# SE Europe. A challenging environment for Refiners

**6h South East Europe Energy Dialogue**
**Thessaloniki, Greece**
**30-31 May 2012**

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# The European refining industry will continue to face challenges

Addressing climate change/unequal environmental policies

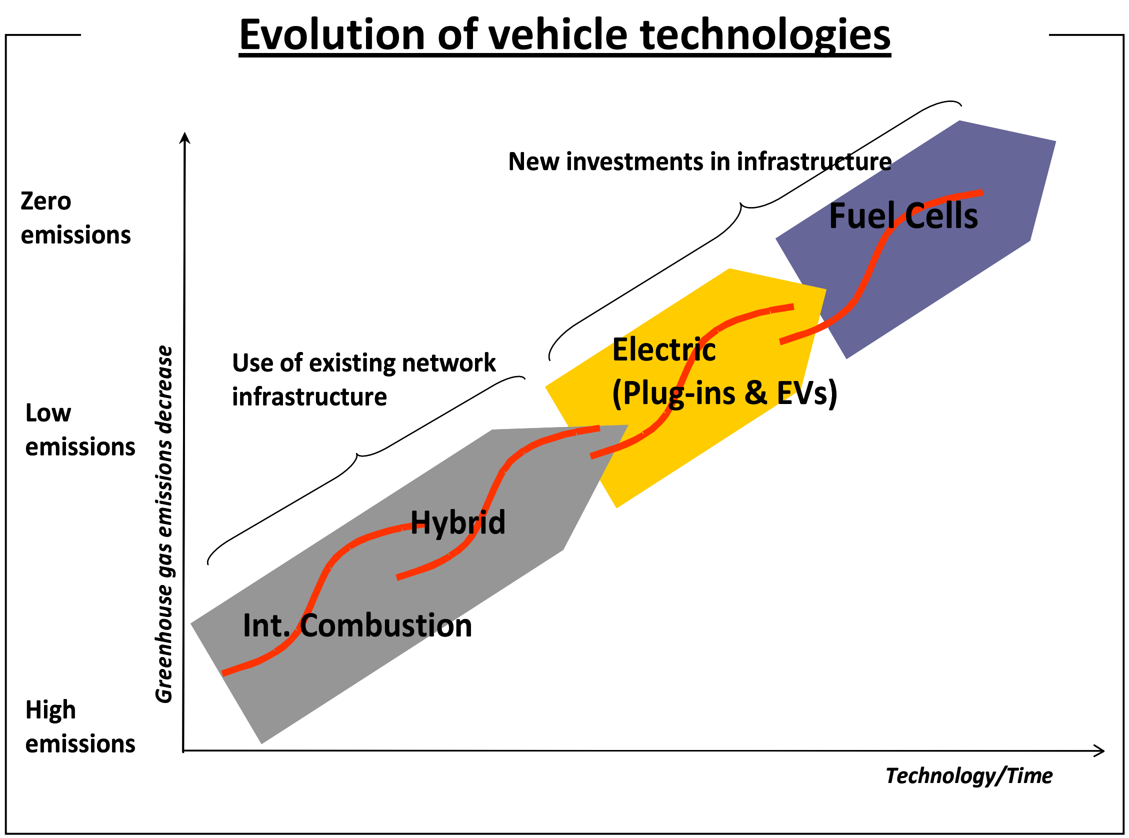
Exposure to demand changes e.g. the US gasoline market

Competition from subsidized national companies refineries

New Export refining capacity

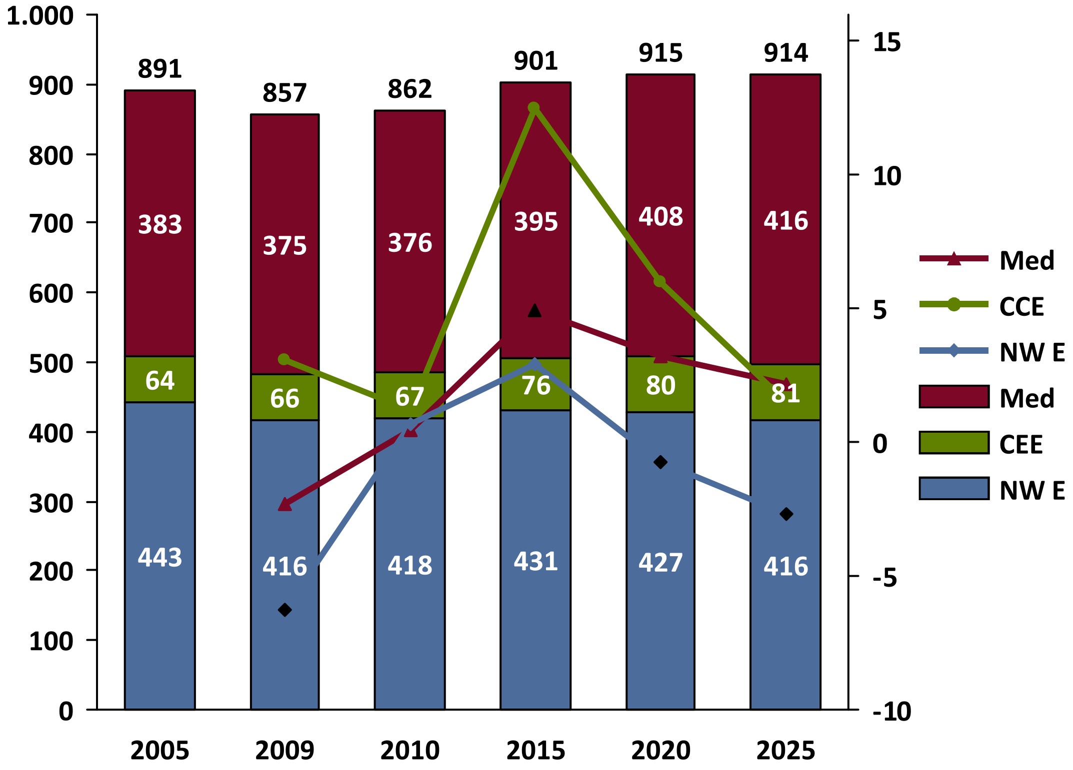
**Competitiveness and adaptability are essential for survival**

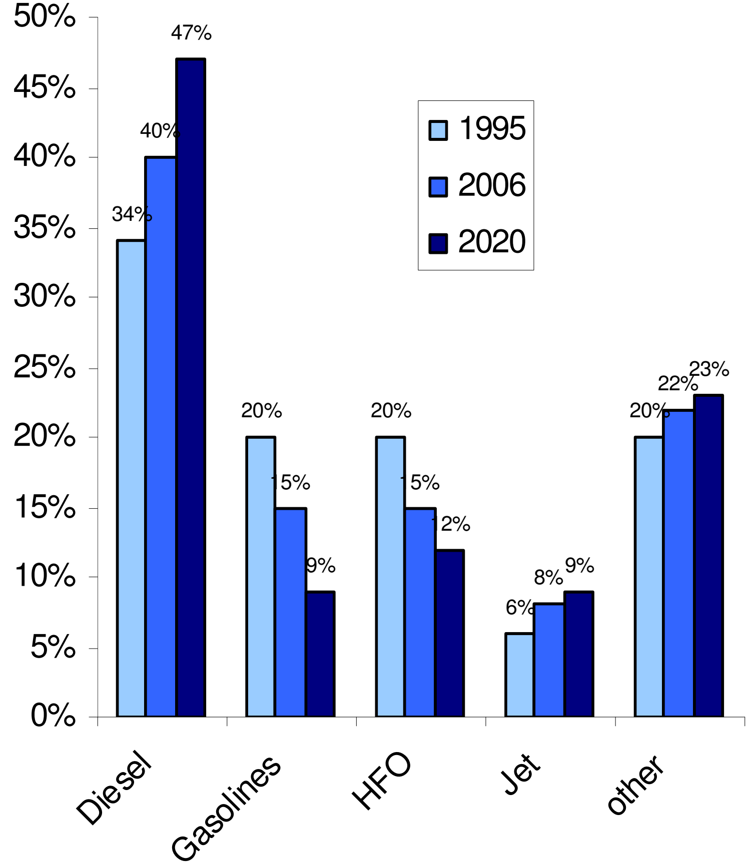
# New technologies are forecast in the long term to have an impact on demand for conventional road transportation fuels



# Stagnant demand is putting pressure on the European refining industry, particularly in the North West

**Oil Products Demand* 2000-2025F**
*Mt*




*Source: Wood Mackenzie, Regional Outlook, Greater Europe, July 2010*

HELLENIC PETROLEUM

***includes all non-euro east Med countries**

# A number of European refineries have been sold and others are up for sale or candidates for closure

| Company | Location | Capacity | Up-for-Sale | Closure or Terminal |
|---|---|---|---|---|
| TOTAL | Dunkirk, FRANCE | 137kbpd | | ✓ |
| TOTAL | Lindsey, UK | 221kbpd | ✓ | |
| MURPHY OIL CORP. | Milford Haven, UK | 130kbpd | ✓ | |
| PETROPLUS | Reischstett, FRANCE | 85kbpd | | ✓ |
| SHELL | Hamburg, GERMANY | 110kbpd | | ✓ |
| CONOCO PHILLIPS | Wilhelmshaven, Germany | 260kbpd | | ✓ |
| PETROM | Pitesti, Romania | 70kbpd | | ✓ |
| PETROPLUS | Teesside, UK | 110kbpd | | ✓ |

**c.1.1mbpd total refining capacity Up for Sale or Closing down**

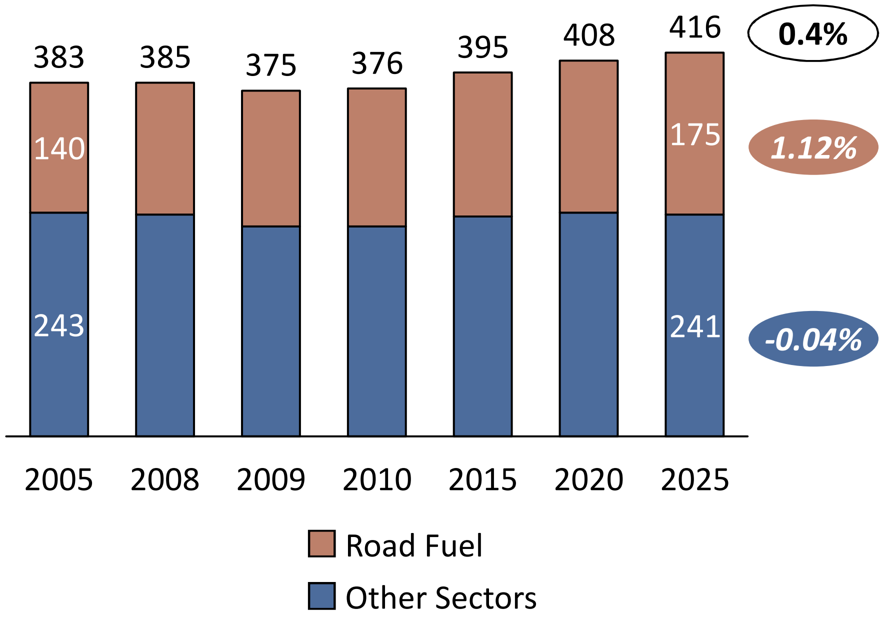
**European Oil Refineries Sold**

- **SHELL's Stanlow 270kbpd refinery: acquired by ESSAR Oil**
- **CHEVRON's Pembroke 210kbpd refinery: acquired by VALERO**
- **INEOS' Grangemouth 200kbpd refinery: JV with PETROCHINA**
- **SHELL's Gothenburg 78kbpd refinery: acquired by St1**

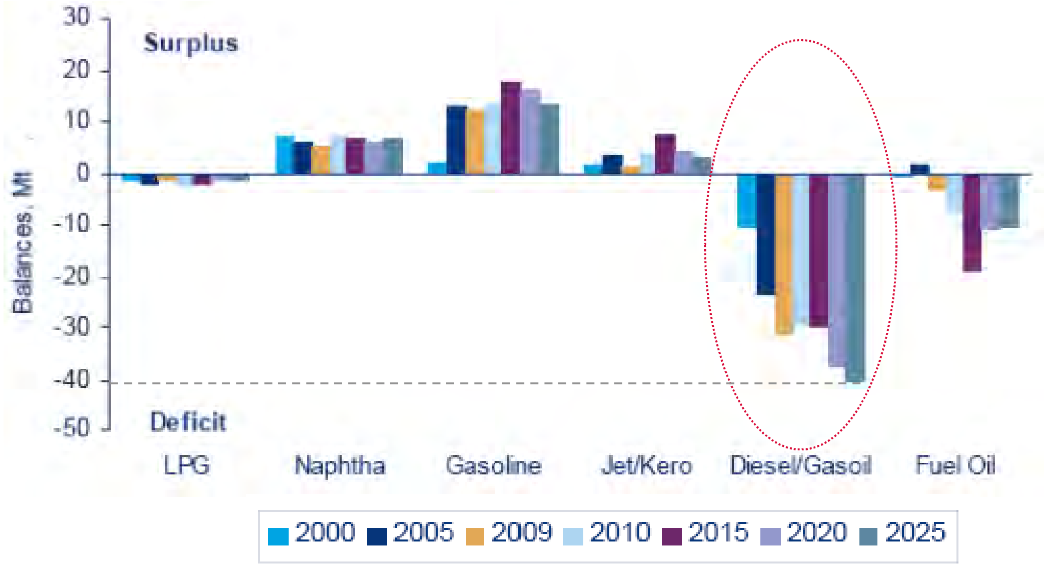
*Sources: Bloomberg, Reuters, Bank of America*

# However, in the Med* region where demand is mainly driven by non European countries, diesel shows a large and increasing deficit

**Oil Products Demand**
*(mMT) 2005-2025F*




**Refinery Supply Balances *(vs. Demand)***
*2000-2025F*



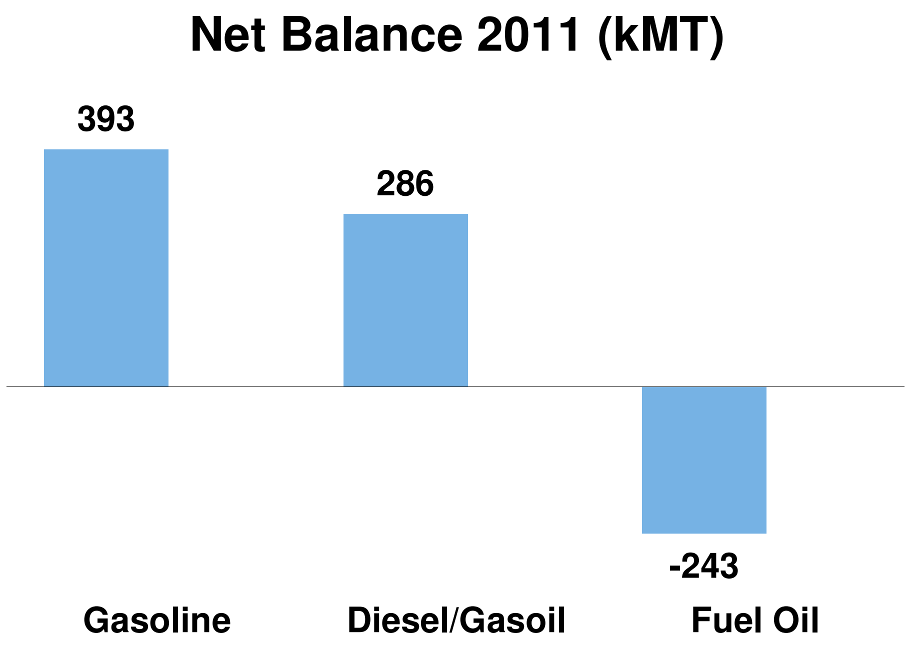

- **Diesel deficit continues to grow to 2025**
- **Gasoline surplus grows through to 2015**
- **Non European med countries drive demand increase**

***Source: Wood Mackenzie, Regional Outlook, Mediterranean, July 2010***



***includes : Spain, Italy, South France, Greece, Turkey, Algeria, Egypt, Lebanon, Israel, Libya, Morocco, Syria, Tunisia**

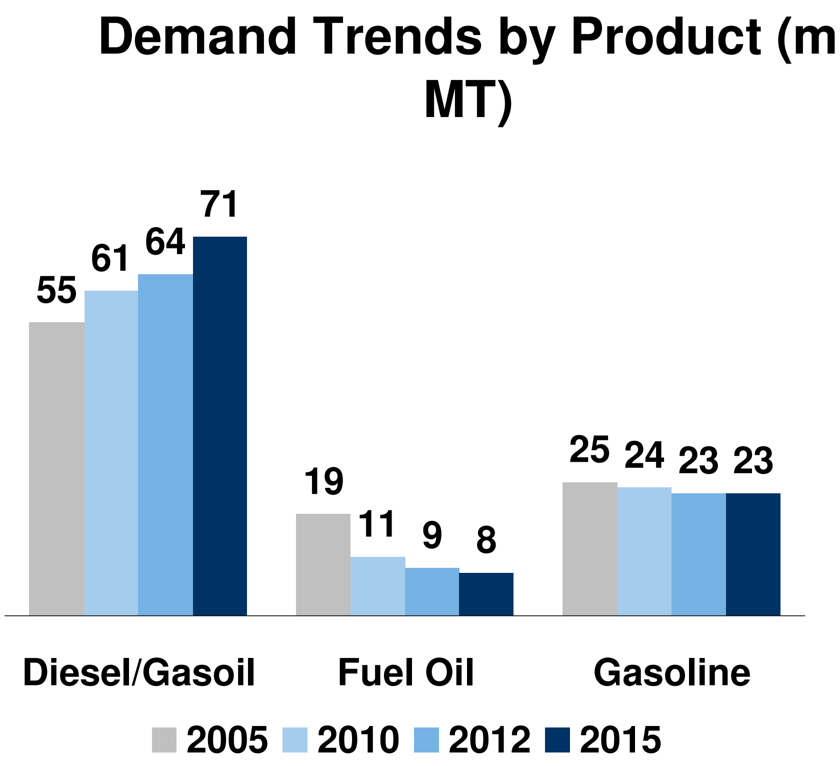
# Southeast Europe – Key Fuels Exports /Imports Balance




*Source :Wood Mackenzie*

- **Currently in SE area Diesel/Gasoil and Gasoline exports outweigh imports ( by 286 kMT for Diesel/Gasoil and 393 kMT for Gasoline).**
- **However for Diesel the above market dynamics are expected to change from 2015 onwards as demand is expected to increase leading to negative trade balance in the region.**
- **SE area is short on fuel oil, partially as a result of the application of EURO V specification which led to lower-sulphur feedstock, followed by a decrease of the heavier derivatives at the production slate.**

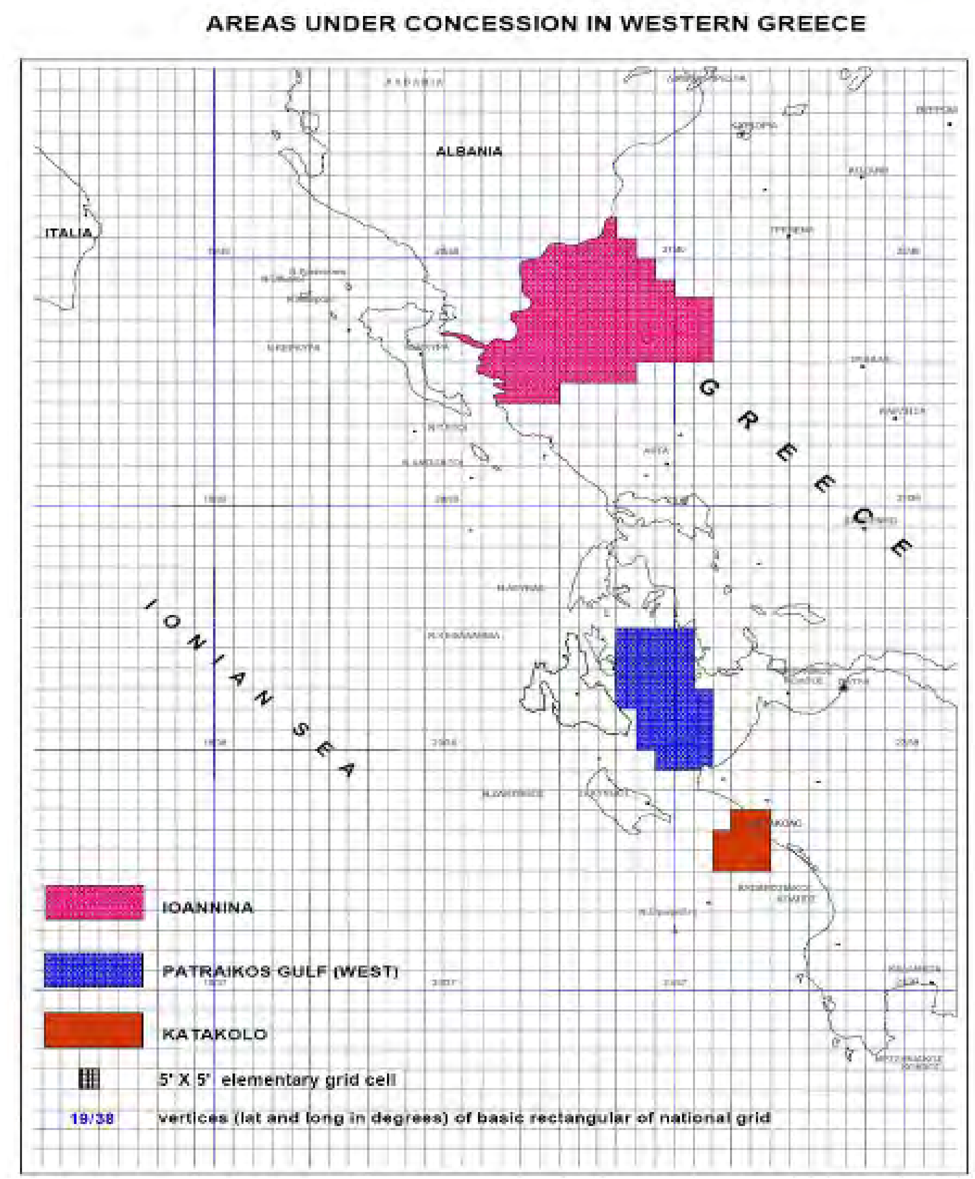
# Southeast Europe – Key Fuels Demand




Source :Wood Mackenzie

- Between 2005-2012 demand for Diesel/Gasoil increased by a compound annual growth rate of 3%, a trend expected to continue with the same pace.
- Fuel oil demand weakens by an average of 10% annually in the period 2005-2012. In the future demand is expected to decline further by 11% (2015)
- Gasoline has a steady demand outlook over the examined period with demand falling slightly by an average of 1% (2012-2015)

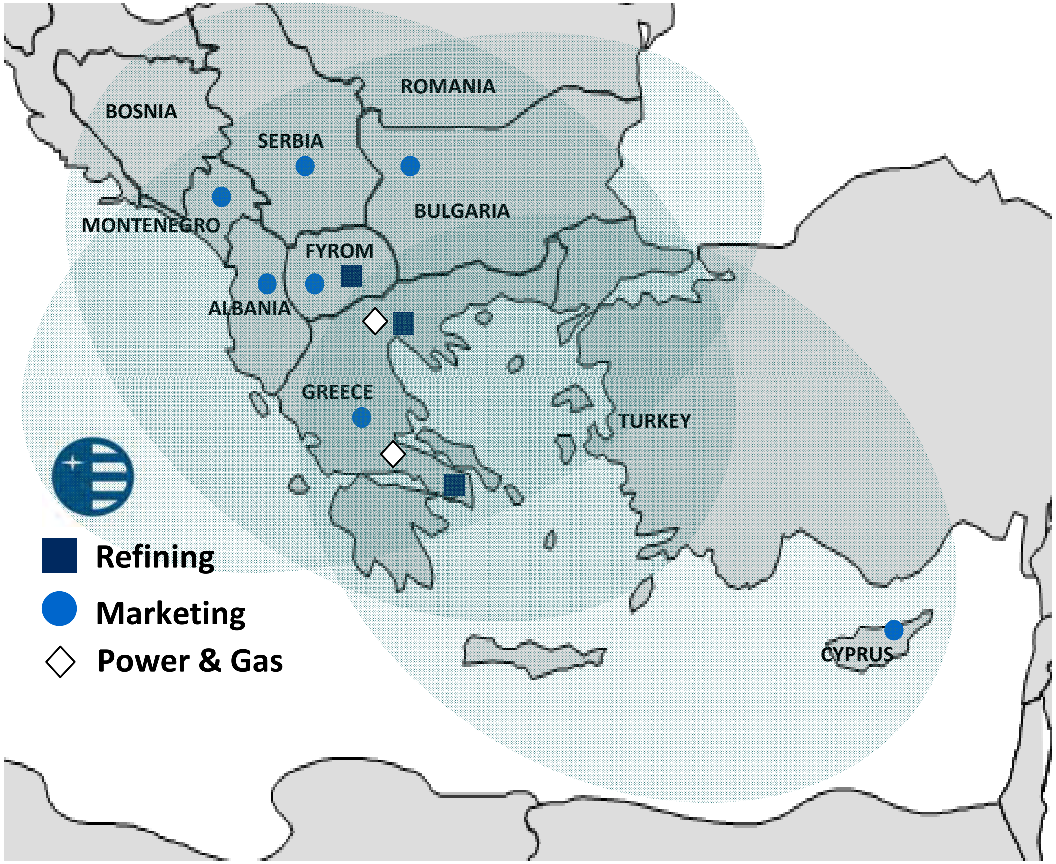
# Concessions in Greece



# Hellenic Petroleum’s strategic response

# Hellenic Petroleum – A Leading Energy Group in SE Europe

**Advantaged location and Integrated R&M**




**Shareholding structure**
**Paneuropean oil & Ind Holdings SA c.42%**
**Greek State c.36%**
**Free float c.22%**

**Total sales 2011 €9.3 bn**
**EBITDA €375 mn**

**Coastal location of refineries ensures ample availability and variety of crude oil**

**Cost advantaged to supply SEE/East Med markets with end-products**

**Opportunities for regional consolidation and cooperation**

# Hellenic Petroleum – A Leading Energy Group in SE Europe


- **Agypt**

**West Obayed Block**

HELLENIC PETROLEUM (30%)

Vegas Oil & Gas (70%)

**Mesaha Block**

HELLENIC PETROLEUM (30%)

Melrose Resources (40%)

Kuwait Energy Company (15%)

Beach Petroleum (15%)

- **Greece**

**Thrace**

HELLENIC PETROLEUM (25%)

Calfrac Well Services (75%)

- **Montenegro**

**Blocks 1&2 (Prevlaka)**

HELLENIC PETROLEUM (JPK) (60%)

Sea Energy (40%)

# HELPE has a clear strategy for Growth, Competitiveness and Diversification

### 1 Upgrade & Increase competitiveness of Domestic R&M

– Upgrading Refining assets
– Improving Refining operating and Supply chain efficiency
– Increasing Marketing competitiveness

### 2 Expand International Marketing & Integration

– Securing Balkans expansion
– Considering acquisition options
– Investigating east-Med opportunities

### 3 Manage rest of Business Portfolio for Value & Growth

– Leveraging position in Petchems
– Managing E&P for value

### 4 Develop Power, Natu Gas, RES and explore new technologies

– Growing Power & Gas
– Developing a portfolio of RES
– Exploring new technologies (eg biofuels, $CO_2$ storage, etc.)

HELLENIC PETROLEUM

### 5 Best practice Organisation structure

### 6 Continuous growth of our people

# Hellenic Petroleum is a vertically integrated energy group

**Exploration & Production**
- Egypt: West Obayed in Western Desert, Mesaha in Upper Egypt
- Exploration Rights in Montenegro and Greece

**Domestic Refining**
- Aspropyrgos: 140kbd – 6.7mt pa
- Thessaloniki: 95kbd – 4.5mt pa
- Elefsina: 100kbd – 5.0mt pa

65% wholesale market share

**Domestic Marketing**
- EKO: Retail, aviation, marine, commercial & industrial, lubricants
- Acquisition of BP's retail and C&I businesses in Greece

28% market share

**International Refining and Marketing**
- Skopje refinery 65kbd – 2.5mt pa
- Thessaloniki – Skopje crude pipeline
- Retail: Cyprus, Montenegro, Serbia, Bulgaria, Albania, Bosnia, Georgia, & FYROM

**Petrochemicals**
- Sole producer and main marketer in Greece: Polypropylene, BOPP, Inorganics, Solvents, PET and PVC (trading); integrated operations with refineries
- Strong regional position, with exports accounting for 60% of total sales

**Power**
- Strategic alliance with Italy's Edison to create a powergen portfolio of 1,500-2,000MW
- 390MW CCGT plant in Thessaloniki; 420MW CCGT plant in Viotia
- Power trading and marketing

**Natural Gas**
- 35% stake in DEPA, Greece's incumbent natural gas supply company

# Upgrade & Increase competitiveness of Domestic R&M

**Elefsis Refinery Upgrading**

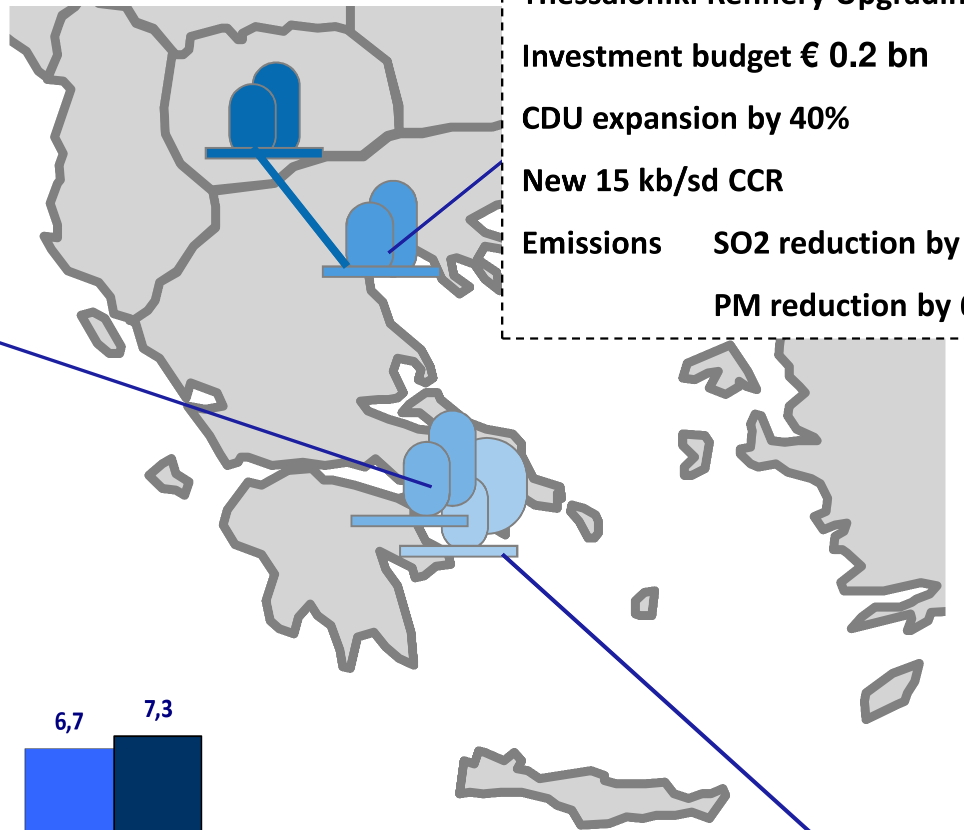
Investment budget € 1.2 bn

New 40 kb/sd hydrocracker

New 20 kb/sd flexicoker

Emissions SO2 reduction by 70%

PM reduction by 84%



**Thessaloniki Refinery Upgrading**

Investment budget € 0.2 bn

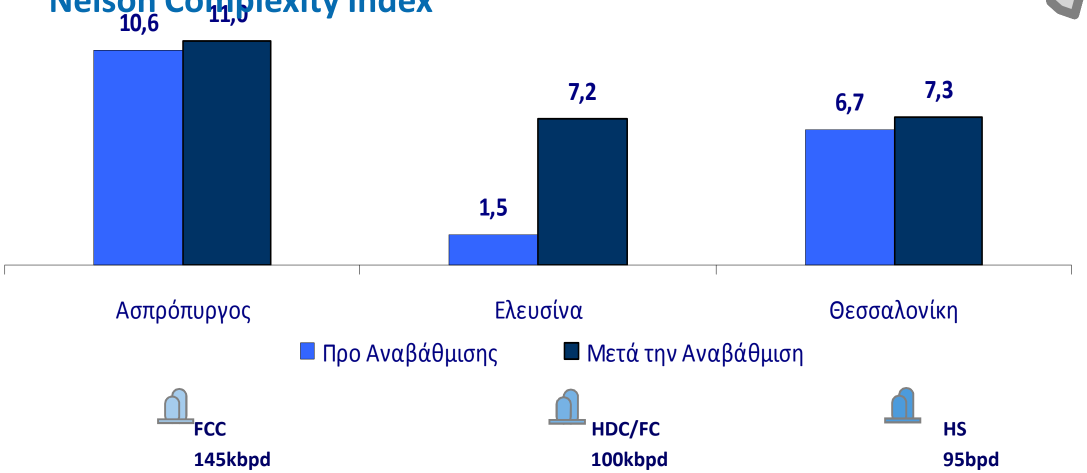
CDU expansion by 40%

New 15 kb/sd CCR

Emissions SO2 reduction by 60%

PM reduction by 60%

## Nelson Complexity Index




| Transformation project - targets |
| --- |
| **Improvement of** 2 quartiles in Solomon analysis<br>1.0-1.5$/bbl in net margin |

# Thessaloniki Refinery Upgrading. New CCR unit 15 kB/SD

# Elefsina Refinery Upgrading




# Our strategic alliance with Italy's Edison aims at creating one of Greece's leading independent power producers

**Thessaloniki 390MW CCGT power plant**

**Thisvi 420MW CCGT power**

- **Elpedison:** 50/50 joint venture with Edison, Italy's 2nd largest electricity producer and gas distributor, targets a power generation portfolio of 1,500-2,000MW, to secure the number 2 market position and take advantage of the market's positive long-term trends
  - 390MW CCGT plant in Thess/ki in operation since 2005
  - 420MW CCGT plant in Thisvi recently completed, as planned
  - Power trading & marketing

# Petrochemicals: Leading producer and trader in SEE and the Med

- ***Position:***

– Sole petrochemicals producer in Greece

– Domestic market shares greater than 50% in all products produced or traded

– Strong competitive advantage in polypropylene from own production of raw material (propylene)

– Exports account for 60% of total sales; strong export markets in Italy and Turkey

– Streamlined PVC operations through substitution of production with imports

– ***Targets***

– Debottleneck polypropylene production

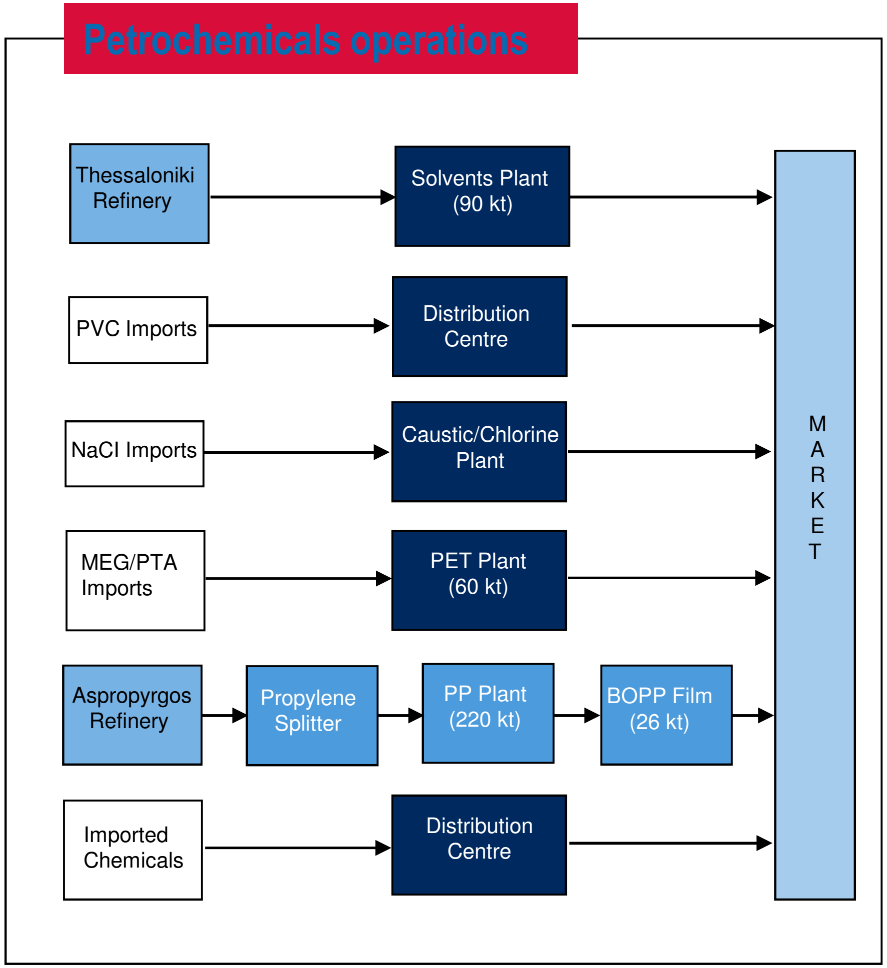
– Expand product portfolio:

Add new commodity plastics (PE)

Increase selectively PP resin grade portfolio

Increase selectively BOPP film types

– Leverage regional market access through increased trading



# HELPE also has a major social contribution and focuses on Sustainable Development

- Significant contribution to the Greece's energy security
- €300 mn paid to the State annually in corporate income taxes, social security and employment taxes
- €3 bn collected annually in excise taxes and VAT
- CSR programme with focus on local communities – *GRI* methodology*
- 5,200 employees
  - of which more than 550 live in the local communities of Thriasio and Thessaloniki
- €3 bn Investments between 2008-2012
- €6.7 bn in Assets
- Presence in 10 countries

- €1.5 bn investments in refineries for product specs upgrades and substantial improvement in environmental performance
- 330 kT annual total savings of $CO_2$ through investments in heat & power cogeneration
- €79 mn in energy efficiency investments *(2010-2012)*
- Continuous reduction of gas emissions and liquid waste
- Entry into power generation using natural gas, generating 50% less $CO_2$ vs. conventional coal and oil plants
- Developing a 100 MW RES portfolio
- Increased operations in biofuels trading in the Greek market

**Hellenic Petroleum is examining several scenarios for investments in new energy technologies within the next 10 years**



**Global Reporting Initiative*

# Summary

- Greek economic crisis, global market conditions, climate change and regulatory obligations create challenges for Hellenic Petroleum
- In comparison to the rest of Europe, the Med region offers opportunities, given regional demand growth drivers and export potential
- Hellenic Petroleum is addressing the challenges by leveraging its position in the east Med region, investing for growth and enhancing its competitiveness
- The implementation of a €3 billion investment programme combined with major transformation initiatives will enhance Hellenic Petroleum's competitiveness and substantially increase profitability in the next two years