

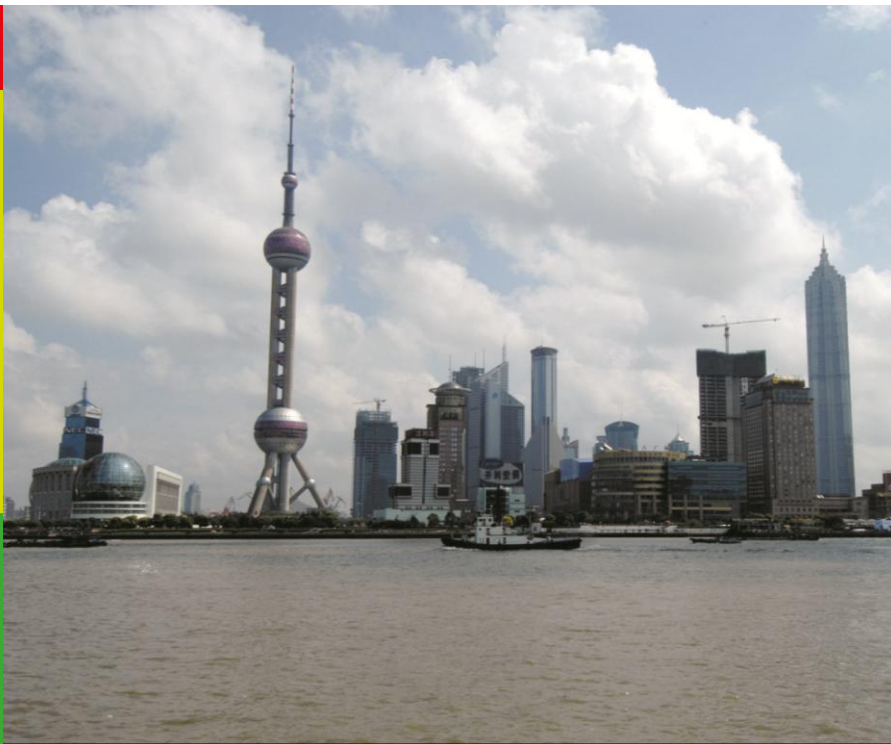


# GDF SUEZ IN ASIA, AFRICA & MIDDLE EAST

January 7, 2015

**GDF SUEZ**

BY PEOPLE FOR PEOPLE



Shanghai, China



Tarfaya, Morocco

# Introduction

Gérard Mestrallet, Chairman and Chief Executive Officer

January 7, 2015

**GDF SUEZ in Asia, Africa & Middle East**



BY PEOPLE FOR PEOPLE

# Fast growing markets at the heart of Group strategy

Be the benchmark energy player in fast growing markets

Leverage on strong positions in **IPP**

Develop our presence around the **gas value chain**

Globalize **energy services leadership positions**

Be leader in the energy transition in Europe

Be the **Energy Partner** of choice for our customers while promoting energy efficiency

Be a vector of **decarbonization** through **renewable energy**

New businesses / digitalization

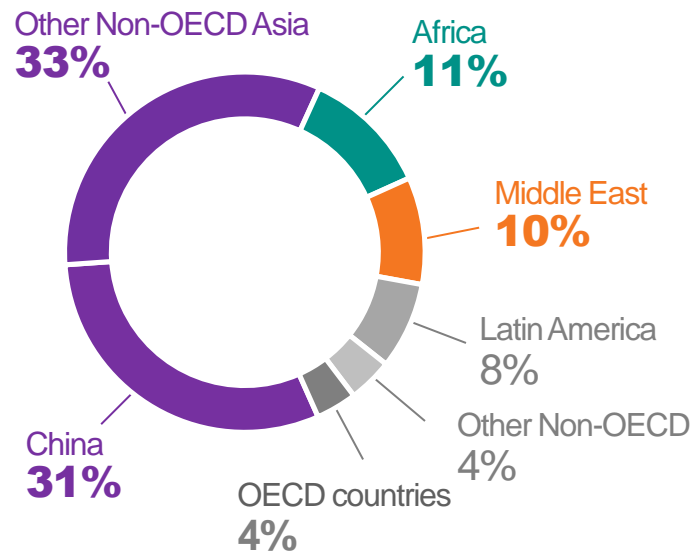
**Benefit from integrated business model to capture opportunities along the value chain**

# Asia, Africa and Middle East driving growth in primary energy demand

Primary-energy demand in 2035<sup>(1)</sup>



Share of global primary-energy growth from 2012 to 2035



**40%** of the world's new power capacity by 2035 will be built in China and India

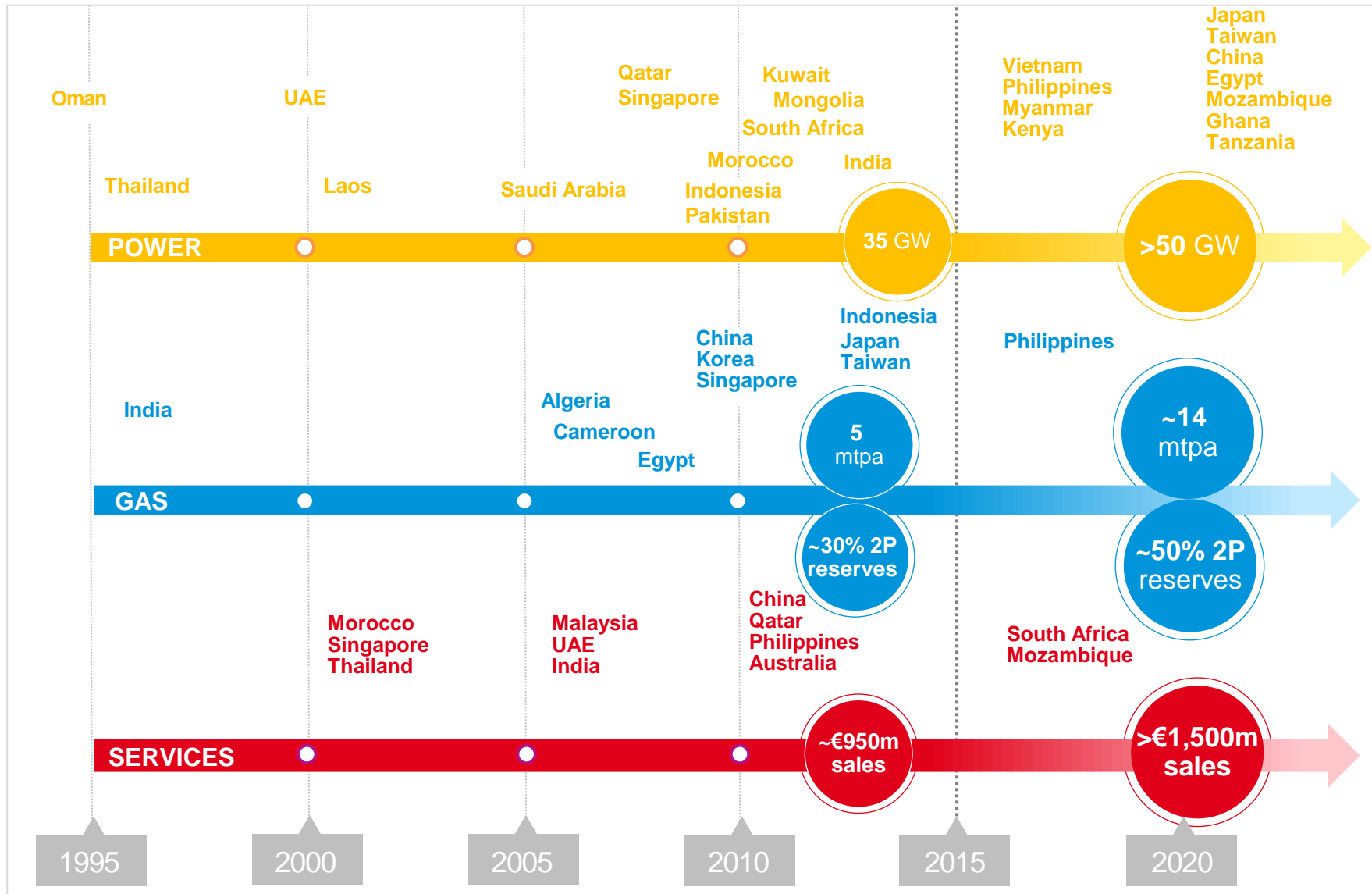
**Natural gas will remain essential for emerging countries in the future**

**Strong demand growth for natural gas in Asia: +4% per year over 2012-2035 that requires important gas infrastructures investments**

Source: OECD / IEA (2014), New Policies Scenario

(1) In millions of tons of oil-equivalent (Mtoe)

# Building on historical presence to develop new opportunities



# Strong positions to build upon



**€5.8bn**  
revenues in 2013  
**€6.3bn**  
capital employed



**3,900**  
employees  
**30** countries



**34.6 GW<sup>(1)</sup>**  
of installed capacity  
**30%** of Group total



**3.9 GW<sup>(1)</sup>**  
under construction  
**52%** of Group total

## % OF TOTAL GROUP

**7%** EBITDA

**10%** COI

**15%** NRIs

### Revenues, employees & power capacity<sup>(1)</sup>

#### Africa

Rev.: **€0.2bn**  
**100** emp.  
**0.1** GW  
**1.3** GW

#### Middle East

Rev.: **€1.3bn**  
**1,400** emp.  
**24.9** GW  
**2.0** GW

#### Asia

Rev.: **€4.3bn**  
**2,400** emp.  
**9.6** GW  
**0.6** GW

### Power capacity under construction<sup>(1)</sup>

**27%**

Middle East

**17%**

Africa

**8%**

Asia

(1) Capacity at 100% at June 30, 2014

# Future growth fueled by numerous recent developments



- Power
- Gas & LNG
- Services

- FID Cameron LNG export project
- Lahmeyer acquisition

- Uch II gas plant
- Preferred bidder for CHP IPP
- Prequalified for Tavan Tolgoi IPP
- MoU for renewable projects

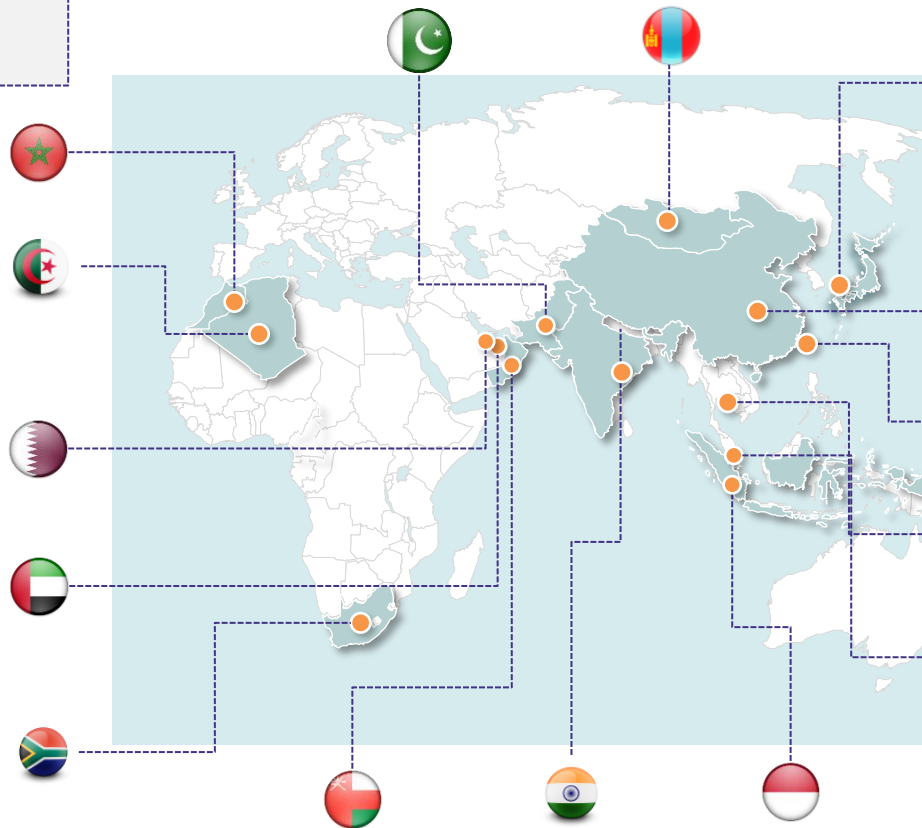
- Tarfaya wind farm
- Safi power project

- EPC for Touat gas field

- Acquisition of a stake in a facility management company

- Mirfa PWPA
- 1<sup>st</sup> LNG cargo delivered to Dubai

- Dedisa and Avon power plants
- West Coast One wind farm
- Development of coal plant project
- Kathu concentrated solar project



- 1<sup>st</sup> long term LNG sales to Japan

- Major cooperation agreement with Beijing Enterprise Group
- Major cooperation MOU with Shenergy

- 1<sup>st</sup> long term LNG sales to Taiwan

- Agreement with Petrovietnam to develop projects

- SMP Pte Ltd acquisition
- Keppel FMO acquisition

- IPO of Barka 3/Sohar 2

- Meenakshi IPP

- Feasibility study for LNG terminal
- Entry in gas exploration licenses
- Cyberjaya district cooling

# Strong societal engagement in the region with GDF SUEZ Rassembleurs d'Energies

## Investment split by geography<sup>(1)</sup>

39%

India  
3 projects

32%

Africa  
2 projects

29%

Europe  
5 projects

(1) Estimations at end 2014 on a total of €4.1m investments

## India: Simpa Networks

Solar Home System, rent-to-own, selling solar as a service to Indian poor rural households with limited access to energy



## Uganda: Fenix Solar systems

designs, manufactures and markets affordable solar power generation and smart-storage solutions to light homes, charge phones and run appliances





# Group CAPEX program designed to seize growth opportunities

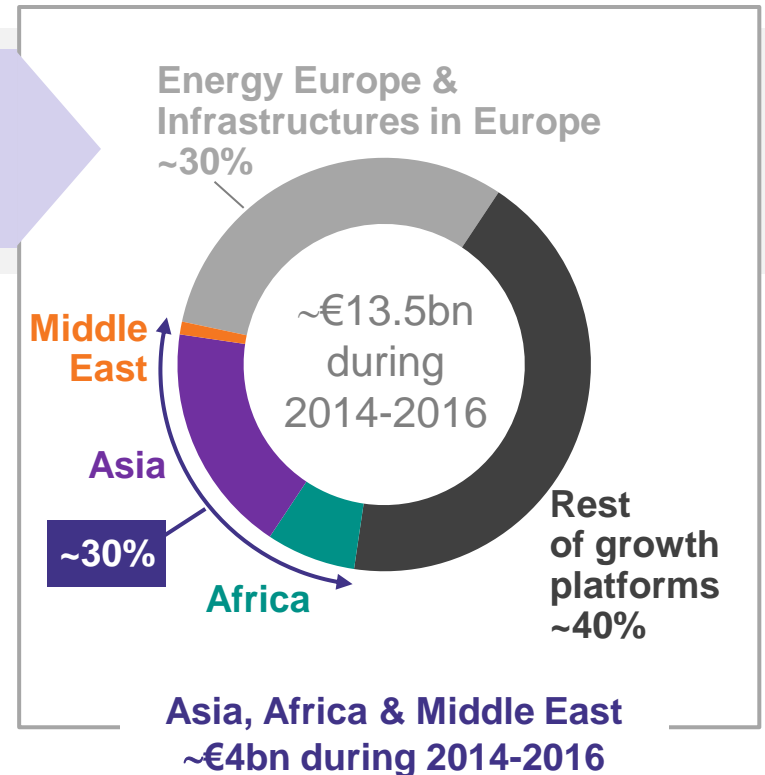
**CAPEX program over 2014-2016  
yearly average:**

Maintenance  
CAPEX  
~€2.5bn



Growth  
CAPEX  
~€4.5bn

**+** Additional growth CAPEX  
~€2-3bn financed by disposals



Strict and selective approach: project IRR > project WACC + 200bps



Glow, Thailand



Ras Laffan, Qatar

## Power

Willem Van Twembeke, CEO Energy International

Pierre Guiollot, CFO Energy International

Jan Flachet, CEO & President GDF SUEZ Energy Asia-Pacific

Lucas Hautvast, CEO & President, GDF SUEZ Energy South Asia, Middle East & Africa

January 7, 2015

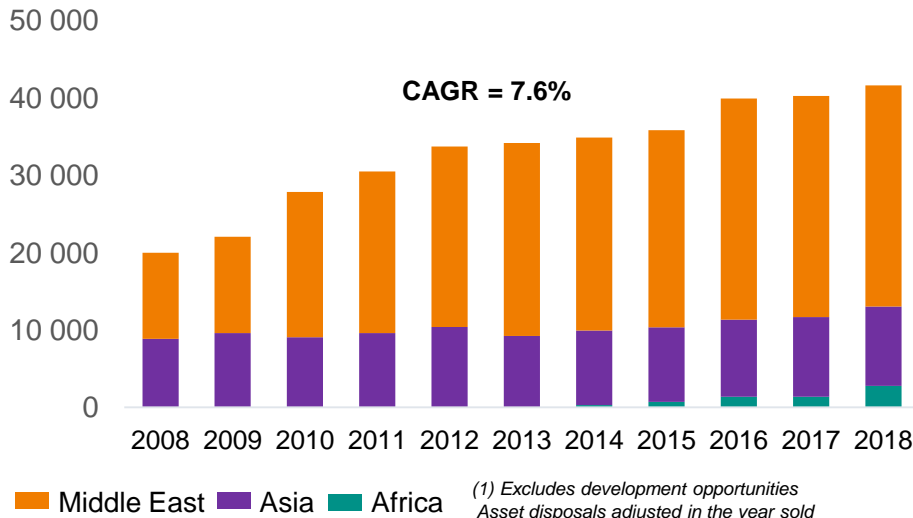
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**GDF SUEZ in Asia, Africa & Middle East**

# Continued growth based on good track record and long-term relationships

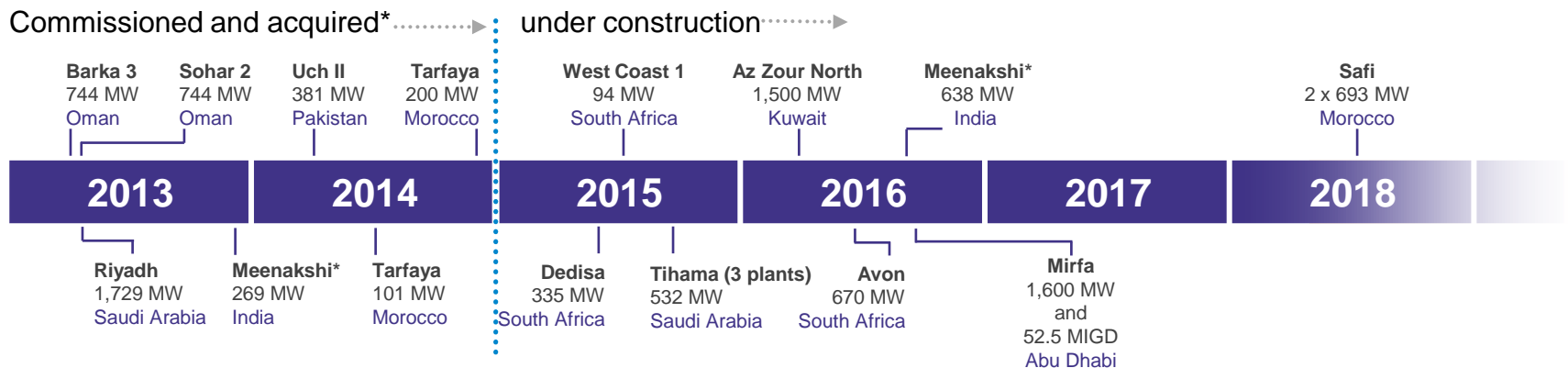
## Installed capacity evolution<sup>(1)</sup> (MW gross)



## Success drivers

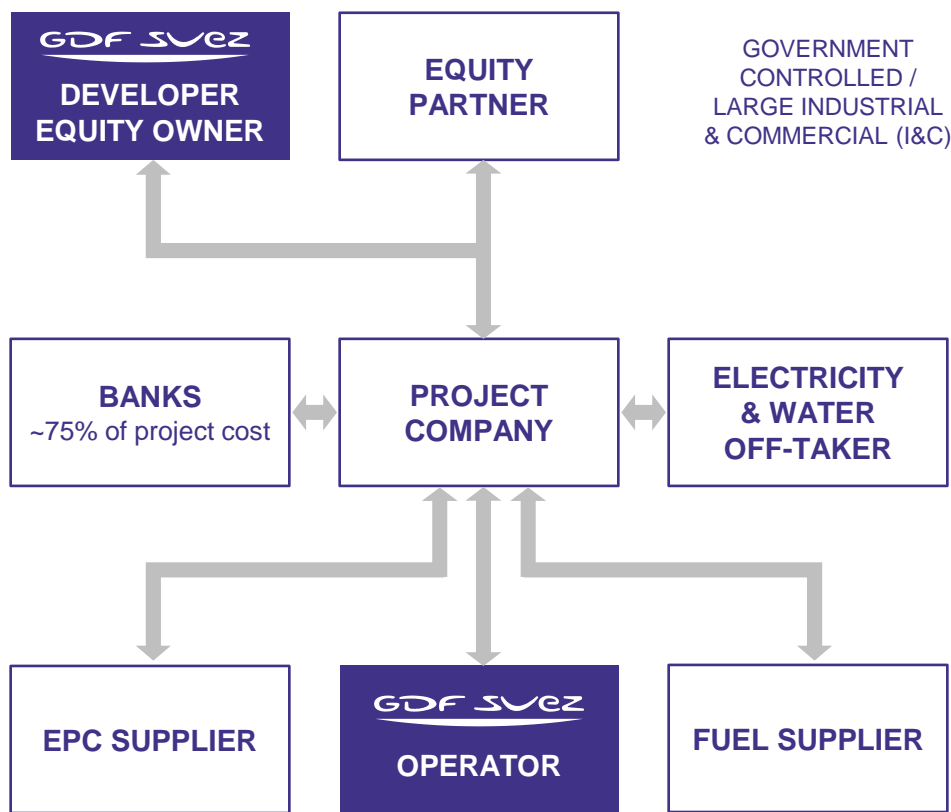
- PPAs (costs inflation adjusted)
- Partnerships
- Limited downstream sales
- Experienced local teams
- Technical/plant design
- Operational excellence
- Innovative structuring
- Creditworthy customers

## GDF SUEZ timeline projects



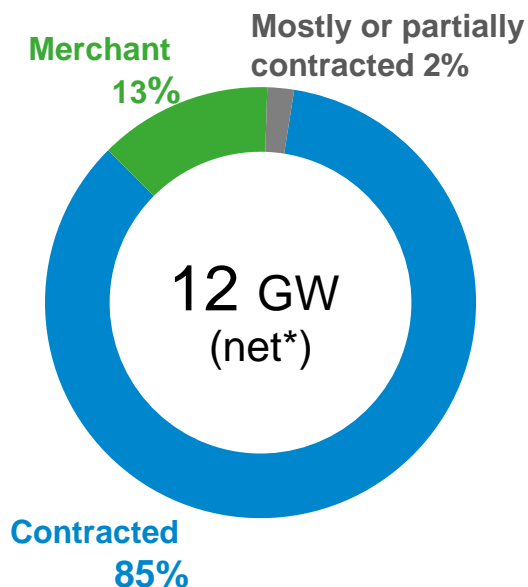
# Robust business model, predominantly long-term contracted capacity backed by long-term PPAs

Typical business model for long-term contracts (15-40 years)



Capacity largely long-term contracted at 31 December 2014

*Estimates*



Contracted: fixed price forward contracts >3 years for >95% capacity  
 Mostly contracted: 50% to 95% contracted  
 Partially contracted: 10% to 50% contracted  
 Merchant: contracted ≤ 10% capacity

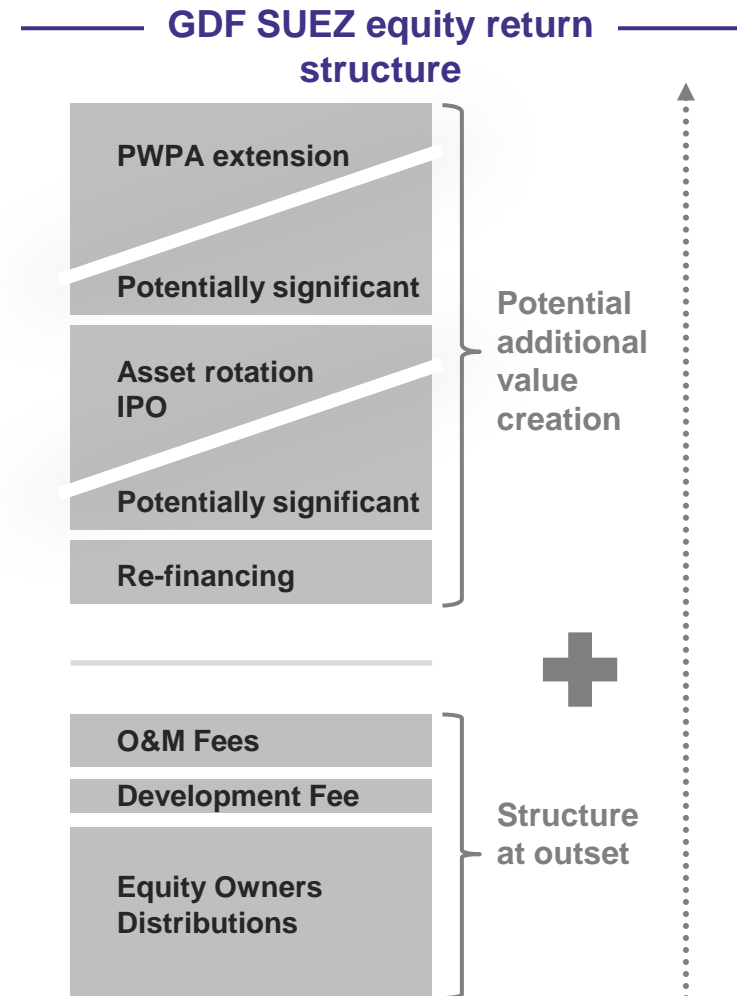
# Long-term contracts offer earnings security and regional experience drives additional value creation

## High quality earnings

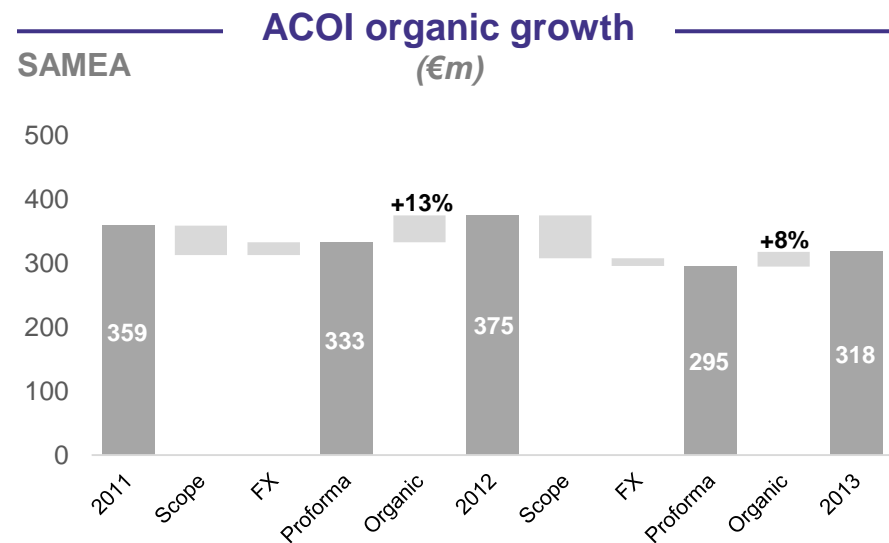
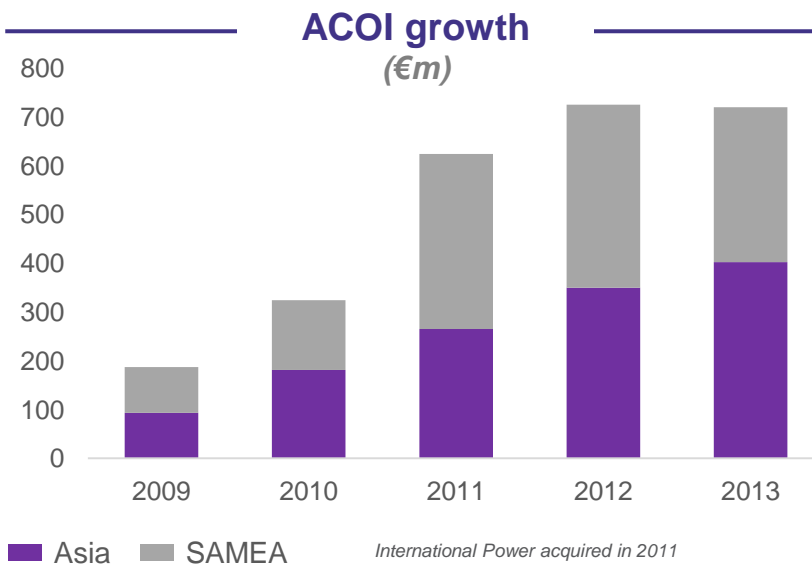
- Attractive returns with security of earnings through long-term contracts
- Ability to highly gear with non-recourse finance
- EPC contracts well structured minimizing risk of cost over-runs
- Several projects with sovereign guarantees from investment grade countries
- Additional revenues through O&M services

## Strong experience enables multiple levers to enhance returns

- Sources of upside through cost reduction, re-financing and plant life beyond PPAs, contract extensions

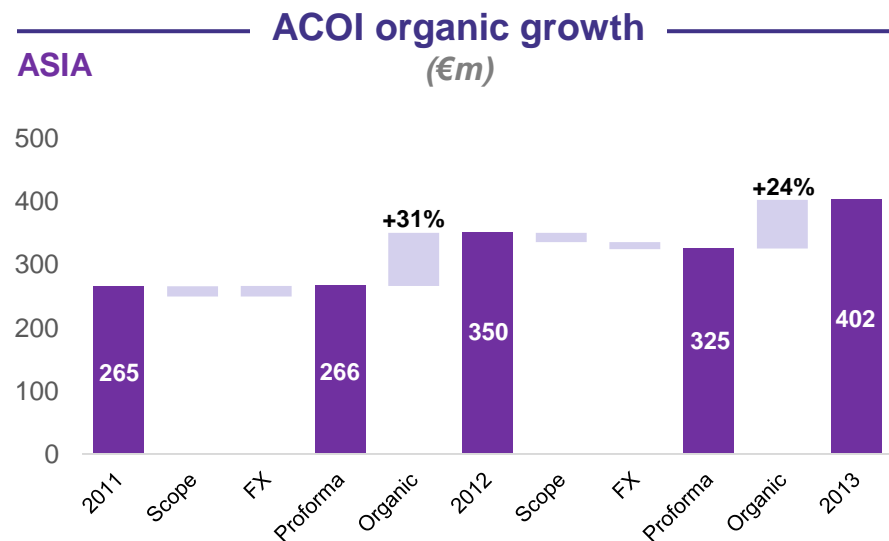


# Strong growth record



## Key drivers for 2014

- **SAMEA**
  - Commissioning of Uch 2
  - Meenakshi impact
  - Sohar 1 deconsolidation
  - Kapco divestment
- **ASIA**
  - Improved availability at Gheco One
  - Lower prices in Singapore
  - Lower development fees



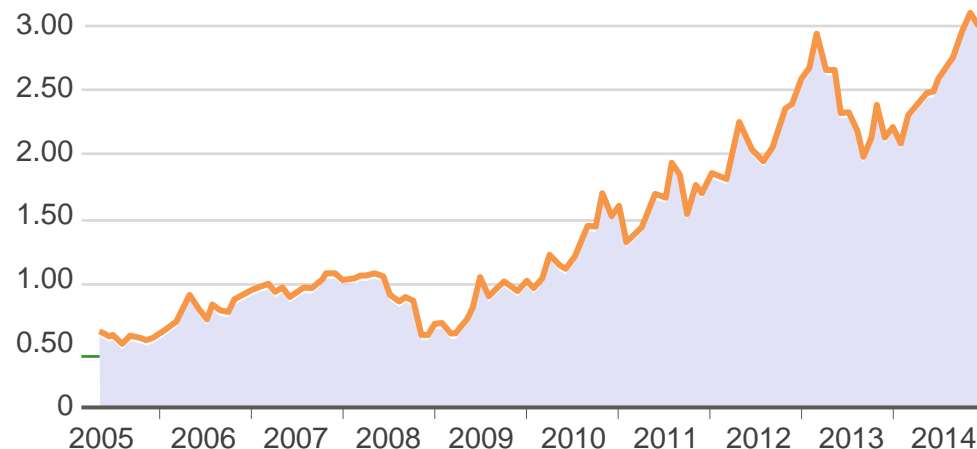
ACOI = Current Operating Income + share of associates recurring results

# Constant drive to enhance value through diverse range of options

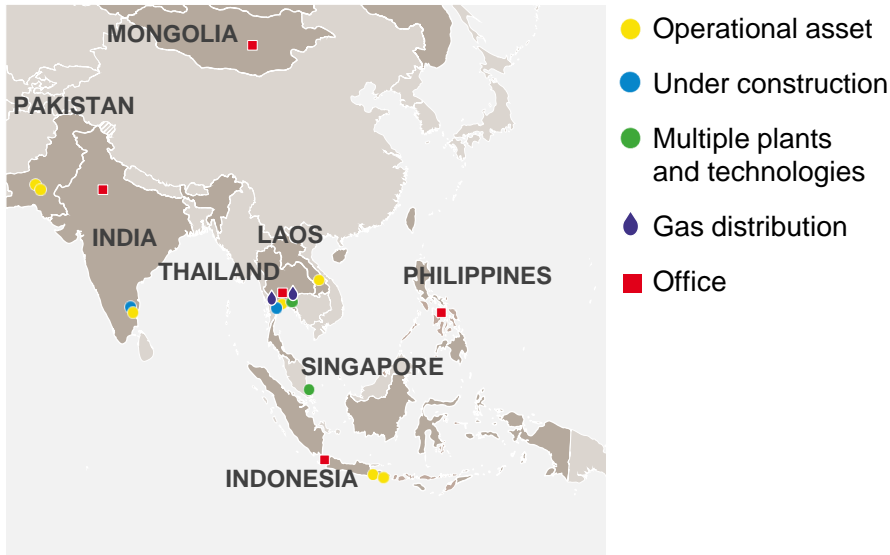
Greenfield developments	Acquisitions and extensions	Asset disposals	IPO
IPP model	<ul style="list-style-type: none"> <li>• India</li> <li>• UAE</li> <li>• Saudi Arabia</li> </ul>	<ul style="list-style-type: none"> <li>• Oman</li> <li>• Bahrain</li> <li>• Pakistan</li> </ul>	<ul style="list-style-type: none"> <li>• Glow market cap c. €3.5bn (Group share 69%: €2.4bn)</li> <li>• Oman projects* market cap c. €0.8bn (Group share: €0.26bn)</li> </ul>

\* Includes Al Kamil, Barka 3, Sohar, Sohar 2

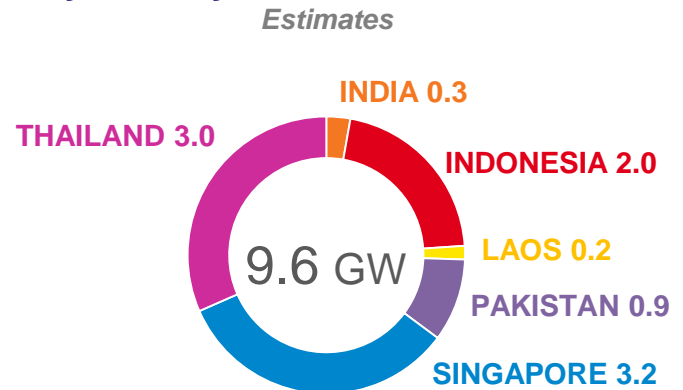
**Glow Energy PCL share price last 10 years (USD)**



# Asia – Longstanding presence in region with high energy demand



## Gross installed capacity by country at 31 December 2014



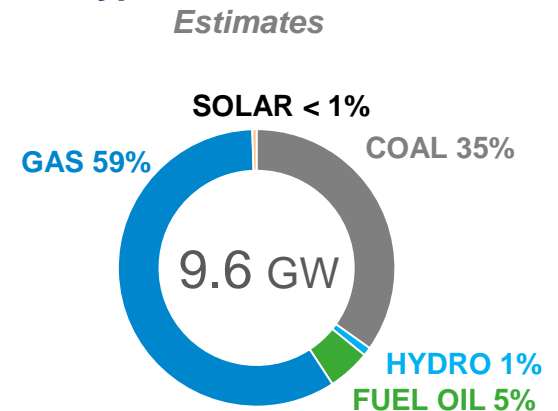
## ASIA REGION

- Fast growing markets and significant demand for new generation capacity
- Significant opportunities for private companies
- Forecast 2014 – 2018 GW CAGR of 5%\*  
\* GlobalData

## GDF SUEZ BACKGROUND

- Active in **6 countries**
- **21 assets in operation** representing **9.6 GW gross** installed capacity

## Gross installed capacity by fuel type at 31 December 2014





# Strategy and key success factors for Asia

## GDF SUEZ vision driven by strong market fundamentals

- Increase capacity and presence through both greenfields and acquisitions, utilising a diversified fuel mix and partnering with local and international players



**Maintain market share in Thailand and pursue growth in India and Indonesia**



**Enter new countries such as Philippines, Myanmar, Vietnam**



**Explore new business models in renewables, distributed generation**



**Explore potential possibilities in Japan, Taiwan and China**

# Case study – Gheco One Thailand fuel diversification

## Glow Coal Fired IPP GHECO One – Thailand

- **Supercritical Pulverized Coal-fired Power Plant**
- **Commercial operation on 26 July 2012**
- **Project enhances Thailand’s fuel diversification from natural gas**

## Key Achievements

- Financing completed notwithstanding the financial crisis in 2008
- Cost increases and delay impact mitigated by favourable PPA structure and financing arrangements
- First coal-fired power plant to obtain Environmental & Health Impact Assessment under the new Thai regulation
- Acceptance of local communities and NGO
- Plant contributes to the overall emission reduction in industrial park
- Returns ahead of investment case



### Glow assets (gross MW)

Coal-fired plant Coal 660 MW

### Key metrics

Debt	58.3%	Total Investment Cost
Equity	41.3%	€1bn

### Shareholding structure (economic interest)

Glow	65%
Hermaraj	35%
Total	100%



# Case study – Paiton 3

## The largest generating unit in Indonesia

### Paiton extension 3 – Java island, Indonesia

- First Super Critical Unit on the grid
- 30-year PPA with PLN (until 2042)
- Majority shareholder in Operator Company
- Largest unit on the grid

### Key Achievements

- Project execution on time and on budget
- Excellent availability
- Plant leads PLN merit order
- 15 MW of excess capacity
- Tariff structured to enable earlier returns



#### Extension (gross MW)

Coal-fired plant	Coal	815 MW
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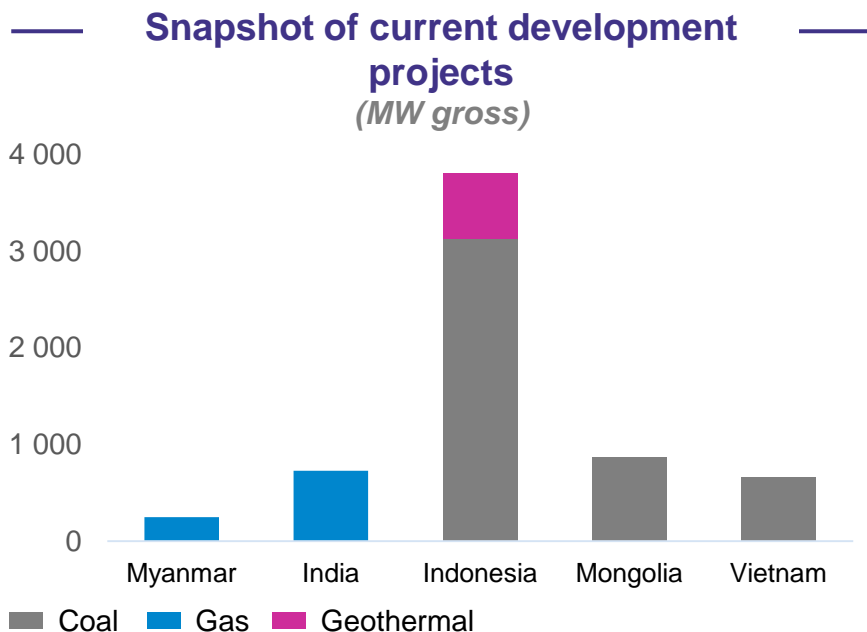
#### Key metrics

Debt	80%	Total Investment Cost
Equity	20%	

#### Ownership

GDF SUEZ	40.515%
Mitsui & Co. Ltd	40.515%
The Tokyo Electric Power Co. Inc.	13.97%
PT Batu Hitam Perkasa	5.00%
<b>Total</b>	<b>100.00%</b>

# Multiple growth opportunities in Asia



## INDIA

### Strong economic growth drives demand for power

- Power demand to increase CAGR of 7.5% to 2022
- Current production levels do not meet demand
- Government promotion of renewables
- Wide range of diverse opportunities related to energy and infrastructure

## INDONESIA

### Accelerated Electricity Development Program

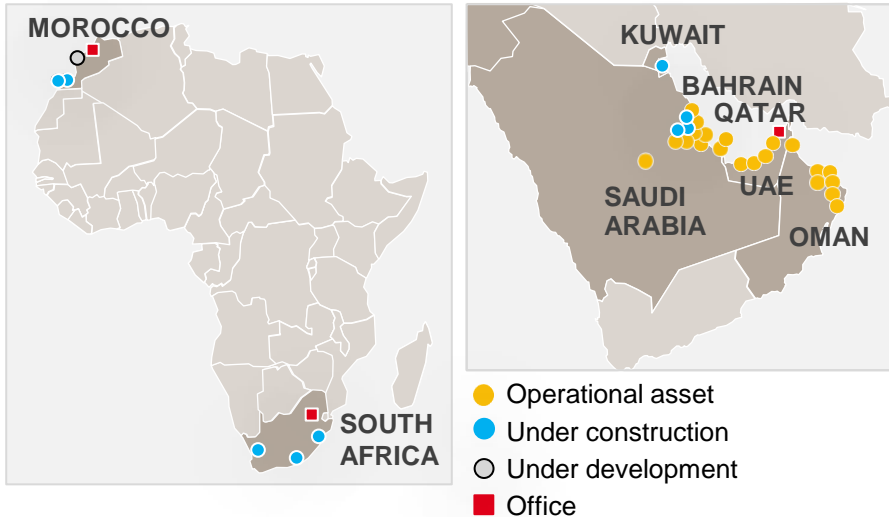
- A Second 10,000 MW Government Accelerated Electricity Development Program launched, of which around 4,000 MW should come from geothermal resources
- The Rantau Dedap Project located in South Sumatra with targeted capacity of 240 MW (a 30-year PPA)

## MONGOLIA

### Strong power demand from a resource-rich economy

- Power demand supported by mining, together with strong agricultural growth and increasing activity in the construction and services sectors
- Double digit GDP growth in 2012 and 2013
- Preferred bidder for the first IPP: CHP 5 plant, 415 MW and steam capacity of 587 MW in Ulaanbaatar (a 25-year PPA)
- Prequalified for Tavan Tolgoi IPP
- Prospective development of wind projects in partnership with local players

# Africa, Middle East – Significant portfolio and growth opportunities



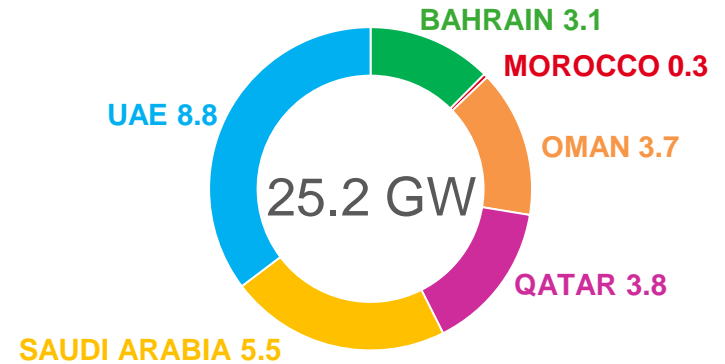
## AFRICA & MIDDLE EAST REGION

- Africa forecast growth in installed capacity: CAGR 2014–2018 of 6%\*
  - Middle East forecast growth in installed capacity: CAGR 2014–2018 of 7%\*
  - c. 40GW\* capacity to be added by 2020 in each of Africa and Middle East
- \* GlobalData

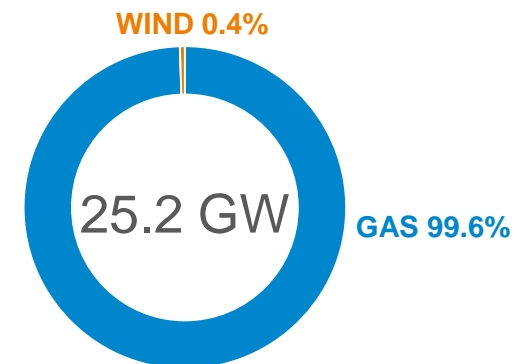
## GDF SUEZ BACKGROUND

- 8 countries in 2014
- 23 assets representing 25.2 GW gross installed capacity
- **Leading independent power and desalinated water producer with 20 years of experience in GCC**

Gross installed capacity by country at 31 December 2014  
*Estimates*



Gross installed capacity by fuel type at 31 December 2014  
*Estimates*



# Strategy and key success factors for Africa and Middle East

## GDF SUEZ vision driven by strong market fundamentals

- Remain a strategic partner for the GCC and continue to compete for further growth
- Build upon our strongholds in Africa and target other fast growing countries for opportunities in power and gas




**Maintain and grow our position as the leading IWPP in GCC**



**Promote solar/wind/hydro technologies in Morocco and South Africa**



**Embedded growth opportunities**



**Enter new countries such as Kenya, Egypt, Mozambique, Ghana, Tanzania**

# Tihama – A successful project offering additional value

## Tihama Power generation Company Saudi Arabia

- **Gas-fired cogeneration plants** located at Saudi Aramco's gas and oil refineries on four different sites
- **Backed by 20-year Energy Conversion Agreements (ECA)**
- **Commercial Operation** date for all four sites in 2006 delivered on time and within budget
- **Backed by long-term ECAs** through to 2026
- **Operational performance exceeded ECA** each year

## Extension: 532 MW of capacity

- **Commercial operation expected in 2015**
- **Demonstrates embedded development opportunities**



### Tihama assets (gross MW in operation)

Ju'Aymah	Gas	310 MW	1,832 GJ/h
Ras Tanura	Gas	150 MW	1,712 GJ/h
Shedgum	Gas	308 MW	1,822 GJ/h
Uthmaniyah	Gas	308 MW	1,644 GJ/h
<b>Total</b>		<b>1,076 MW</b>	<b>7,010 GJ/h</b>

### Extension

Ju'Aymah	Gas	177 MW	783 GJ/h
Shedgum	Gas	177 MW	733 GJ/h
Uthmaniyah	Gas	177 MW	733 GJ/h
<b>Total</b>		<b>532 MW</b>	<b>2,120 GJ/h</b>

### Key metric

Debt	80%	<b>Total Investment Cost</b>
Equity	20%	€0.5bn (original) + €0.4bn (extension)

### Shareholding structure (economic interest)

GDF SUEZ	60%
Saudi Oger	40%
<b>Total</b>	<b>100%</b>

# Tarfaya – The largest wind farm in Africa

## Tarfaya Energy Company (TAREC)

- **131 turbines in total** with a projected load factor of 45%
- **Largest wind farm in Africa**, representing **15% of Morocco's wind energy target**
- **Backed by a 20-year Power Purchase Agreement (PPA)** with *Office National de l'Eau et de l'Électricité (ONEE)*

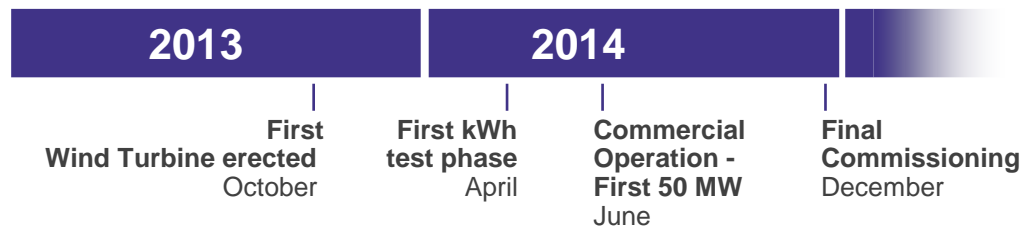
## Commissioning

- **Full commissioning in December 2014**
- **Phased CODs on 50 MW tranches**

## Tarfaya timeline (notice to proceed received December 2012)

construction phase start  
January 2013

construction phase end  
December 2014



### Tarfaya asset (gross MW)

Tarfaya	Wind farm	301 MW
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### Key metrics

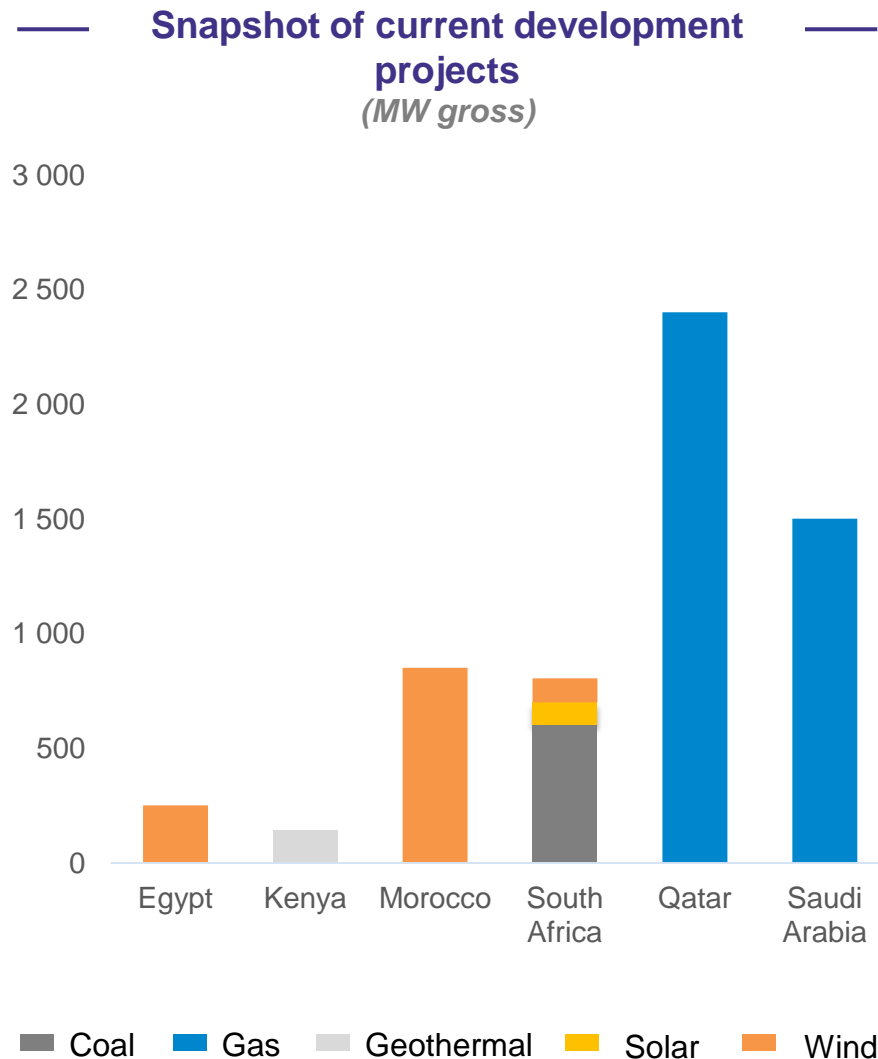
Debt	80%	Total Investment Cost 450 m€
Equity	20%	

### Shareholding structure (economic interest)

GDF SUEZ	50%
Nareva	50%
<b>Total</b>	<b>100%</b>



# Growth opportunities in Africa and Middle East



## AFRICA

- Wind opportunities in Morocco & Egypt under development
- Diverse opportunities in South Africa currently being developed
- Other potential development opportunities include IPPs in Kenya, Mozambique, Ghana, Tanzania and Egypt and gas to power in Ghana, Kenya, Tanzania

## MIDDLE EAST

- Large gas plant opportunities in Saudi Arabia and Qatar, where the Group share is typically less than 50%, currently under development
- Potential development opportunities in Kuwait, Oman

# New opportunities in fast growing areas

Gross capacity at 31 December 2014

Estimates

Installed      Under construction      Under development      Opportunity landscape to 2020\*

## Africa



## Middle East



## Asia\*\*



## Well-positioned to grow... but not at any cost

- c.12 GW under development
- Competition remains strong
- Move to alternative equipment suppliers
- Applying lessons learnt elsewhere
- Opportunities for innovation

\* Projected to 2020 in target countries

\*\* Excluding China



Shanghai, China



Gaselys LNG tanker, Shanghai

## Gas Value Chain

Jean-Marie Dauger, CEO Global Gas & GNL

Jean-Claude Depail, CEO Infrastructures

Didier Holleaux, CEO GDF SUEZ EPI

Philip Olivier, CEO GDF SUEZ LNG

Martin Jahan de Lestang, CEO ELENGY

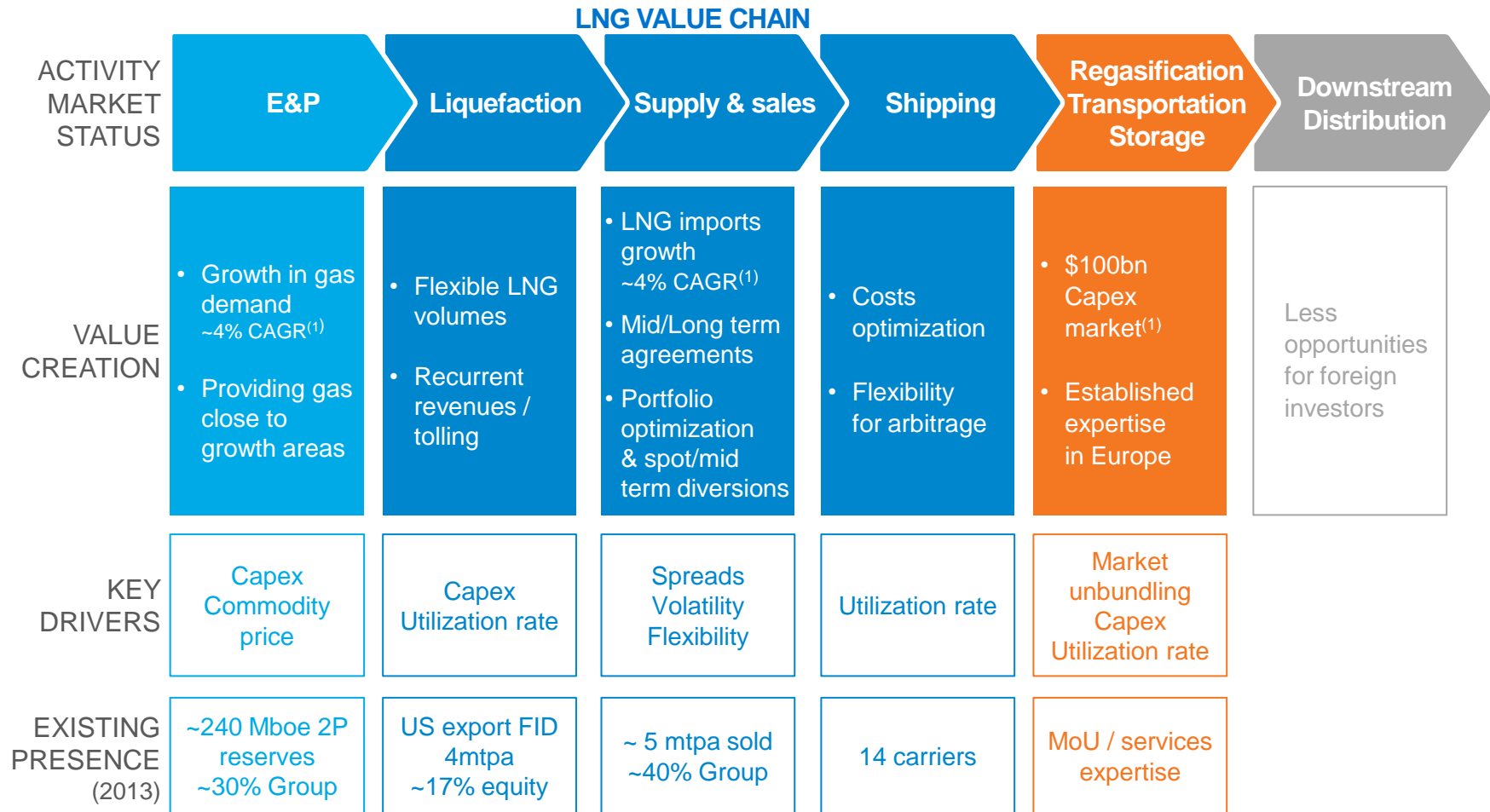
January 7, 2015

**GDF SUEZ in Asia, Africa & Middle East**

**GDF SUEZ**

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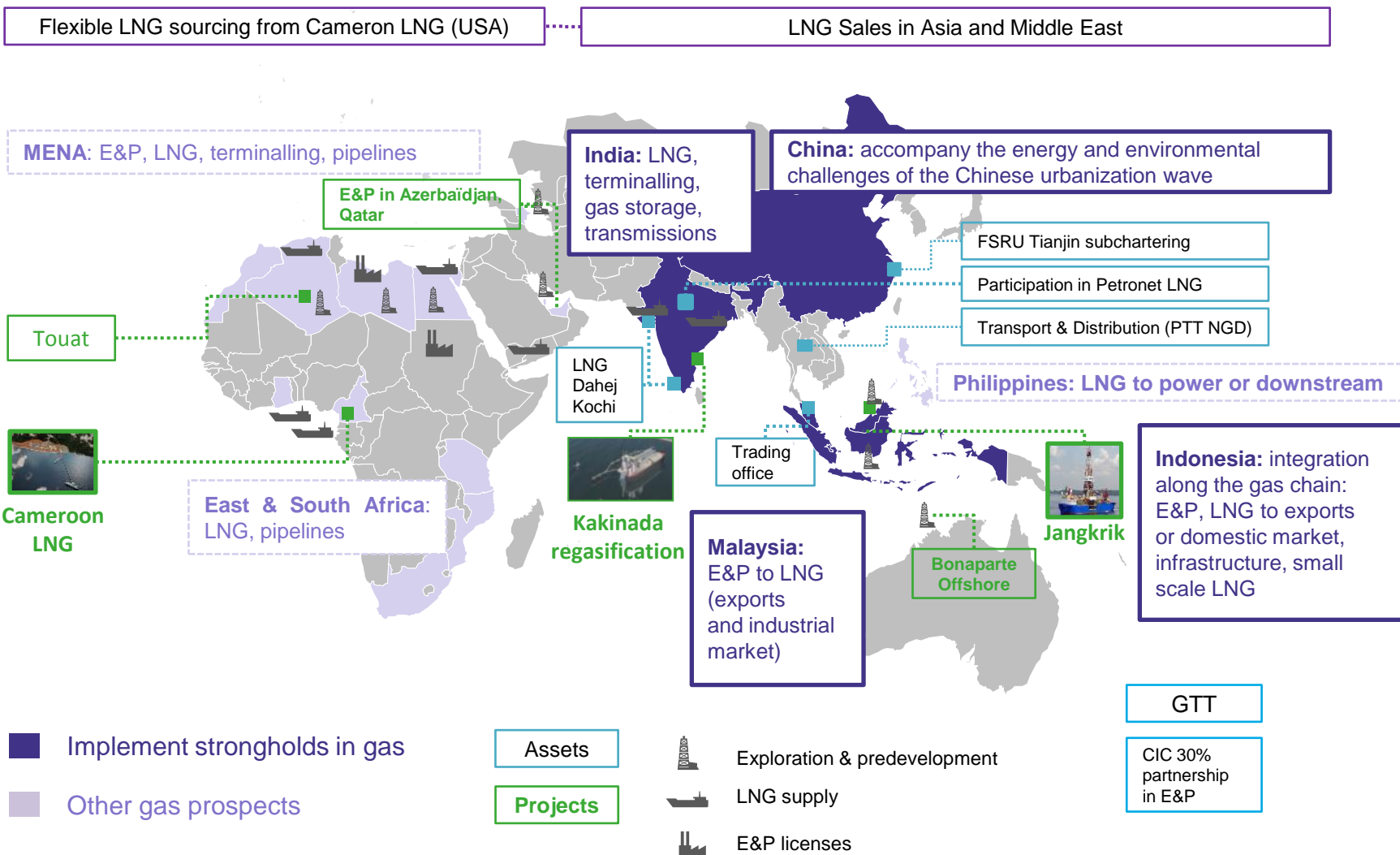
# Meet countries needs for gas supplies and gas infrastructures through partnerships



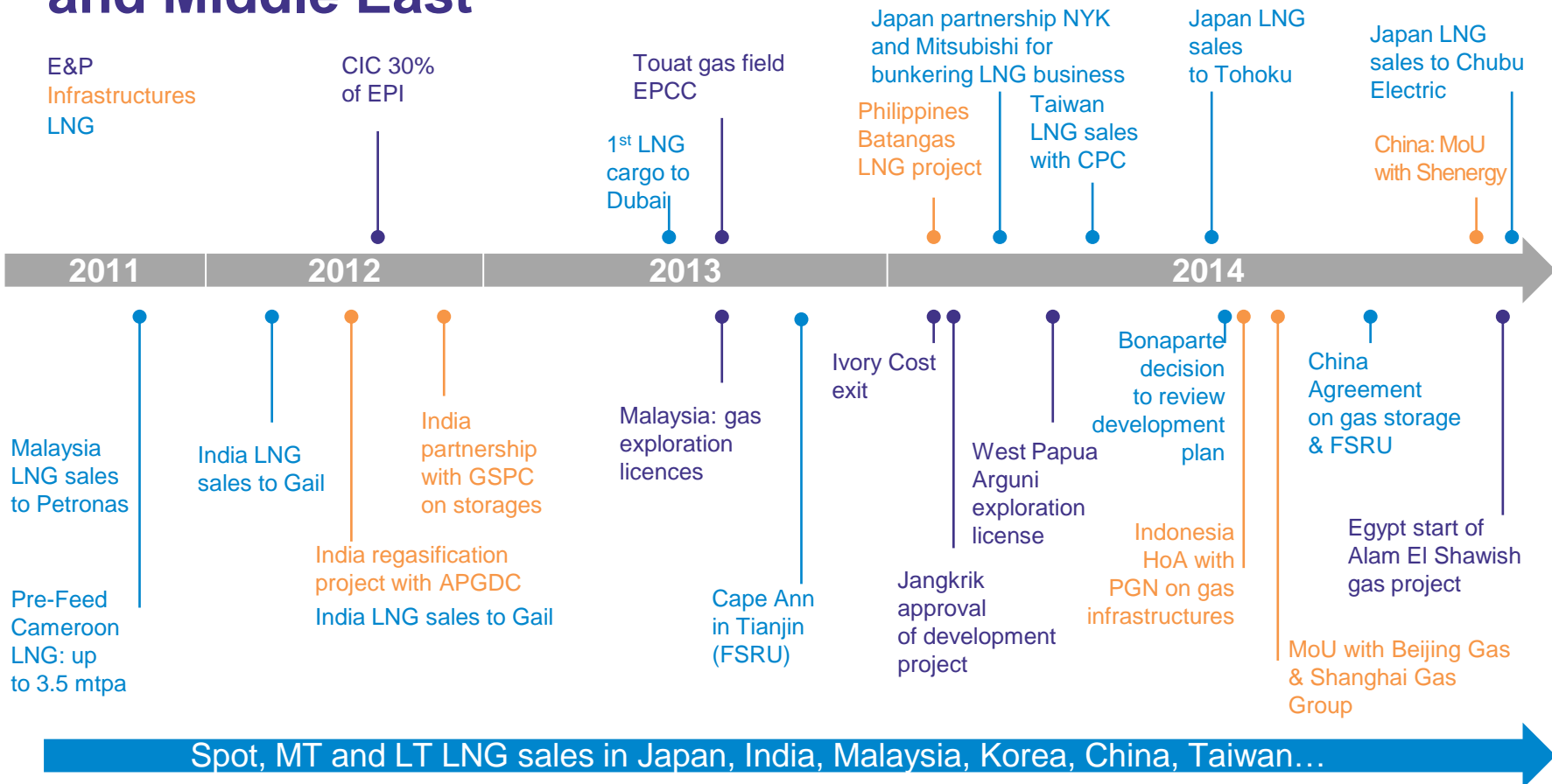
<sup>(1)</sup> In Asia, Africa, Middle East over 2025 vs. 2012, source CERA Rivalry, October 2014

# Leveraging on our know-how to develop in new areas

## Existing assets, projects and selective ambitions



# Accelerating development in Africa, Asia and Middle East



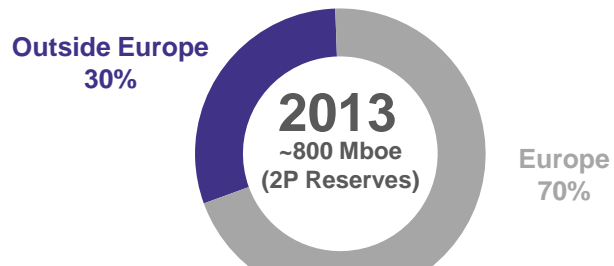
2015  
2020

Development Capex in the gas value chain related to Africa, Asia & Middle East: ~€5bn<sup>(1)</sup>  
Potential M&A in complement (small to medium size)

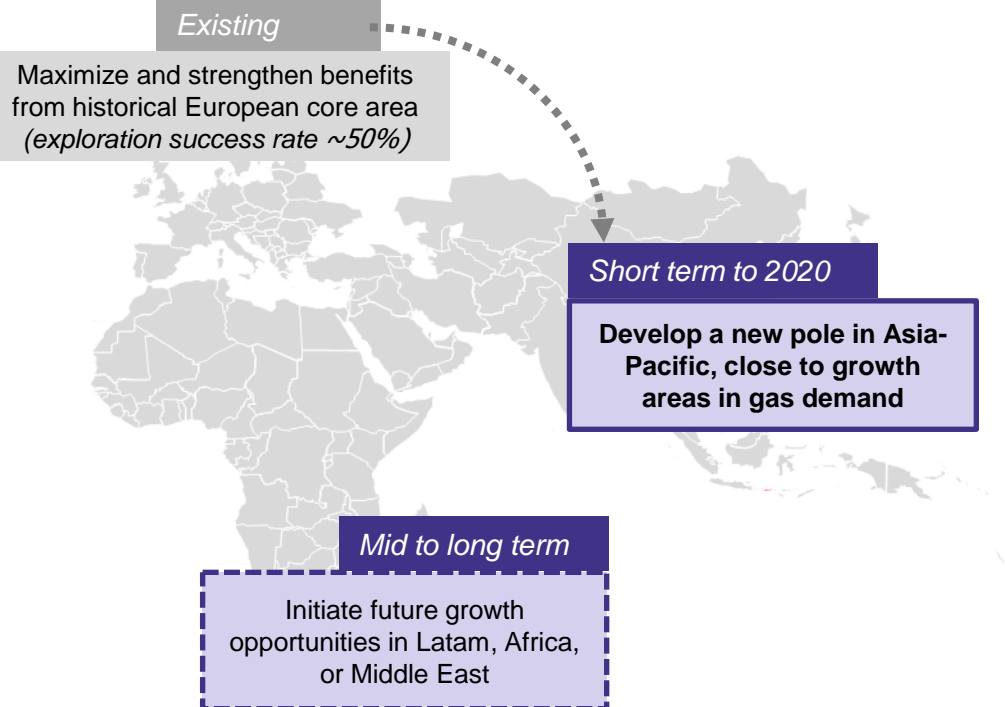
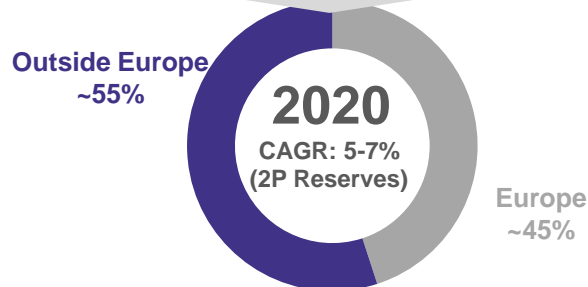
<sup>(1)</sup> Including Cameroon LNG, excluding generation

# E&P contribution to the Group development in Asia, Africa and Middle East

- E&P to support Group growth in fast growing markets
  - Particularly in LNG, infrastructures and gas fired generation
- Strong expertise on mature production areas
- 2020 targets
  - Continue to favor gas versus oil assets (70/30 in 2013)
  - Significant increase of reserves targeting notably Indonesia and Malaysia
  - Foster value chain synergies



Organic developments  
Series of small to medium size acquisitions,  
farm down and up



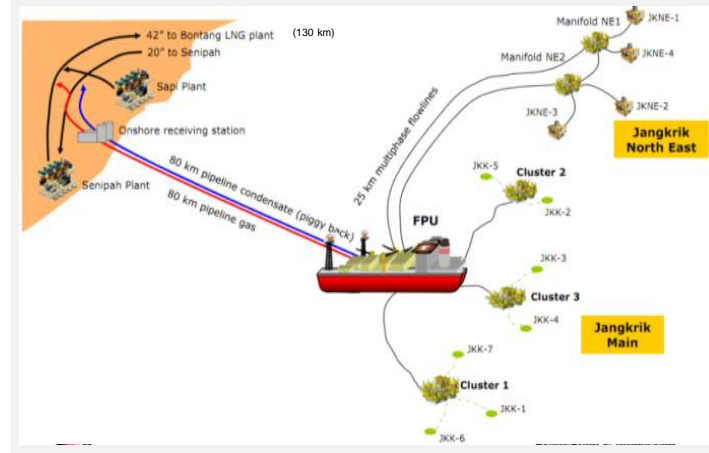
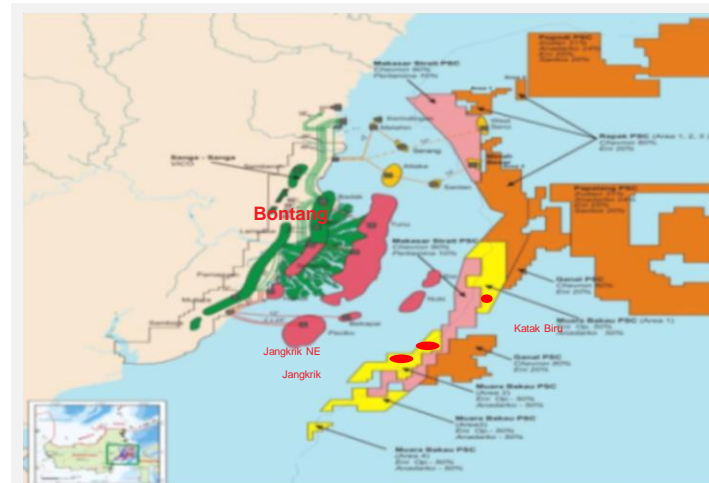
# Jangkrik project (Indonesia), to contribute to growing Asian LNG needs

## Project description

- **License entry:** 2008
- **Duration:** 30 years
- **Area:** 795 km<sup>2</sup>
- **ENI 55%, GDF SUEZ EPI 45%**
- **Production Sharing Contract** with Indonesian State
- **Domestic Market Obligation of 47% of production,** 53% to be sold on export markets via LNG

## Key project figures

- **FID in Q1 2014**  
**Commissioning expected in Q1 2017**  
End of production: 2032
- 3.7 bcm/yr: 2.6 mtpa LNG (3.4 bcm/yr) and 0.3 bcm/yr gaseous gas
- **Gas Reserves (2P)**  
296 Mboe + 176 Mboe oil/condensates
- **GDF SUEZ net reserves:** 103 Mboe
- **GDF SUEZ Capex:** ~\$2bn





# European leader in gas infrastructure: the ambition to expand in fast growing markets

## Strong positions

- **Transmission:** N°1 in Europe
- **Distribution:** N°1 in Europe,
- **Terminalling:** N°2 in Europe
- **Storage:** N°1 in Europe, N°3 in the world
- Positions in Thailand, Australia

## Competitive edge

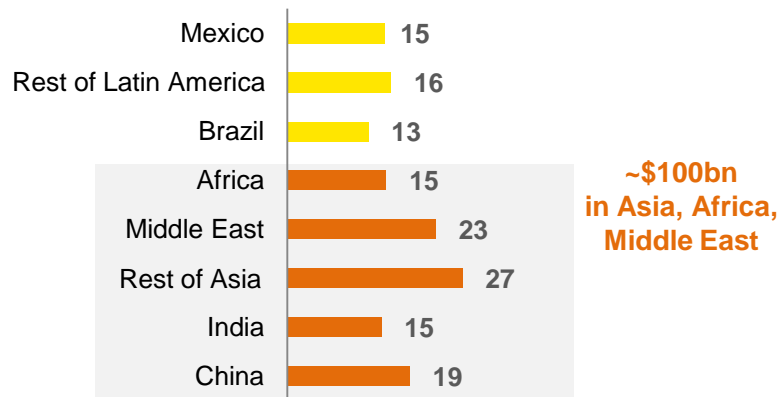
- Expertise in **engineering, operations & maintenance**
- Strong experience in **large industrial projects** management
- Good **marketing skills** for large gas infrastructures projects
- **Good safety track record**
- Positive **international image**

## Strong potential to expand

- **Unbundling of the gas value chain:** an emerging worldwide trend offering opportunities
- **~\$100bn of investments** in Infrastructures expected in Asia, Africa & Middle East over 2012-2035
- **Ambition to take between 10-15% of this market**
- **~10 projects under-study:** ~\$18bn Capex<sup>(1)</sup>, of which ~45% in Asia, Africa & Middle East
  - Diversified geographically
  - Mostly greenfield projects
  - M&A prospects in a lesser extent

## Gas transmission, distribution & regasification investments over 2012 – 2035 (\$bn)

### Accessible market for GDF SUEZ



(1) At 100%

# Current business opportunities in Asia, Africa and Middle East

A full range of offers



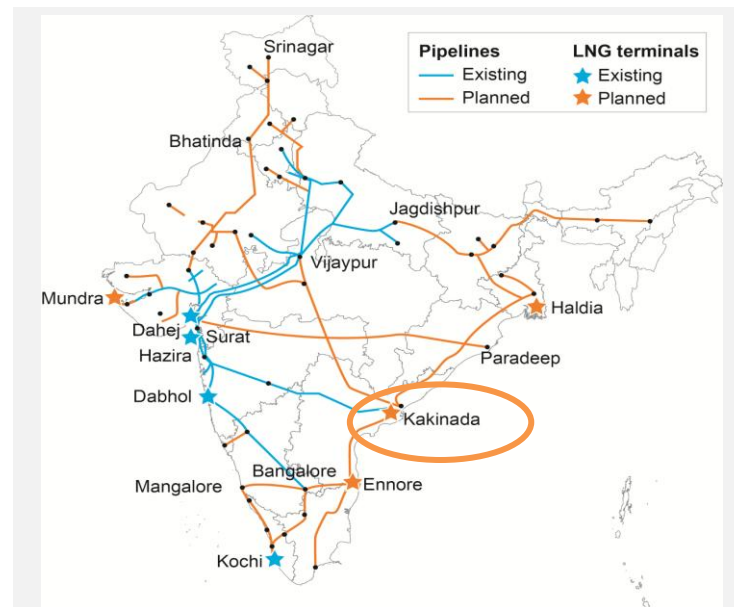
# Kakinada LNG floating terminal in India

## Project description

- **First LNG terminal on the East coast of India**
- Project developed in partnership with Shell (26%) and APGDC, a 50/50 JV between GAIL and AP state (48%)
- **Location close to the new capital** of the highly industrialized Andhra Pradesh State (Vijayawada)
- **Greenfield and integrated project** (includes infrastructure, supply and marketing)
- Increase the Group presence in a fast growing LNG market (LNG share of India gas market already 33%)

## Key project figures

- **3.5 mtpa capacity**
- **GDF SUEZ: 26% equity stake; Capex ~\$150m**
- **FID end 2016, COD 2-3 years from FID**
- **Project finance** (to be evaluated with partners)



# Fast development of LNG sales to Asia, Africa and Middle East

## LNG strategy

- ~+4% growth in demand mainly in Asia<sup>(1)</sup>  
→ **Increase external sales**
- **Regional prices spreads** expected to decrease but should remain / cyclical business  
→ **Develop medium/long term sales**  
→ **Diversify supply sources:** portfolio, own flexible volumes, spot/trading, new suppliers
- **Reduced volatility**  
→ **Increase visibility on earnings** through investments on liquefaction

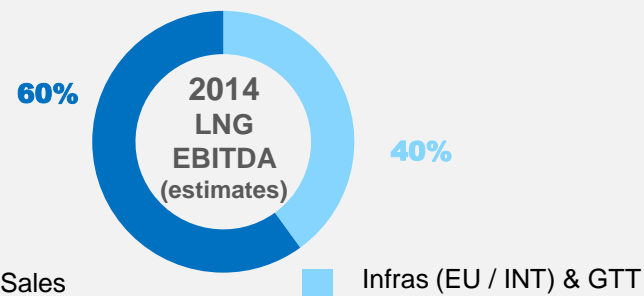
## Resilient earnings profile

- In 2014, ~65% of volumes have been sold to **external customers** and ~45% in Asia
- **Growth in external sales** to partly mitigate pressure from new Australian supplies expected around 2017
- Access to **additional volumes** as from 2018

(1) CAGR over 2025 vs. 2013, source CERA Rivalry, October 2014

## Our competitive advantages

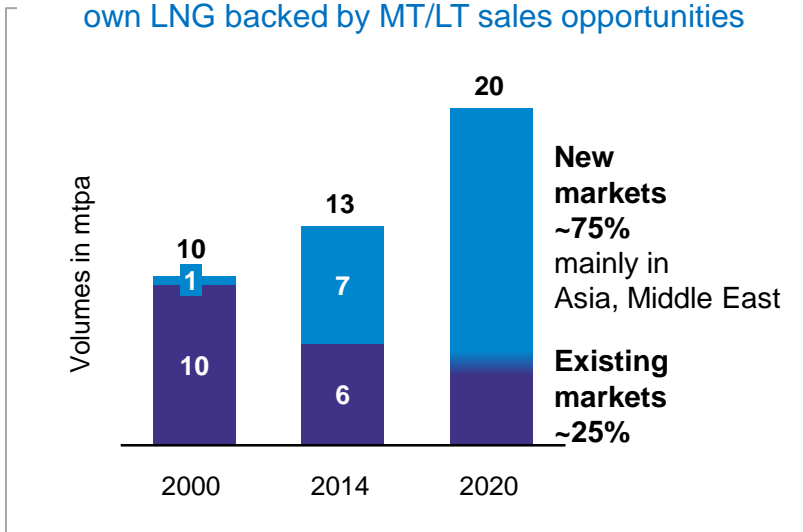
- Flexible **LNG supply & fleet**
  - **Projects to access flexible LNG**, notably with US gas exports as from 2018
  - Strong experience in **supply contracts management and diversified portfolio**
  - **Global marketing skills**
  - **Backlog of medium/long term sales contracts**
- Key advantages to seize growth opportunities while facing the upcoming new LNG supplies**



**Global portfolio & LNG sales are a fast track to enter in new markets in this area**

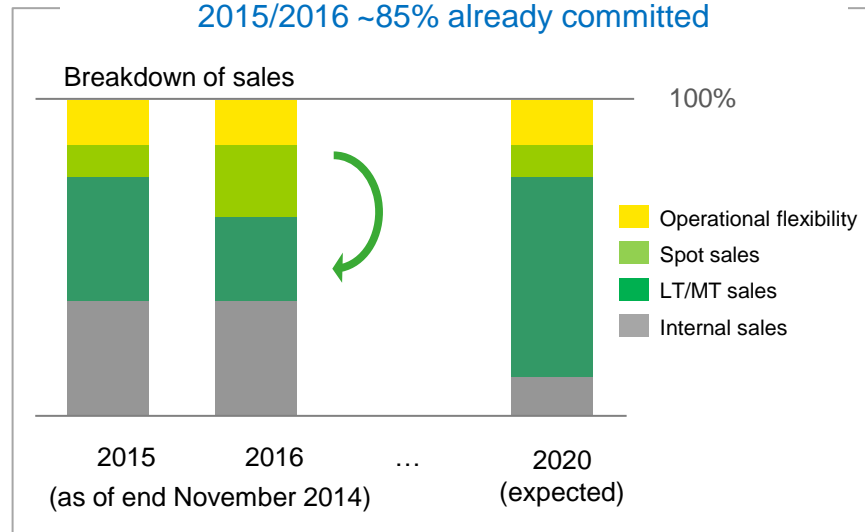
# Growing and increasing visibility in a challenging context

**Growth in supply and external sales** with flexible own LNG backed by MT/LT sales opportunities

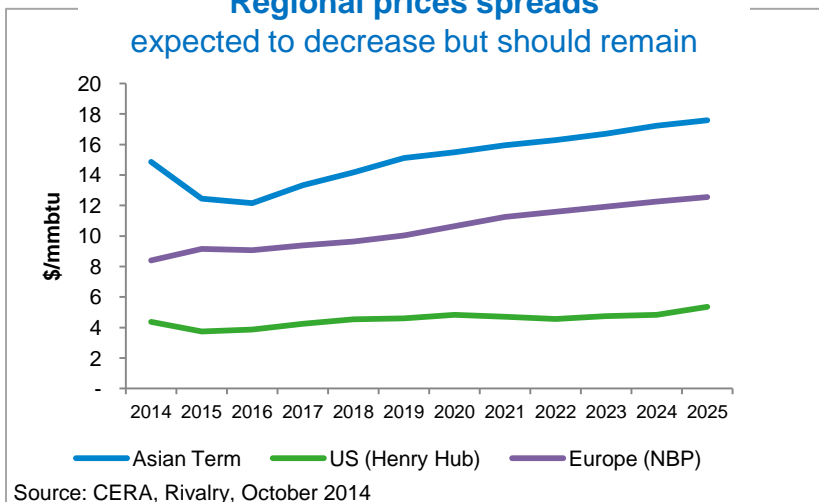


**LNG sales:**

2015/2016 ~85% already committed



**Regional prices spreads**  
expected to decrease but should remain



## Our competitive advantages

- **2015/2016:** limited volumes to be committed (~15%)
- **Medium/long term:** backlog and new medium term sales contracts
- **Long term: increased visibility and flexibility**
- Cameron 4 mtpa « destination free » supply volumes
- Projects under study: Cameroon, Cameron trains 4/5, off-take from new third party

# Cameron LNG project in the US

## Project description

- **12 mtpa liquefaction capacity**, gas supplied from HH
- **GDF SUEZ**
  - 4 mtpa tolling contract
  - JV with Sempra Energy, Mitsubishi and Mitsui for development, building and financing
  - Equity share: 16.6%
- **Total project costs**: ~\$10bn
- **FID** taken early August 2014
- **Construction started** in Nov 2014. COD in 2018
- **Sales target**: 75% back to back

## GDF SUEZ opportunities

- **4 mtpa flexible LNG** – no margin sharing
- A tool to **deal with LNG cyclical markets**
- **Opportunity to sell LNG to new markets** and customers in fast growing countries, notably Asia and Middle East
- **Potential upside** with trains 4 and 5
- **Synergies** with the Group LNG supply portfolio



# Conclusion

- **Our E&P activity enables to enter new markets**

- Monetizing our strong expertise in mature areas
- Switching progressively our gravity center from European strongholds to Asia
- Optimizing the portfolio value through asset rotations

- **Our LNG strategy is adapting itself to the new environment**

- Meeting the sustainable demand growth of Asia, Africa and Middle East
- Taking equity in the Cameron project and increasing our supplies to address those markets
- Diversifying the mix of indexes for Asia
- Playing on short, medium and long term sales to make the best of a more liquid market

- **Our expertise in gas infrastructures enables us to position the Group on the entire value chain in fast growing countries**

- Gas storages
- Gas pipelines
- LNG terminals



Burj Khalifa, Dubai



Tangier, Morocco

## Energy Services

Jérôme Tolot, CEO Energy Services

Yannick Bigaud, CFO Energy Services

January 7, 2015

**GDF SUEZ in Asia, Africa & Middle East**

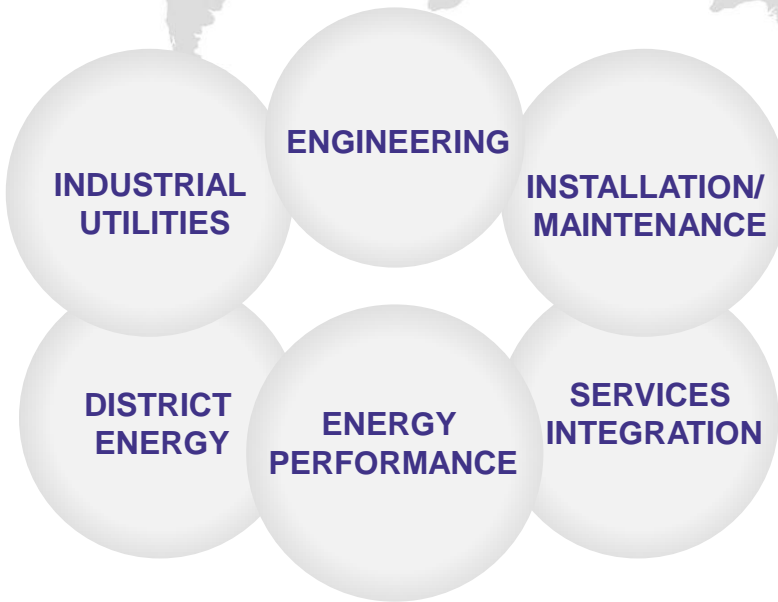
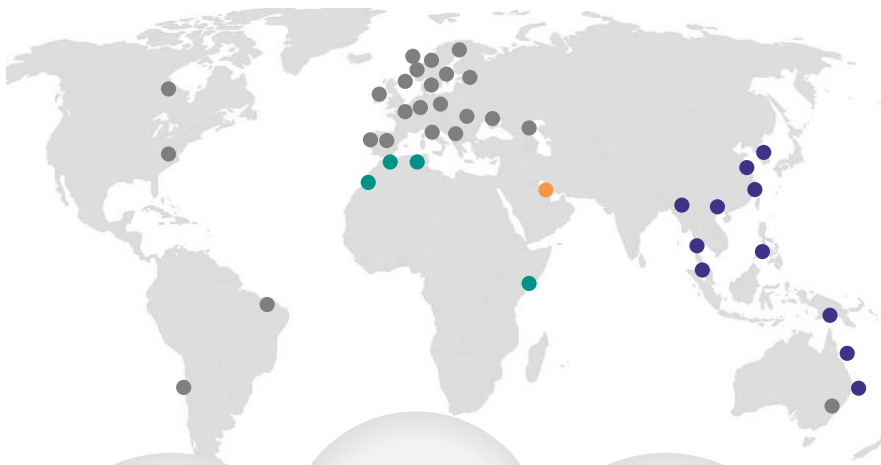
**GDF SUEZ**

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# Key figures (2014 estimates)

 **A PRESENCE**  
IN NEARLY 40 COUNTRIES



**100,000**

employees

**>1,300**

locations

**90**

public-private  
partnerships

**200**

district heating  
& cooling schemes

**700,000**

light points  
under  
management

**500,000m<sup>2</sup>**

of data centers  
operated

**€15.5bn**

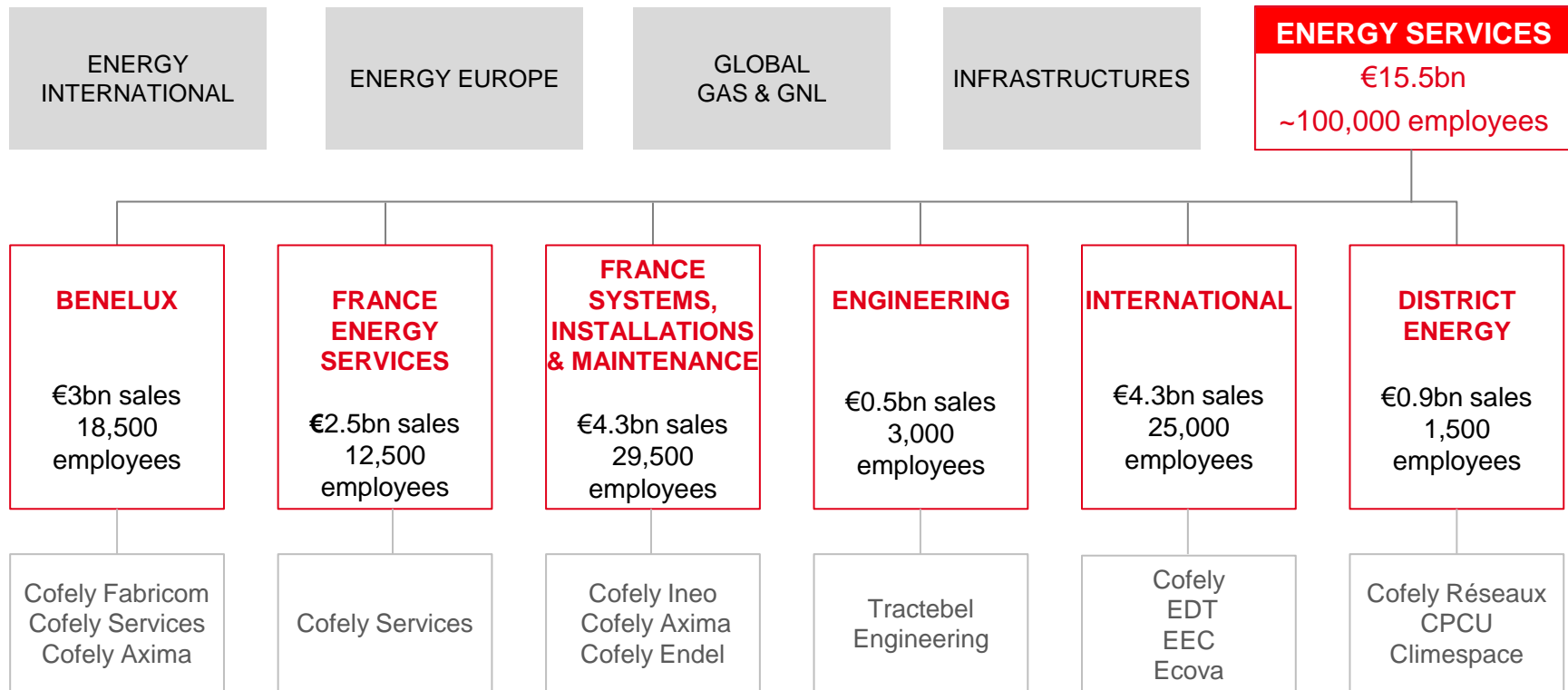
of sales  
(~10% outside  
Europe)

**5%**

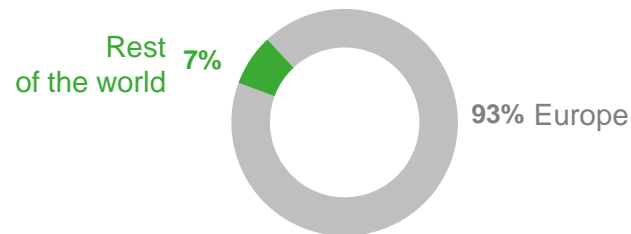
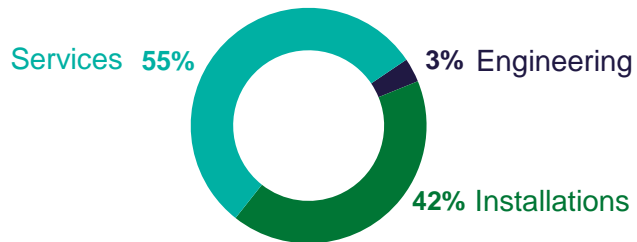
EBIT margin

# GDF SUEZ Energy Services

## One of the 5 Business Lines of GDF SUEZ



### Employees breakdown



# GDF SUEZ Energy Services

## A leader in key markets for energy transition

### BUILDINGS AND INDUSTRY

Offer the optimal energy performance tailored to the specific needs of every client



Provide energy performance solutions to our industrial clients

Provide energy performance solutions for buildings (public & private tertiary, head offices, housing...)



Offer a range of services extended to Facility Management and BPO, in addition to technical solutions in energy efficiency



Sales  
€10bn

CAPEX  
intensity  
+

### CITIES

Develop sustainable urban networks



Develop physical and virtual exchange networks (smart city)



Install and operate local urban infrastructures (district heating/cooling, mobility, public lighting)



Develop ecodistrict, notably with « smart grid » systems

Sales  
€2.5bn

CAPEX  
intensity  
++

### INFRASTRUCTURES

Take part in the development of major infrastructures designed to optimize the energy mix



Ensure the evolution of mature energies (nuclear decommissioning, oil&gas...)



Develop the use of renewable energies

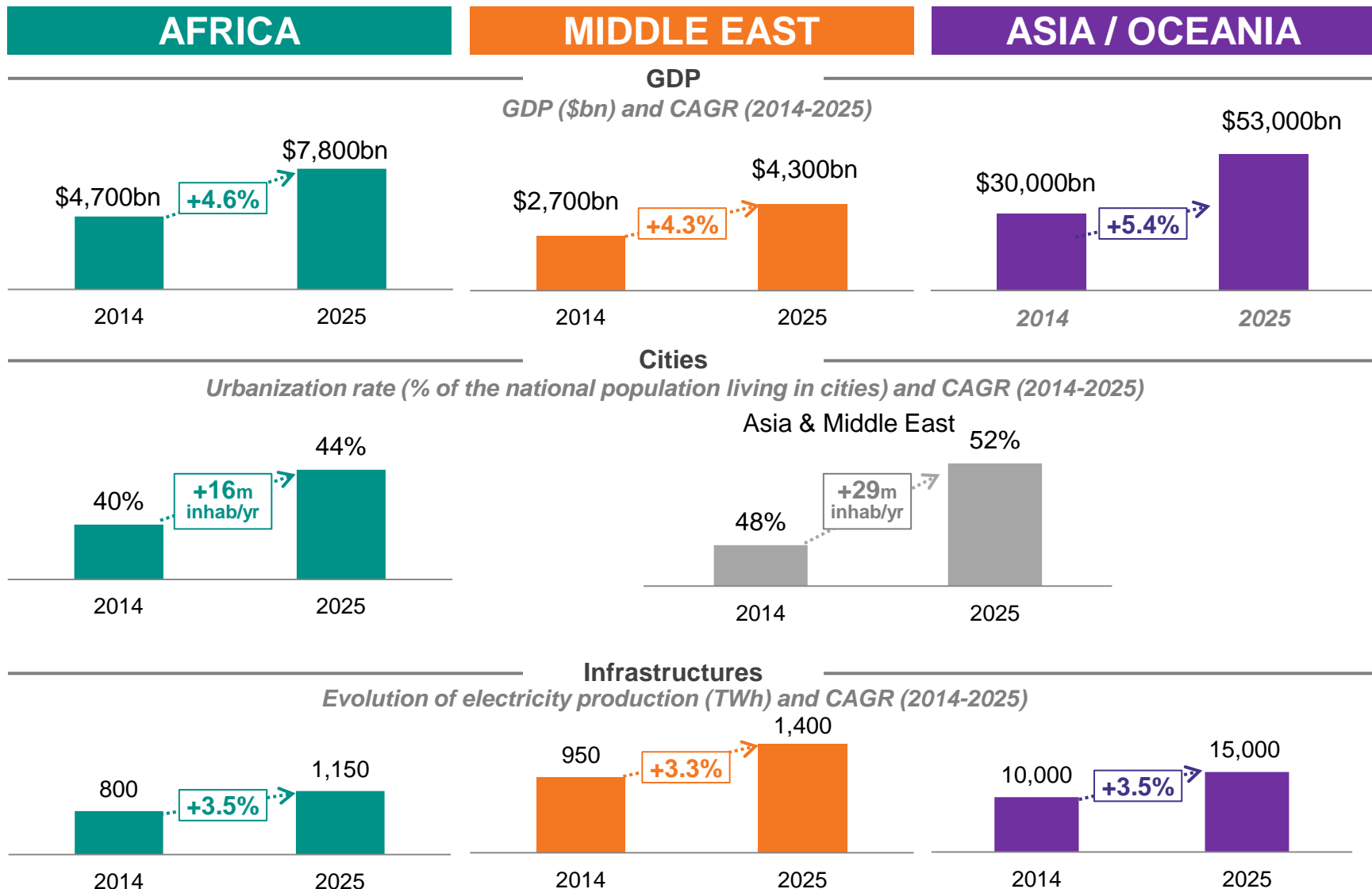


Adapt the major transport and distribution infrastructures

Sales  
€3bn

CAPEX  
intensity  
+

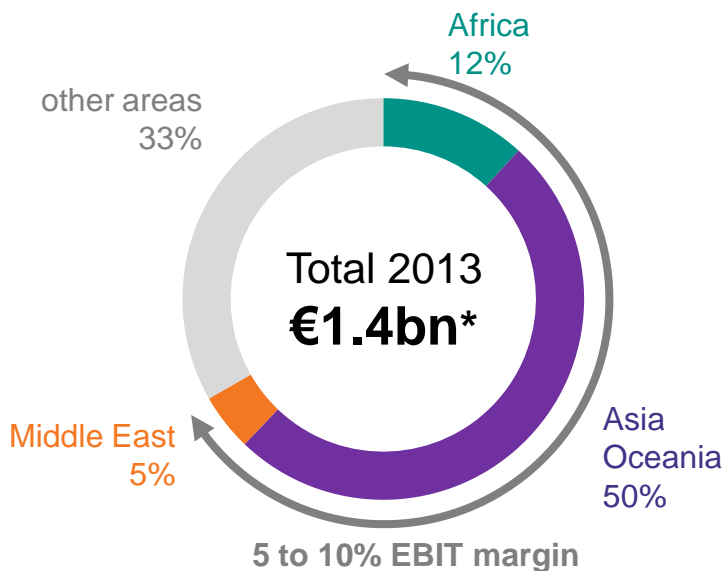
# An increasing demand for energy services



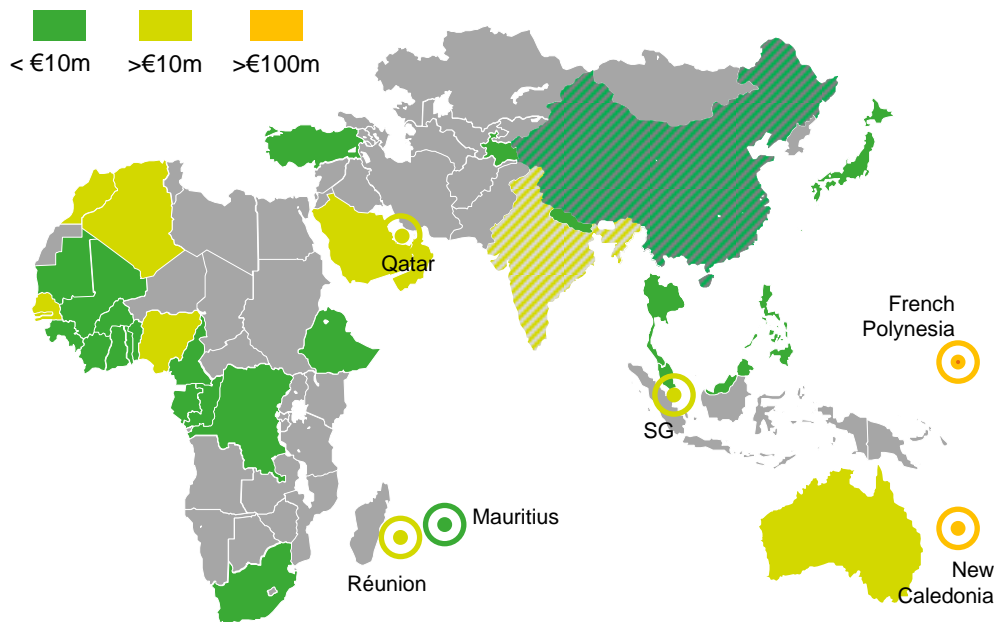
Sources: US energy Information Administration, 2014 (GDP), United Nations, 2014 (Urbanization rate), CEA (Electricity production) / Interpolated figures

# Presence in Asia, Africa & Middle East

## GDF SUEZ Energy Services Activities outside Europe



## Revenues by countries



## Main 2013 figures

	Africa	Middle East	Asia Oceania
Sales (€m)*	170	65	710
Staff**	280	1,600	3,700

## Comments

- **Still a limited presence in these areas** but a **strong willingness to develop it within next 5 years**
- Mostly **export activities from France and Belgium in Africa**, with several small footholds
- Significant **partnerships in Middle East** (Mannaï, Besix)
- **Lahmeyer** acquisition boosts by one third the revenues in Africa, Asia, Middle East

\*2013 commercial turnover by destination, including Lahmeyer International (€135m of which €104m in Asia / Africa / ME)

\*\*Local subsidiaries only, Lahmeyer included

# Already highly diverse activities on each area

## AFRICA

### Top 3 countries (32% sales)

1. Morocco
2. Réunion
3. Algeria

## MIDDLE EAST

### Top 3 countries (76% sales)

1. Qatar
2. UAE
3. Turkey

## ASIA / OCEANIA

### Top 3 countries (77% sales)

1. New Caledonia
2. French Polynesia
3. Singapore

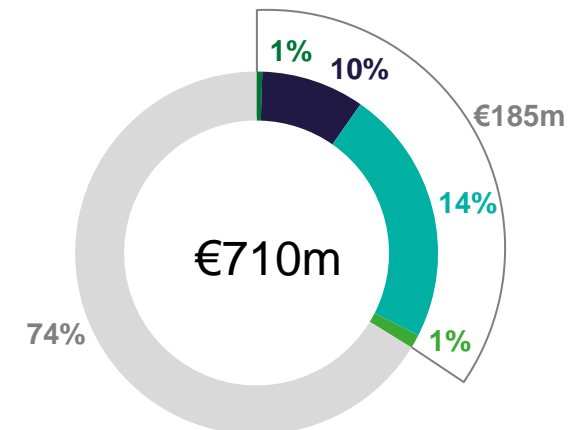
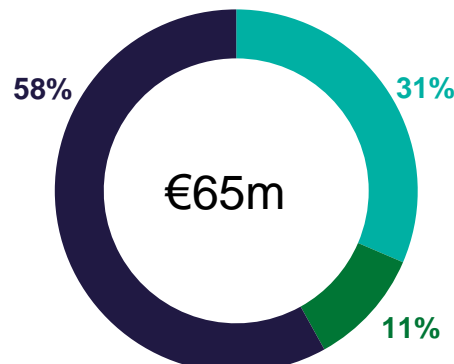
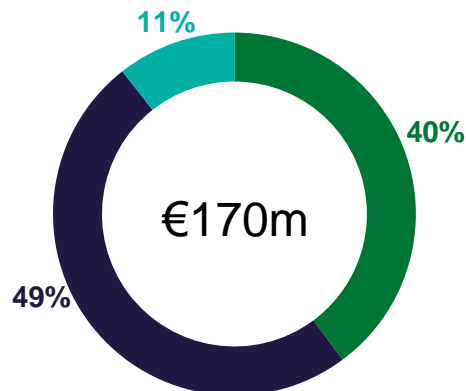
### Main businesses

Installation & Maintenance,  
FM, engineering  
industrial utilities...

Technical maintenance / FM  
(in partnership with Besix), engineering,  
cooling, installation...

Electricity production, district cooling,  
FM, technical maintenance,  
engineering, public lighting...

### Split of sales by activity\*



■ Engineering\*   ■ Installation   ■ Services   ■ District cooling

■ Other decentralized energy (mainly New Caledonia/French Polynesia historical activities)

\*2013 figures; including Lahmeyer acquisition

# References (1/2)



## Owner's engineer for the largest hydropower plant of Africa (GERDP)

**Tractebel Engineering** is leader of the JV for an **owner's engineer** contract for the construction of the **6,000 MW Grand Ethiopian Renaissance Dam Project**, including a 10.5 Mm<sup>3</sup> concrete dam.

This huge project (\$4.7bn) will be a major step in the Ethiopian and **whole East African development**.

Annual revenues of **€2m** for TE during the whole construction period



## Rehabilitation of a HV transmission grid

Rehabilitation of the **161kV Togo / Benin grid** by **Cofely Ineo**.

Rehabilitation of **power lines** (towers, isolators, installation FOC...)

**Upgrade substations** in both countries.

**2-year contract started in 2013**

**€12m revenues**



## Integrated FM for Nouméa Airport

Integrated **solution provided to airlines** operating in the Tontouta Nouméa Airport. Covers all ground handling services including **check-in, baggage handling, airplane pushback, vehicle fleet maintenance, onboard catering and freight management**.

Strategic partner of the airport since 1995.

**€12m annual revenues**



# References (2/2)



## Facility Management for Renault Tanger factory in Morocco

**5-year FM contract** awarded to **Cofely Maroc** in 2011

Activities: maintenance & exploitation of industrial cooling, HVAC and elec systems, fire protection, CCTV, soft services (cleaning, security), for a **new Renault automotive plant in Tanger** covering 250,000 m<sup>2</sup> aiming at delivering 400,000 cars a year

**Most important industrial FM contract of Morocco**, annual sales of **€3.5m**



## Large FM contract for Qatar Petroleum's Dukhan Fields

**5-year FM contract** awarded to **Cofely Besix Mannai FM**

Maintenance and replacement of **1,200 heating, ventilation and air-conditioning (HVAC) assets** located at **Dukhan Fields**, a 65 km long area  
Annual revenues of **€3.3m**

**120 operational personnel** to be mobilized.



## Pedinginan Megajana SDN cooling network, Malaysia

**77 MW district cooling network**, including water storage and procurement

Two plants are currently supplying chilled water to **37 major buildings** providing them 24/7 energy efficient, cost-effective and reliable chilled water through a 15 km network of underground pipes, for an annual turnover of **€12m** and EBITDA margin **>40%**

**Acquisition of 49% of the network in 2013** (51% owned by Cyberview)

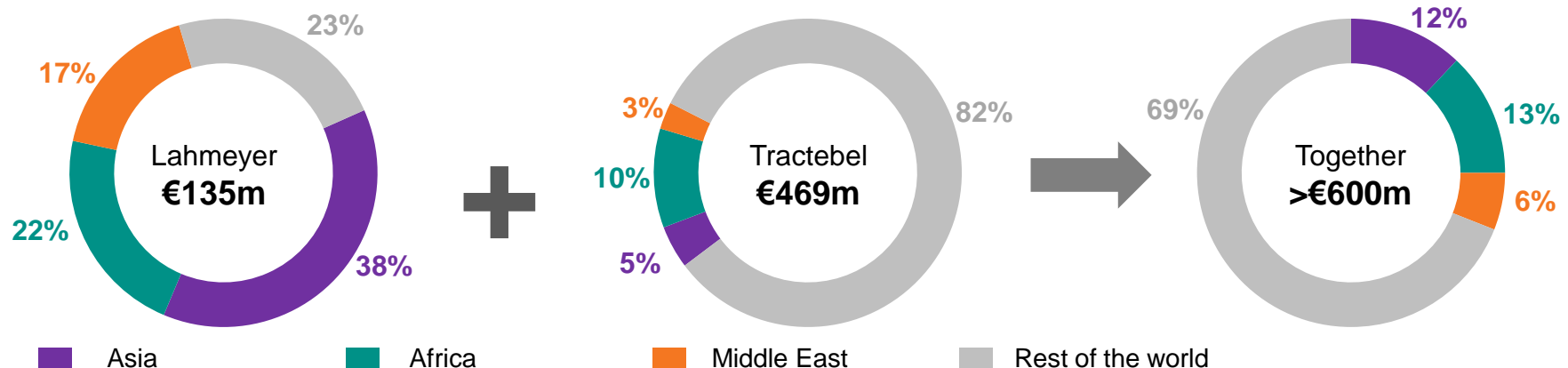




# The Lahmeyer acquisition, a strong international boost for engineering activities

- Lahmeyer International, a specialized **engineering consultancy** company in Energy & Water projects in **Asia, Middle East and Africa**
- **Same core business** and same business model as Tractebel Engineering
- Partially complementary activities and **very good geographic complementarities** (no strong presence in the same region)
- The combination of segments and geographical presence will allow to accelerate the development in new markets, thus **creating a world leader in energy engineering**
  - Power plants in Middle East
  - Transmission & distribution in Asia and Africa
  - Renewable energy in Middle East and Asia
  - Gas business in Asia

Impact of Lahmeyer in TE's 2013 split of revenues per area



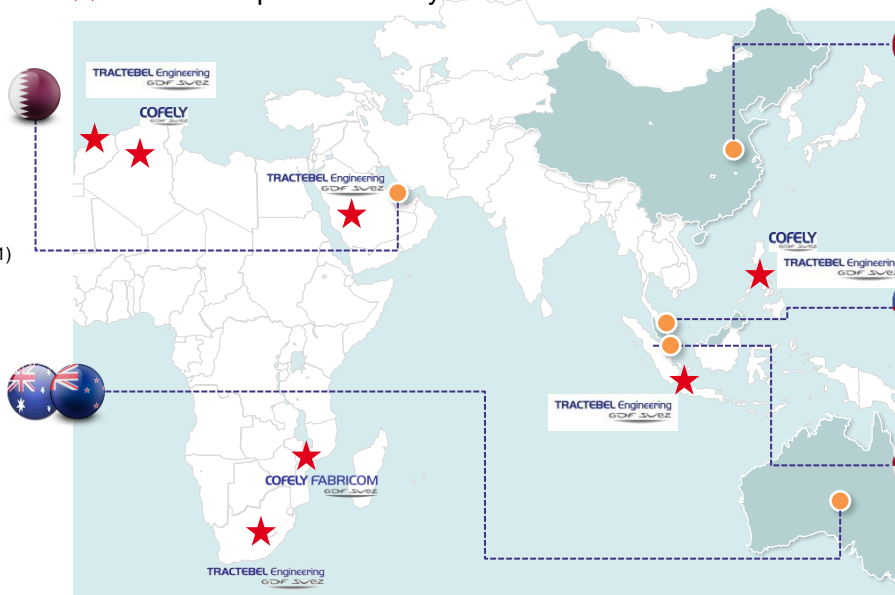
# Several acquisitions and office openings completed

Total CAPEX ~€200m

★ New office opened recently

- Qatar**
- Acquisition of 24.5% of **Mannaï** in 2014  
Business: **Facility Management**  
Sales €20m, EBITDA €1.2m<sup>(1)</sup>
  - Keppel FMO** (Qatar part)  
Sales: €12m, EBITDA €2.8m

- Australia/New Zealand**
- Acquisition of a 19% share of **TSC Group** in 2013  
Business: **Technical maintenance**, fire protection  
Sales €125m @100%



**China**

- Acquisition of **Gient** in 2012  
Business: **Services**
- Cooperation Agreement with Beijing **Enterprise Group**
- Creation of **BU China** in 2014

**Malaysia**

- Acquisition of **Cyberjaya DC** in 2012  
Business: **District cooling scheme**  
Sales €12m, EBITDA €5m

**Singapore**

- Acquisition of **SMP Pte** in 2014  
Business: **maintenance of data centers**  
Sales €5m, EBITDA €0.6m
- Acquisition of **Keppel FMO** in 2014  
Business: **Facility Management**  
Sales €46m, EBITDA €2.1m

**Worldwide**

Acquisition of **Lahmeyer** end 2014  
Business: **Engineering**  
Total sales €135m<sup>(2)</sup>, EBITDA 12%

## COMMENTS

- Strong recent development in key countries** through a wide range of businesses
- Track record: 6 acquisitions since 2012 in these areas (out of 27)**
- New offices** opened (Tractebel Engineering inc. India, Algeria, Cofely Fabricom) to **follow market opportunities**

100% acquisition year data (yearly average contribution)

(1) For the whole firm. Cofely only owns 24.5%

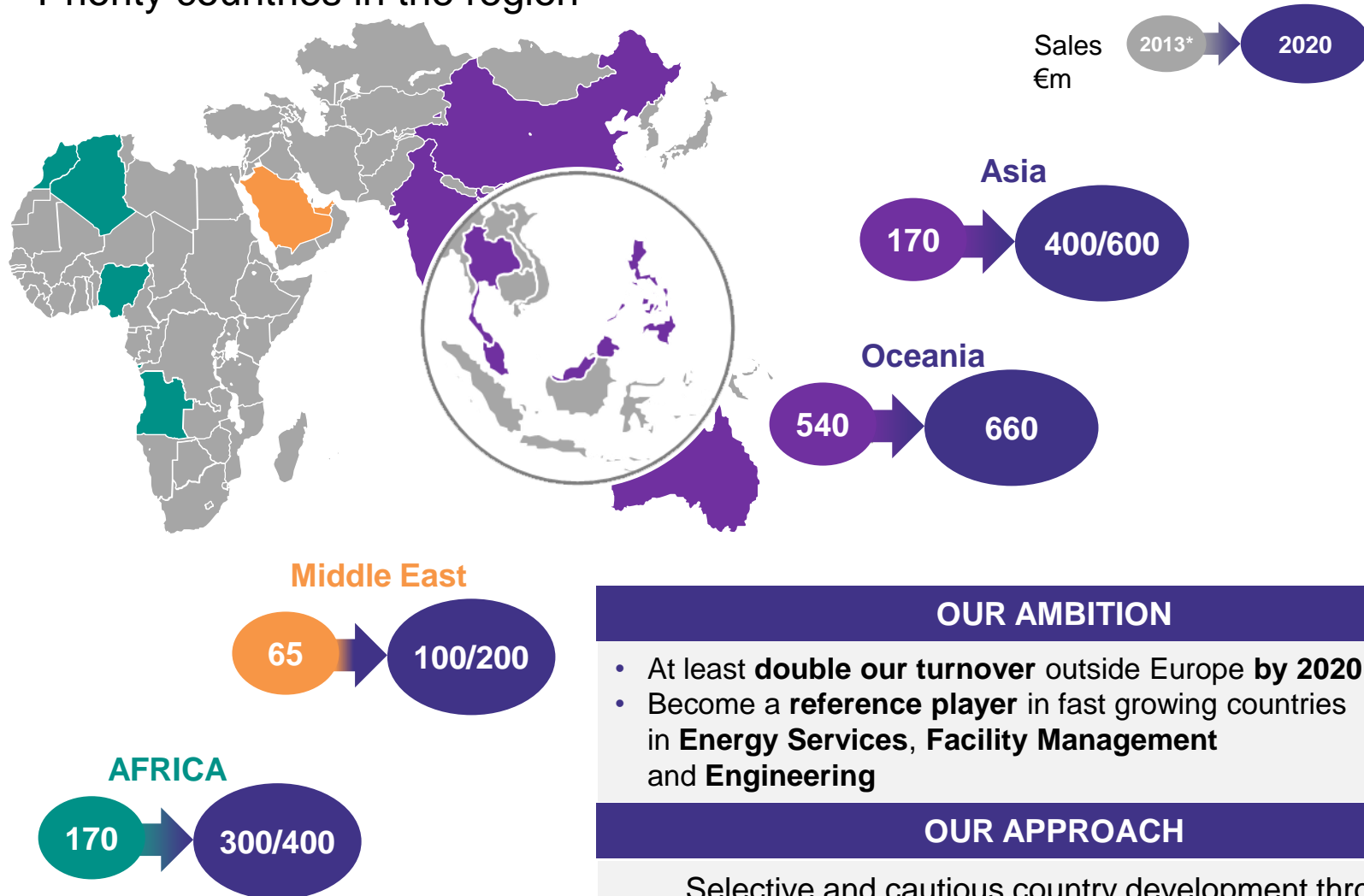
(2) €135m of which €104m in Asia / Africa / Middle East

# Strategic directions by area

- **Accelerate partnerships with our European clients to accompany them in their development across these regions** (ex. Sanofi / Cofely partnership across 9 countries)
- **South-East Asia: become a leader in energy efficiency and get into the top 5 services firms**
  - Develop the **district heating/cooling** network activity in the region through acquisitions or greenfield projects, by leveraging Megajana's experience
  - **Boost presence in Singapore**, by integrating our newly acquired entities (Keppel FMO / SMP)
  - **Continue our development in Thailand** (technical maintenance), in **Malaysia** (the new regulation favors energy efficiency and rising energy costs) and in the **Philippines** (growth of energy needs), mainly through acquisitions
  - Increase the development of **Tractebel Engineering** in **electricity and gas activities** linked to the market growing demand
  - China: leverage on our first experience through the new GDF SUEZ BU China
- **Africa and Middle East: become a reference player in services and reinforce our leadership in engineering**
  - Reinforce our local positions in the **Emirates**, in particular in **Energy Services** and **Facility Management** and explore potential developments in Oil & Gas
  - Increase the presence of **Tractebel Engineering** through projects of **electricity production** and **transport**, while maintaining our strong position in **hydroelectricity in Africa**
  - Capitalize on the fast growing **Cofely Morocco** entity, to develop region-wide in technical and energy services

# An ambitious 2020 development program

## Priority countries in the region



### OUR AMBITION

- At least **double our turnover** outside Europe by 2020
- Become a **reference player** in fast growing countries in **Energy Services, Facility Management and Engineering**

### OUR APPROACH

Selective and cautious country development through organic growth and acquisitions when relevant

\*2013 commercial turnover by destination, including Lahmeyer

GDF SUEZ in Asia, Africa & Middle East – January 7, 2015



# GDF SUEZ ambitions in China

Jean-Marc Guyot, CEO GDF SUEZ China

January 7, 2015

**GDF SUEZ in Asia, Africa & Middle East**

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# Ambitions and objectives

- To be a visible energy player in the world's largest gas market (~400bcm in 2020)
- To play a major role in:
  - The gas chain
  - The energy efficiency
  - ➔ based on a very long experience and references around the world
- To conclude partnerships with major players
  - Municipalities of Beijing, Shanghai and Chongqing
  - NOC's Petrochina
  - Power companies willing to replace coal by gas in their power plants
  - Private companies in Small Scale LNG (SSLNG)
- To develop these partnerships in and outside of China (LNG supply, E&P, EPC, co-investment, ...)

# Currently undeveloped activities in China

## E&P off/on shore

- Shale Gas
  - Coal Bed Methane
  - Conventional
- Operatorship: no local capabilities to manage local stakeholders; high investment; regulatory uncertainty; technical difficulties

## Power production

- Nuclear power plant
- Too late to develop such a long term industry
- Coal power plant
  - Hydro plant
  - Wind farm
  - Solar
- No PPA; no clear regulatory rules; no technical/business added value compared to strong local power companies

# Development strategy: a mix of businesses 1/2

## Small scale LNG

- **Become a major player in the short term** on the small scale LNG market by taking a participation in a leading company & invest in individual projects

## Gas chain

- **1<sup>st</sup> step: provide technical and expertise services** in gas transportation, distribution, underground storage, LNG terminals
- **2<sup>nd</sup> step:** in order to be an active player in the future Chinese gas market development, **invest in gas storage and LNG terminals**

## Energy efficiency

- **In the short term, participate in an existing ESCO\*** to have a basis to build on
- Invest in **district heating and cooling networks** in big cities and in industrial parks
- Develop **energy management**

\* ESCO: Energy Services Company





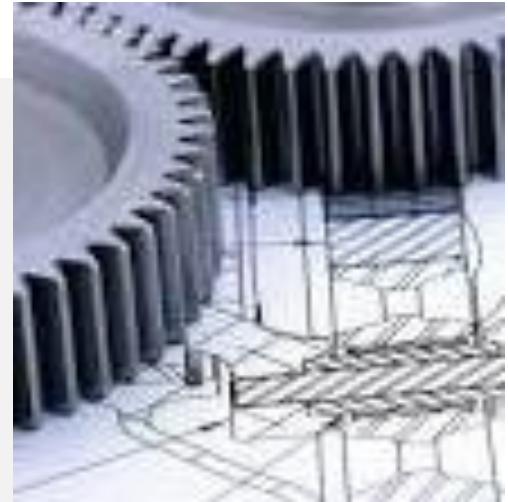
# Development strategy: a mix of businesses 2/2

## Engineering

- **Support in-house project development** and implementation in China and abroad
- **Support group sourcing** for projects worldwide (EPC, large equipments...)
- **Deliver pure engineering services** for external clients

## Innovation

- **Detect new technologies** and **business models** which could be applied to existing businesses or create new ones (in or outside China)



# Ongoing projects 1/2

- **Several important cooperation agreements have been signed with large SOEs on the gas chain business**
  - **Cooperation scope:** natural gas, energy efficiency & electricity chain mainly covering LNG, gas to power generation and low emission energy and infrastructure projects (Beijing Gas Group, Shanghai Gas Group, Shenergy)
  - **Step 1:** provide services & training
  - **Step 2:** co invest in projects in and/or outside China
  - **Step 3:** strategic partnership with financial participation in holdings
- **Organic growth within the existing JVs of the Energy Efficiency business**

# Ongoing projects 2/2

- **Development of a partnership with a major actor in Distributed Energy Projects in Sichuan Province** – partnership with 6 projects in pipeline
  - Development of a first CHP project:
    - JV creation: 49% GDF SUEZ
    - Foreseen COD: end of 2016
    - Total project CAPEX: ~ €40m per CHP
    - Expected IRR for GDF SUEZ: ~15%
- **Small scale LNG project:** acquisition of a share (~25% to ~35%) in the holding company of a major player in the SSLNG business as well as direct investments on project level. Business include LNG liquefaction plants, LNG retail stations and LNG storage and logistics
  - Target holding company:
    - Revenues 2013 = 1.4bn RMB
    - Total assets 2013 = 4.2bn RMB
  - GDF SUEZ expected equity share in the holding company: ~€100m
    - Expected IRR GDF SUEZ: ~12% to ~14%



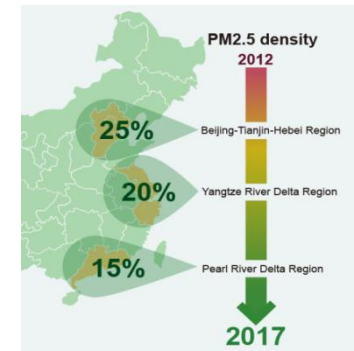
# Appendix

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# Energy market context

- **Economic deceleration (target of 7.4% in 2014 from 7.7% in 2013), but energy demand still growing** → PRC's final energy demand is projected to increase at an annual rate of 2.3% through 2035 (APEC outlook)
- **Environmental Action plan:** in response to deep public dissatisfaction the **Air pollution prevention plan** was announced in July 2013. Target by 2017: PM10 Global Country target -10%; PM2.5 Specific targets by city. **3 key regions: Beijing-Tianjin-Hebei, Yangze river delta, Guangdong.**
- The **12<sup>th</sup> Five Years Plan 2010-2015** incorporated multiple policies/targets on **climate change, carbon intensity, energy intensity and increase of non-fossil fuel energy in the energy mix** => the **13<sup>th</sup> Five Year plan to be published in 2015 will reinforces these policies strongly**
- **Gas Market Reform: (1) Gas prices to be “in line” with international price levels at the end of 2015; (2) policies introduced in spring 2014: (i) first steps towards TPA and (ii) encourage natural gas storages build-up (ii) create a Gas Exchange in Shanghai Free Trade Zone; (3) Residential, Commercial and Industrial sectors gas demand to expand independently of the gas price. Gas-fired power plants need government subsidies with current on-grid tariff; (4) “Mixed-ownership” reform decided by 3rd plenum shall progressively “weaken” NOCs’ dominance over the value chain: major NOCs to sell some of their gas assets**
- **Growing appetite of Chinese energy players to go abroad:** Power generating co, manufacturers, EPC contractors, power grid, NOCs, and now many other private and regional / municipal players (LDC)





Glow, Thailand



Sohar II, Oman

## Conclusion

Isabelle Kocher, Deputy CEO and Chief Operating Officer

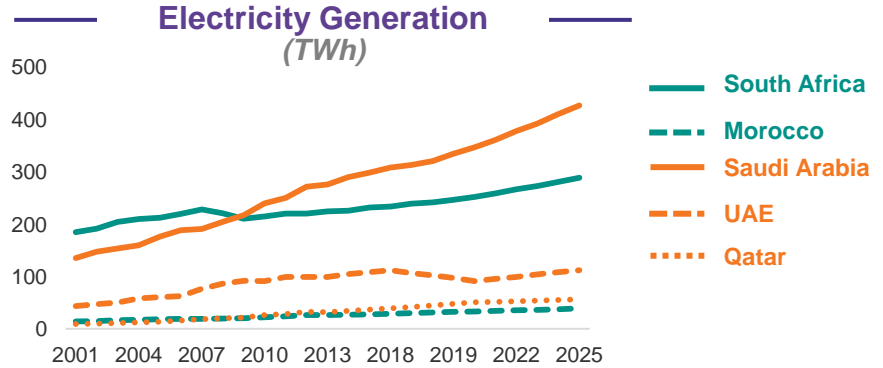
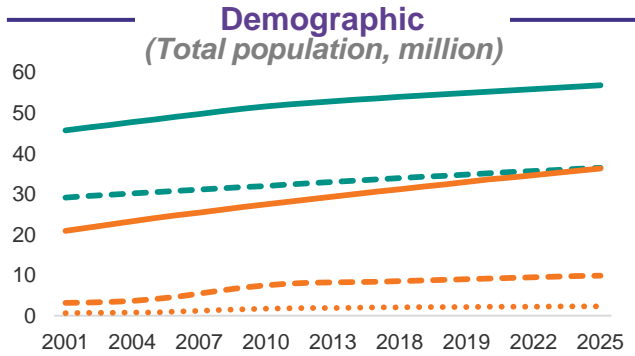
January 7, 2015

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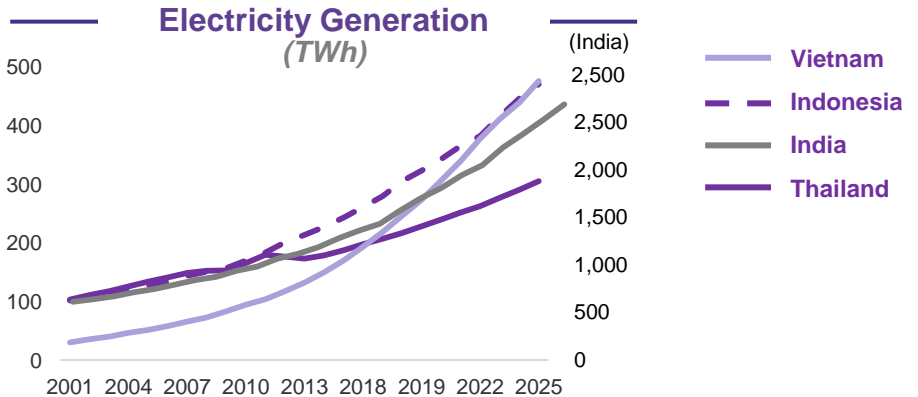
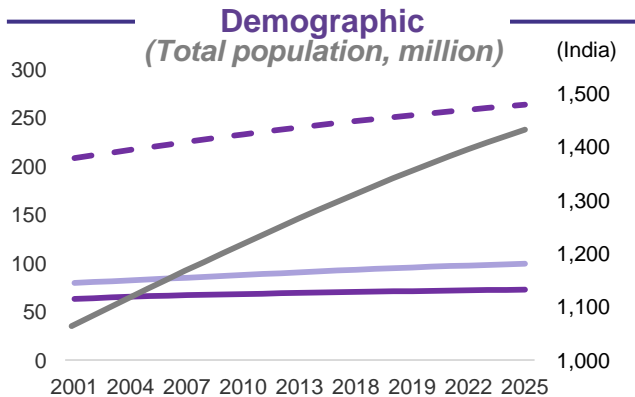
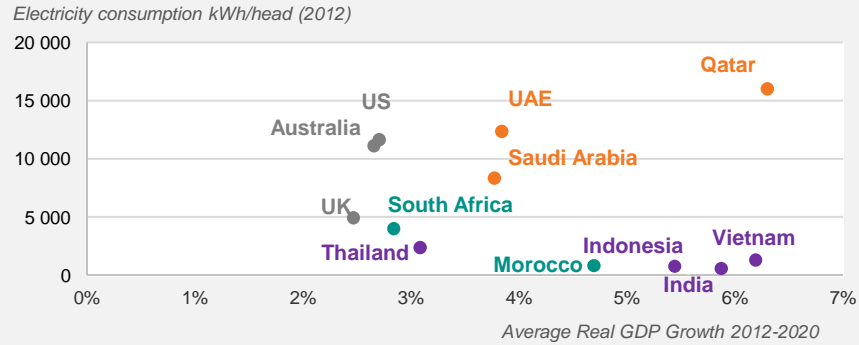
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# Significant drivers for demand growth

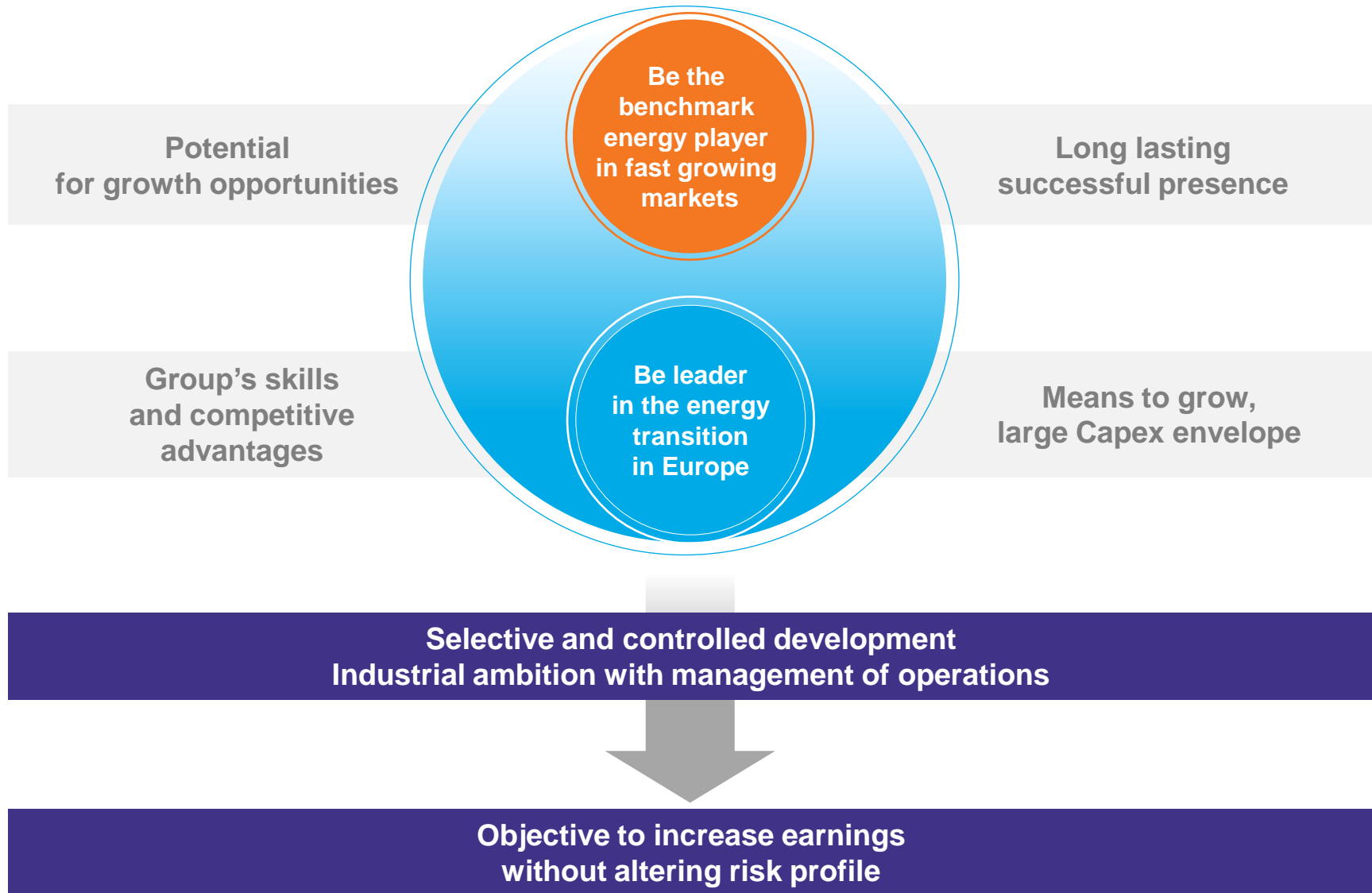


## Per capita consumption vs. GDP growth rate



Sources: Demand growth: Global Data Population/GDP: Oxford Economics

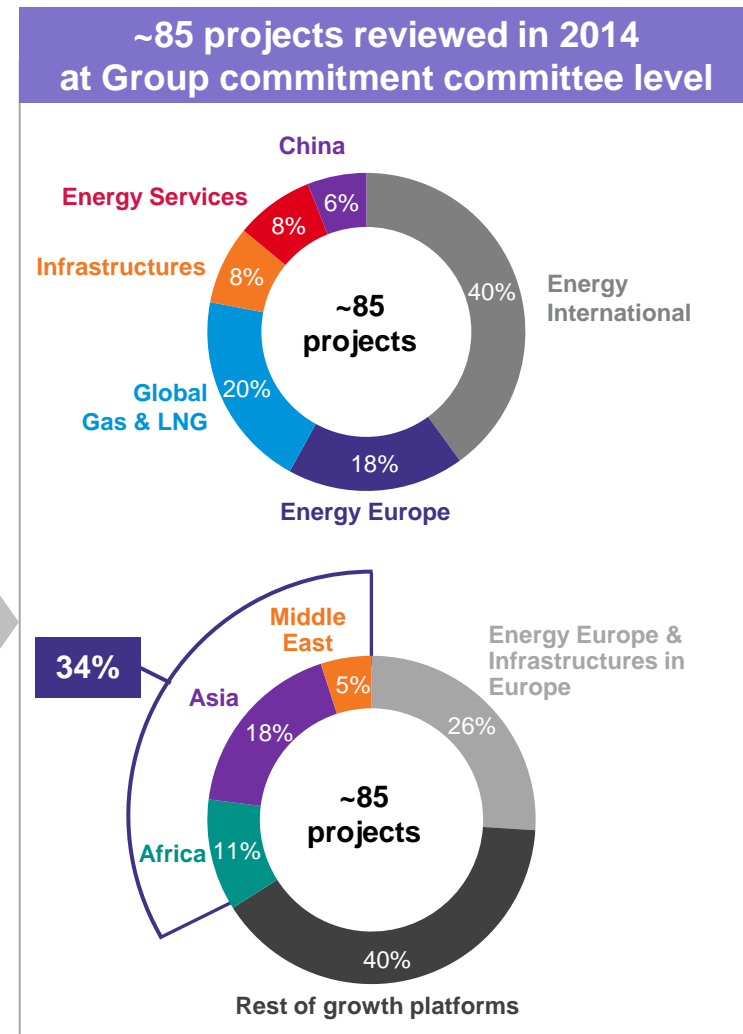
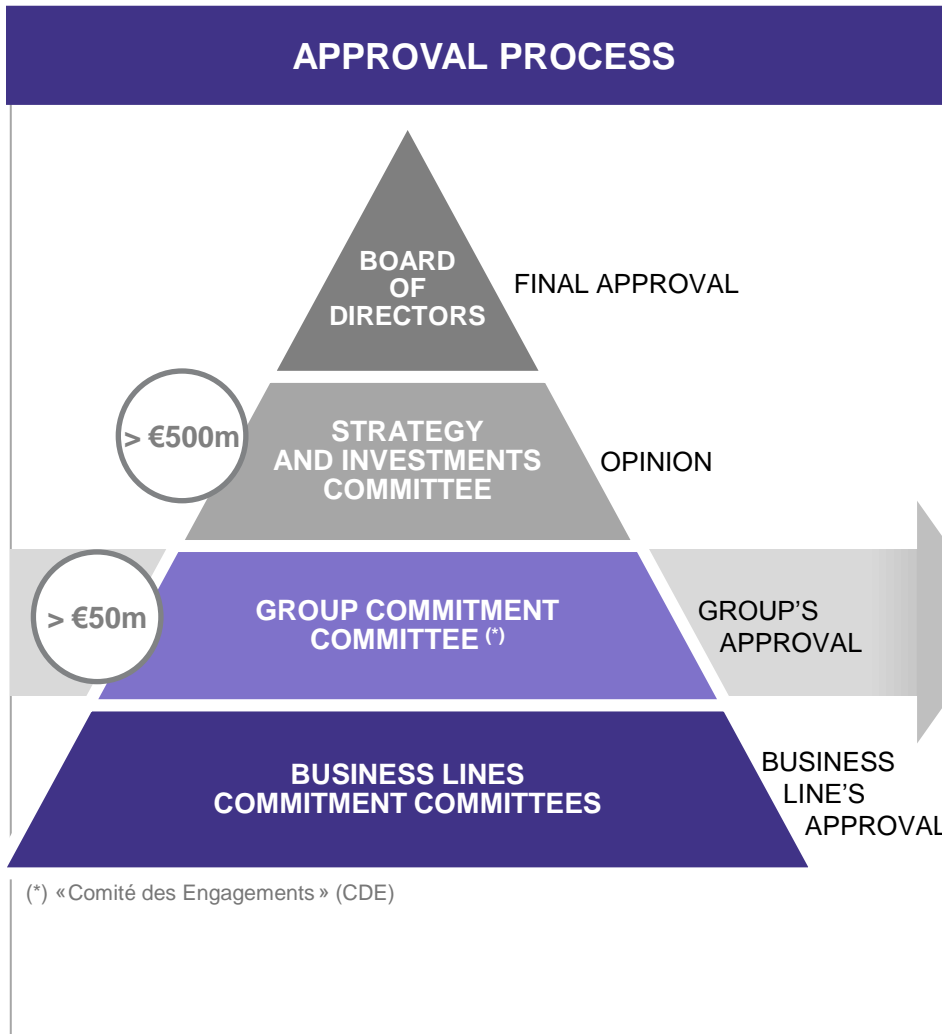
# Controlled development to seize growth opportunities





# A multi-stage & rigorous investment decision process

## Screening of organic and M&A projects



# Strict investment criteria to ensure selectiveness

## A comprehensive assessment framework for our pipeline of prospects

VALUE CREATION	&	STRATEGIC FIT	&	RISK PROFILE
Profitability		Integration & fit with Group strategy		Market risk
Payback		Potential for additional value creation		Construction & operation risk
Contribution to accounts		Project flexibility & consideration vs other risks		Regulatory & credit risk
		Sustainable development		Financial risk

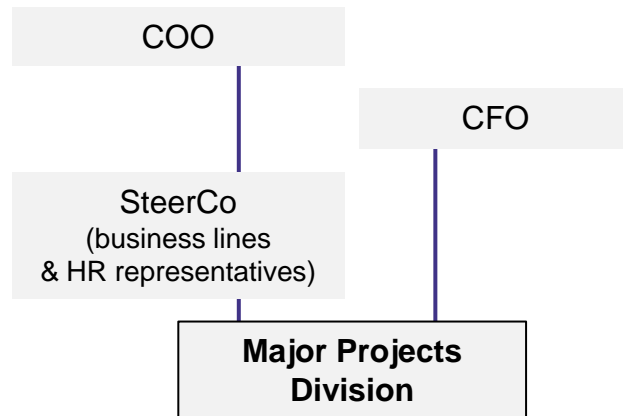
## Stress test: “Destroy your project” scenario

- Objectives
  - Stress tests analysis for each project screened at Group Commitment Committee
  - Identification of major risks of a project
- Content
  - Identification of adverse events leading to major value destruction
  - Combination of such events leading to a doomsday scenario
- Examples of risk events
  - Major cost overruns or schedule slippage
  - Regulatory evolution
  - Market disruptions
  - Bankruptcy of partner

# Dedicated organization to oversee major projects

## REPORTING STRUCTURE

created in 2013



## 2 MISSIONS

Coordination & development of resources and methods

- Developing dedicated HR resources
- Mapping engineering & key expertise for projects
- Implementing methods & tools, promoting best practices (return of experience, peer reviews)
- Reinforcing health & safety

Supervision & control of major projects

- **Governance:** Group construction oversight policy rolled-out at all levels
- **Commitments:** participating to investment decisions at Group Commitment Committee
- **Projects reviews:** monthly for major projects, ad hoc for critical projects

## ACTION PLAN - EXAMPLE

### Meenakshi, India

- Improvement of operating performance of phase 1 (300 MW installed)
  - Availability from 55 to 85%
  - Heat rate improved by 10%

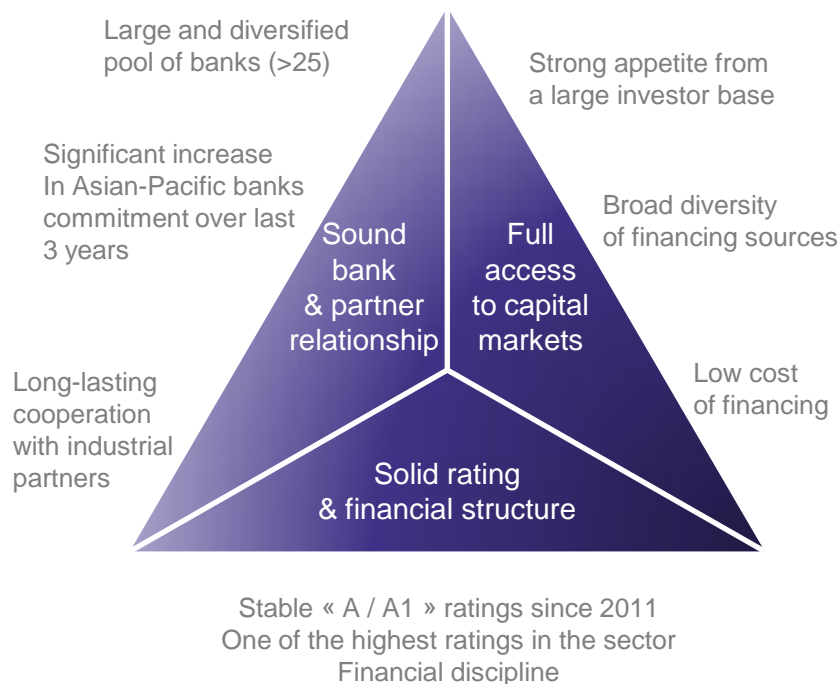
## LOOK BACK - EXAMPLE

### Tarfaya, Morocco

- Optimized design and Capex (new turbines)
- Construction process well mastered
- On time & on budget despite challenging local conditions

# Flexible financing options to fit risk & reward profile

## A POWERFUL TRIPTYCH



## A DUAL-ROUTE APPROACH FOR PROJECTS' FINANCING

### Corporate financing

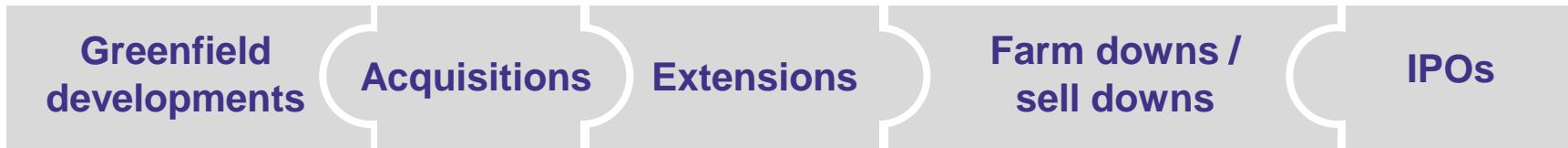
- Mature markets
- Mid-scale projects
- Project held at:
  - 100% → debt fully funded / Group guarantee
  - majority → prorata funding/co-guaranteed
- Refinancing when projects de-risked

### Project financing

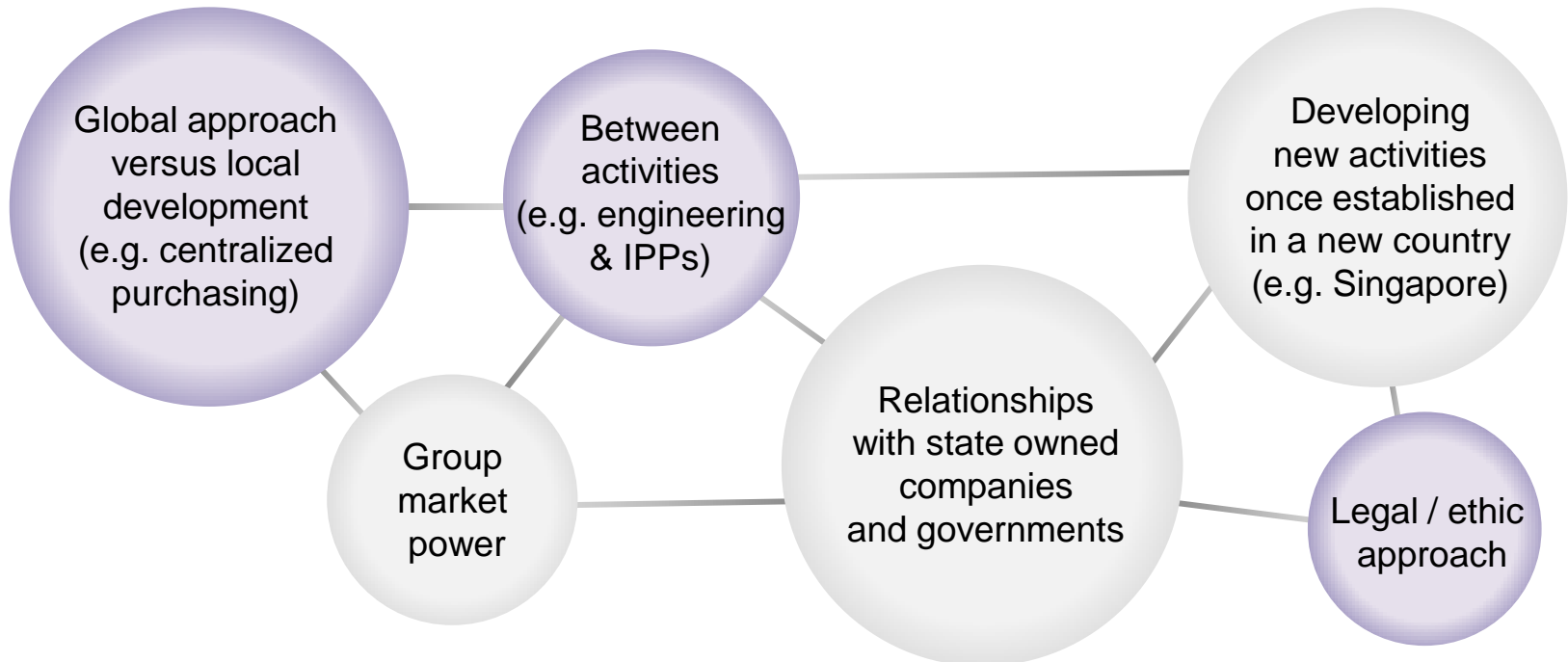
- Fast growing markets
- Large projects
- Third party presence
- Equity consolidation
- Non recourse
- Stable contractual & regulatory framework
- Competitive funding

# Diversity of options for creating value

## OPTIONS FOR CREATING VALUE

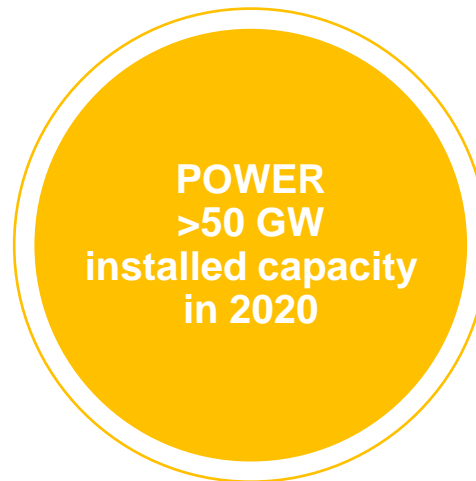
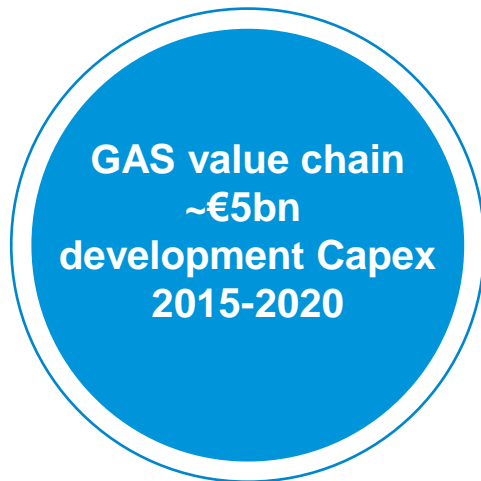


## SYNERGIES



# Strong growth ambitions in Asia, Africa & Middle East

- Key component of GDF SUEZ equity story
- Addressed in a controlled, prudent way
- Leveraging on the Group's historical successful development and skills
- Increasing earnings prospects without altering risk profile



# Disclaimer

## Forward-Looking statements

This communication contains forward-looking information and statements. These statements include financial projections, synergies, cost-savings and estimates, statements regarding plans, objectives, savings, expectations and benefits from the transactions and expectations with respect to future operations, products and services, and statements regarding future performance. Although the management of GDF SUEZ believes that the expectations reflected in such forward-looking statements are reasonable, investors and holders of GDF SUEZ securities are cautioned that forward-looking information and statements are not guarantees of future performances and are subject to various risks and uncertainties, many of which are difficult to predict and generally beyond the control of GDF SUEZ, that could cause actual results, developments, synergies, savings and benefits to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include those discussed or identified in the public filings made by GDF SUEZ with the Autorité des Marchés Financiers (AMF), including those listed under “Facteurs de Risque” (Risk factors) section in the Document de Référence filed by GDF SUEZ with the AMF on 20 March 2014 (under no: D.14-0176). Investors and holders of GDF SUEZ securities should consider that the occurrence of some or all of these risks may have a material adverse effect on GDF SUEZ.