

# **Hellenic Petroleum Upstream Activities**

## **The resurgence of the Greek E&P**

**A presentation prepared for the  
2<sup>nd</sup> Global Oil & Gas  
SE Europe and Mediterranean  
Athens, September 2016**

**Yannis Grigoriou  
E&P General Manager**



# Disclaimer

## Forward looking statements

*Hellenic Petroleum do not in general publish forecasts regarding their future financial results. The financial forecasts contained in this document are based on a series of assumptions, which are subject to the occurrence of events that can neither be reasonably foreseen by Hellenic Petroleum, nor are within Hellenic Petroleum's control. The said forecasts represent management's estimates, and should be treated as mere estimates. There is no certainty that the actual financial results of Hellenic Petroleum will be in line with the forecasted ones.*

*In particular, the actual results may differ (even materially) from the forecasted ones due to, among other reasons, changes in the financial conditions within Greece, fluctuations in the prices of crude oil and oil products in general, as well as fluctuations in foreign currencies rates, international petrochemicals prices, changes in supply and demand and changes of weather conditions. Consequently, it should be stressed that Hellenic Petroleum do not, and could not reasonably be expected to, provide any representation or guarantee, with respect to the creditworthiness of the forecasts.*

*This presentation also contains certain financial information and key performance indicators which are primarily focused at providing a “business” perspective and as a consequence may not be presented in accordance with International Financial Reporting Standards (IFRS).*

## 2500 ago Herodotus was reporting oil shows from Zante island ...



“Herodotus spring” located at Zante island (Keri lake)

Εἶη δ' ἄν παν, ὅκου και  
εν Ζακύνθω εκ λίμνης και  
ύδατος πίσσαν  
αναφερομένην αυτός  
εγώ ορών. Ειαί μεν και  
πλέονες αι λίμνες  
αυτόθι, η δ' ὦν μεγίστη  
αυτέων εβδομήκοντα  
ποδών πάντη, βάθος δε  
διώρυγος εστί ...  
(Herodotus 425 bc)

... Greeks did not have the technology to produce it.

## **I. Hellenic Petroleum S.A.**

- **Group activities and key financial data**
- **E&P strategy and activities**

## **II. Greek Upstream sector**

- **Oil prospectivity**
- **Fiscal regime**
- **Recent and ongoing rounds**

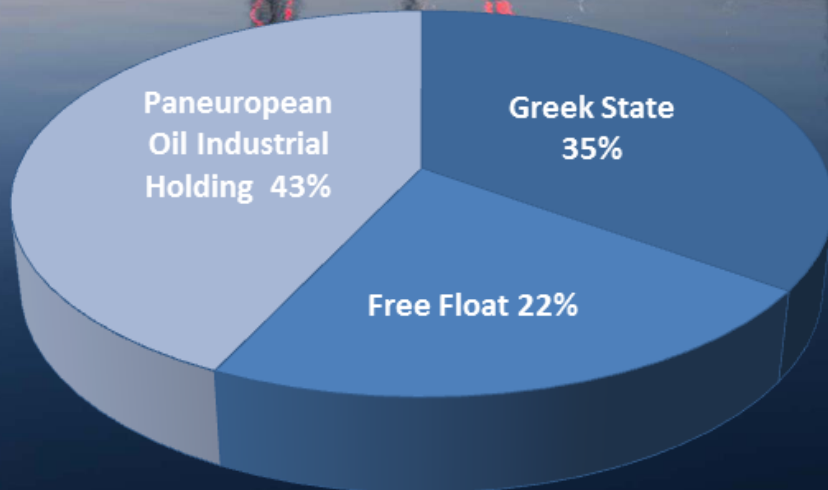






**HELLENIC  
PETROLEUM**

The leading Greek integrated energy group, listed in Athens Stock Exchange implementing **long term strategy** fully supported by the controlling shareholders and adopting **strict Code of Ethics** and **Corporate Governance** criteria



# A leading energy group with activities across the energy value chain in Greece and the SEE region



DESCRIPTION	METRICS
<ul style="list-style-type: none"> <li>• Exploration assets in Greece</li> </ul>	<ul style="list-style-type: none"> <li>• Patraikos Gulf (HELPE-Operator, 50% &amp; Edison, 50%)</li> <li>• Sea of Thrace (HELPE 25%, Calfrac Well Services 75%)</li> </ul>
<ul style="list-style-type: none"> <li>• Complex (recently upgraded) refining system:                             <ul style="list-style-type: none"> <li>– Aspropyrgos (FCC, 148kbpd)</li> <li>– Elefsina (HDC, 100kbpd)</li> <li>– Thessaloniki (HS, 93kbpd)</li> </ul> </li> <li>• Pipeline fed refinery/terminal in FYROM</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity: 16MT</li> <li>• NCI: 9.6</li> <li>• Market share: 65%</li> <li>• Tankage: 7m M<sup>3</sup></li> </ul>
<ul style="list-style-type: none"> <li>• Basel technology PP production (integrated with refining) and trading</li> <li>• &gt; 60% exports in the Med basin</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity (PP): 220 kt</li> </ul>
<ul style="list-style-type: none"> <li>• Leading position in all market channels (Retail, Commercial, Aviation, Bunkering) through EKO and HF (BP branded network)</li> </ul>	<ul style="list-style-type: none"> <li>• c.1,700 petrol stations</li> <li>• 30% market share</li> <li>• Sales volumes: 3.5MT</li> </ul>
<ul style="list-style-type: none"> <li>• Strong position in Cyprus, Montenegro, Serbia, Bulgaria, FYROM</li> <li>• Advantage on supply chain/vertical integration</li> </ul>	<ul style="list-style-type: none"> <li>• c.290 petrol stations</li> <li>• Sales volumes: 1.2MT</li> </ul>
<ul style="list-style-type: none"> <li>• ELPEDISON: Second largest IPP in Greece (JV with Edison/EdF)</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity: 810 MW (CCGT)</li> </ul>
<ul style="list-style-type: none"> <li>• DEPA/DESFA GROUP: 35% in Greece's incumbent NatGas supply company (DESFA in sale process)</li> </ul>	<ul style="list-style-type: none"> <li>• Volumes (2015): 3.0bcm</li> </ul>



# Solid performance on the back of recent investments and continuous improvement initiatives



High qualified personnel  
**3500** in 6 countries

2015 revenues  
**€8 Billion**  
2015 EBITDA  
**€760 million**

Recent Investments  
**€3 billion**

Annual Social product worth  
**€500 million**



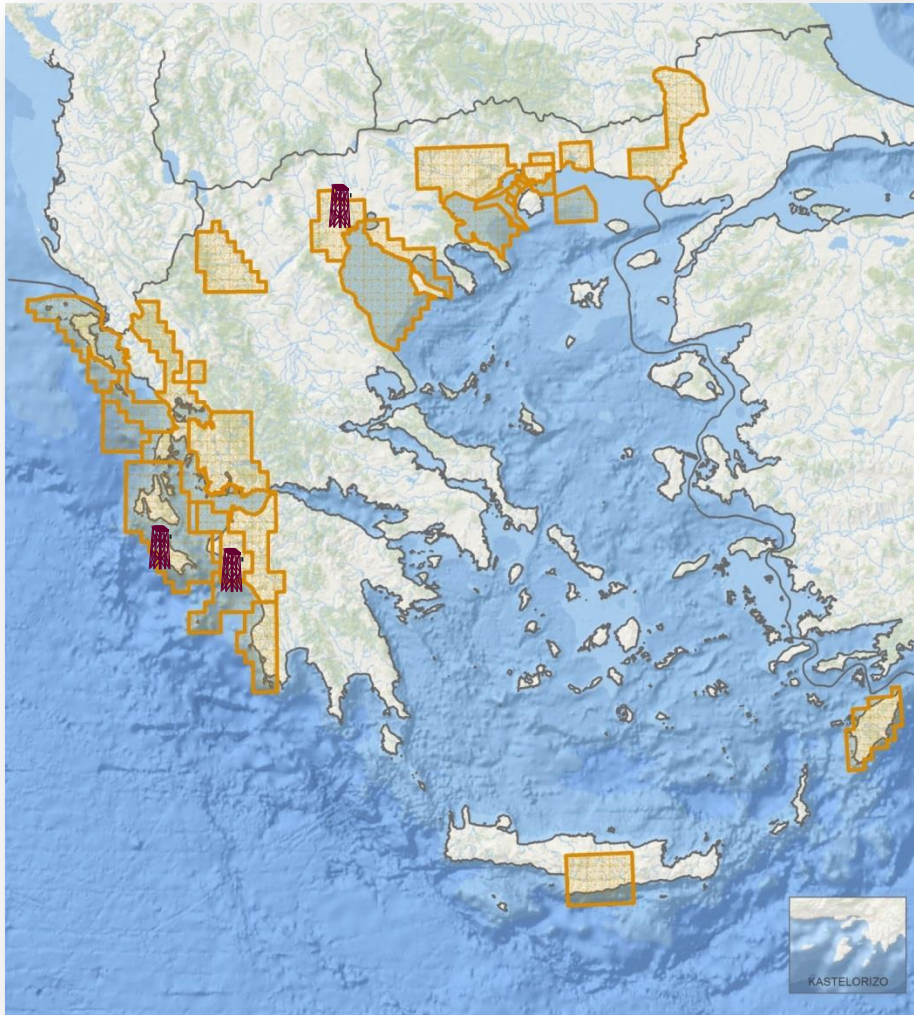
# Strong financial position

€ million, IFRS	2010	2011	2012	2013	2014	2015
<b>Income Statement</b>						
Sales Volume (MT'000) - Refining	14,502	12,528	12,796	12,696	13,538	14,258
<b>Net Sales</b>	8,477	9,308	10,469	9,674	9,478	<b>7,303</b>
<u>Segmental EBITDA</u>						
- Refining, Supply & Trading	338	259	345	57	253	561
- Petrochemicals	50	44	47	57	81	93
- Marketing	114	66	53	68	90	107
- Other (incl. E&P)	-28	-6	0	-5	-7	-2
<b>Adjusted EBITDA *</b>	<b>474</b>	<b>363</b>	<b>444</b>	<b>178</b>	<b>417</b>	<b>758</b>
Adjusted associates' share of profit	30	67	69	57	28	22
<b>Adjusted Net Income *</b>	<b>213</b>	<b>140</b>	<b>229</b>	<b>-120</b>	<b>2</b>	<b>268</b>
<b>Balance Sheet / Cash Flow</b>						
<b>Capital Employed</b>	4,191	4,217	4,350	3,905	2,870	<b>2,913</b>
Net Debt	1,659	1,687	1,855	1,689	1,140	1,122
Capital Expenditure (incl. refinery upgrades)	709	675	521	112	136	165

(\*) Calculated as Reported less the Inventory effects and other non-operating items



# HELPE explored the country from 1975 - 2007



- The Greek State awarded to HELPE exclusive rights for E&P activities in **26 oil promising blocks**, while **audited and overviewed Prinos area operations (1975 – 2007)**
- HELPE, as **operator**, with its high quality personnel and using advanced support by experienced third parties, explored the country
  - with **extensive geochemical, geological & geophysical studies**
  - **acquiring 63.000 km onshore & offshore seismic data and**
  - **drilling 75 wells**

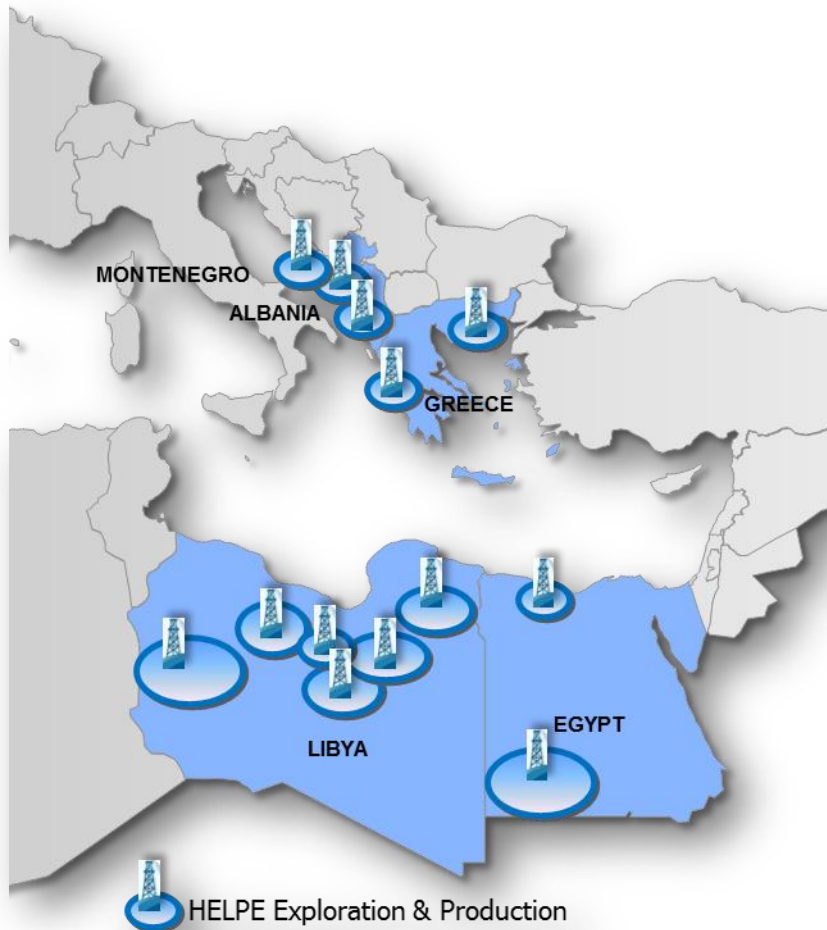
## Field Discoveries

**Katakolon (1981, oil, W. Greece)**

**Epanomi (1989, natural gas, N. Greece)**

**Alykes (1990, heavy oil, Zakynthos)**

## International activities of HELPE in E&P

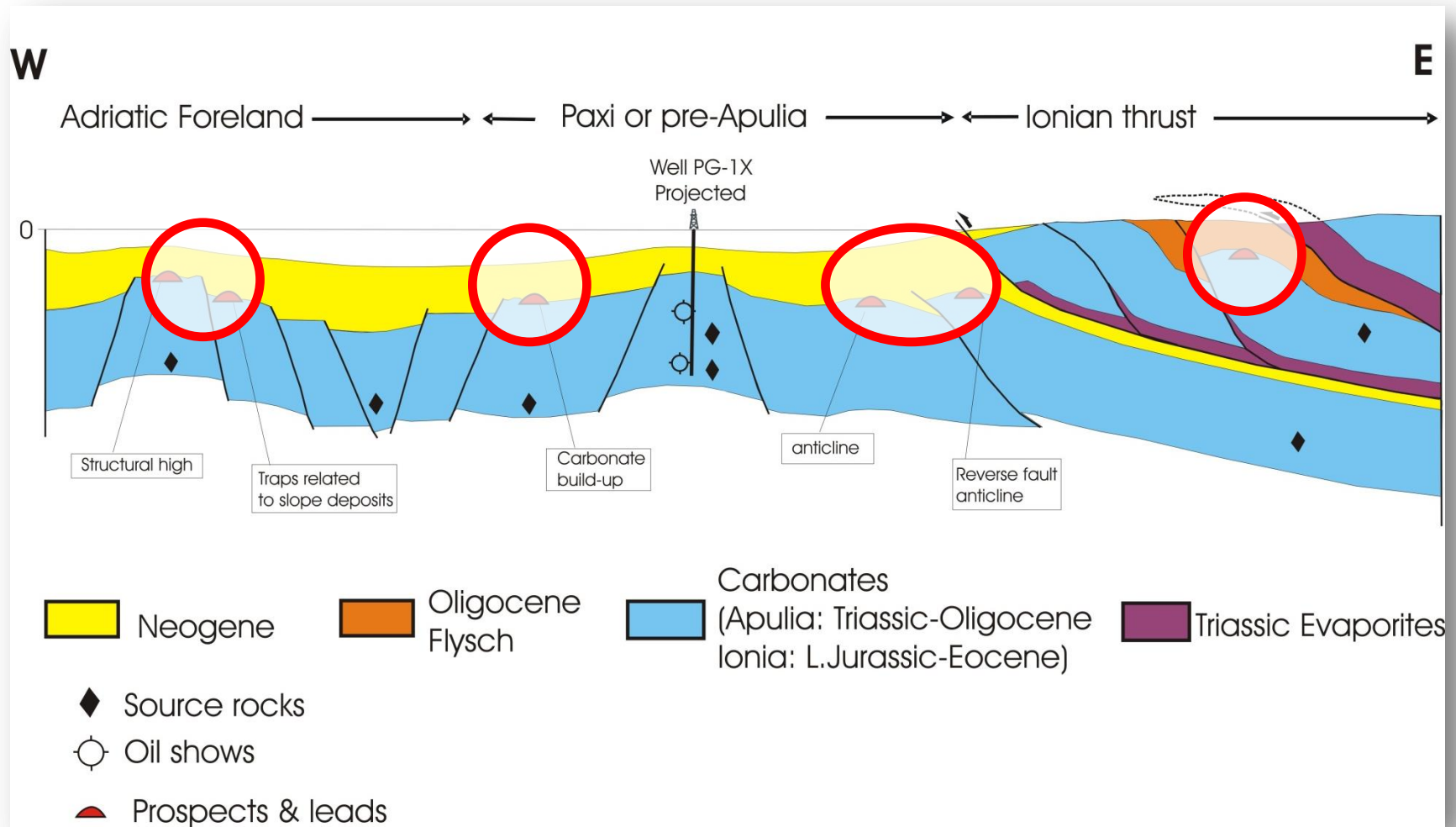


Last years ELPE invested in international exploration activities, more than \$ 220 millions, drilling **34 wells** and **discovering c. 200 million barrels** as operator or participating in JVs

- **Albania:** 3 blocks ( 49% JV with **OMV**)
- **Libya:** 6 blocks (20% in JV with **Woodside και Repsol**)
- **Egypt:** 2 blocks (W. Obayed 30% in JV with **Vegas** and Mesaha 30% in JV with **Petroceltic, Kuwait Energy and Beach**)
- **Montenegro:** 3 blocks (following the acquisition of the local company JPK)

**Participation in 17 international rounds mainly in MMEA area in Joint Ventures with reputable oil companies as GdFSuez, Edison, Repsol, Woodside, Statoil, OMV, Lukoil, JAPEX, Kuwait Energy etc.**

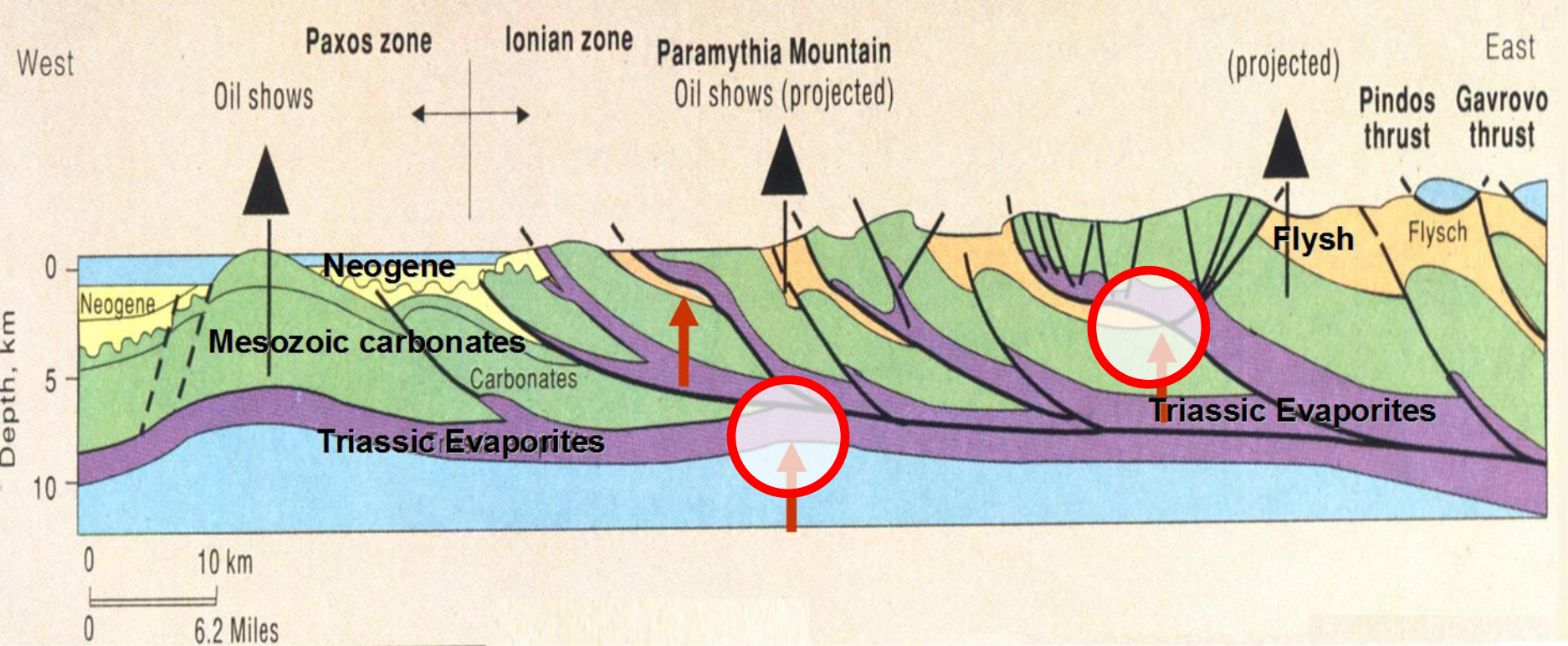
# Offshore W. Greece – play concepts



**Anticlines and reefal buildups in Mesozoic carbonates covered by Neogene clastic sediments in the Apulian foreland**



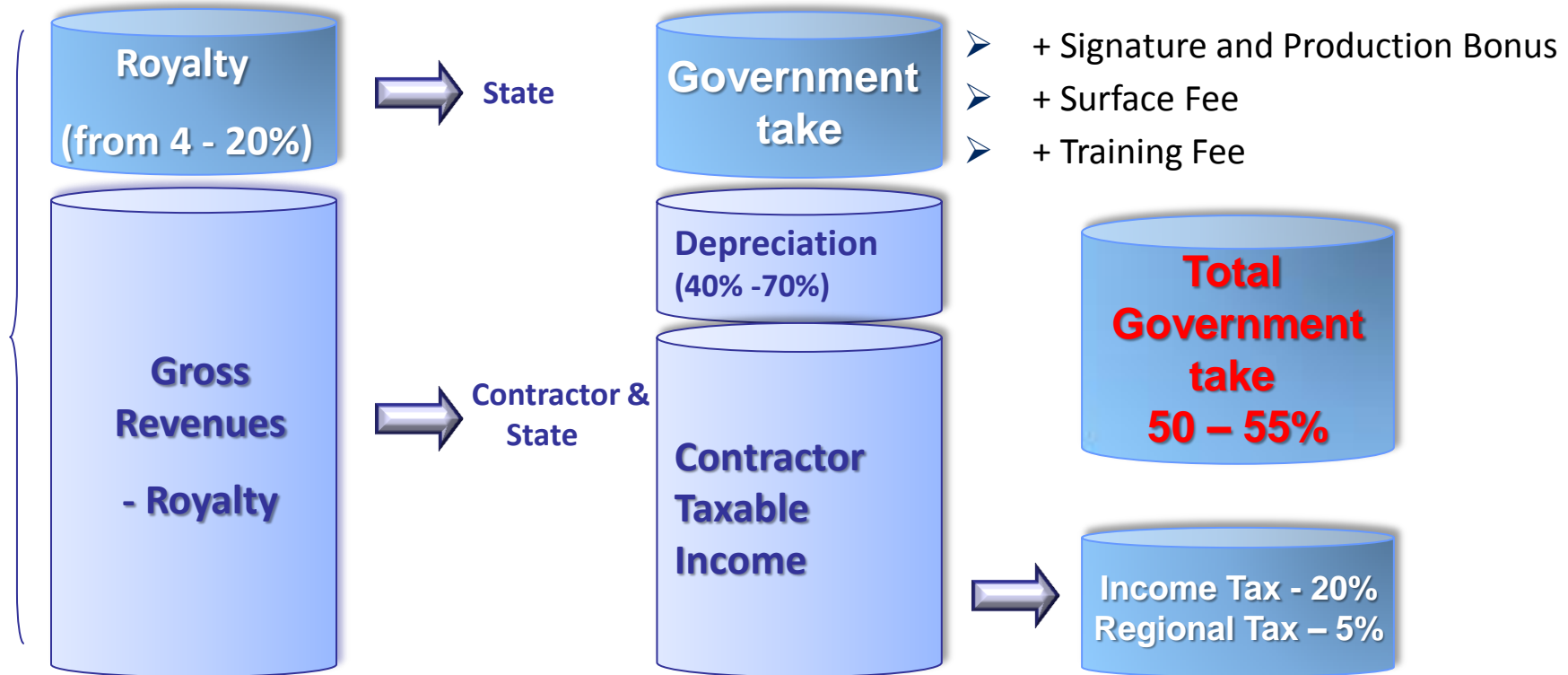
# Onshore W. Greece – deep geological targets



**Unexplored deep oil plays below Triassic evaporites**



# Existing fiscal and tax regime is competitive



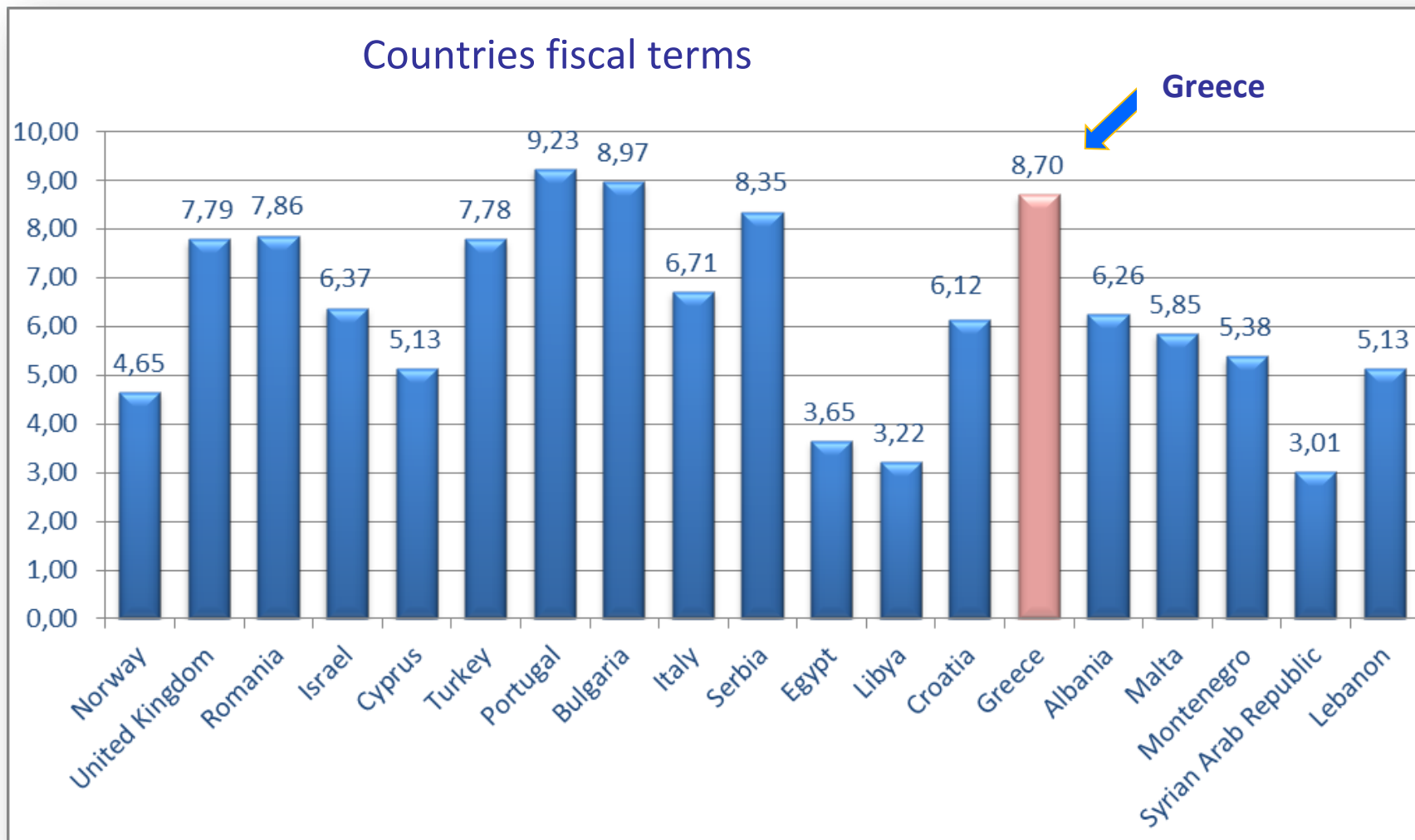
**Royalty ranges** from a lower of 4% of wellhead production and is **linked to the R Factor** ratio on a sliding scale

where **R Factor** = 
$$\frac{\text{Cum.Revenues}}{\text{Cum.Costs}}$$

Tranches escalation:  $0.5 < R \leq 1.0$ ,  $1.0 < R \leq 1.5$ ,  $1.5 < R \leq 2.0$  &  $R > 2.0$

# The existing legal and fiscal regime is competitive

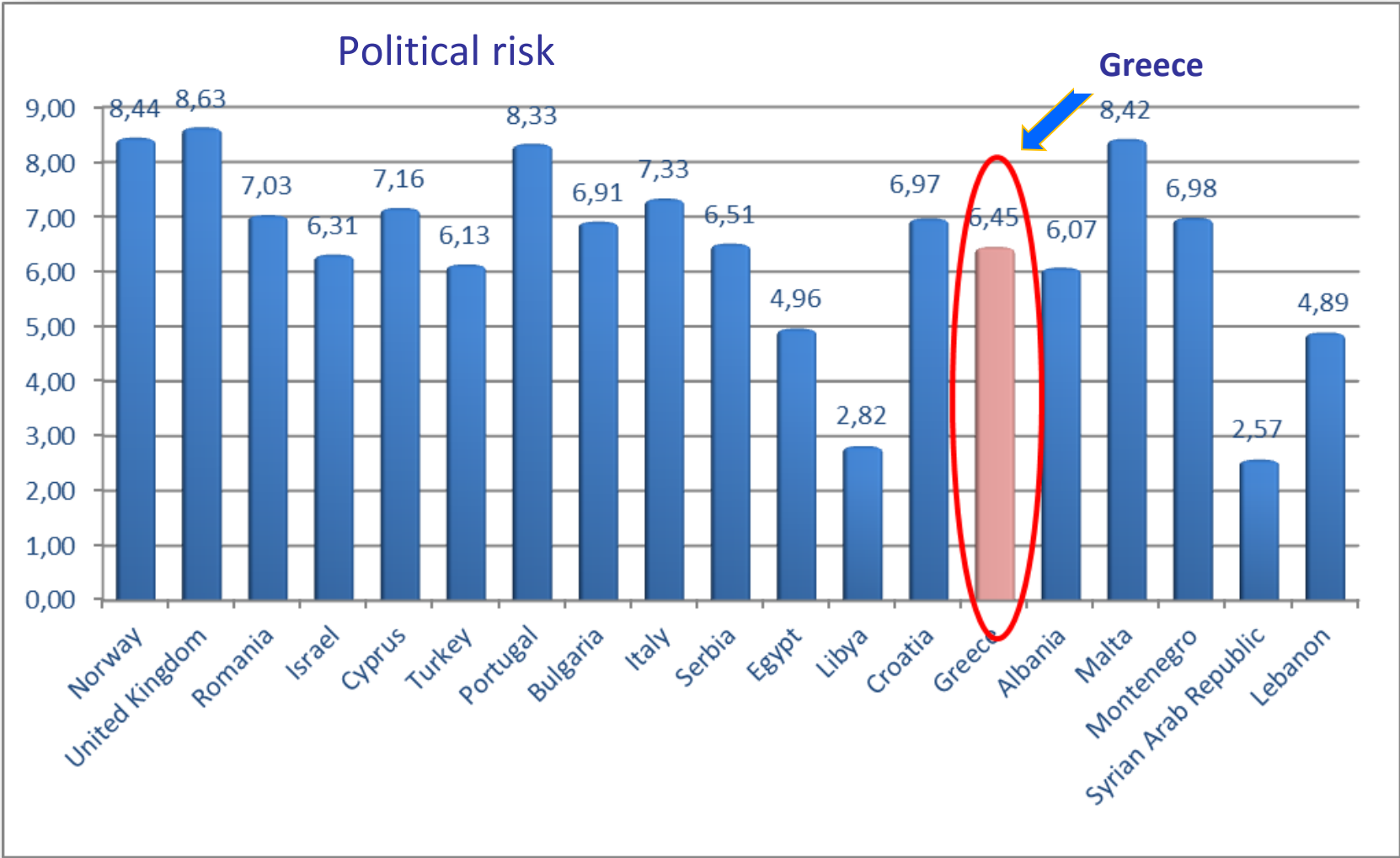
Source: IHS PEPS Report 4Q 2015



**Fiscal regime: Greece is ranked 8<sup>th</sup> amongst 127 countries**

# Political stability with low risk in a safe EU country

Source: IHS PEPS Report 4Q 2015



**Political risk: Greece is ranked 43<sup>rd</sup> amongst 127 countries**

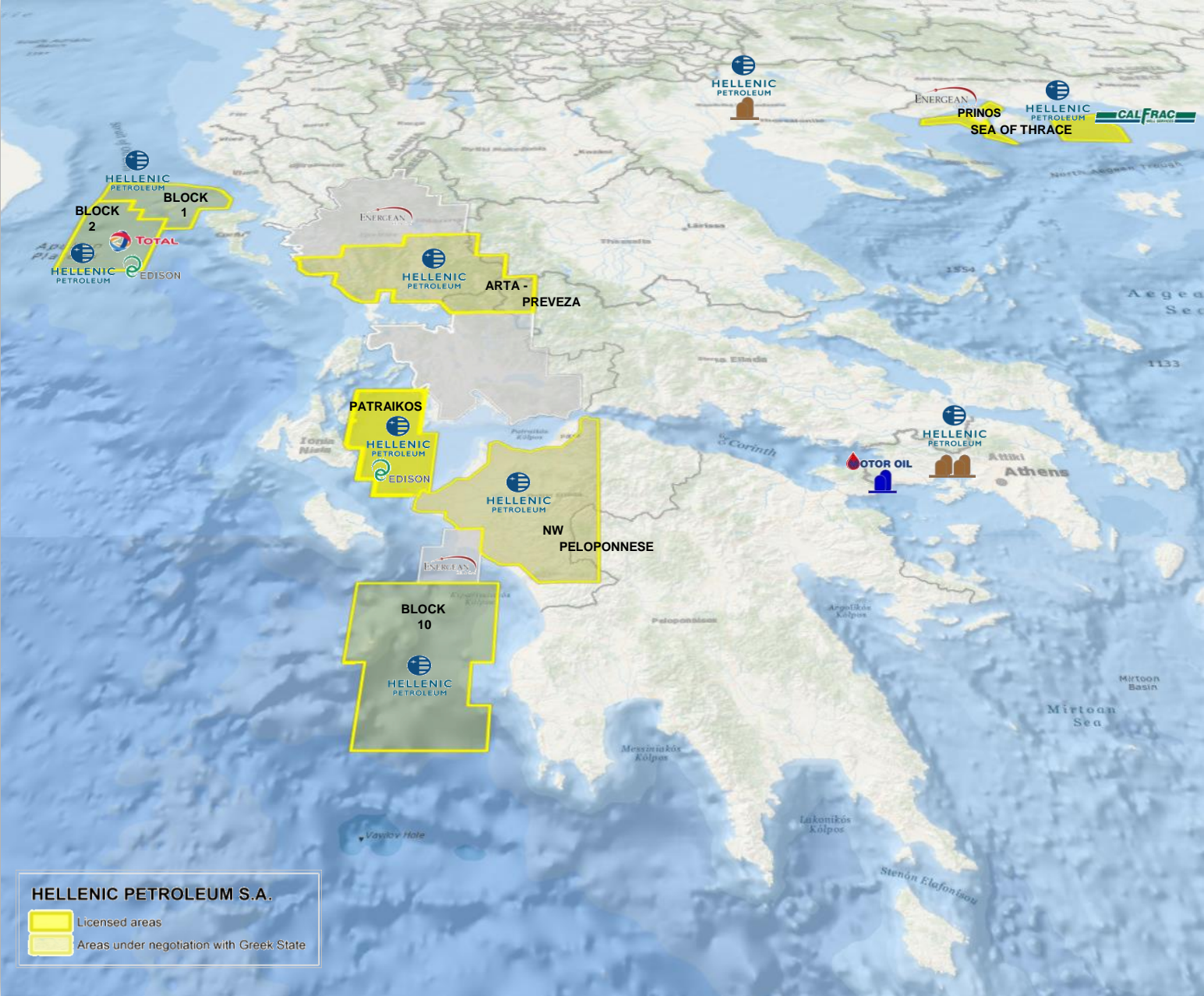
# HELPE is considering the Greek E&P sector as a pillar for growth



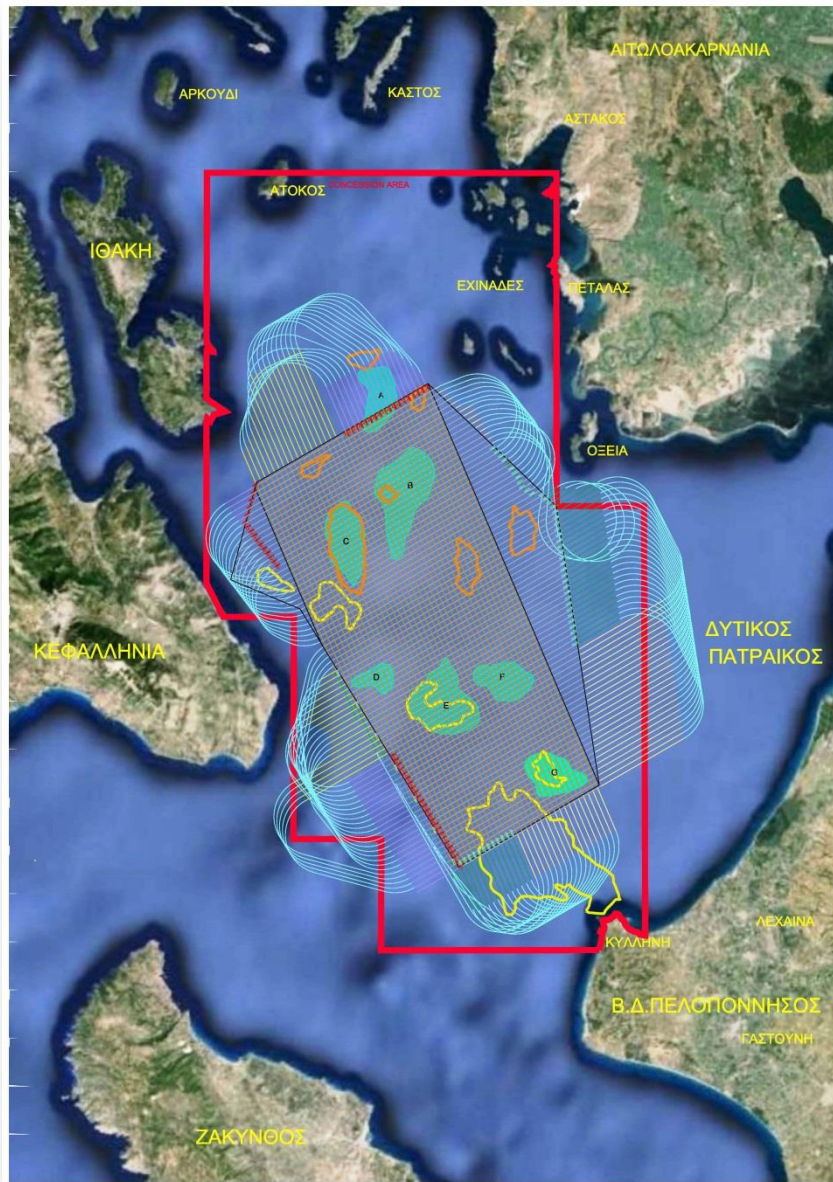
therefore we are building a promising portfolio of blocks



# Hellenic Petroleum E&P assets in Greece



# Lease Agreement of W. Patraikos Gulf



- Following an open door international tender the Greek State on **October 2014** awarded exclusive exploration and production rights to the business scheme of
  - **Hellenic Petroleum** (50%, operator) and
  - **Edison International** (50%)
- Up to Oct. 2017, when the 1<sup>st</sup> exploration phase will be expired, all the exploration works will be completed (geological studies – processing & interpretation of 2D and 3D seismic data.)
- The commitments of the next two phases (with two years each duration) is to drill one well in each phase





**HELLENIC  
PETROLEUM**

A group of established, reputable and financially strong oil companies with vast experience and knowledge in Adriatic and Ionian sea are exploring the mother Earth with gratitude and respect investing for the prosperity and development of the local societies



**EDISON**



Exploration activities are scheduled so that at the end of the exploration period will know if there is or there is not oil field in the block

## **Ambitious Exploration Strategy:**

- Detailed fit to target geological studies (2015 – 2017)
- High resolution double azimuth 3D seismic 800 km<sup>2</sup> (2016 – 2017)
- 2 -5 exploration wells (2018 – 2019)



**Implementing  
the most up-to-date,  
safe and environmentally friendly  
technological methods,  
showing the utmost respect  
for local communities and  
their current activities**



2D data: 325 km  
Gravity– magnetics  
2.000km

3D data

E–W azimuth: 1011 km<sup>2</sup>

N–S azimuth : 810 km<sup>2</sup>

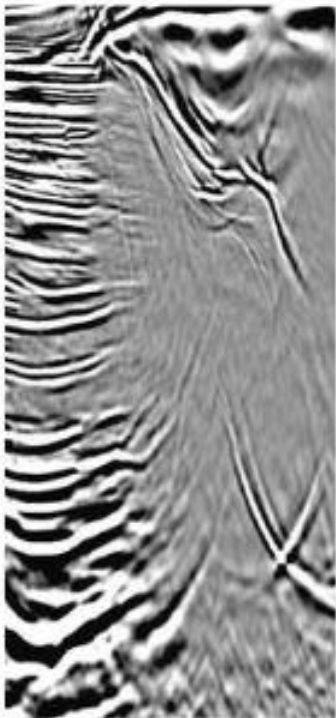
Strict environmental provisions and measures without any environmental impact and close cooperation with local communities.





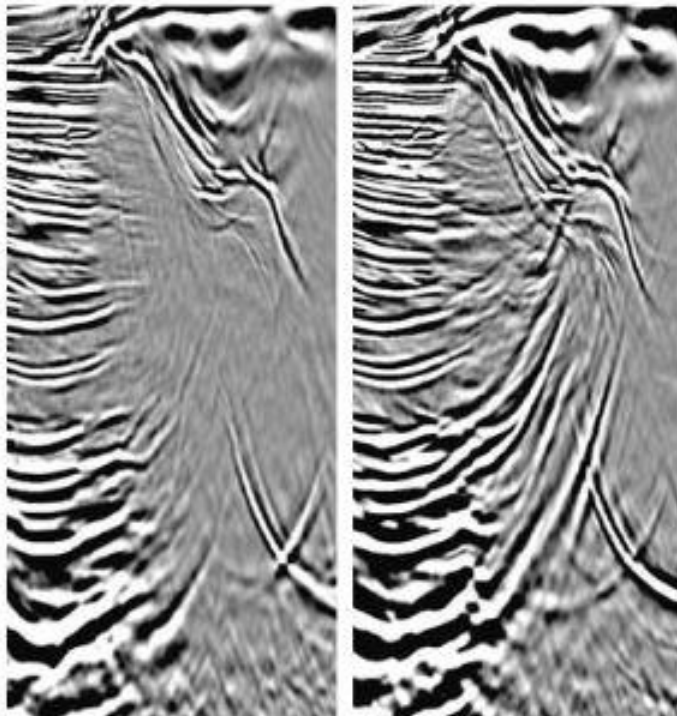
- ✓ During 37 days continuous 3D seismic recording from **61.440** hydrophones
- ✓ with **12** streamers **8 km long** each expanded in an area of **1000 m width**
- ✓ In a recording area of **1.000** football grounds or **1.000.000** parked cars
- ✓ In total **24 Terabytes** digital data were recorded while only 9 Terabytes were recorded in Greece till then

# Single azimuth



0° to 10°

# Single vs double azimuth

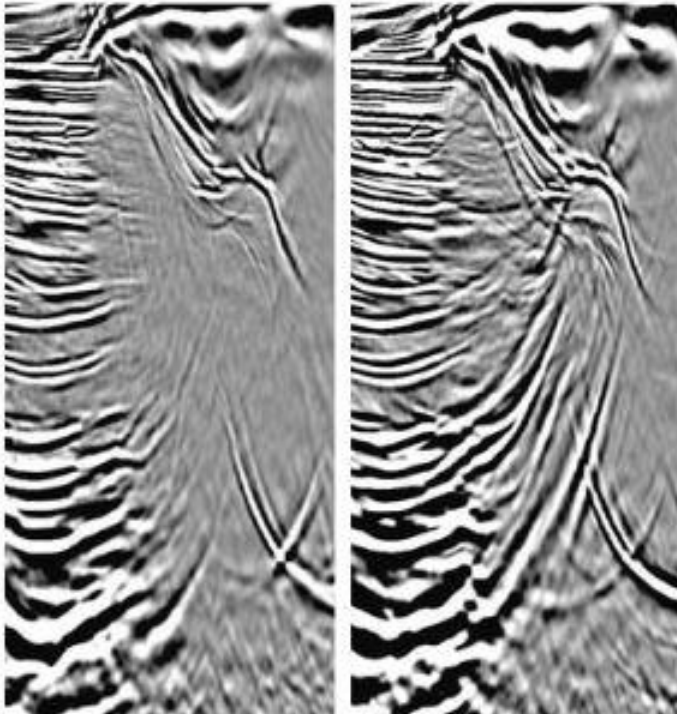


0° to 10°

60° to 70°

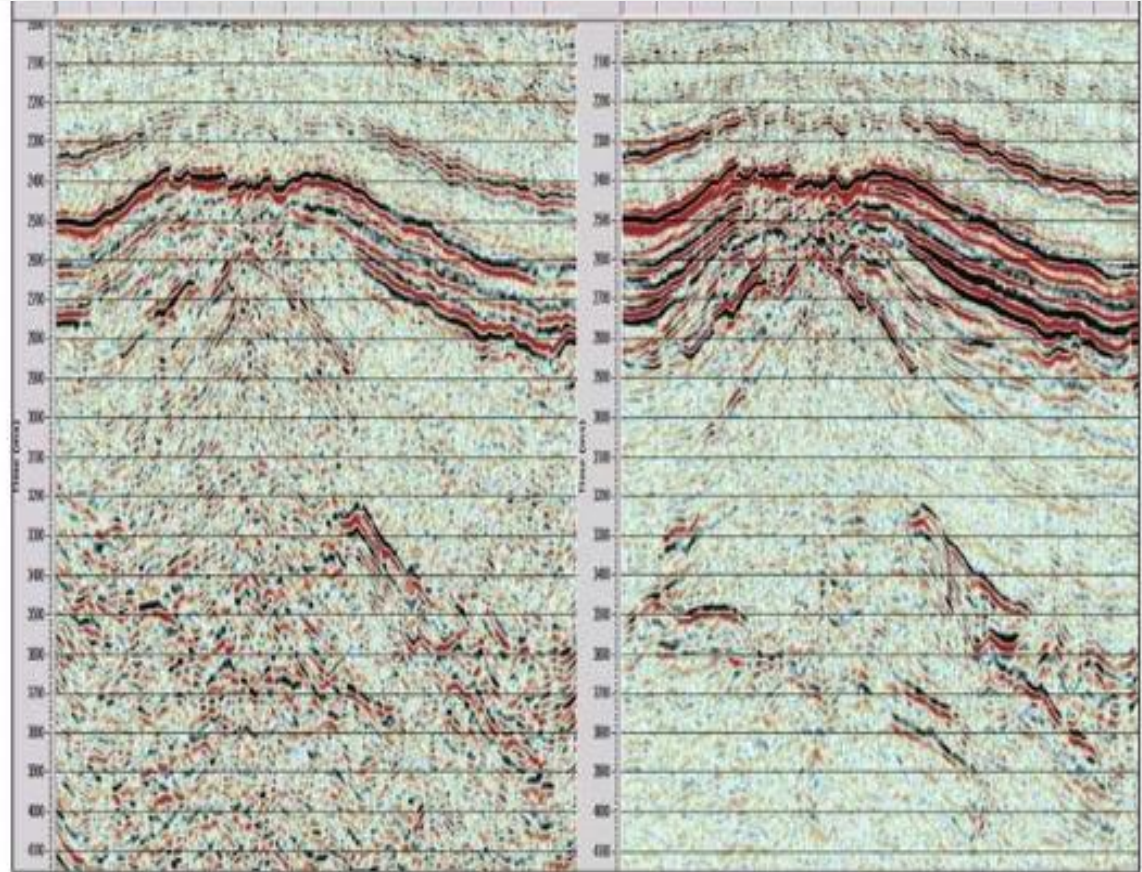


# Single vs double azimuth plus PSDM



0° to 10°

60° to 70°



# Four vessels operated simultaneously 24 h for 37 consecutive days





# Seismic vessel "Polar Empress" (build spring 2015)

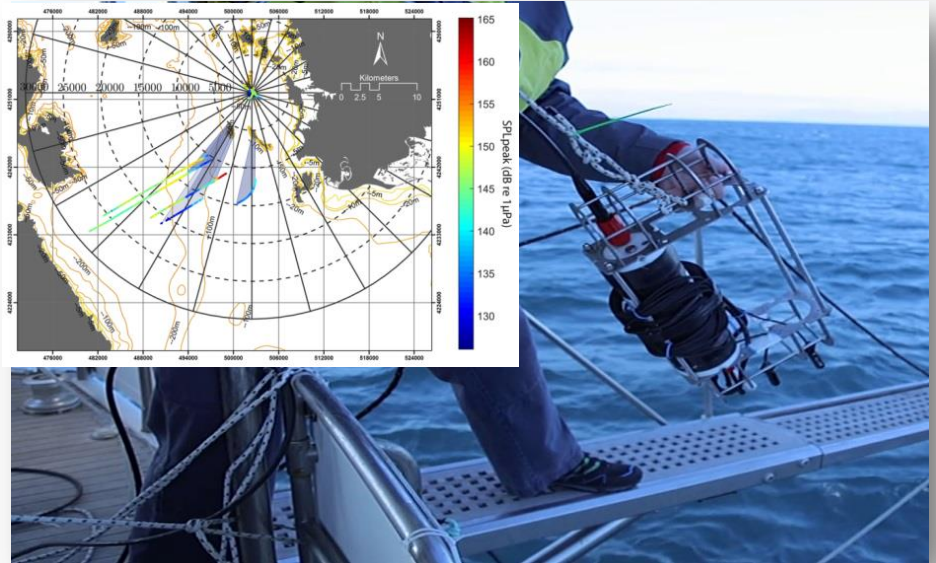




# “Polar Empress” in action



# 24/7 environmental monitoring fulfilling international treaties applied to ensure protection of marine life



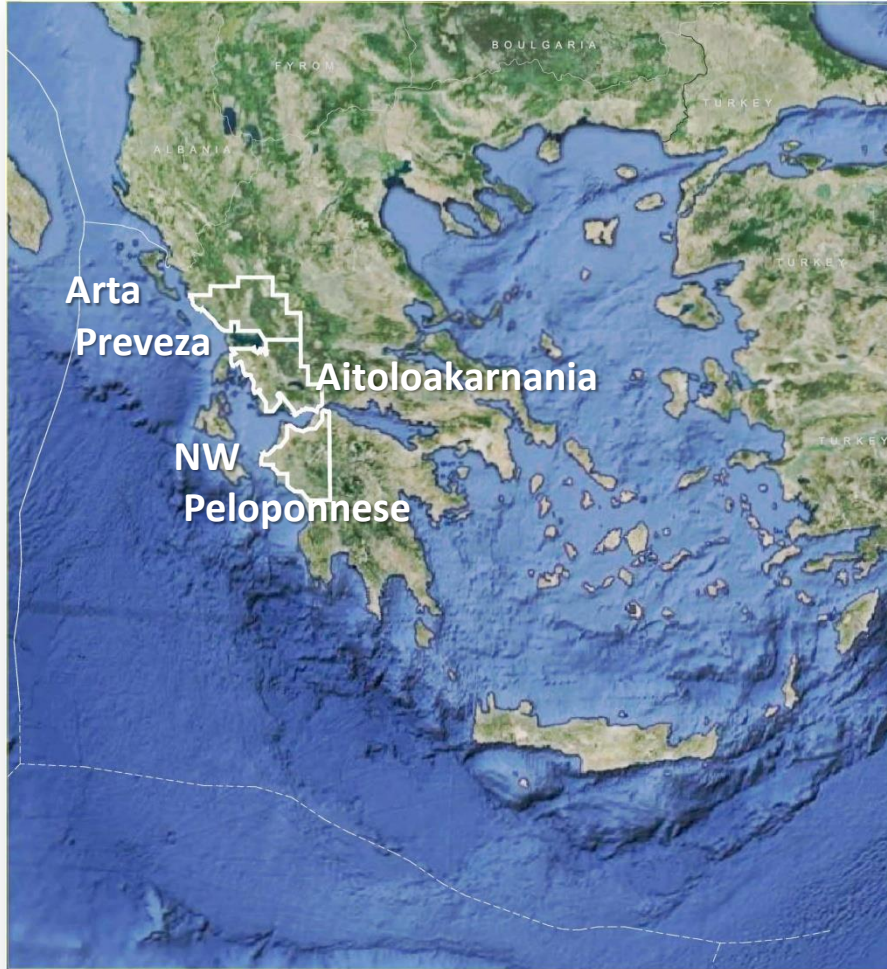


# “Polar Empress” control room (part view)



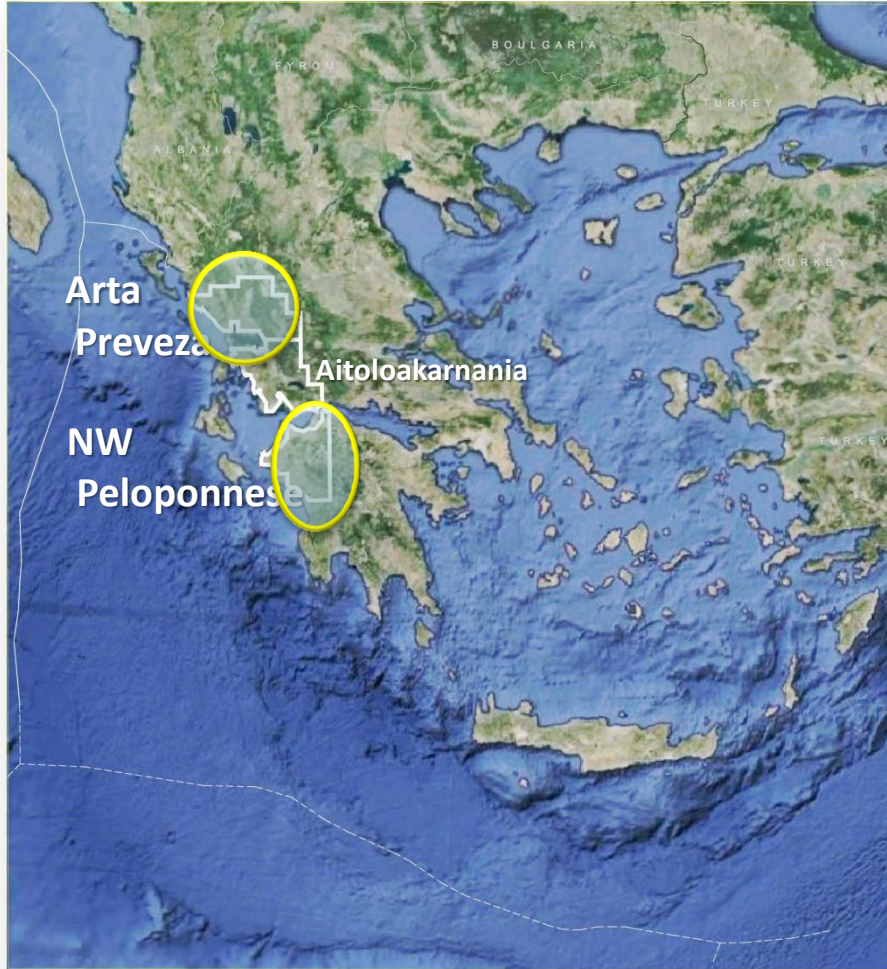


# Licensing Round for three onshore areas W. Greece (2014)



- Approving Enel's application (Apr 2014) Ministry of Energy released an international tender for 3 blocks in W. Greece (**bid date 6 Feb 2015**).
- HELPE studied jointly with ENEL all three blocks, but finally **HELPE submitted alone two offers** (ENEL did not participate due to change of its corporate strategy) for:
  - **Arta – Preveza** and
  - **NW Peloponnese**
- Two more offers were submitted by Energean for the Arta – Preveza and Aitolokarnania blocks

## Licensing Round for three onshore areas W. Greece (2014)



- Following a competitive evaluation process the Ministry of Energy (4 Feb 2016) has declared **HELPE** as the “preferred bidder” for two blocks:
  - **Arta – Preveza** and
  - **NW Peloponnese**
- Energean is declared “preferred bidder” for Aitolokarnania block
- The **Lease Agreements** are under negotiations and is expected to be **executed over the coming weeks**



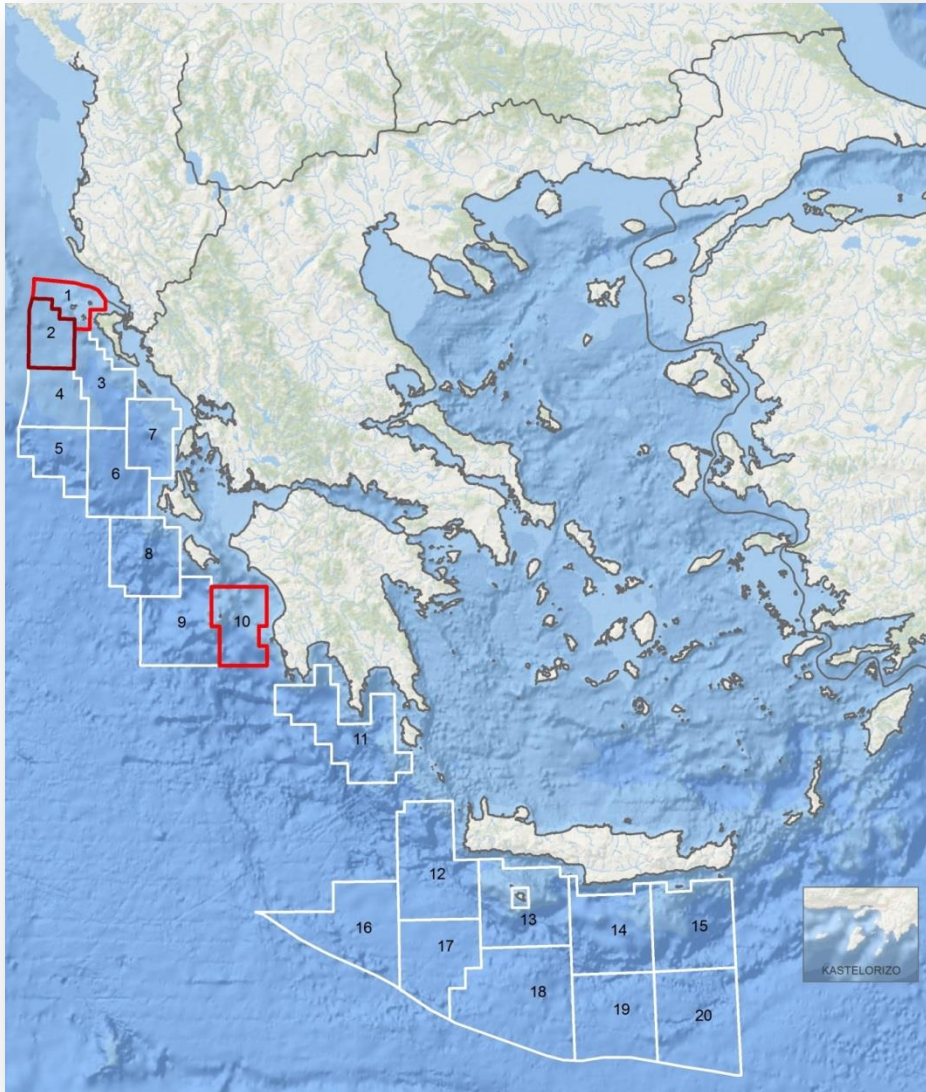
# International round for 20 offshore blocks in W. Greece

- The Ministry of Energy announced international round for 20 blocks in the area of Ionian sea and SW of Crete with bid date **14 July 2015**

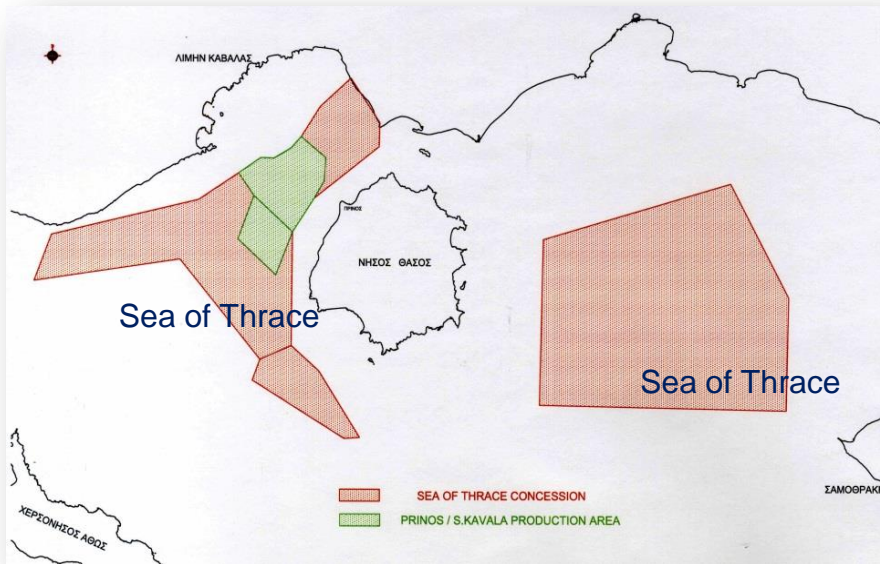




# International round for 20 offshore blocks in W. Greece



- The Ministry of Energy announced international round for 20 blocks in the area of Ionian sea and SW of Crete with bid date **14 July 2015**
- **HELPE** submitted:
  - offers for **two blocks** in Ionian Sea (**block 1** north of Corfu and **block 10** Kyparissiakos Gulf)
- The JV of **Total (50% operator) - Edison (25%) and HELPE (25%)** submitted offer for **block 2**
- The evaluation process is ongoing and is expected the preferred bidders to be announced over the coming weeks

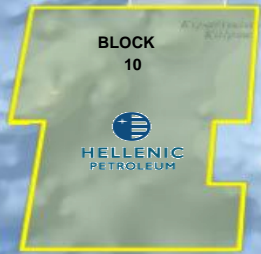
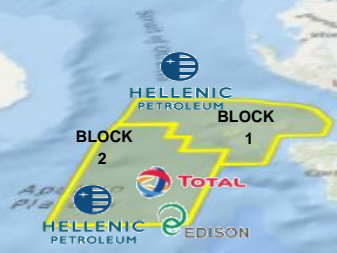


- Hellenic Petroleum 25%
- Calfrac Well Services 75%

We are in discussion with Calfrac to reactivate the block

- **Extremely oil promising block**, which includes Prinos basin west of Thasos island (with **two more discovered oil fields** of Athos and NE Prinos) and **another oil bearing basin** east of Thasos island, three times bigger than Prinos oil and gas producing basin
- The operator of the neighboring Prinos oil field, shot last summer a 3D seismic survey **trespassing Sea of Thrace concession** without having any permission either from the JV HELPE – Calfrac or the competent state authorities. **Public prosecutor is ex officio investigating the case.**





We are committed to discover and produce oil in Greece...

... we will continue to secure more acreage in JVs with international oil companies.

**HELLENIC PETROLEUM S.A.**

- Licensed areas
- Areas under negotiation with Greek State

**Many thanks**

**for your kind attendance**