



SONATRACH :

A global Oil and Gas Partner.

Houston, 14 december 2016

OUTLINE

- I. SONATRACH : AN INTEGRATED OIL AND GAS COMPANY
- II. SONATRACH : INVESTMENT OPPORTUNITIES

I . SONATRACH : AN INTEGRATED OIL AND GAS COMPANY

SONATRACH VALUES



Professionalism

*Long term
oriented partner*

UPSTREAM ORIENTED COMPANY



SALES

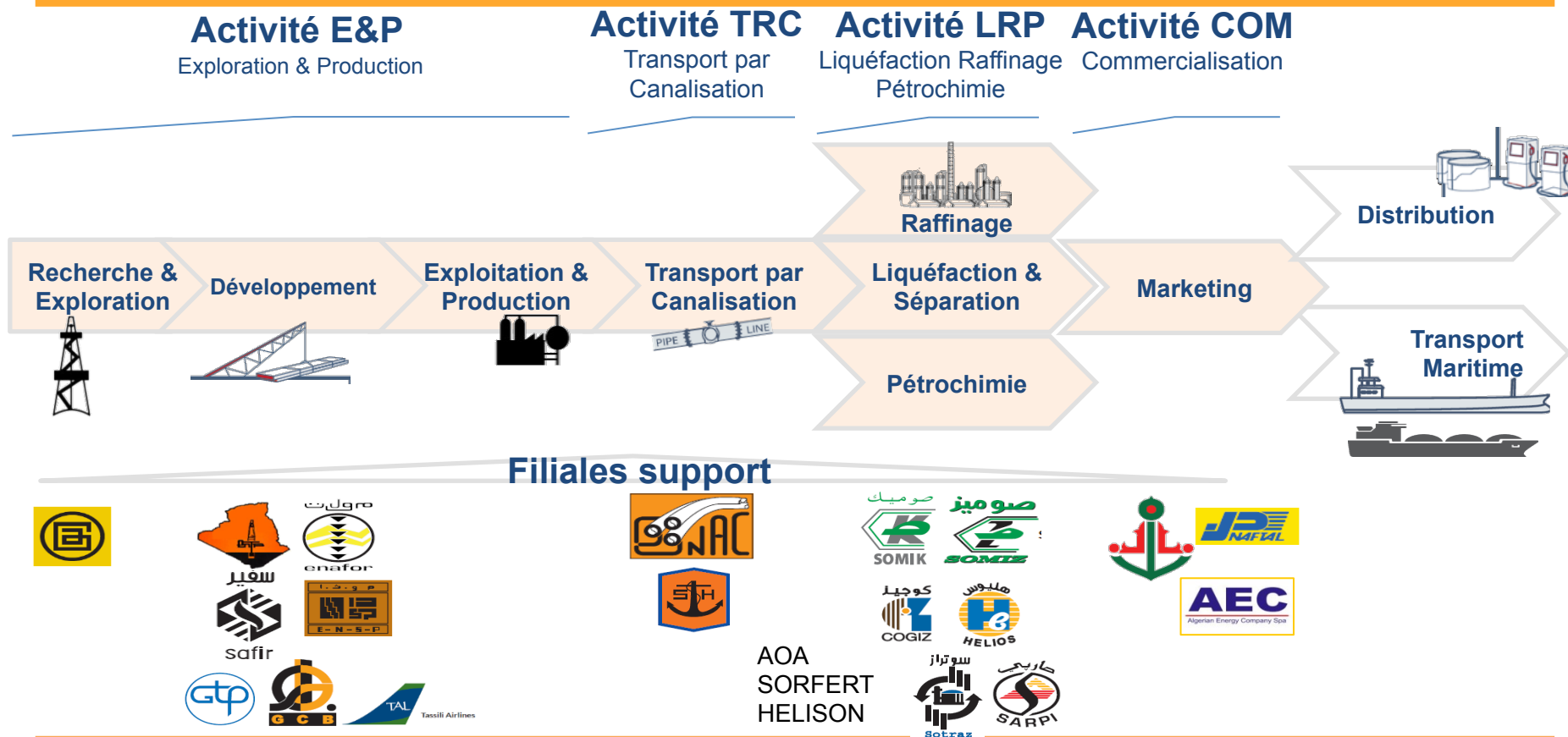
90% of sales primary hydrocarbons.



INVESTMENTS

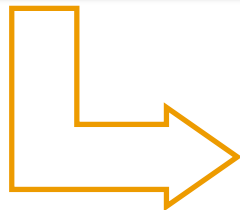
70% of investment volumes dedicated to development of upstream projects.

Sonatrach, an integrated oil and gas company

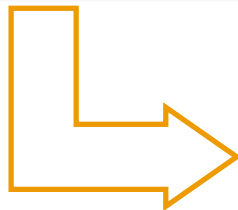


SONATRCH : Exploration & production

**1 553 488 km² (6%
offshore)**



**38 projects in
Development (10 in
partnership)**



**33 contracts with foreign
partners (8 exploration ;
25 in the development)**

PREFERRED PARTNER IN ALGERIA WITH THE ROLE OF OPERATOR



EXTENSIVE PIPELINE INFRASTRUCTURE

19 600 km Network

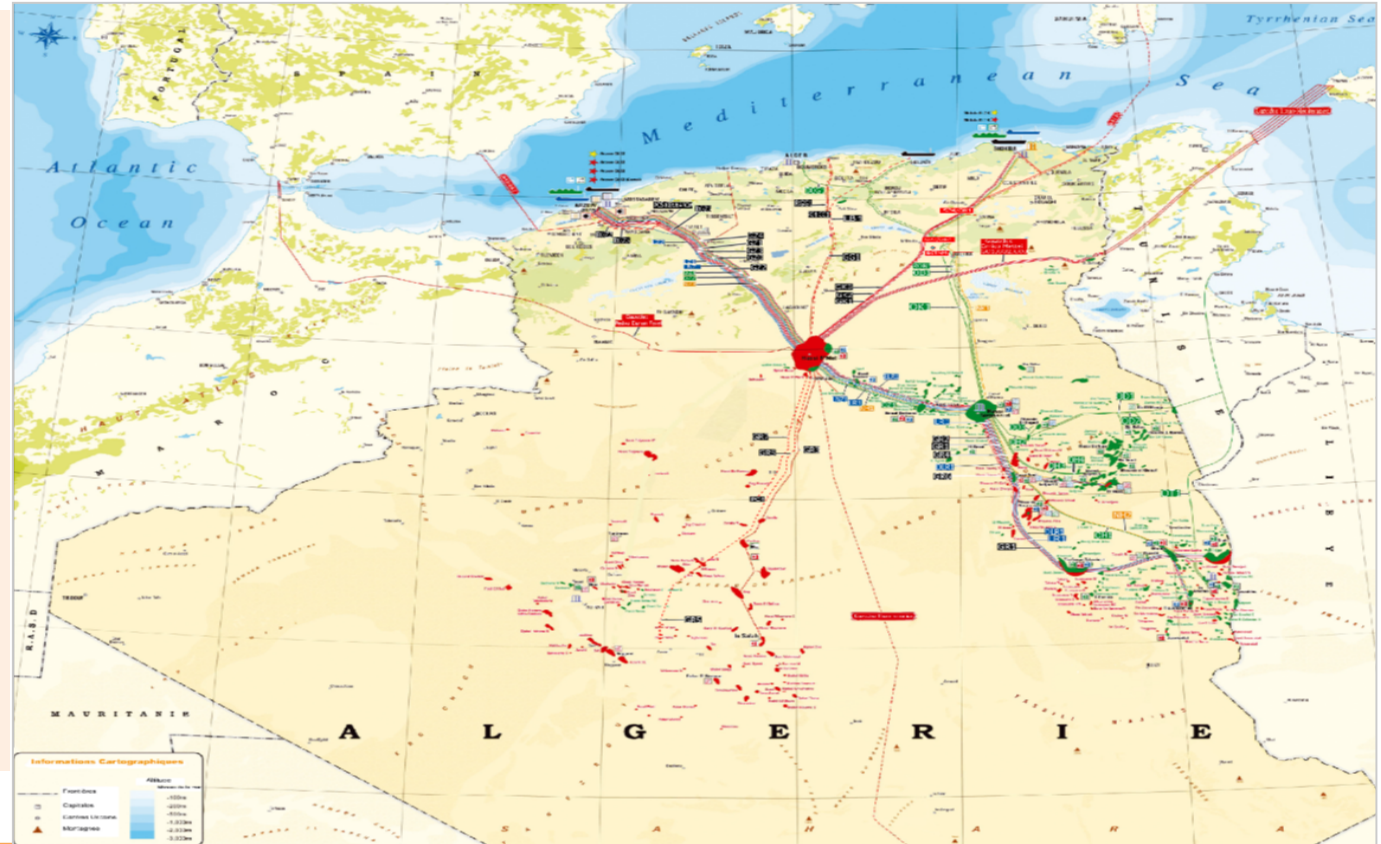
- 34 pipelines
- 82 Pumping & compression stations
- 4.3 MTM Storage capacity (liquids)

2 Main Hubs :

- **CNDG Gas Hub**
at Hassi R'Mel
- **CDHL Oil Hub**
at Hassi Messaoud

3 International Gas Pipelines

- **MEDGAZ** to Spain
- **GPDF** to Spain
- **GEM** to Italy



SONATRACH : LIQUEFACTION, REFINING AND PETROCHEMICALS

Current capacities

Liquéfaction du Gaz
Naturel - GNL

GL1Z



17.5 millions m³/an

GL2Z



17.8 millions m³/an

GL3Z



10.6 millions m³/an

GL1K



10 millions m³/an

Séparation des
Gaz - GPL

GP1Z



09 millions tonnes/an

GP2Z



1,4 millions tonnes/an

LNG = 56 millions m³/y.

LPG = 10.4 million tonnes p.a

Development

Revamping

GL1Z



17.5 millions m³/an

GL2Z

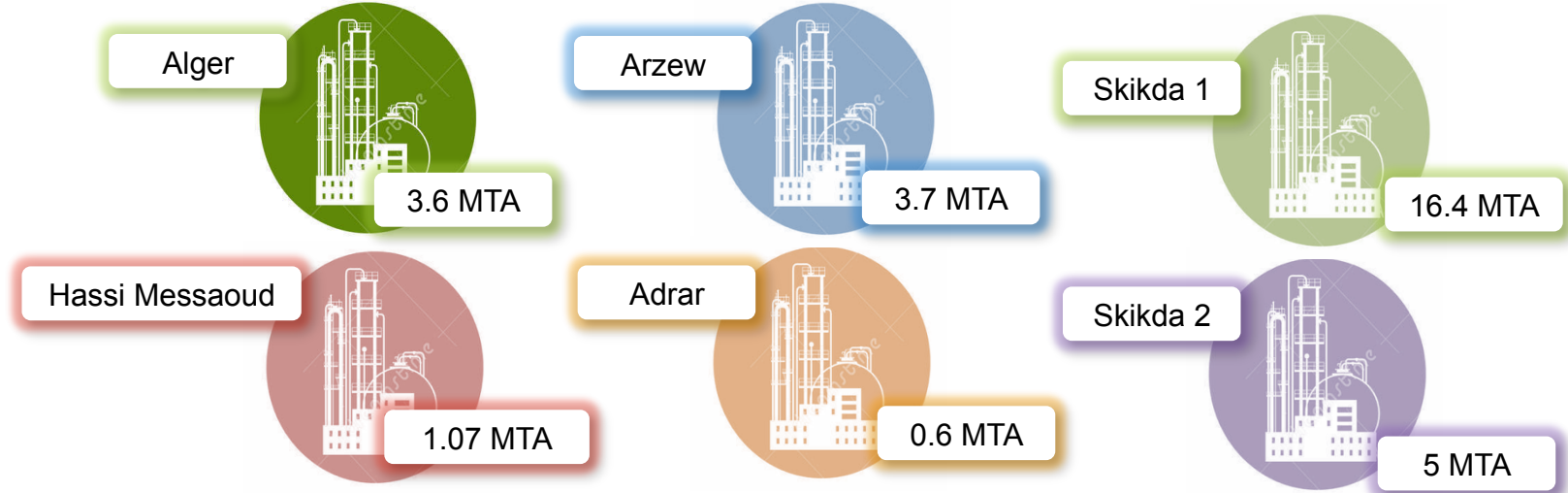


17.8 millions m³/an

GL1Z, GL2Z, total capacity = 35.5 millions
m³ p.a

SONATRACH : Liquefaction, Refining and Petrochemicals

Current configuration : 06 refineries ; 30 MTPA



EXPORT PORTFOLIO AND DOMESTIC ENERGY PROVIDER

- ✓ 10% of the Light Sweet Market,
- ✓ Major exporter of naphta and condensate and Fuel oil,
- ✓ The Top n°1 LPG exporter on the Mediteranean.



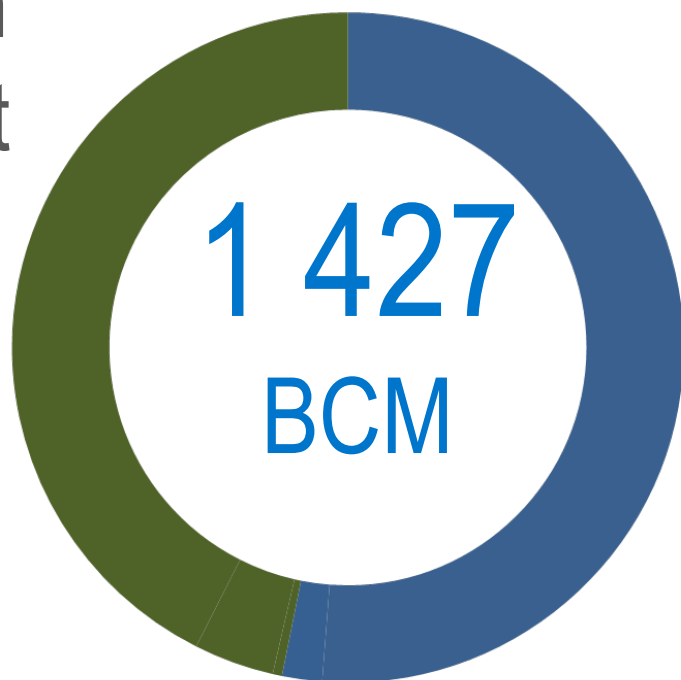
- ✓ Mandated to ensure public service missions :
 - ✓ Furnish oil and gas and LPG to the domestic market
 - ✓ Imports of fuels (in case of deficit)
 - ✓ Guarantee the ToP of desalted water.
-

MAJOR ENERGY SUPPLIER THAT DELIVERS



LNG

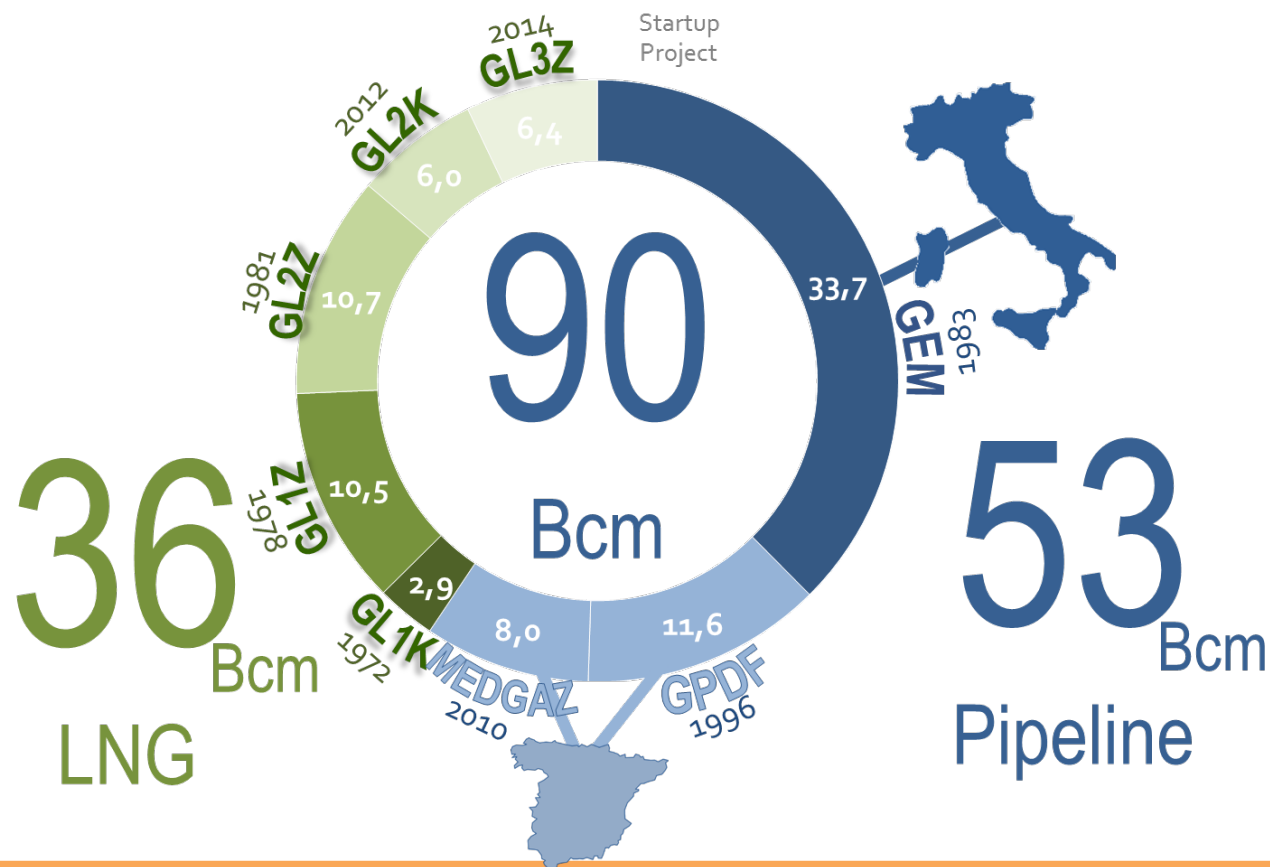
47%



Natural Gas

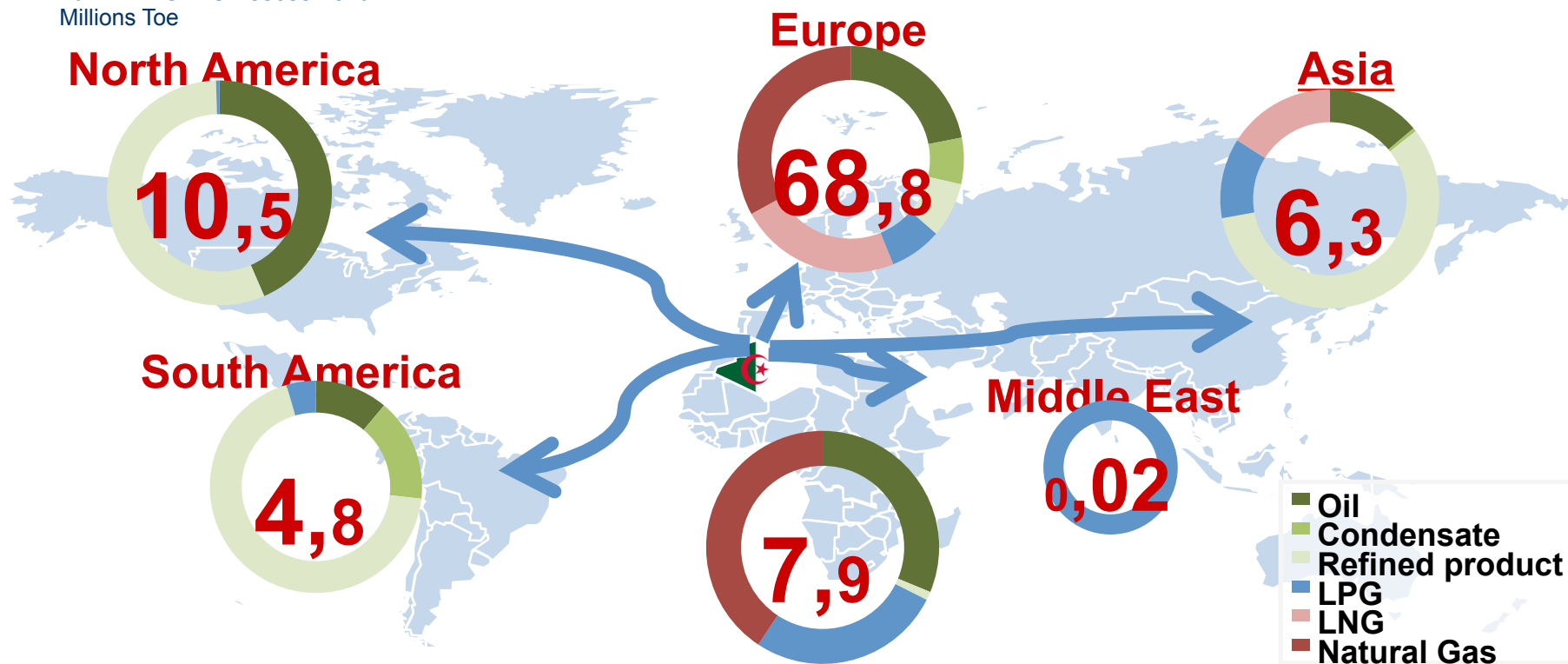
53%

GAS PIPELINE AND LNG EXPORT CAPACITY

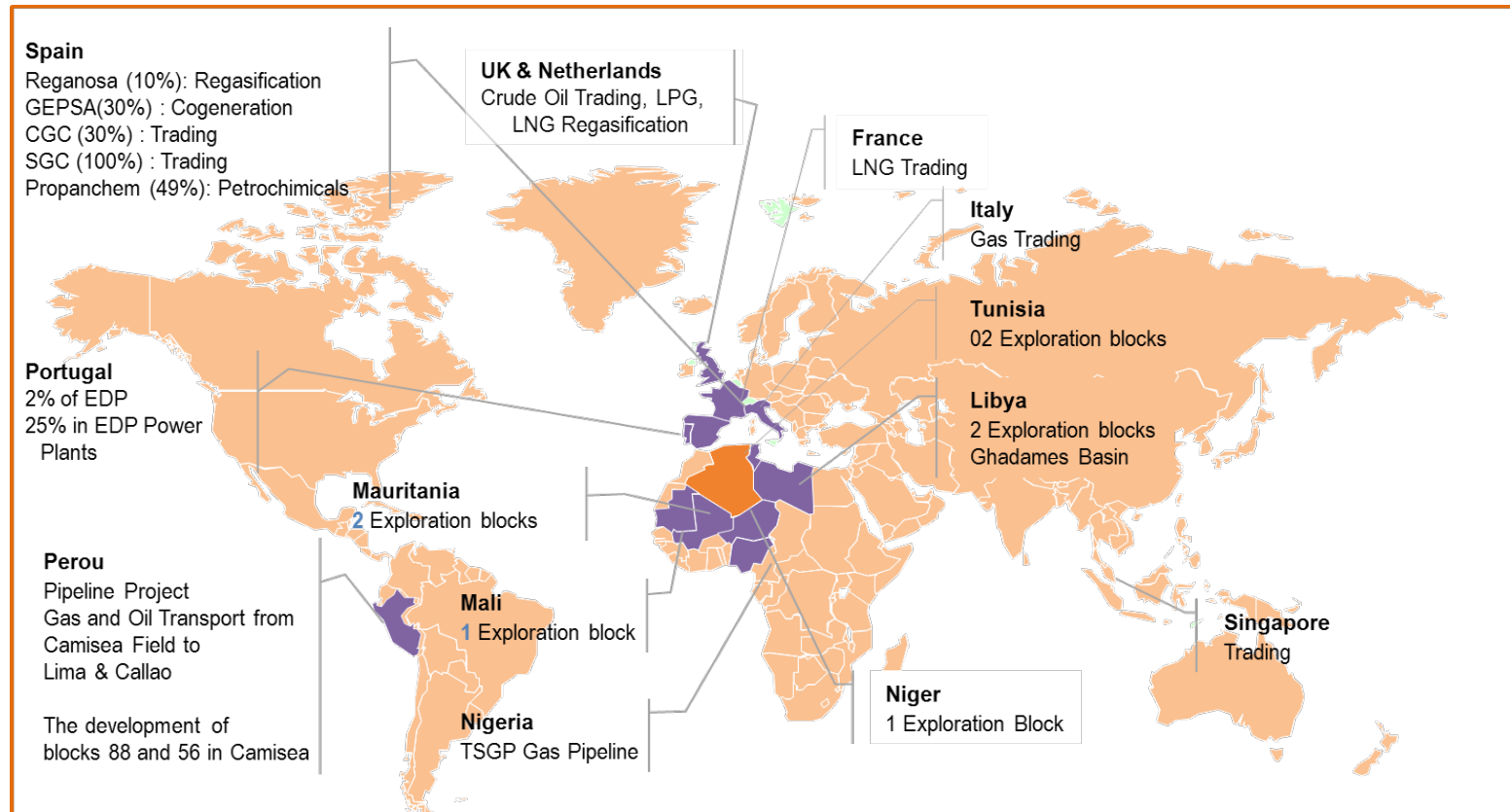


SUPPLIER TO MANY MARKETS

2014 EXPORTS Assessment
Millions Toe



WITH AN INTERNATIONAL PRESENCE



II . SONATRACH : INVESTMENT OPPORTUNITIES

II. INVESTMENT OPPORTUNITIES



II.1. Non exhaustive Survey of existing equipment, materials and spare parts that can be manufactured in partnership

Designation	Description
Pipes and Tubes	• Differents diameters (for various oil, gas and water products). Casing .
Doors Chokes	• -----
Funds facilities	• -----
Pumps	• Shipping pumps (crude or gas), metering pumps (chemical inhibitor), horse head pumps, suction pumps, pump jacks, fire-fighting pumps
Fittings	• Clamps, threaded rods, repair clamps, bends, sleeve, cap, nipple, various fittings ...
Capacities	• Tanks, storage bins, containers.
Electrical equipments	• Power transformers, electric LV switchboards, MV electrical protection cells, LV and MV electric motors, industrial ups, LV and MV electrical cables ...
Solar Panels	• Various surfaces
FO Cable Assemblies	• Various telemetry and telecommunication uses
Instrumentation	• Self-operated control valves, safety valves, solenoid valves, smart transmitters, pressure and temperature gauges (pressure gauges and thermometers), measuring instruments, recorders (pressure, DP flow, temperature), pressure reducing valves and converters
Batteries	• Various uses

II.1. Non exhaustive Survey of existing equipment, materials and spare parts that can be manufactured [in partnership](#)

Designation	Description
Thermal Insulation	<ul style="list-style-type: none">• Insulation and related aspects
Filtering	<ul style="list-style-type: none">• Lubrication and greasing , sealing, hydraulics, air.
Paints	<ul style="list-style-type: none">• Various applications
Chemicals	<ul style="list-style-type: none">• Various applications

II.2. ENERGY EFFICIENCY AS A POTENTIAL TO INVEST IN

Energy Efficiency potential

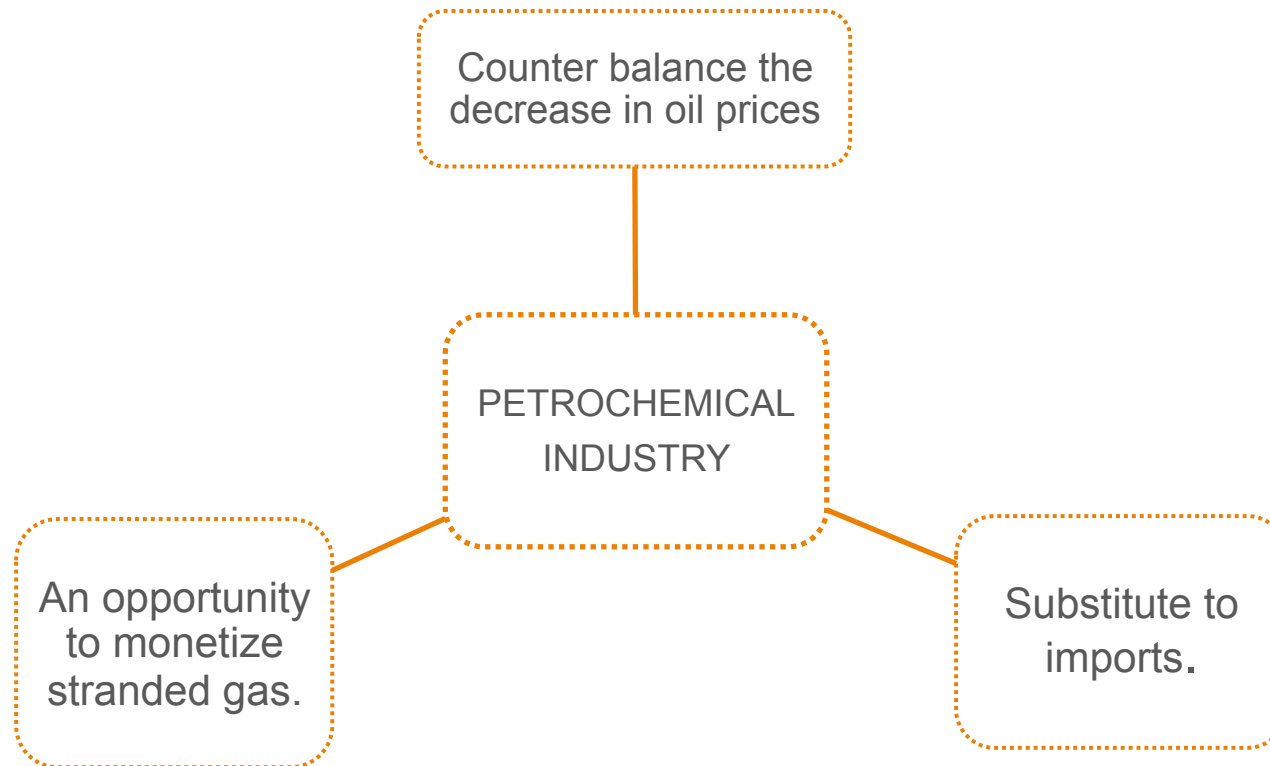
- The consumption of the "oil and gas sector" accounts for almost **25%** of the national energy consumption.
- More important than the whole industrial sector as an end-user,
- Its demand is much **easier to focus on** (managed principally by SONATRACH).
- **Transformation losses** reflect the performance levels of existing «oil and gas» technologies.

II.2. ENERGY EFFICIENCY AS A POTENTIAL TO INVEST IN

Some breakthroughs

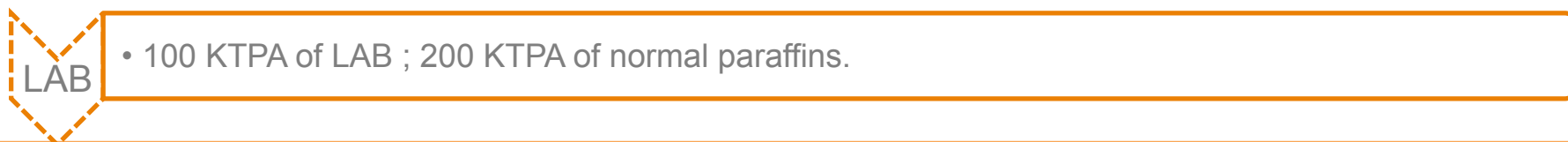
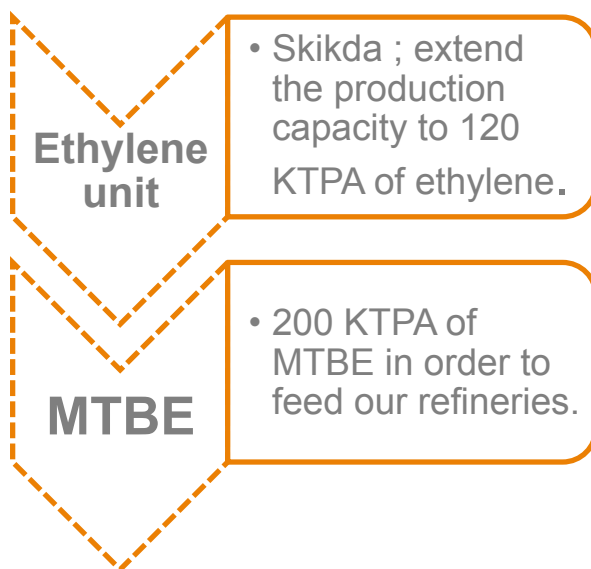
- In 2012, SONATRACH has been awarded the World Bank "Global Gas Flaring Reduction" at the Global Forum on Flaring Reduction & Gas Utilization for Development. The quantities of flared gas decreased from 78% in 1973 to 8.7% in 2013.
- SONATRACH increased its refining capacity by about 28% and brought immediate impact on refineries energy consumption :The efficiency of the refining system was around 90% in 2010 and could be raised to almost 93,5% in 2014.
- **Installed 10 MW of PV at BRN field with ENI.**

II.3. PETROCHEMICAL OPPORTUNITIES

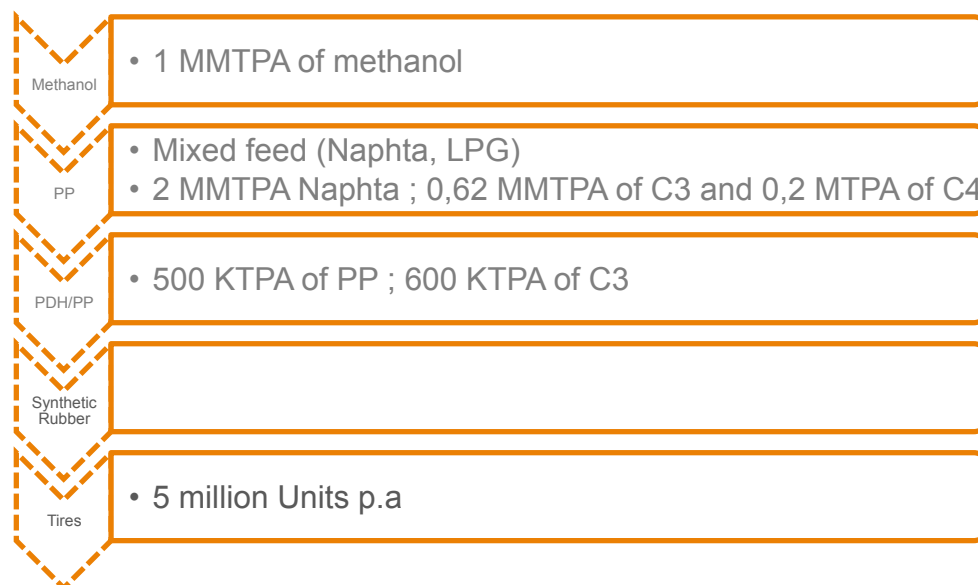


II.3. PETROCHEMICAL OPPORTUNITIES

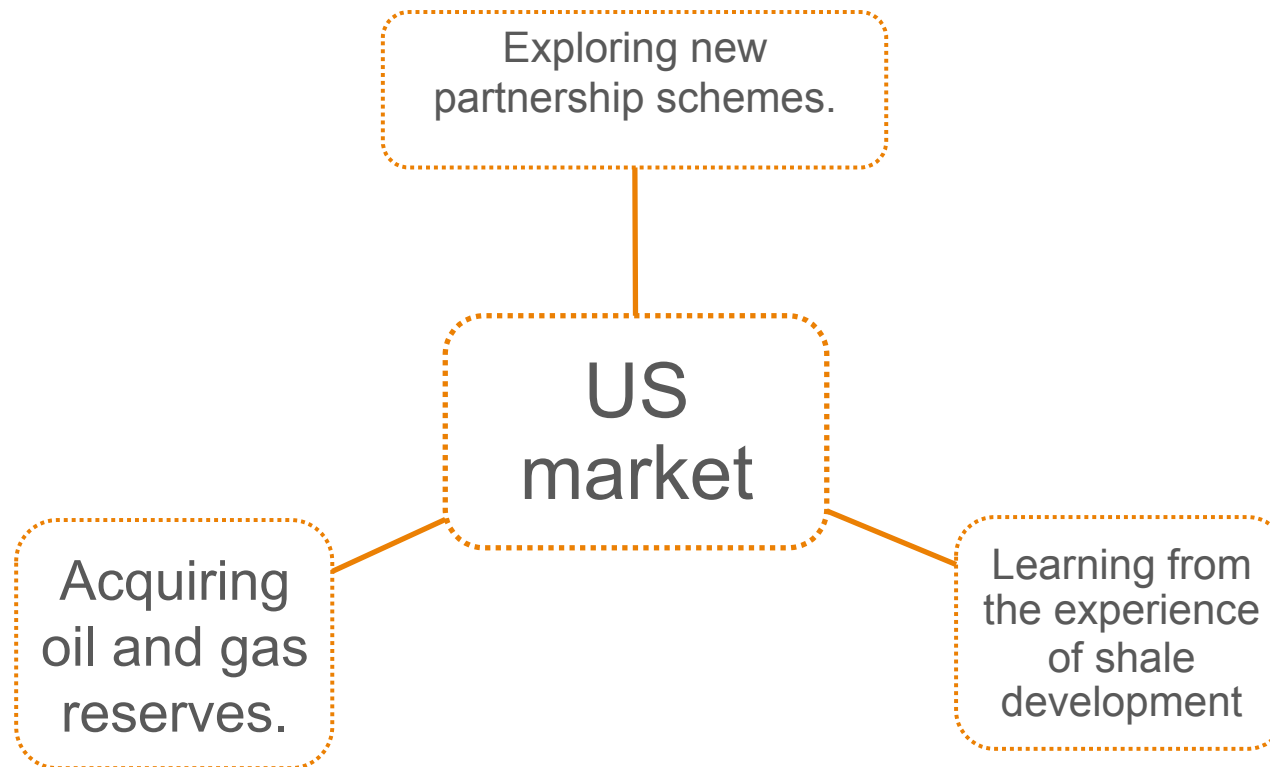
Main standalone projects



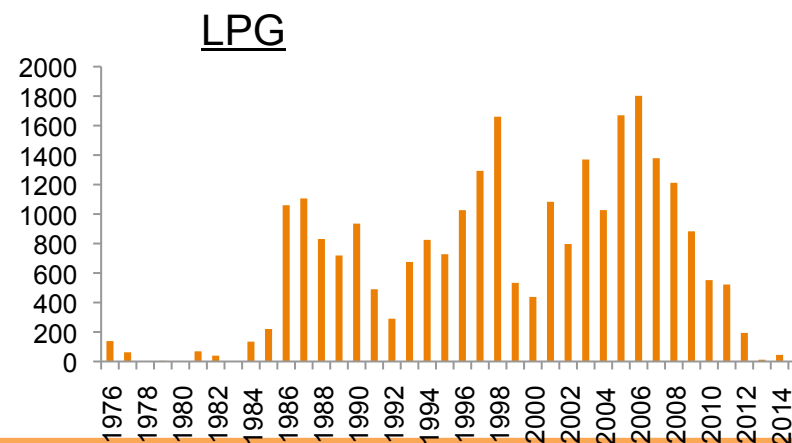
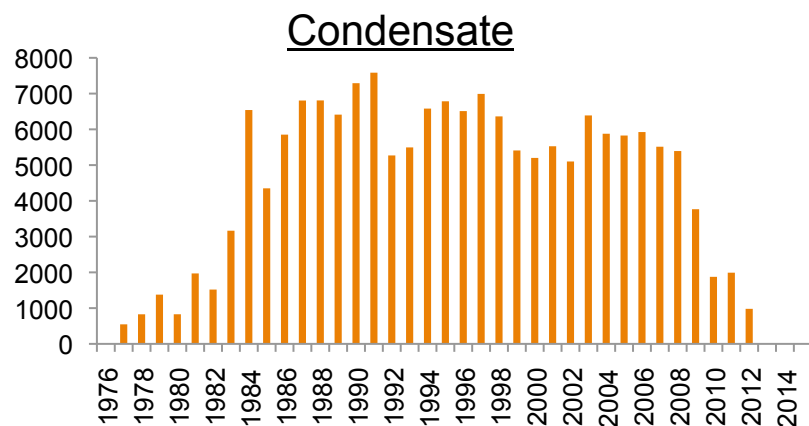
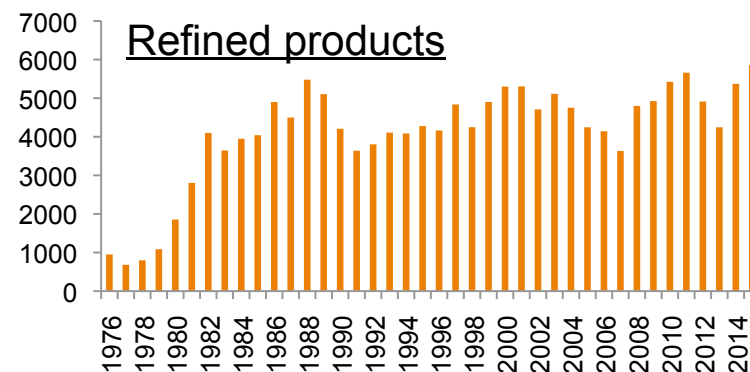
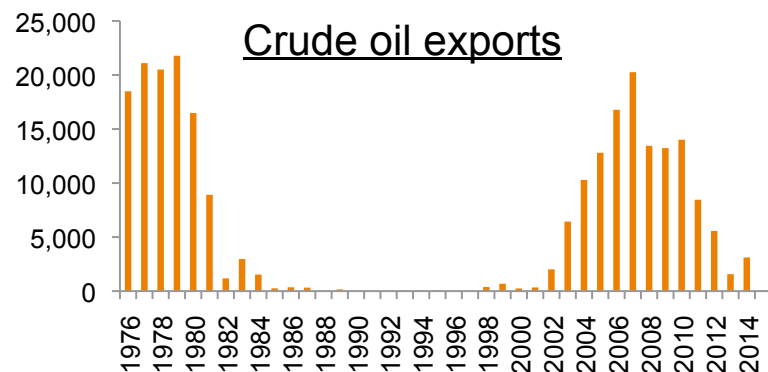
Main projects in partnership



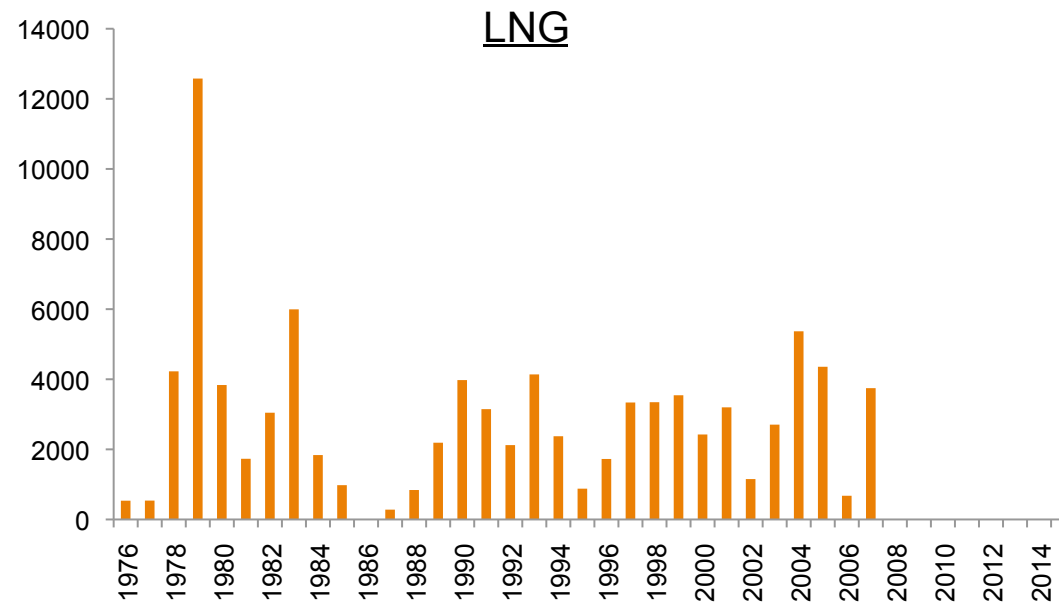
II.4. WHAT WE EXPECT FROM THE US MARKET ?



SONATRACH EXPORTS TO THE US MARKET



SONATRACH EXPORTS TO THE US MARKET



THANK YOU FOR YOUR ATTENTION