

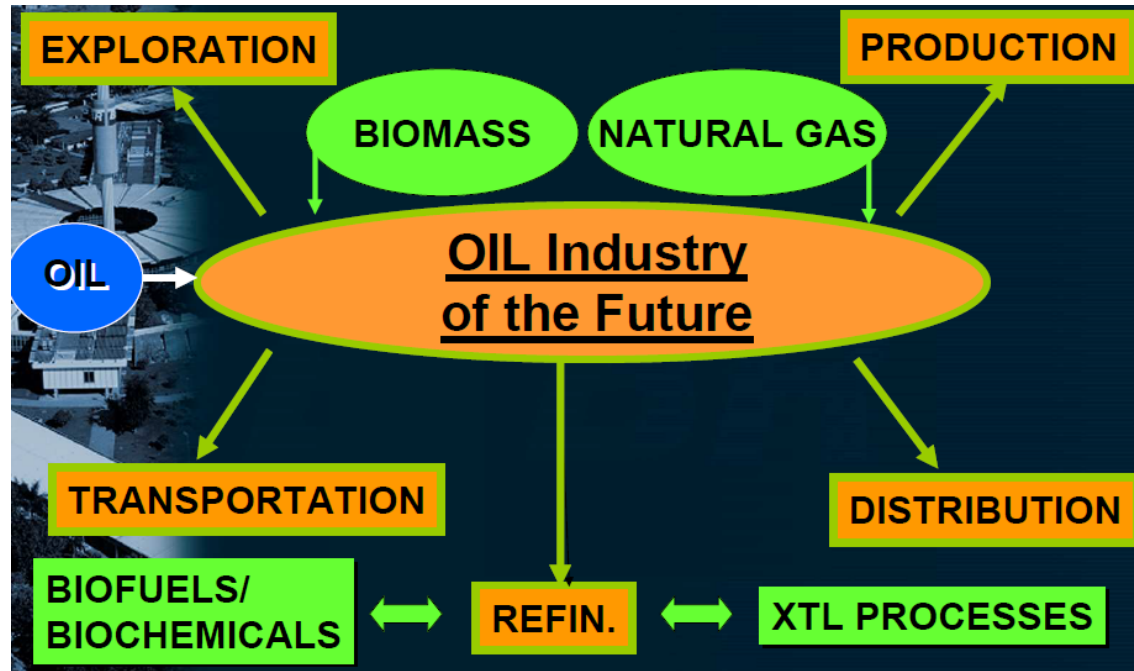


# Hellenic Petroleum Group: Technology Innovation in the Oil & Gas Sector

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## Biorefinery – oil industry's next step?



- ✓ Increasing stringent environmental regulation
- ✓ Growing demand for cleaner fuels
- ✓ Increase in the production of derivatives from declining quality oil
- ✓ Growing pressure of several segments of the society aiming at the reduction of GHG
- ✓ Search for alternative raw materials such as biomass, NG and coal
- ✓ Profitability maintenance - Survival

# Investing in Renewable Energy Sources

- Developing renewable electricity to diversify Group's energy portfolio. Also offsetting part of CO<sub>2</sub> emissions due to refining and power generation.
  - Wind and PV assets in operation
  - Developing a 200 MW portfolio (in various maturity stages)
- Expanding in biofuels
  - 2<sup>nd</sup> and 3<sup>rd</sup> generation biofuels



# Supporting new technologies in energy and transport

- Supporting R&D projects with various academic institutions :
  - ✓ “Sustain-Diesel”: hybrid diesel from used cooking oils
  - ✓ “Sustainable use of marine microalgae for the production of biofuels and high-added value biochemicals”: 3<sup>rd</sup> gen biofuels
- Pilot applications of alternative technologies in transport
  - ✓ Electric vehicle charging points in selected petrol stations
- Corporate Venture Capital - under consideration



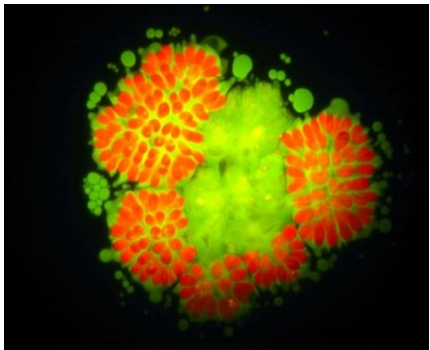
# Participating in R&D projects ...



Sustain-Diesel



Hydrosol Plant project - FCH JU



Sustainable use of marine microalgae for the production of biofuels and high-added value bio-chemicals



GREEN MEOH

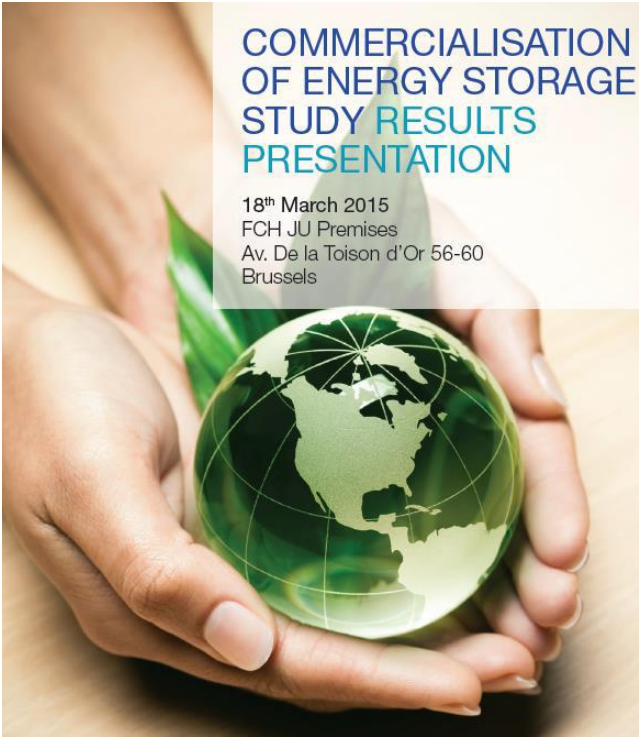
Green MEOH project - CAPITA



Innovation Clusters



# ... and European Union initiatives



## Our vision: Sustainable transport & Clean energy

- Gaining know-how in future energy technologies
- Developing new business
- Converting R&D outputs in production

Evolving to an innovative, reliable and competitive energy supplier in the future





# Hellenic Petroleum: Energy for life

