Open Day
Attività Internazionalizzazione ANIE

Milano, 6 Dicembre 2016

SUPPL HI

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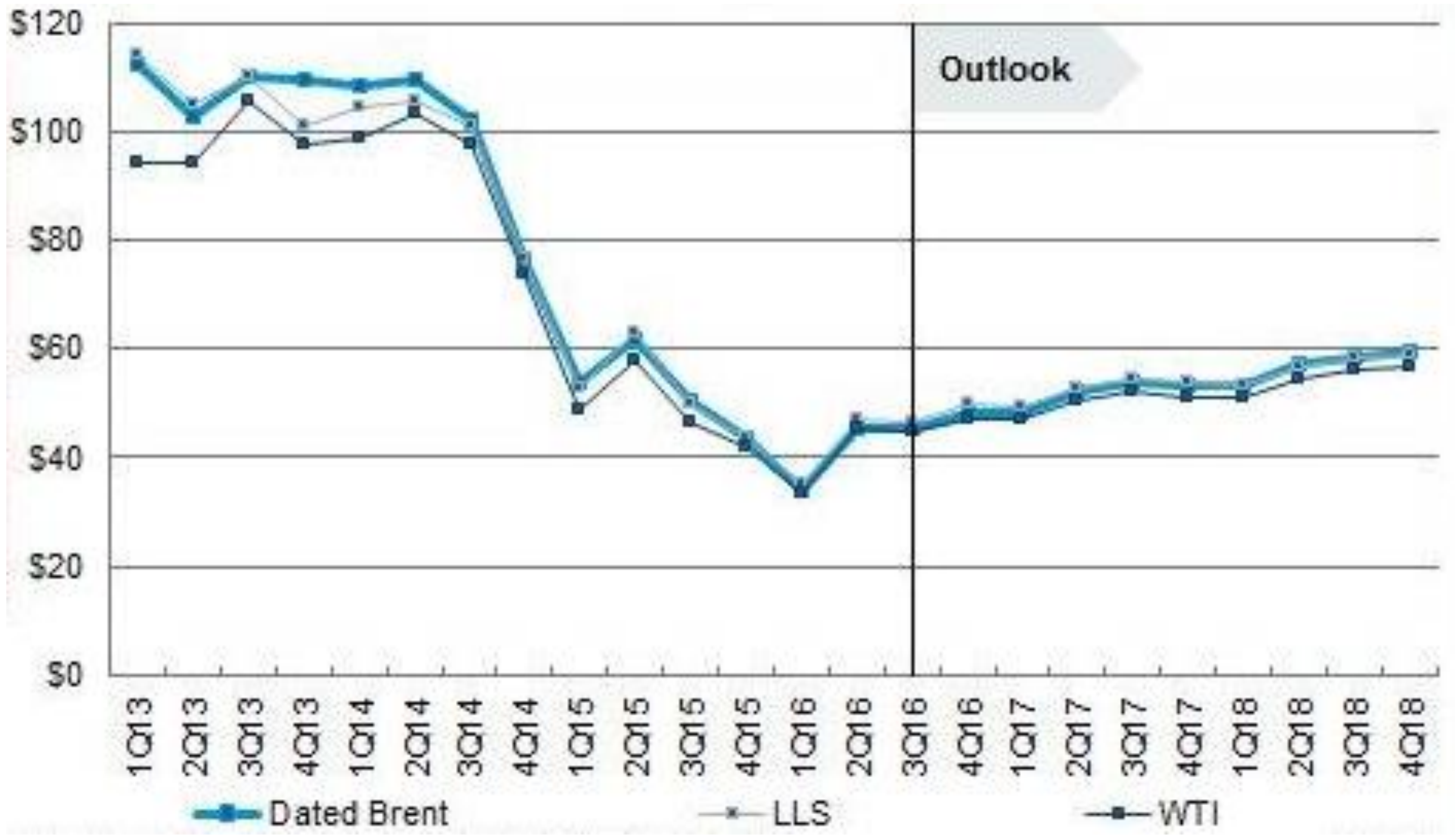
Scenari previsionali globali sul mercato dell’energia

ANIE FEDERAZIONE

CONFINDUSTRIA

Oil prices fall starting in 3Q14

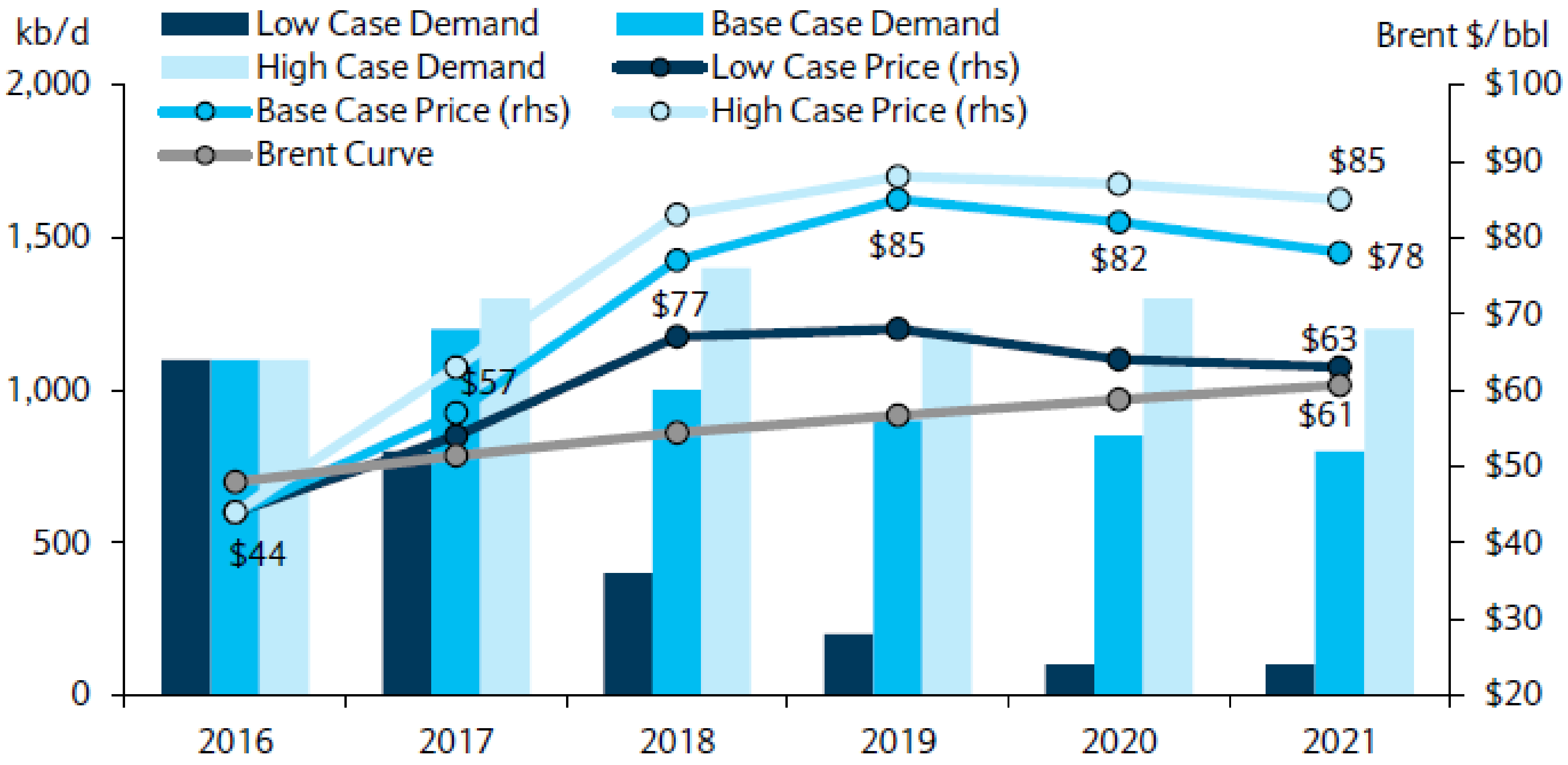
Brent quarterly average price per barrel



Note: LLS = Louisiana Light Sweet, WTI = West Texas Intermediate
Source: IHS

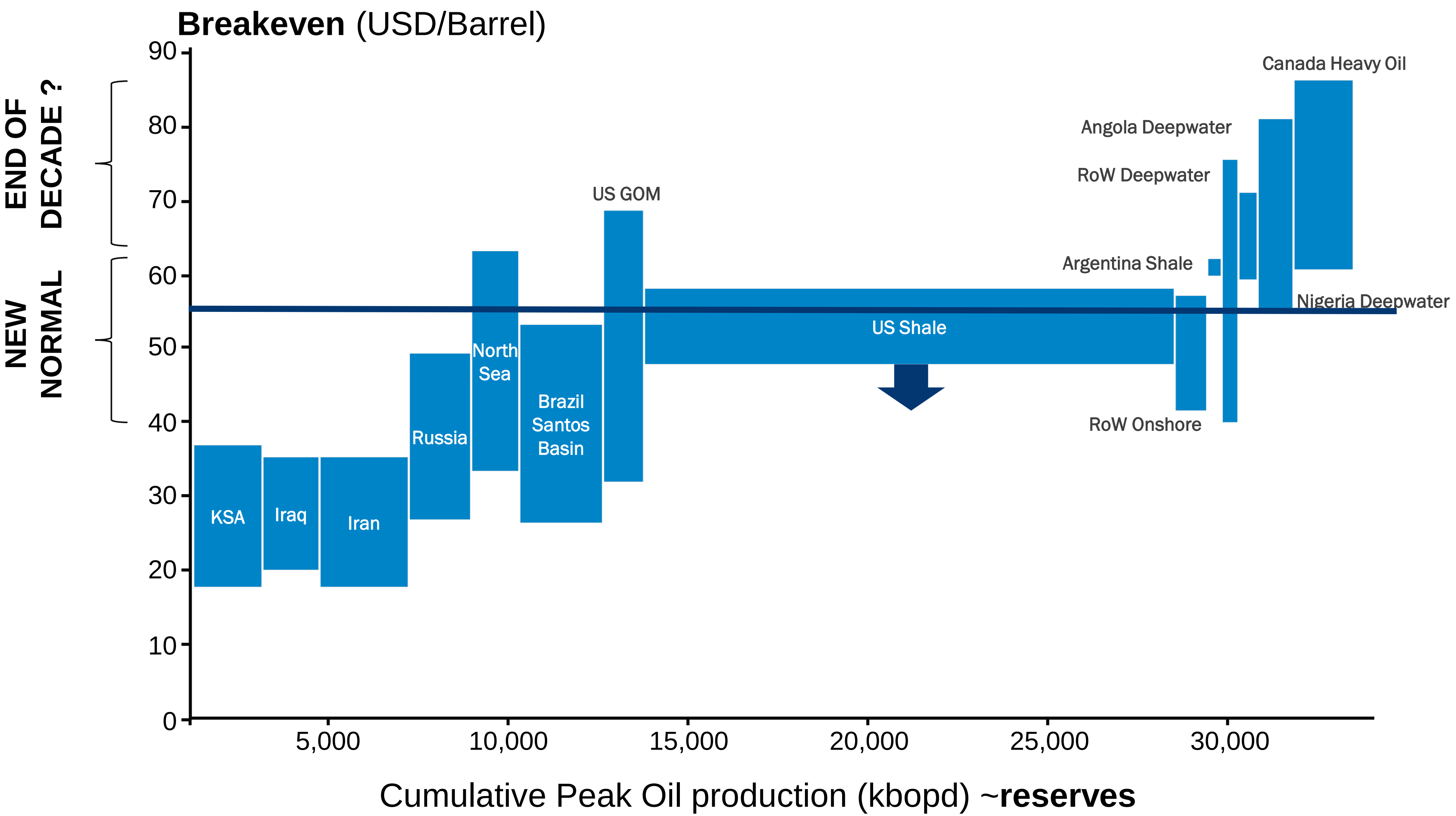
A gradual increase to ~70/80 $/bbl is expected

Brent annual forecast



Source: Bloomberg, Barclays Research (September 2016)

US shale today is the “swing” producer, driving the market rebalance



Source: Goldman Sachs, June 2016

What next?

"Rebalancing"

"Gradual increase in investments"

"Upward bound"

"Preparing for the upturn"

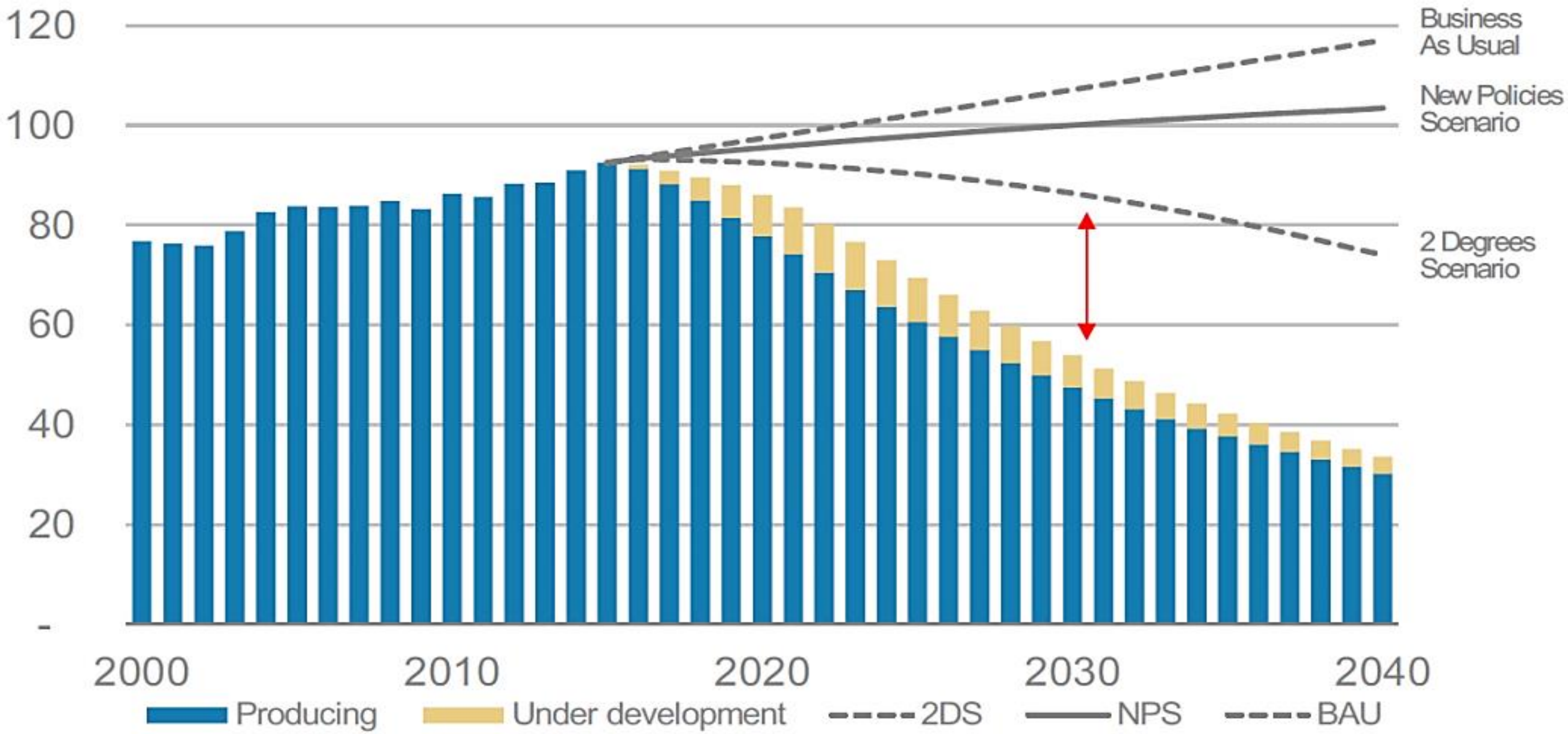
But

At significantly lower costs …

… in a substantially changed market environment

Depletion requires **new investments** to maintain production

Depletion of producing and under development fields (MBPD)

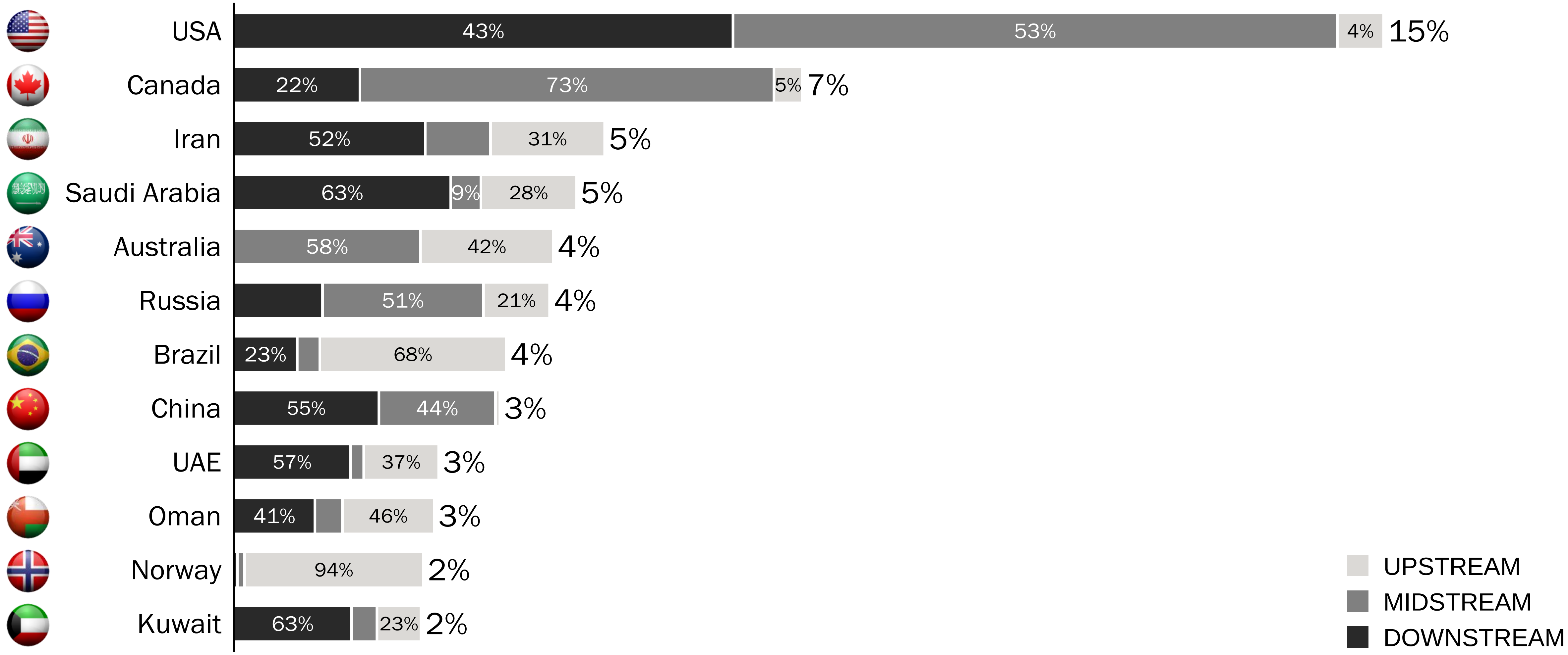


Source: IEA, Rystad Energy, Morgan Stanley Research June 2016

OIL&GAS

North America to be the top project destination

Global Oil&Gas CAPEX for Top 12 Countries, 2016-2018 (%)



Note: CAPEX is expressed as a % of the total weighted CAPEX of all projects currently Planned or Ongoing
Source: SupplHi Projects Database, November 2016

The new projects require a **drastic cost-reductions**

- An **18-22 % cost deflation** has materialized by 2016, but there are **inflationary pressures** for costs to rise again by the end of decade

- **Further supply chain savings** based on ‘squeezing’ the service sector are possible, but probably limited

- **Major structural supply chain** improvements are needed to:
  - Lower costs further
  - Improve reliability and quality and reduce risk

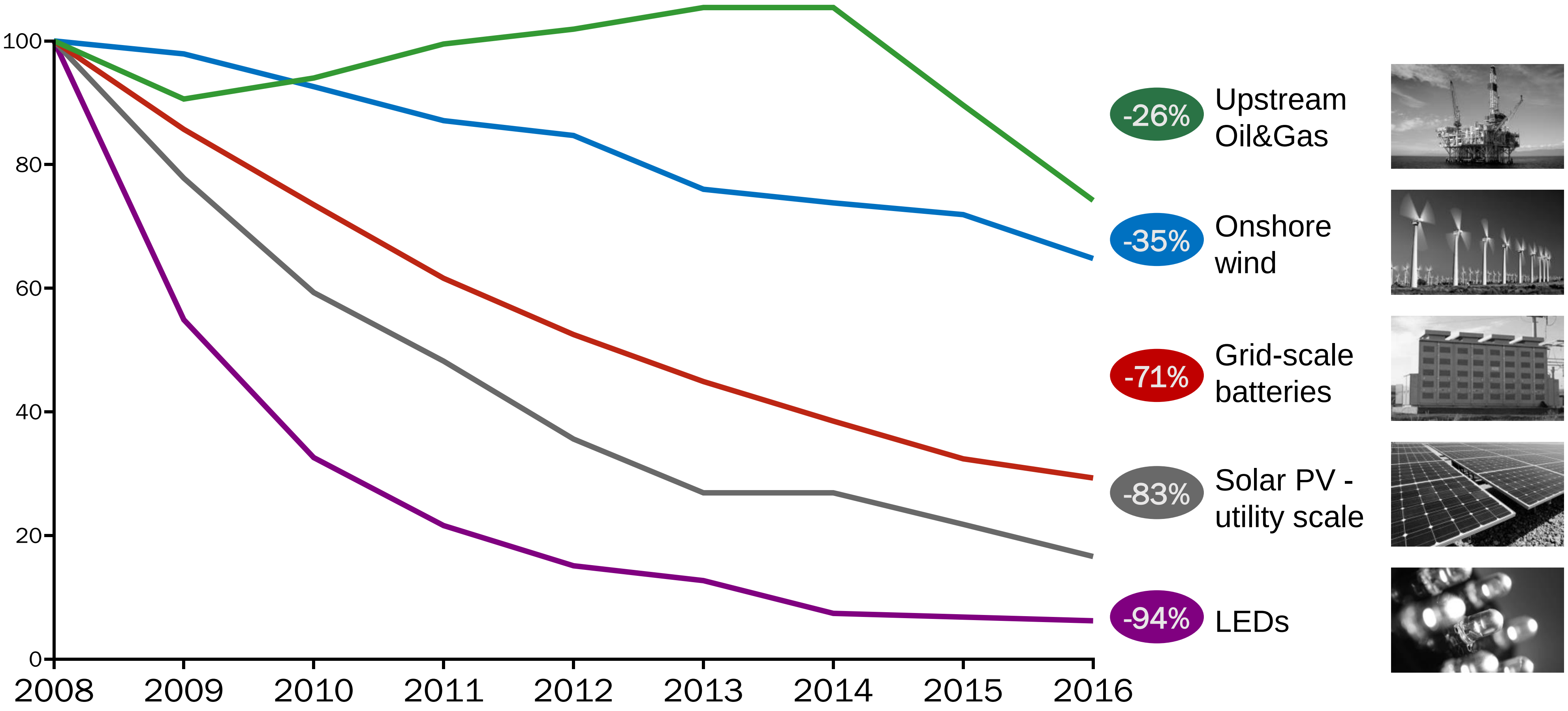
End-Users challenge:

>30% reduction

OIL&GAS

The Oil&Gas industry has been the most resistant one to **reduce costs**

Cost developments across the Energy spectrum, indexed 2008



Source: World Energy Investment 2015, IEA

OIL&GAS

Increased Clients focus today

- Key Contractors personnel quality
- **Minimal prices, high procurement efficiency**
- **Execution capabilities** and **top level Project Management**
- **HSE**
- **Brownfield activities**
  - Revamps, upgrading
  - High level O&M

Source: adapted from Transmar (2016)

Energy supply-and-demand:
More-of-the-same… but very different!

GEOPOLITICS

STEADY DEMAND GROWTH

ENVIRONMENTAL AWARENESS AND NEW POLICIES

ROLE OF GOVERNMENTS

EFFICIENCY GAINS

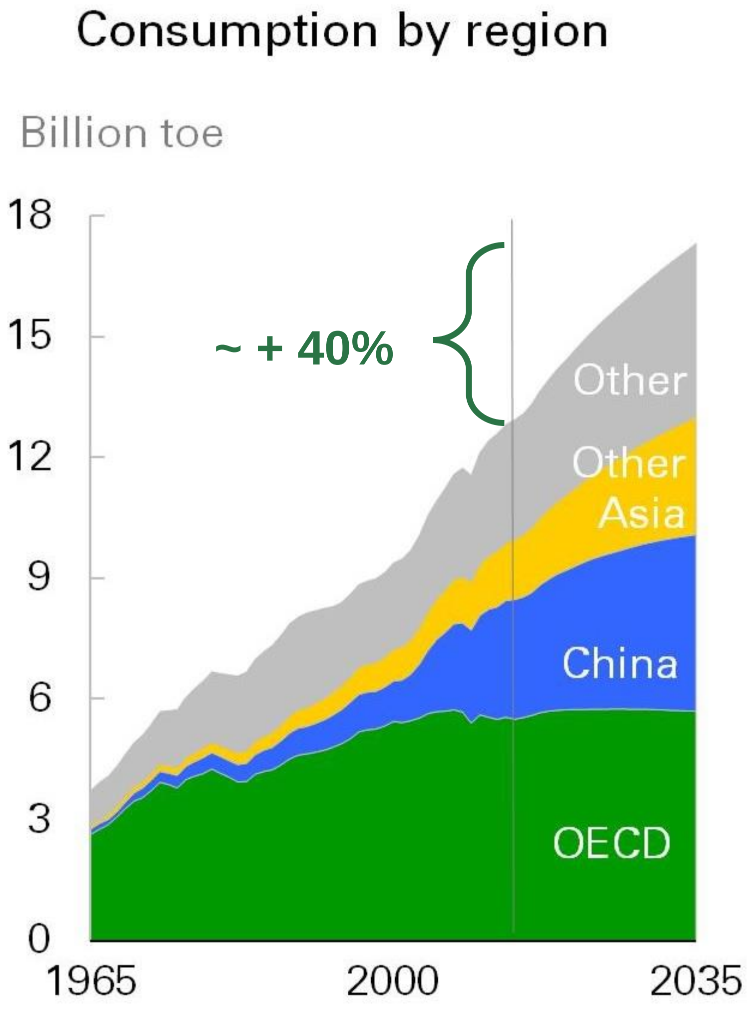
TECHNOLOGY BREAKTHROUGHS

LIFESTYLE CHANGES

MORE RESERVES TO COME INTO PLAY

IRAN

Growth in world economy continues to **require more energy**



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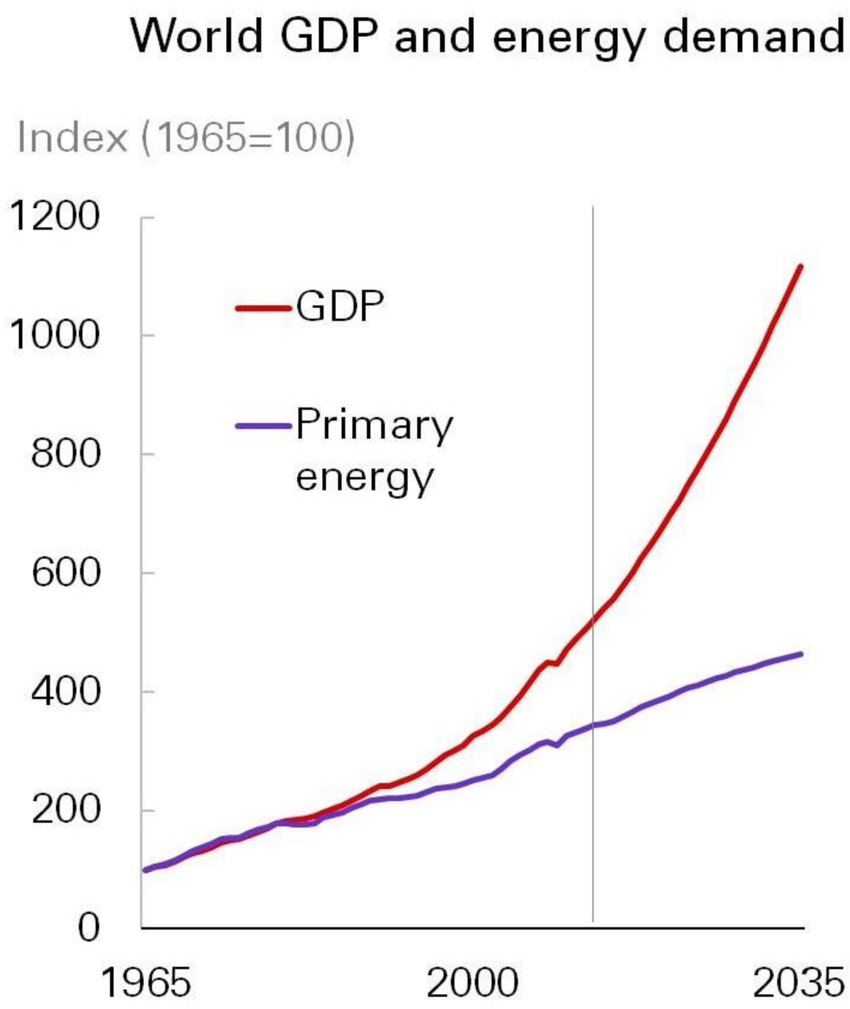
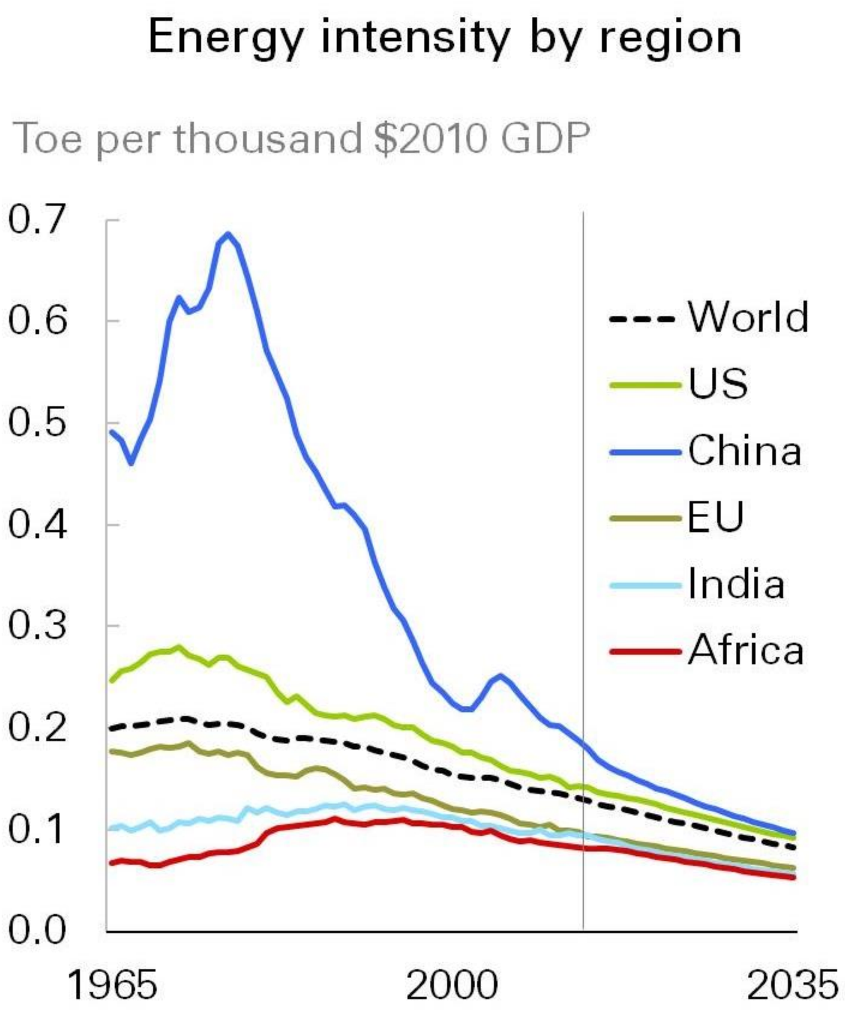
Source: BP Energy Outlook 2016

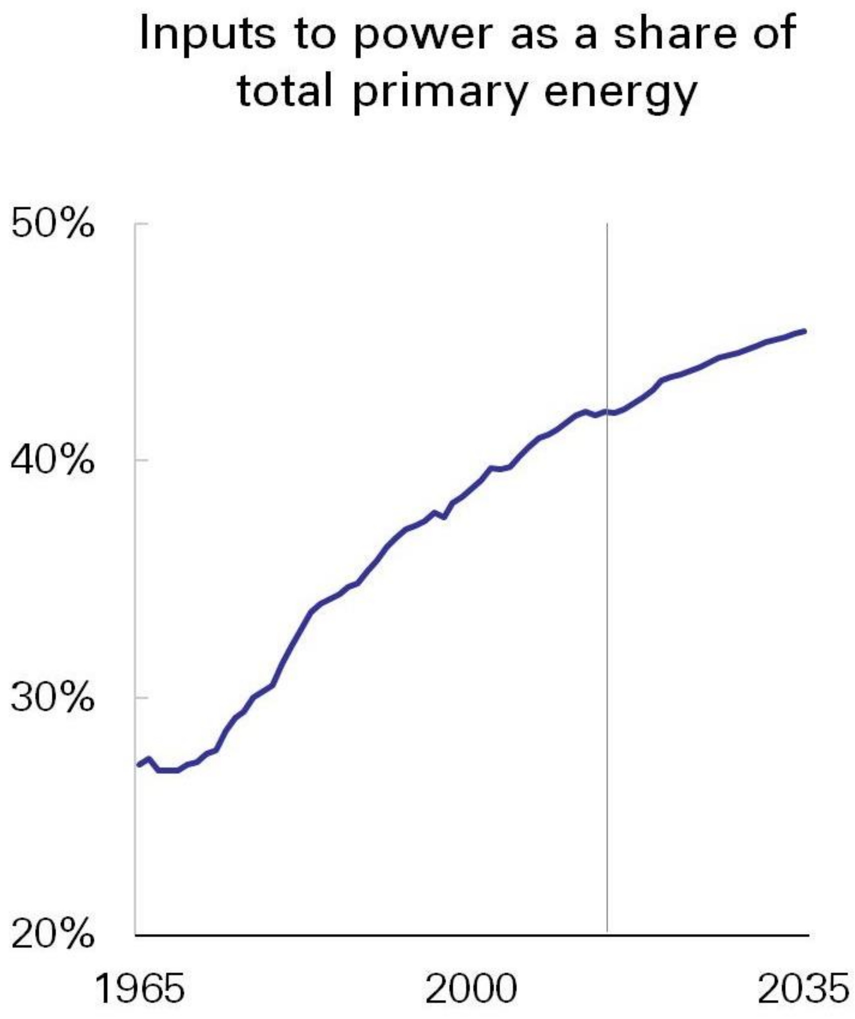
But energy usage is more efficient

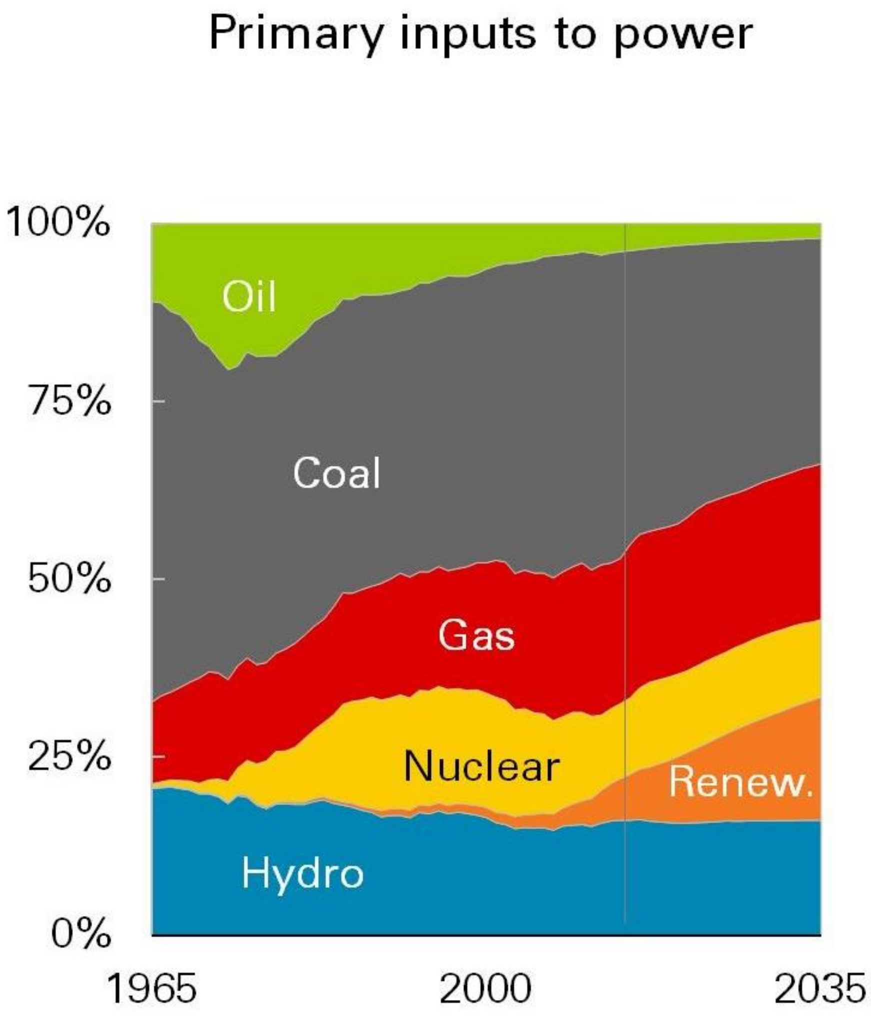




Source: BP Energy Outlook 2016

Much of the growth in energy usage is for **Power generation**

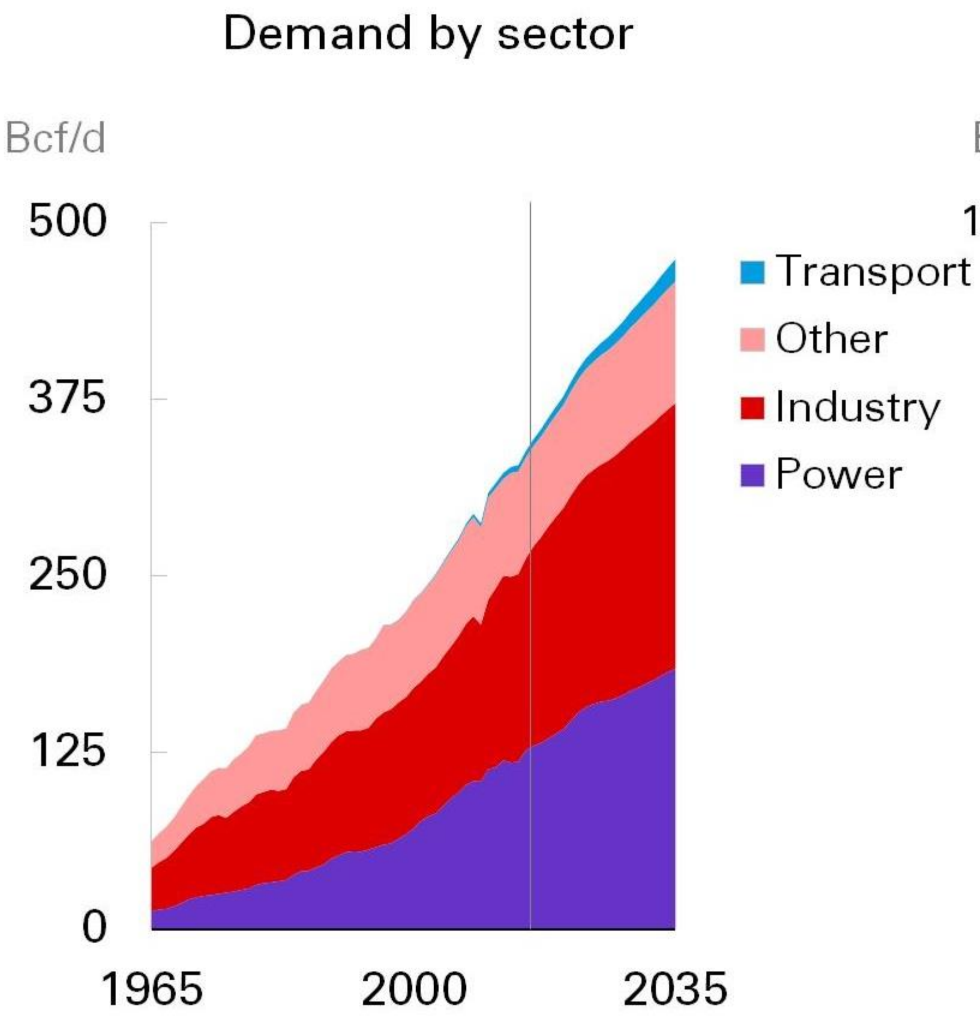


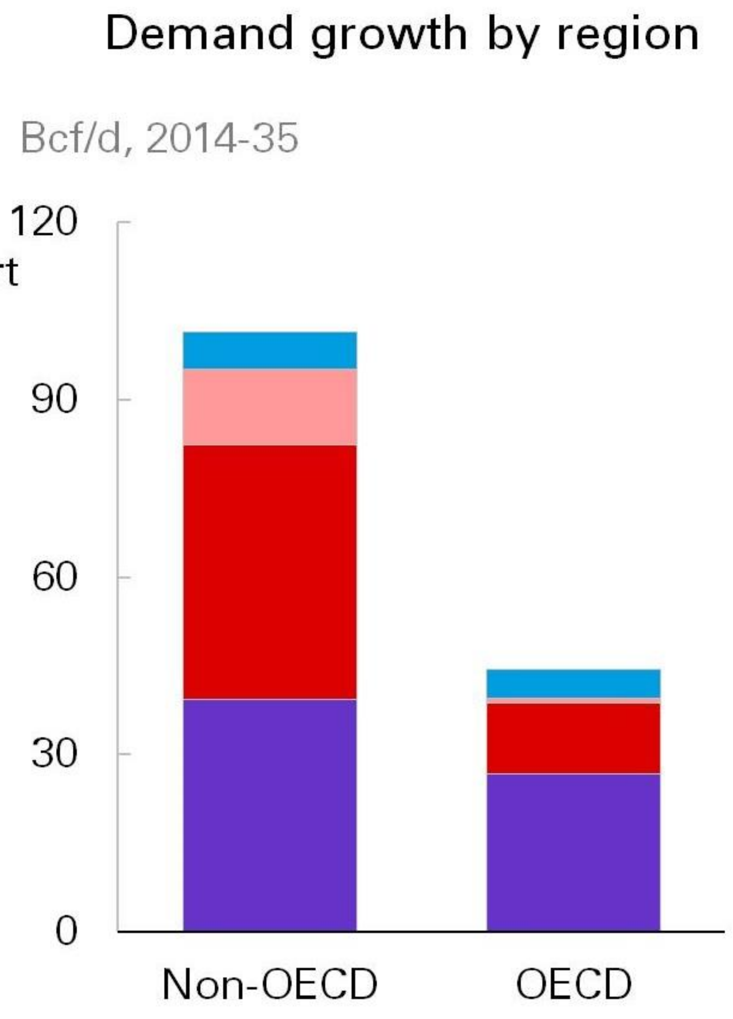


SUPPLHI

Source: BP Energy Outlook 2016

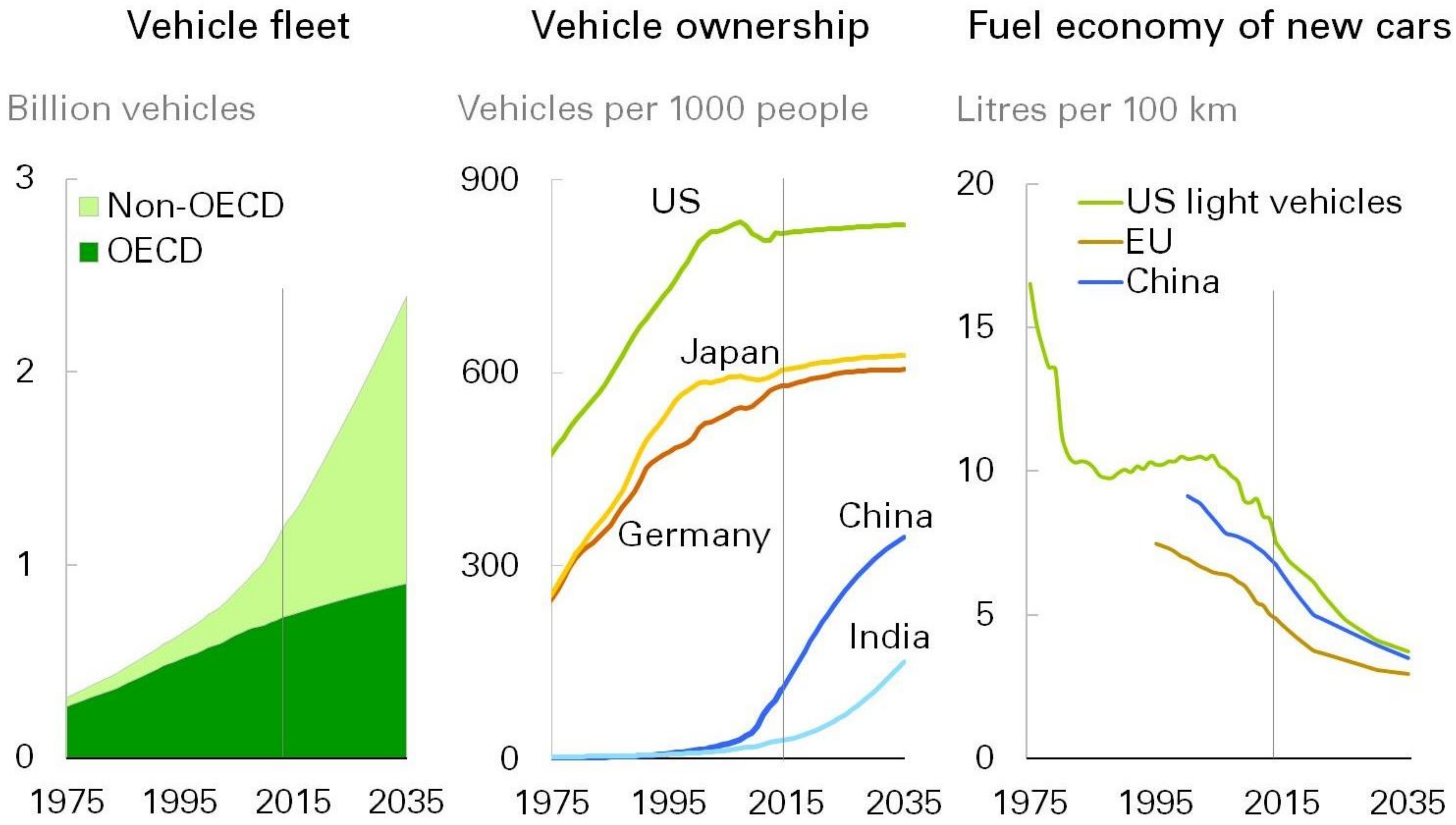
Demand for **Natural Gas** to continue growing strongly





Source: BP Energy Outlook 2016

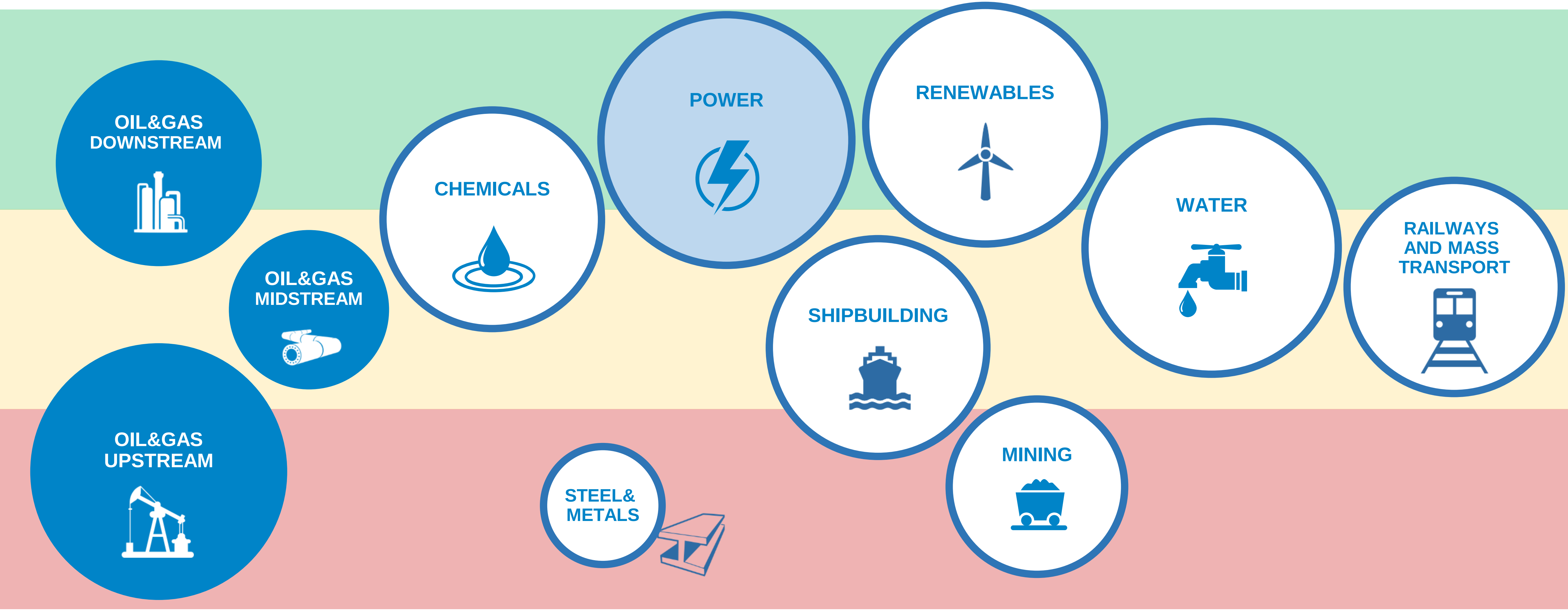
The global vehicle fleet more than doubles, but the **fuel economy improves greatly**



Source: BP Energy Outlook 2016

Beyond Oil&Gas

DIRECTIONAL



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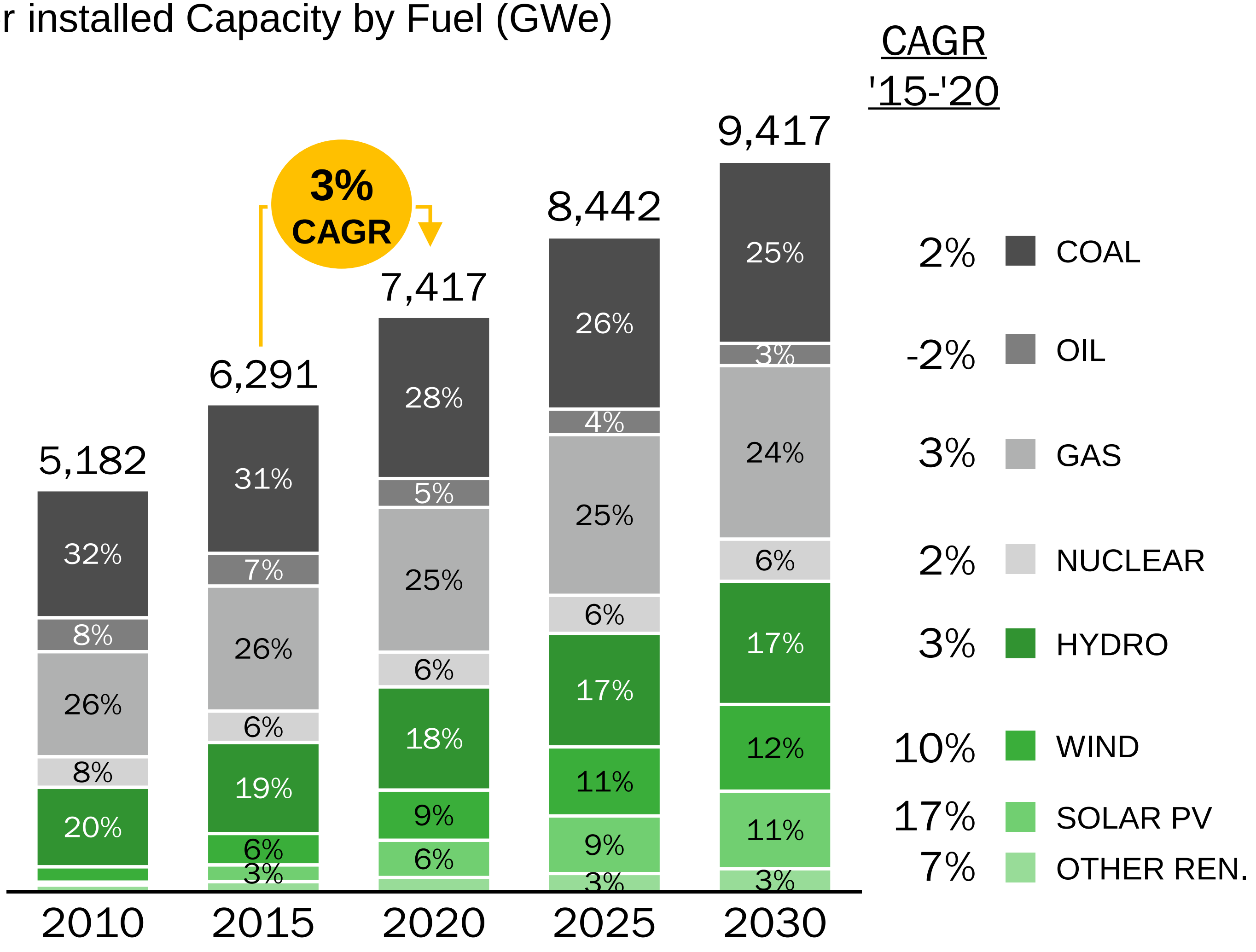
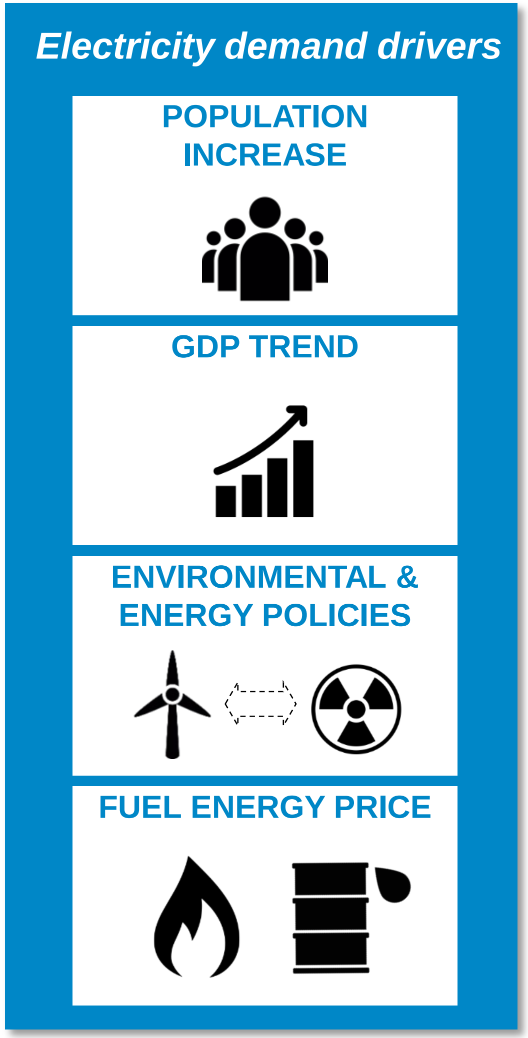
Note: the size of the bubbles is proportional to the estimated value of the global CAPEX annual expenditure related to external goods and services; Oil&Gas Upstream excludes exploration and drilling; Source: SupplHi analysis on public data, SupplHi Projects Database

Dec 6th 2016

Installed Capacity to grow at 3% CAGR between 2015 and 2020

Power installed Capacity by Fuel (GWe)

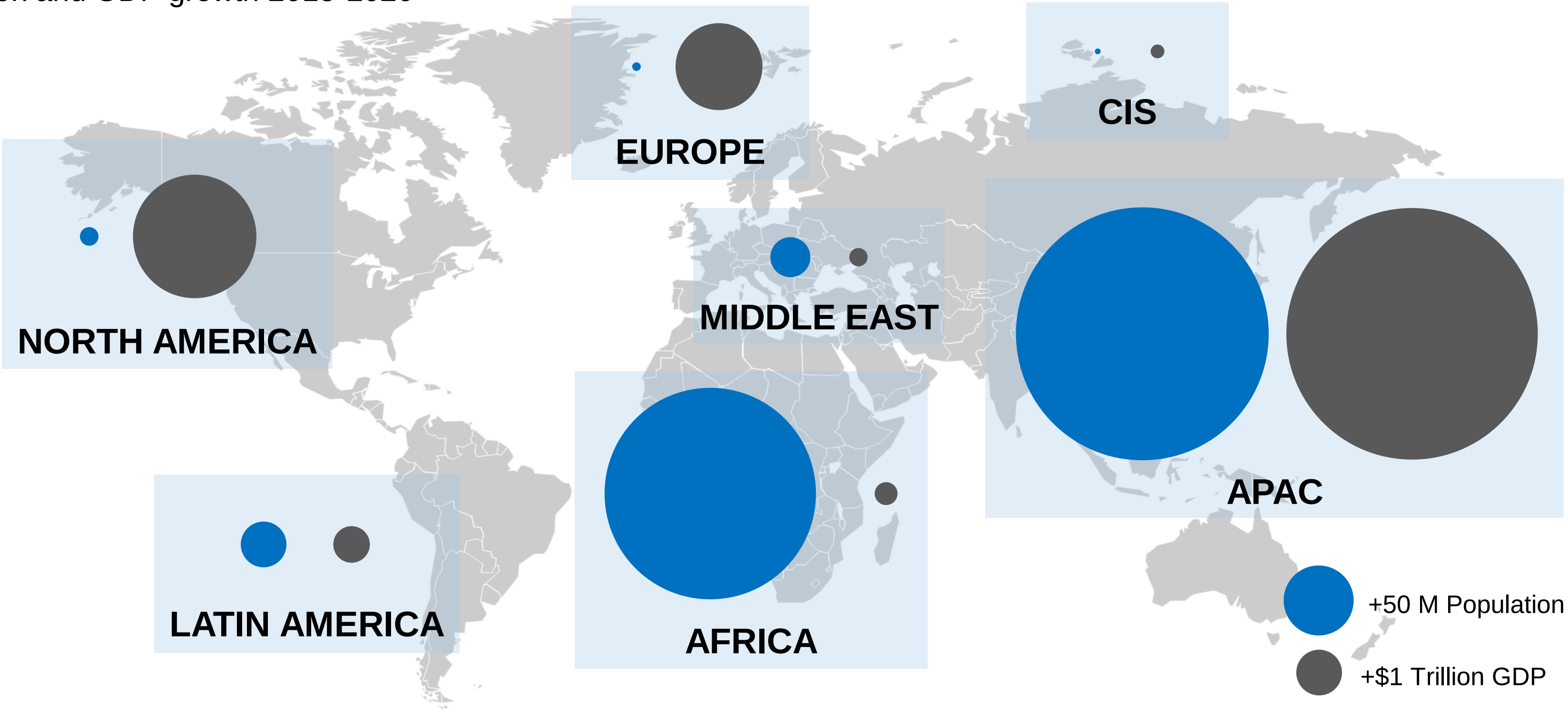




Source: Frost & Sullivan

Large majority of population increase will occur in **developing countries**

Population and GDP growth 2015-2020

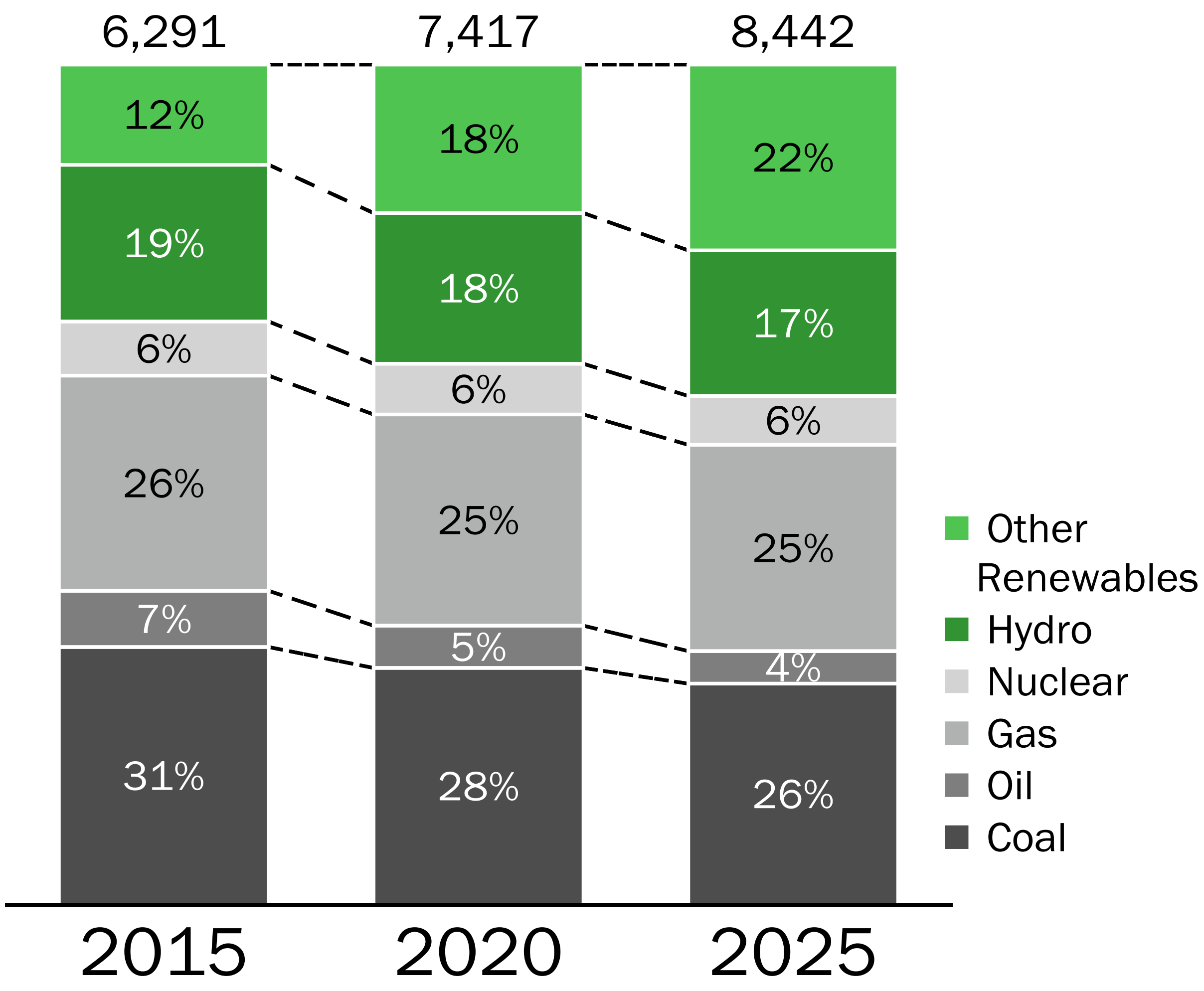


KEY GROWTH COUNTRIES WHOSE RISING POPULATIONS AND LIVING STANDARDS WILL DRIVE STRONG INCREASES IN ENERGY DEMAND ARE ***CHINA, MEXICO, NIGERIA, IRAN, THAILAND AND INDONESIA***

Source: United Nations, ExxonMobil

Renewables to significantly gain market share

Power Generation mix evolution (GWe)

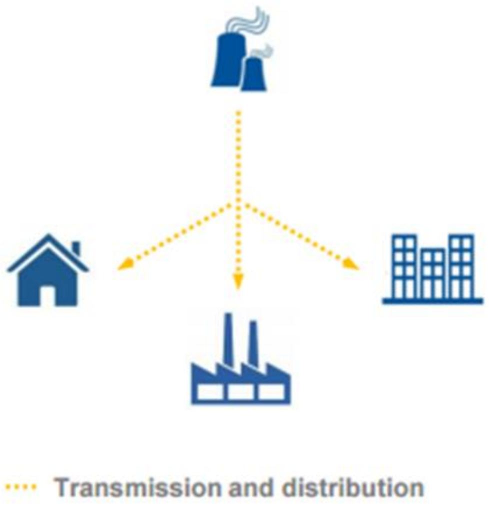


- **Coal to lose** market share due to environmental concerns
- **Gas will keep a stable** market share
- **Oil will vanish**
- **Renewables** will see a massive expansion, driven by:
  - **Incentives**
  - **Emissions regulations** and **CO2** emissions trade market
  - **Capacity** payments

SUPPL HI Source: Frost & Sullivan

Not only a **change in mix**… but also in the **"delivery model"**

TRADITIONAL MODEL



- Large plant at regional level, with electricity sent through the national grid
- Higher transmission losses and higher carbon emissions

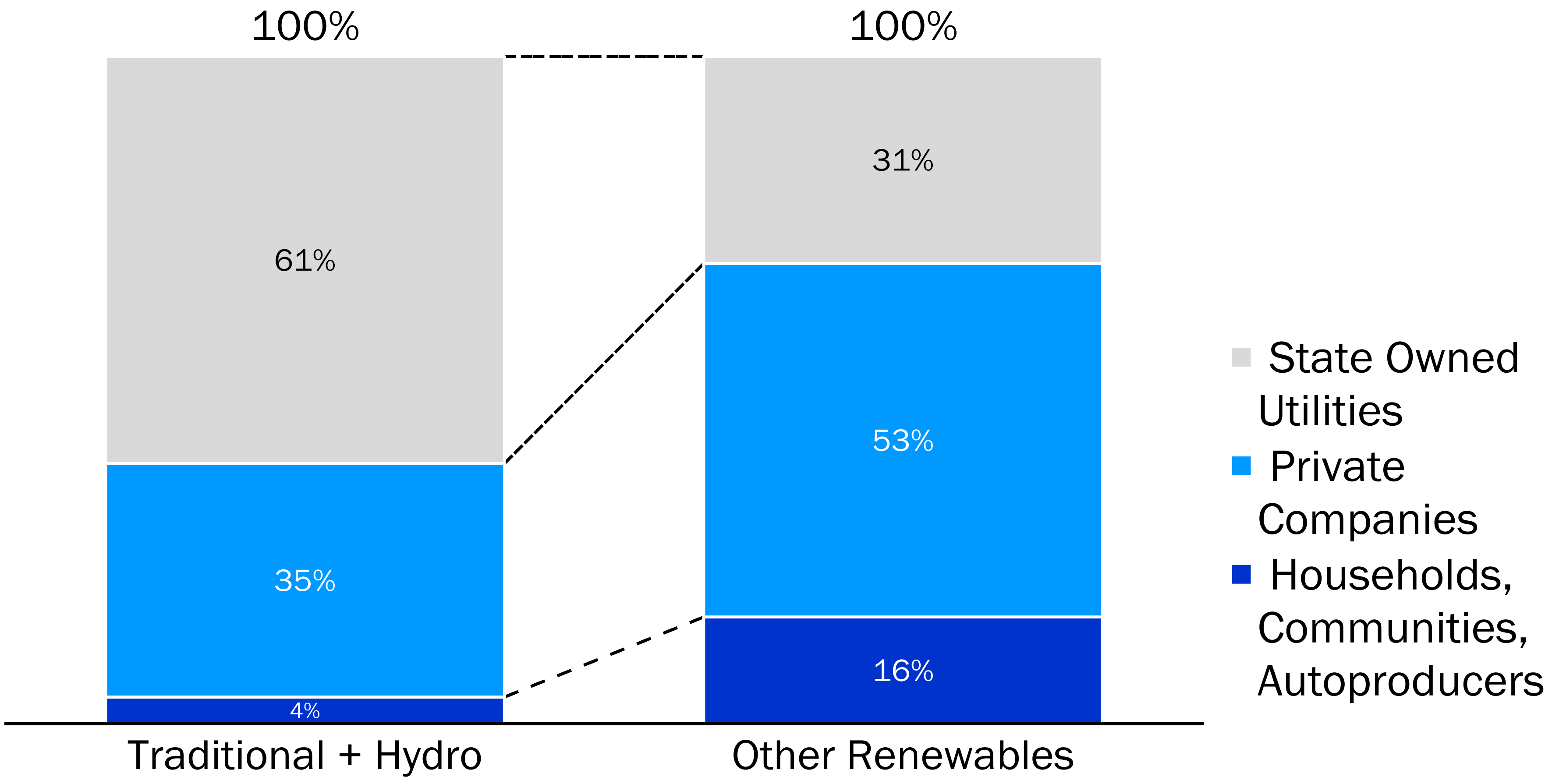
NEW MODEL

- Customers evolve from consumers to energy partners
- Focus on micro-grids
- Initial installation costs vs a special decentralised energy tariff

Source: Enel investor presentation

Not only a **change in mix…** but also in the **type of End-Users**

Ownership of global power generation capacity commissioned in 2015



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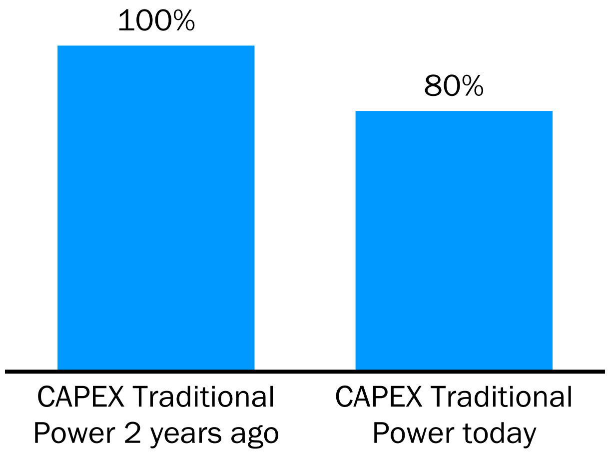
Source: World Energy Investment 2015, IEA

Also in Power… **focus on strong CAPEX efficiency and OPEX reduction**

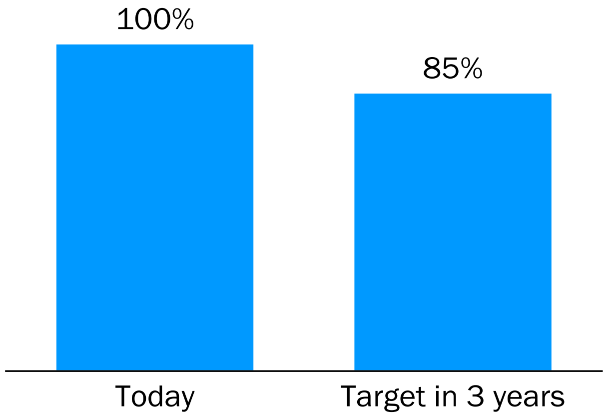
EXAMPLES

CAPEX efficiency



- **Revision of Traditional Power pipeline**, targeting **shorter time-to-EBITDA**
- **Abandoned large environmentally unfriendly projects**, e.g. coal projects
- Origination focused on **gas and hydro technologies**

OPEX reductions



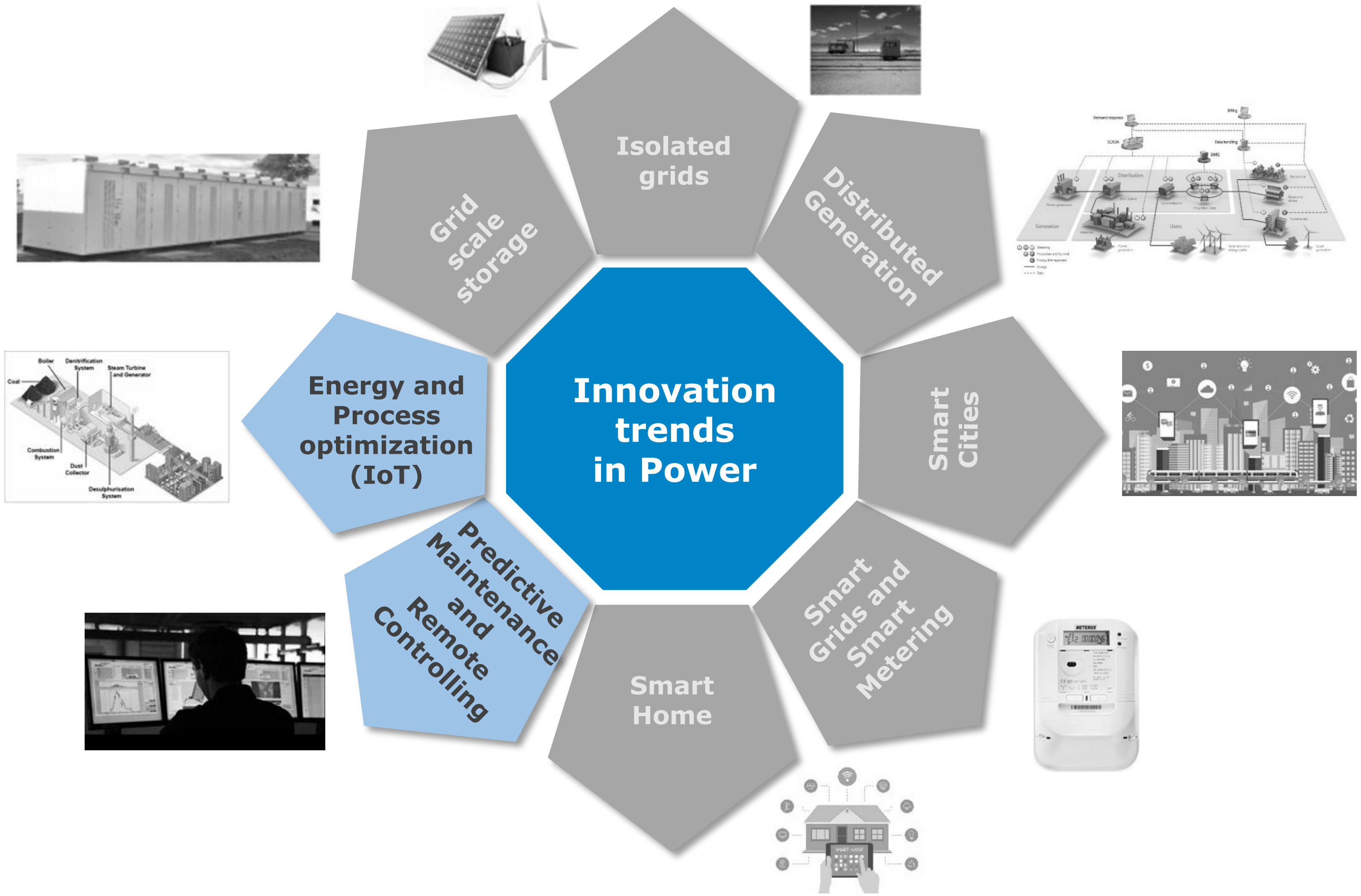
- **Lean organisation and processes**
- Focus on **scheduled** and **predictive maintenance**
- **Maintenance contracts optimization** also through **economies of scale**

Source: SupplHi analysis on End-Users Investor Presentations

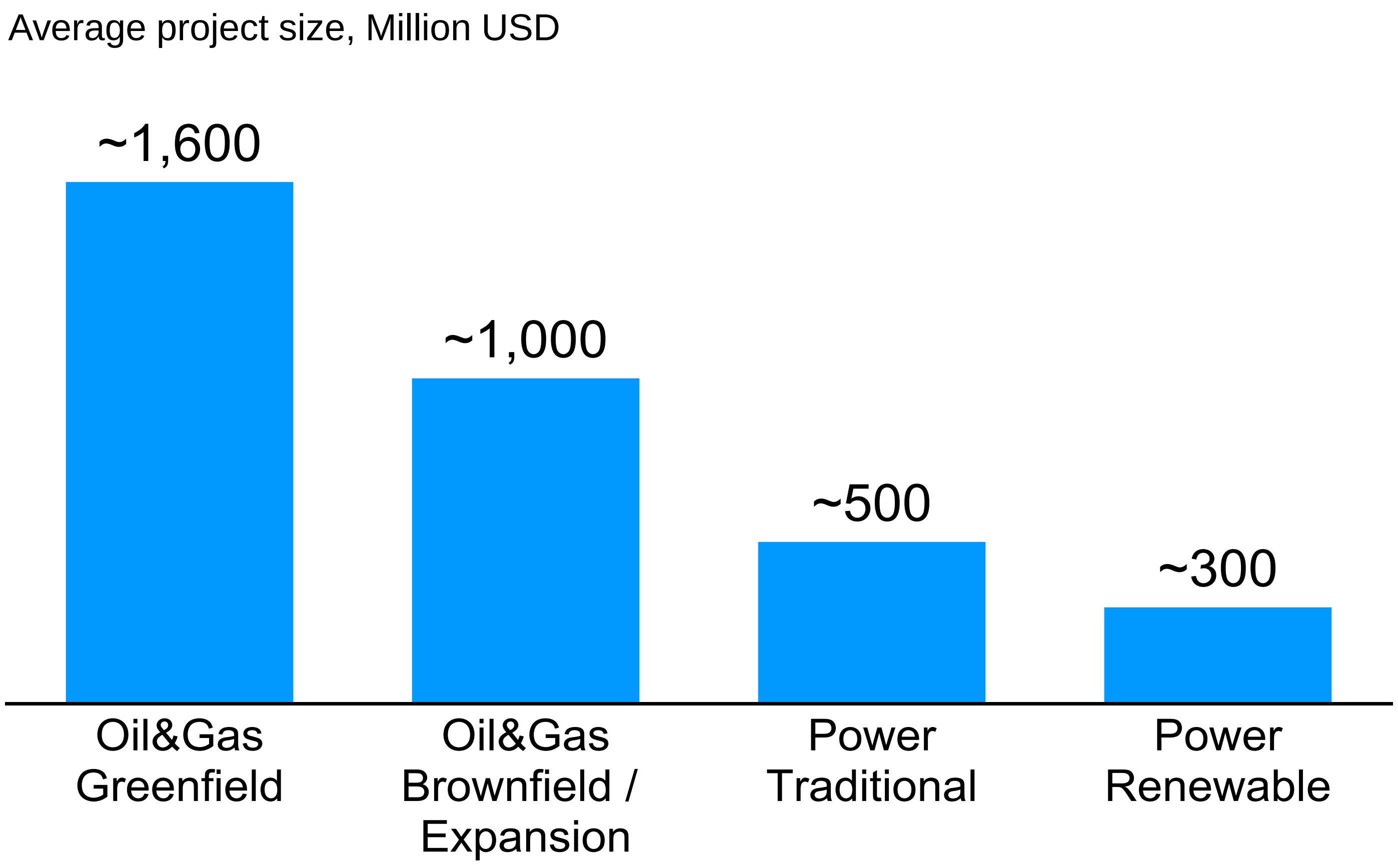
POWER

Active management of the **innovation portfolio**

EXAMPLES



Average project size is decreasing

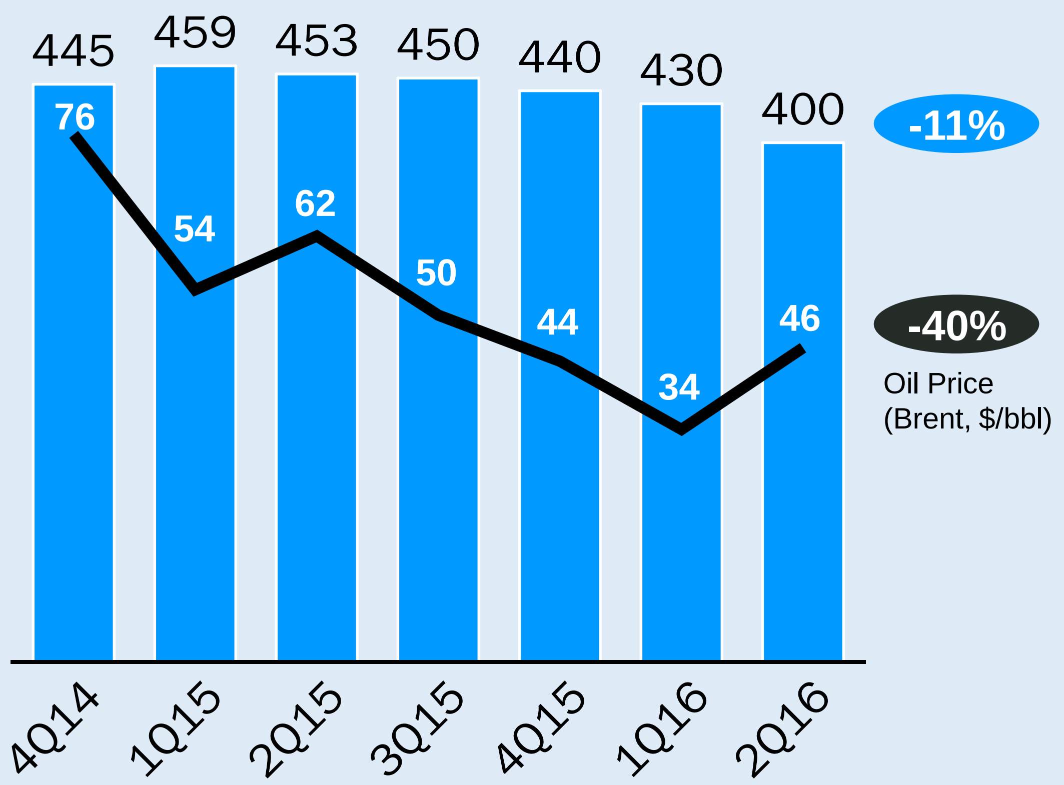


- We are already experiencing **less large greenfield projects**
  - “right-sizing” of the project to reach the Final Investment Decision
- **Brownfield / revamping / expansion** projects are now a **“market”** that requires a special focus

Source: SupplHi Projects Database

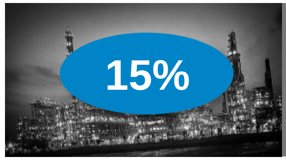
Int'l EPC Contractors:
More-of-the-same… but very different!

Project value of TOP50 Int'l EPC Contractors (Onshore and Offshore), Billion USD

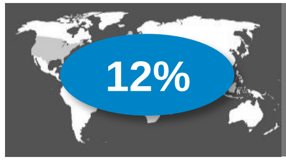


Composition of 2Q16 backlog

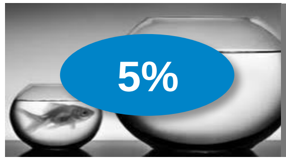
DELAYS / DISCOUNTS



Δ SEGMENTS



Δ GEOGRAPHIES



Δ PROJECT SIZE & RISK PROFILE

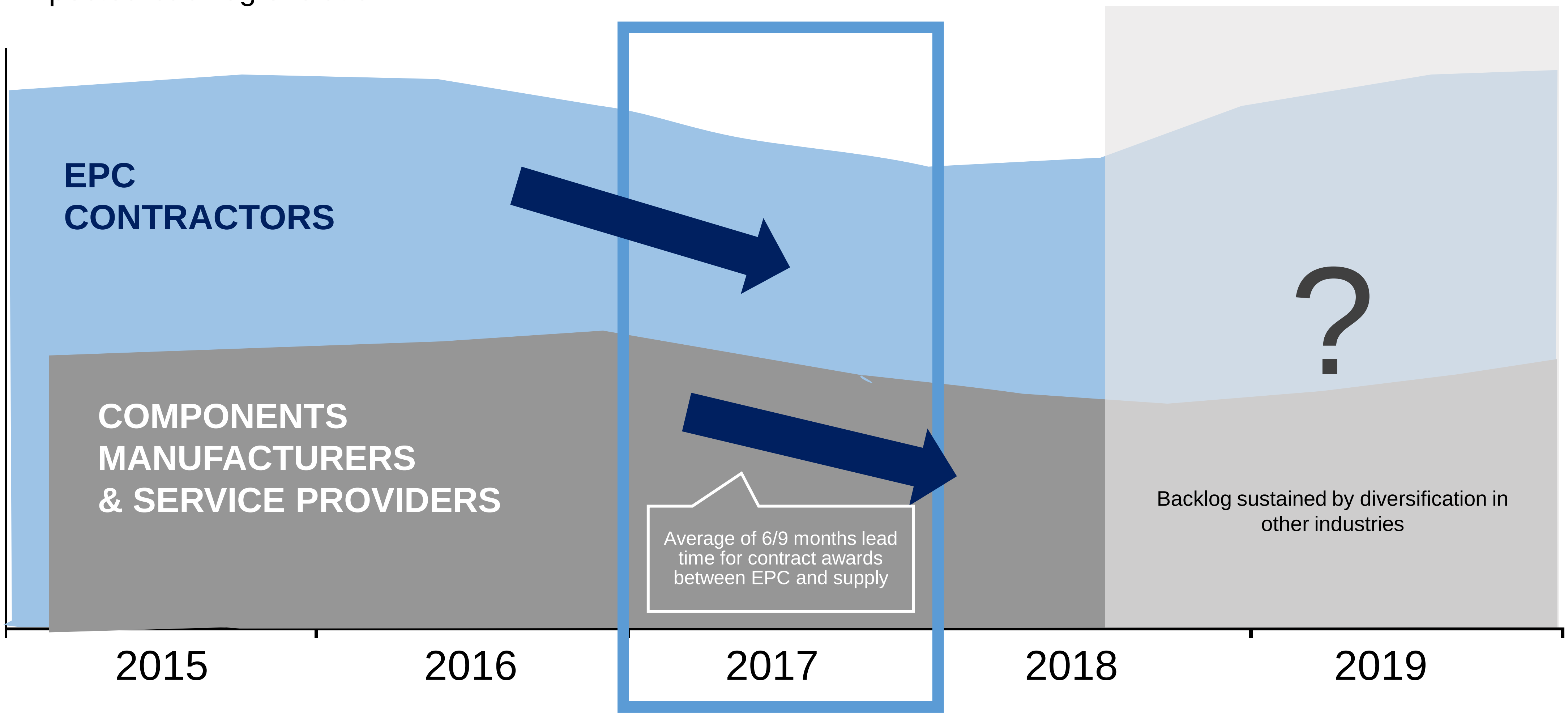
IN REALITY, ONLY ~50%THE BACKLOG IS "SIMILAR" TO PREVIOUS YEARS

Note: Considered the backlog related to Oil&Gas, Power, Civil, Mining and Governmental project; not considering the backlog for Housing and Architecture projects;
Source: SupplHi analysis on EPC Contractors' financial reports; clippings

2017 as a transition year

ILLUSTRATIVE

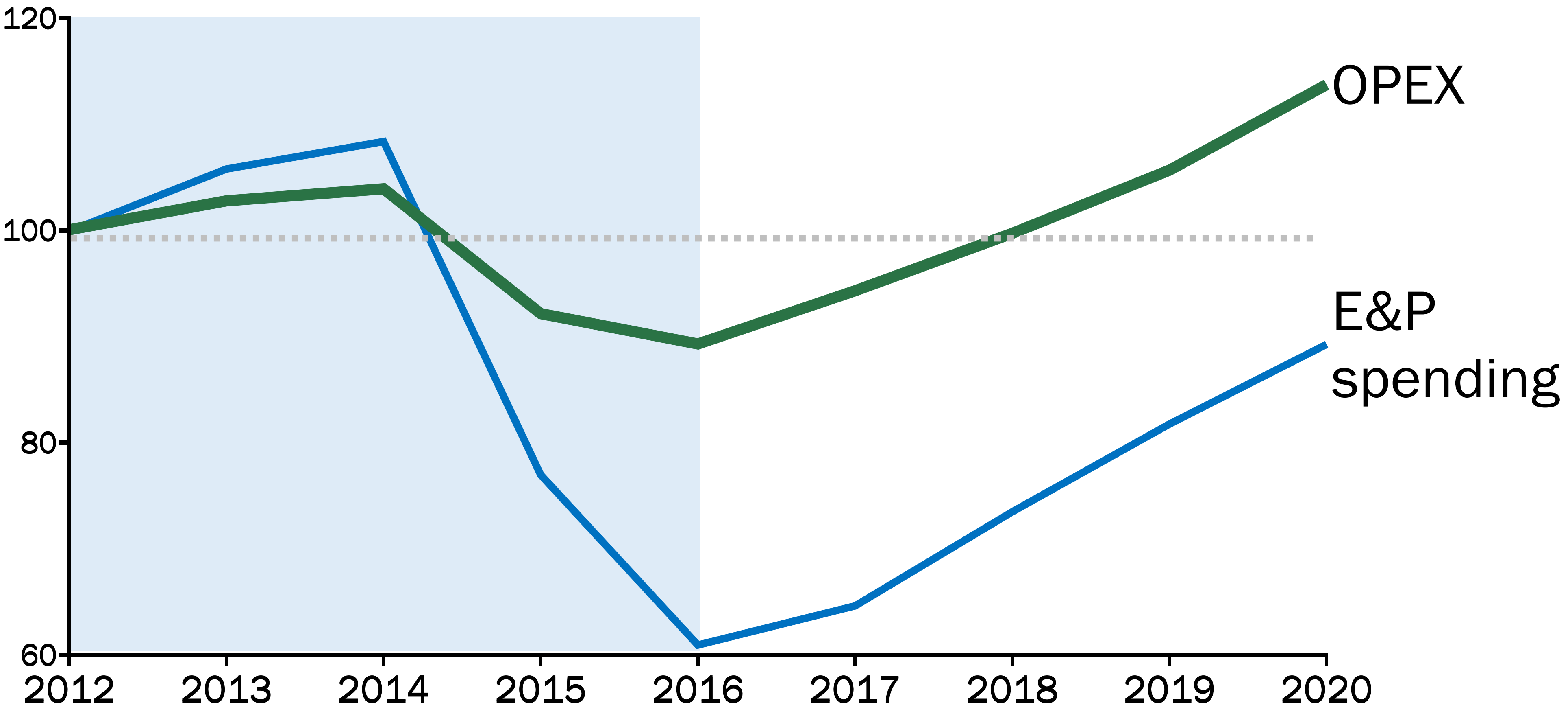
Expected backlog evolution



Source: SupplHi analysis

While CAPEX has been sinking …
… OPEX tends to be more resilient

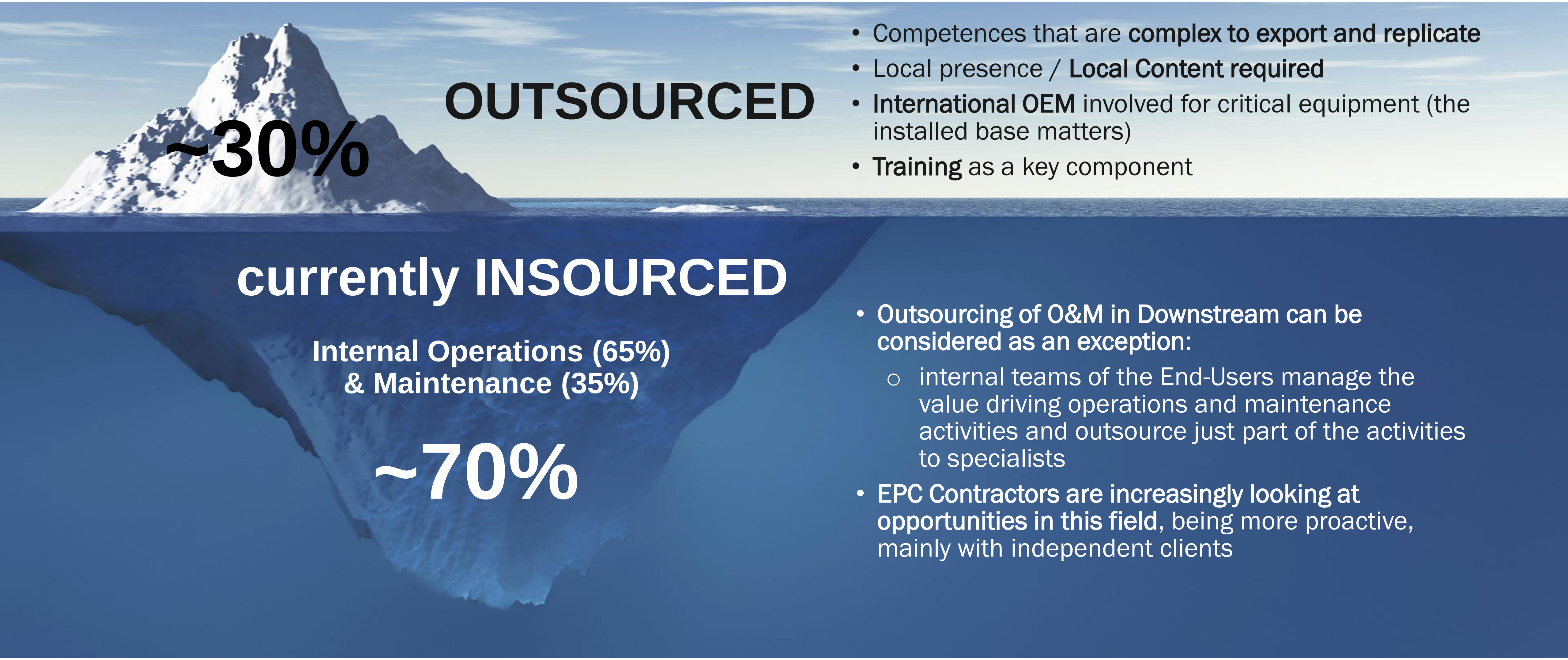
E&P and OPEX spending evolution (indexed 2012)



Source: IHS

OPEX

Just the tip of the iceberg



~30% OUTSOURCED

- Competences that are **complex to export and replicate**
- Local presence / **Local Content required**
- **International OEM** involved for critical equipment (the installed base matters)
- **Training** as a key component

currently INSOURCED

Internal Operations (65%) & Maintenance (35%)

~70%

- **Outsourcing of O&M in Downstream can be considered as an exception:**
  - internal teams of the End-Users manage the value driving operations and maintenance activities and outsource just part of the activities to specialists
- **EPC Contractors are increasingly looking at opportunities in this field**, being more proactive, mainly with independent clients

Source: SupplHi analysis

Digital Innovation to support internationalization?

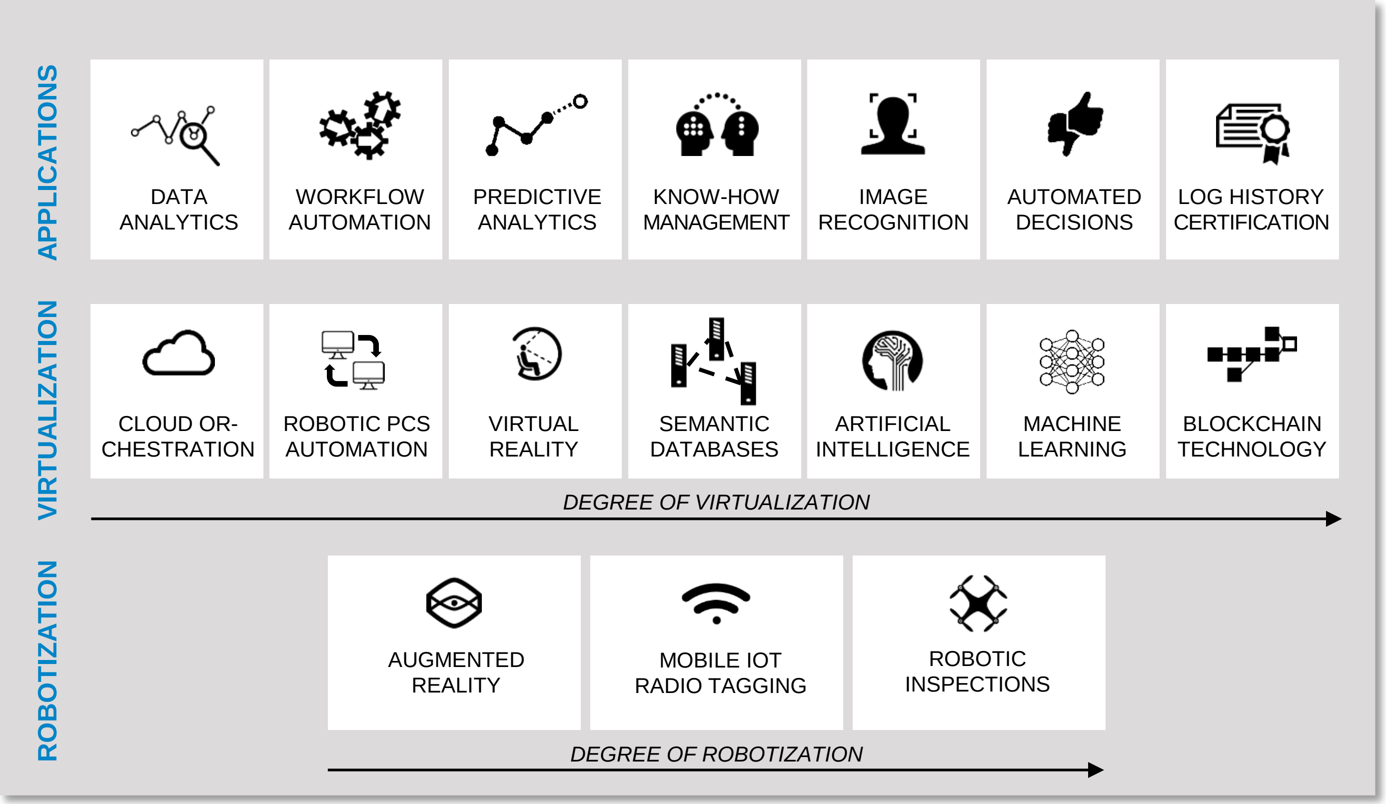
PROBLEM TO BE SOLVED

SALES
Maximization through simulation and scenarios planning

OPEX
Production Optimization

CAPEX
Assets, Tracking, Certification

RISK
Surveillance, Monitoring, Inspection



- **Mapped ~100 start-ups** in the global Energy industry able to deliver Digital Innovation
- **Large companies** are the real engine, also through **internal start-up Labs**
- Low level of patenting → **knowledge of the application is key**

Source: SupplHi Observatory on Digital Innovation in the Energy industry, in collaboration with Business Exploration

Key takeaways

- Focus on **strong CAPEX efficiency and OPEX reduction**
- **Major structural supply chain** improvements are needed to lower costs further, improve reliability and quality and reduce risk
- Average **project size** is **decreasing: brownfield / Revamping as a growing “market”**, requiring dedicated presidium and a different mix of competences
- **OPEX provides opportunities** to the ones able to **innovate** and deliver value to the Clients

Thank you for your attention

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SUPPL HI

Vendor Management Platform

BUYERS

Focus on:

- **CRITICAL SUPPLIES**, based on a detailed Standard Categorization
- The **ENERGY INDUSTRY** (Oil&Gas, Conventional Power, Renewables) and other industries as “adjacencies” (Steel, Mining, Shipbuilding, …)
- At **GLOBAL LEVEL**

Compliance and constant quality assurance of the info
(experts, category mgmt, other users, …)

VENDORS

Value-added info **uploaded by Vendors**:

- **Categories** with references and contacts
- **Companies**, brands and **manufacturing plants**
- **Certifications**
- **Revenues and split by category**
- **HSE** indicators
- **Organizational** structure

BENEFITS

- **Increase the amount and quality of info available on international vendors**
- **Strong cost reductions and savings on CAPEX and OPEX**
- **Risk mitigation and stronger compliance and performance**

FIRST 6 MONTHS FREE FOR NEW VENDORS

BENEFITS

- **Registered at multiple Buyers at international level, with higher visibility and commercial reach**
- **Strong cost reduction of the registration processes**
- **Easy info upload and update**

For further information, please contact Mr. Giacomo Franchini giacomo.franchini@supplhi.com and visit www.supplhi.com
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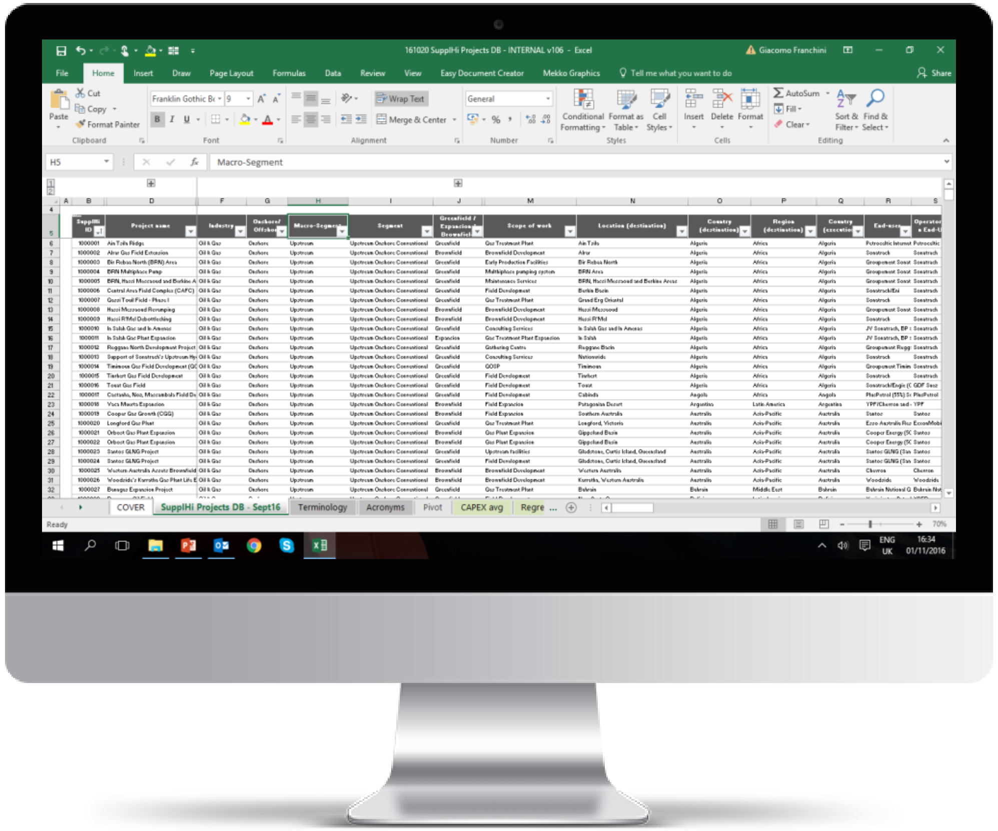
Projects Database



3,100+ Projects for the Oil&Gas and Power industries, at Global level, constantly updated

Information, by project

- Project Name
- Industry
- Segment
- Greenfield vs Brownfield
- Scope of Work
- Location / Country (Destination)
- Country (Execution)
- End-user
- Operator / Main End-user
- Contractor
- Contract Type
- Status
- Award Date
- Start Date
- End Date
- Capacity
- Capacity Unit of Measure
- Capex ($M)
- Technology
- Notes
- Last Info Update

BENEFITS

Prioritize commercial efforts

Check project status and timing

Proactively **find** clients' projects

Target geographies and segments

For further information, please contact Mr. Giacomo Franchini giacomo.franchini@supplhi.com and visit www.supplhi.com
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