strategy
- + Big successes: e.g. in Nigeria

Local content , % of total fabrication

<u>2007-8</u>	<u>2010-11</u>	<u>Today</u>
AKPO	USAN	EGINA
40%	90%	~95%

- Need reasonable expectations and accurate management



Conclusions

- To make new investments viable today, **drastic cost-reductions** are needed
- They cannot be achieved only from the supply chain savings
- **New, innovative approaches** for more efficient project development and execution are indispensable
- **'Win-win', 'Federation', 'Fidelization'** concepts will be crucial factors of success
- **Saipem** is 'playing its part' with new strategies and approaches
- The oil&gas upstream industry is in a partial **downturn; capex investments** could **recover** from **2017**
- Much better picture in **Midstream** and **Downstream**

grazie per la cortese attenzione