

Hellenic Petroleum Upstream Activities

The resurgence of the Greek E&P

**A presentation prepared for
9th SE Europe Energy Dialogue
29- 30 June 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).

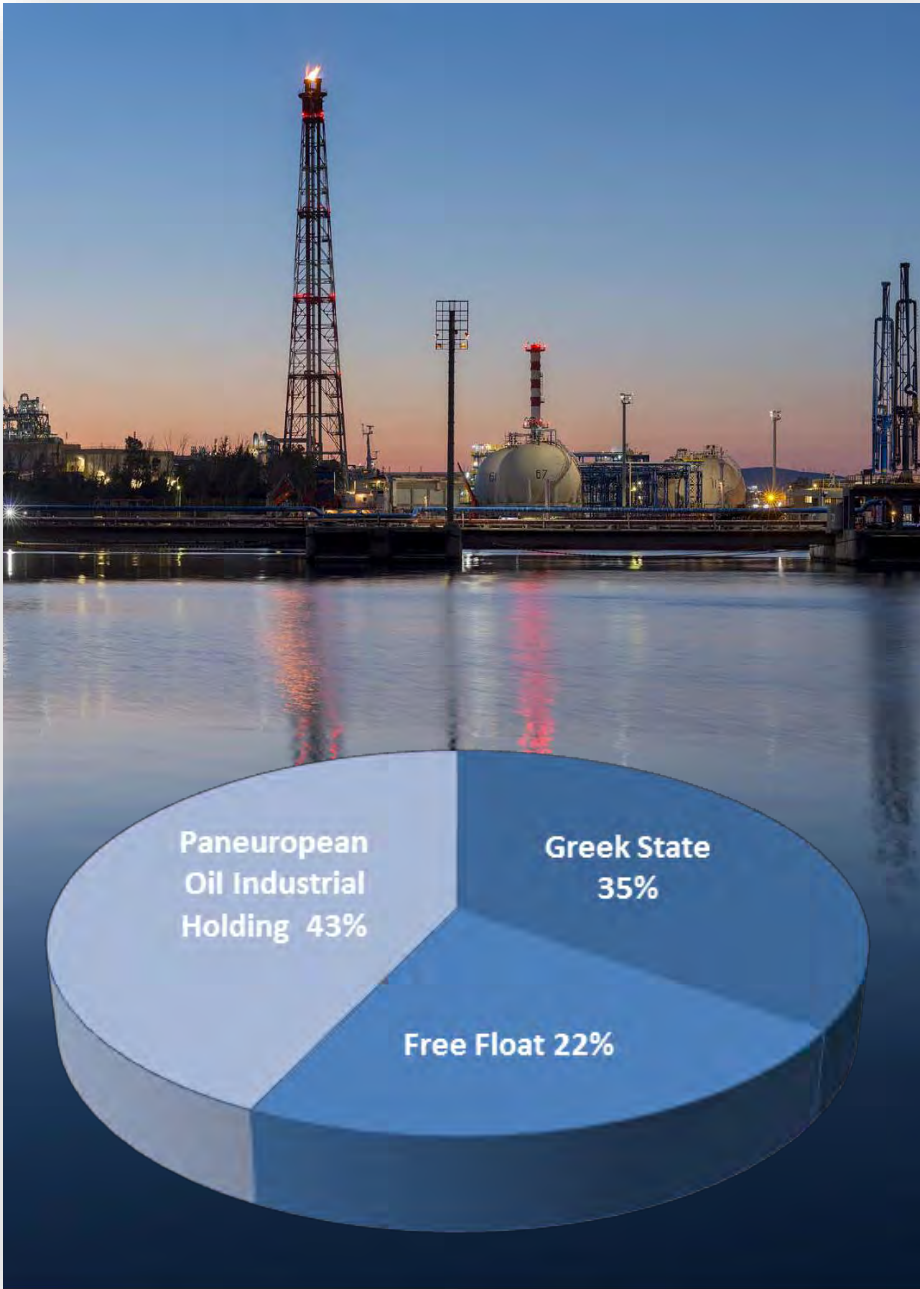
I. Hellenic Petroleum S.A.

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

II. Greek Upstream sector

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





The leading Greek integrated energy group, listed in Athens Stock Exchange with over performance vs benchmarks and implemented long term strategy fully supported by the controlling shareholders



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

Exploration & Production



| DESCRIPTION | METRICS |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • Exploration assets in Greece | <ul style="list-style-type: none"> • Patraikos Gulf (HELPE-Operator, 50% & Edison, 50%) • Sea of Thrace (HELPE 25%, Calfrac Well Services 75%) |
| <ul style="list-style-type: none"> • Complex (recently upgraded) refining system: <ul style="list-style-type: none"> – Aspropyrgos (FCC, 148kbpd) – Elefsina (HDC, 100kbpd) – Thessaloniki (HS, 93kbpd) • Pipeline fed refinery/terminal in FYROM | <ul style="list-style-type: none"> • Capacity: 16MT • NCI: 9.6 • Market share: 65% • Tankage: 7m M³ |
| <ul style="list-style-type: none"> • Basel technology PP production (integrated with refining) and trading • > 60% exports in the Med basin | <ul style="list-style-type: none"> • Capacity (PP): 220 kt |
| <ul style="list-style-type: none"> • Leading position in all market channels (Retail, Commercial, Aviation, Bunkering) through EKO and HF (BP branded network) | <ul style="list-style-type: none"> • c.1,700 petrol stations • 30% market share • Sales volumes: 3.5MT |
| <ul style="list-style-type: none"> • Strong position in Cyprus, Montenegro, Serbia, Bulgaria, FYROM • Advantage on supply chain/vertical integration | <ul style="list-style-type: none"> • c.290 petrol stations • Sales volumes: 1.2MT |
| <ul style="list-style-type: none"> • ELPEDISON: Second largest IPP in Greece (JV with Edison/EdF) | <ul style="list-style-type: none"> • Capacity: 810 MW (CCGT) |
| <ul style="list-style-type: none"> • DEPA/DESFA GROUP: 35% in Greece's incumbent NatGas supply company (DESFA in sale process) | <ul style="list-style-type: none"> • Volumes (2015): 3.0bcm |

Refining, Supply & Trading



Petrochemicals



Domestic Marketing



International Marketing



Power & Gas



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



High qualified personnel
3500 in 6 countries

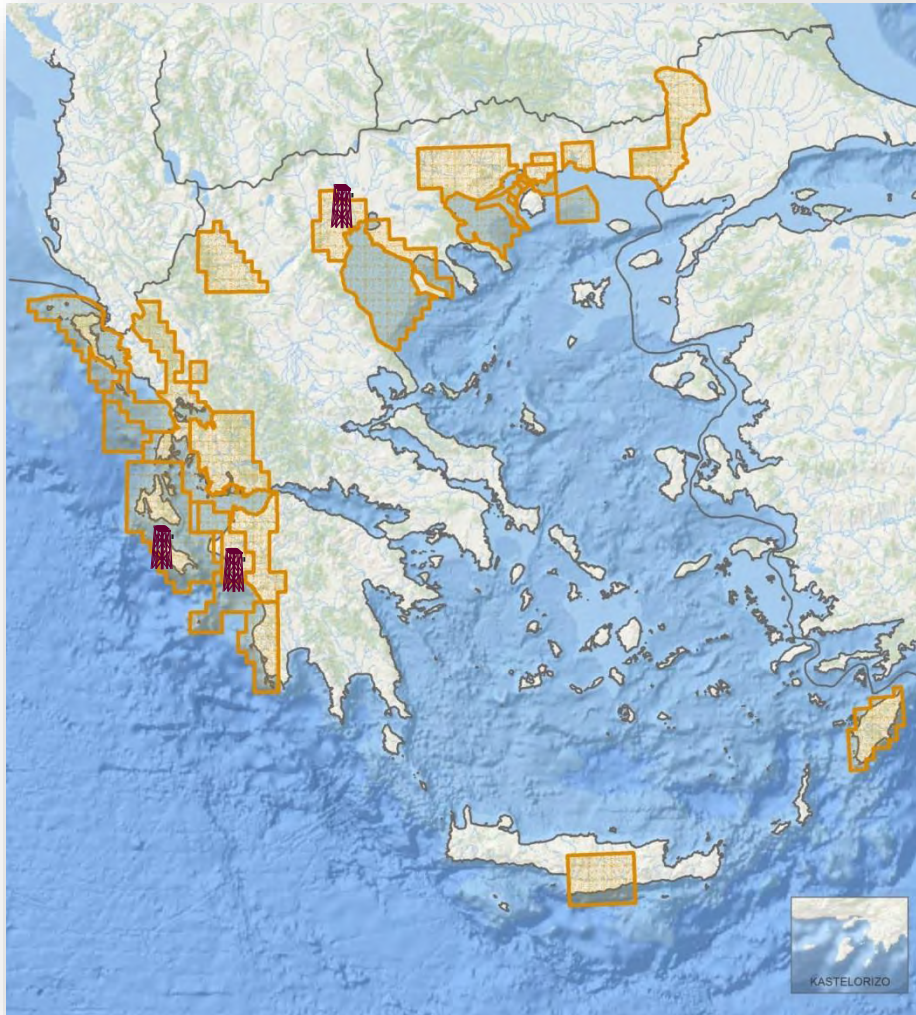
2015 revenues
€8 Billion
2015 EBITDA
€760 million

Recent Investments
€3 billion

Annual Social product worth
€ 500 million



HELPE explored the country from 1975 - 2007



- The Greek State awarded to HELPE exclusive rights for E&P activities in **26 oil promising blocks** all over Greece (1975 – 1995)
- HELPE, acting as **operator**, based on its high quality and educated personnel and using advanced technical 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)

1998: 1st Licensing Round – Hellenic participated in the winning JVs



Ioannina: Enterprise 80% (operator), HELPE 20% An oil promising prospect mapped based on dynamite, Vibro and heli portable seismic data. The well Demetra due to high pressure did not reach the target (3,966 m).

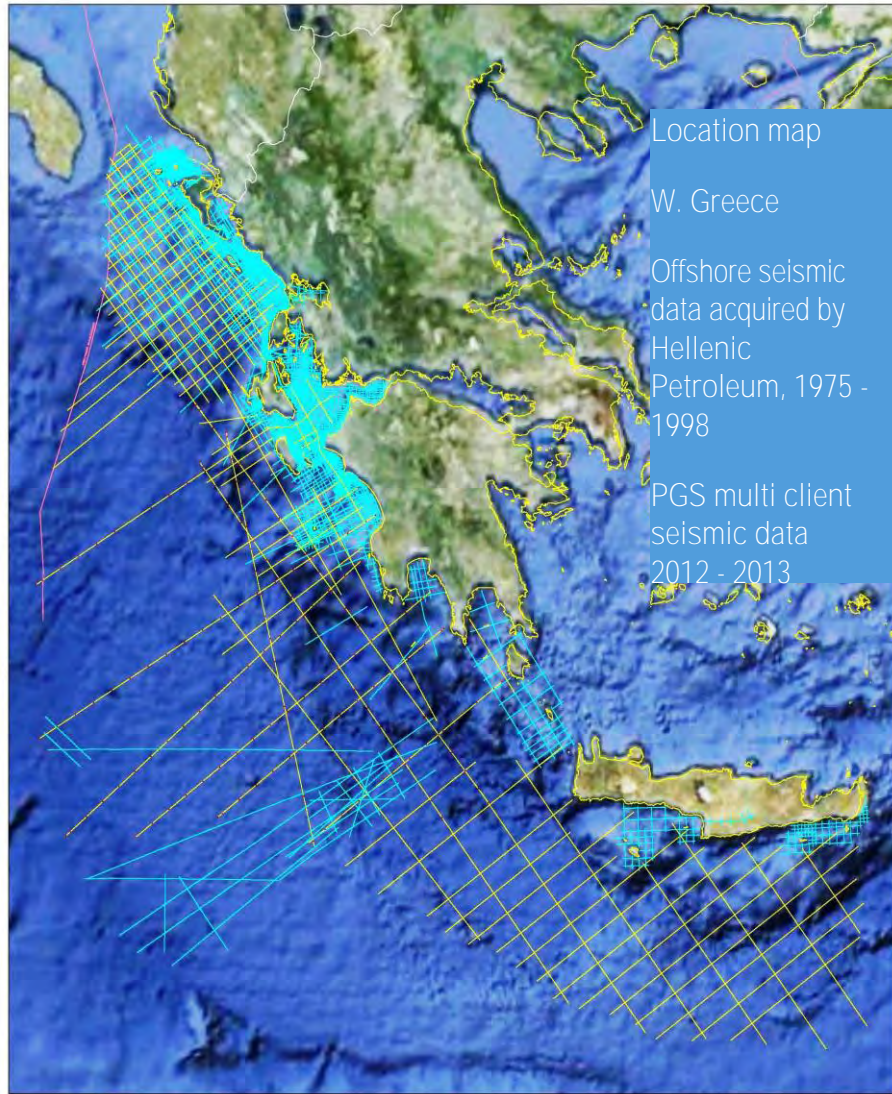
NW. Peloponnese: Enterprise 80% (operator), HELPE 20%. Based on old and newly acquired seismic 2 dry wells drilled.

W. Patraikos: Triton 88% (operator), HELPE 12% Numerous Interesting prospects and leads are mapped based on a dense grid of seismic data, but were not drilled.

Aitolokarnania: Triton 88% (operator), Hellenic Petroleum 12%. Two dry shallow wells drilled based on G&G before relinquishing this mountainous area.

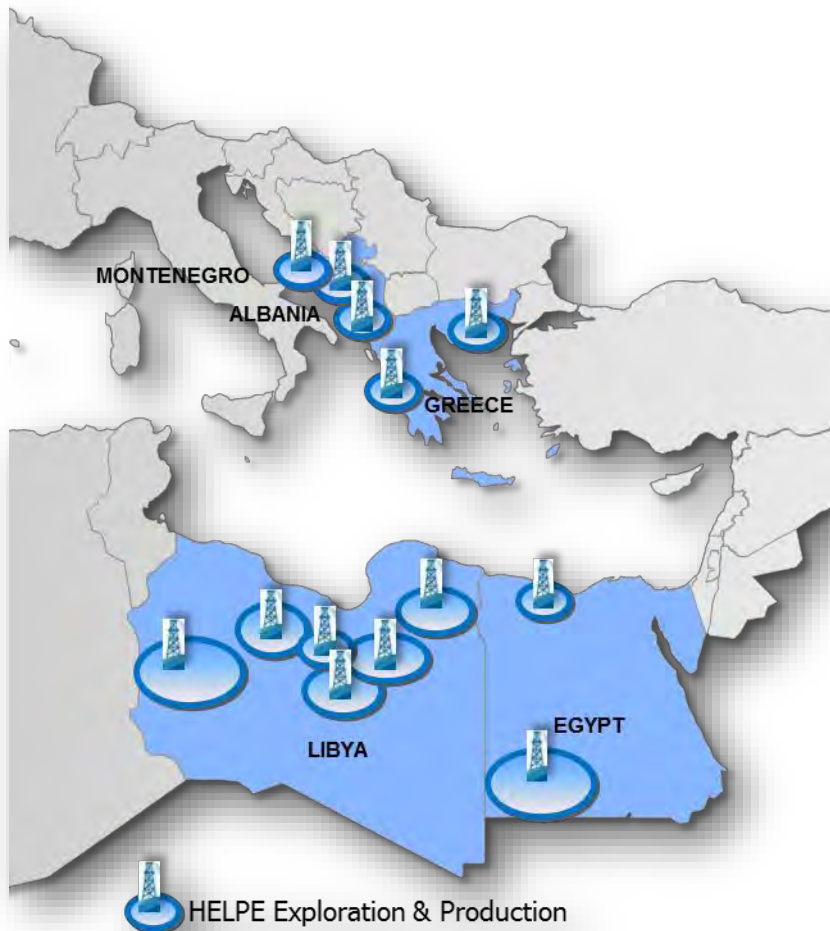
2002: All four areas were relinquished mainly for commercial reasons without completing the exploration effort

HELPE has a solid technical & commercial experience in Greece



- HELPE, the **leading integrated oil company** in the country has proven
 - **Strong and solid financial position**, not affected by the Greek crisis, **investing the last years €3billion** and recording in 2015 historical profit at **€760 million EBITDA**
 - **Extensive knowledge of the legacy exploration data** all over the country acting as operator in 26 blocks plus all recent PGS seismic data
 - **High qualified experienced personnel** knowing in depth the Greek geological environment

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**)

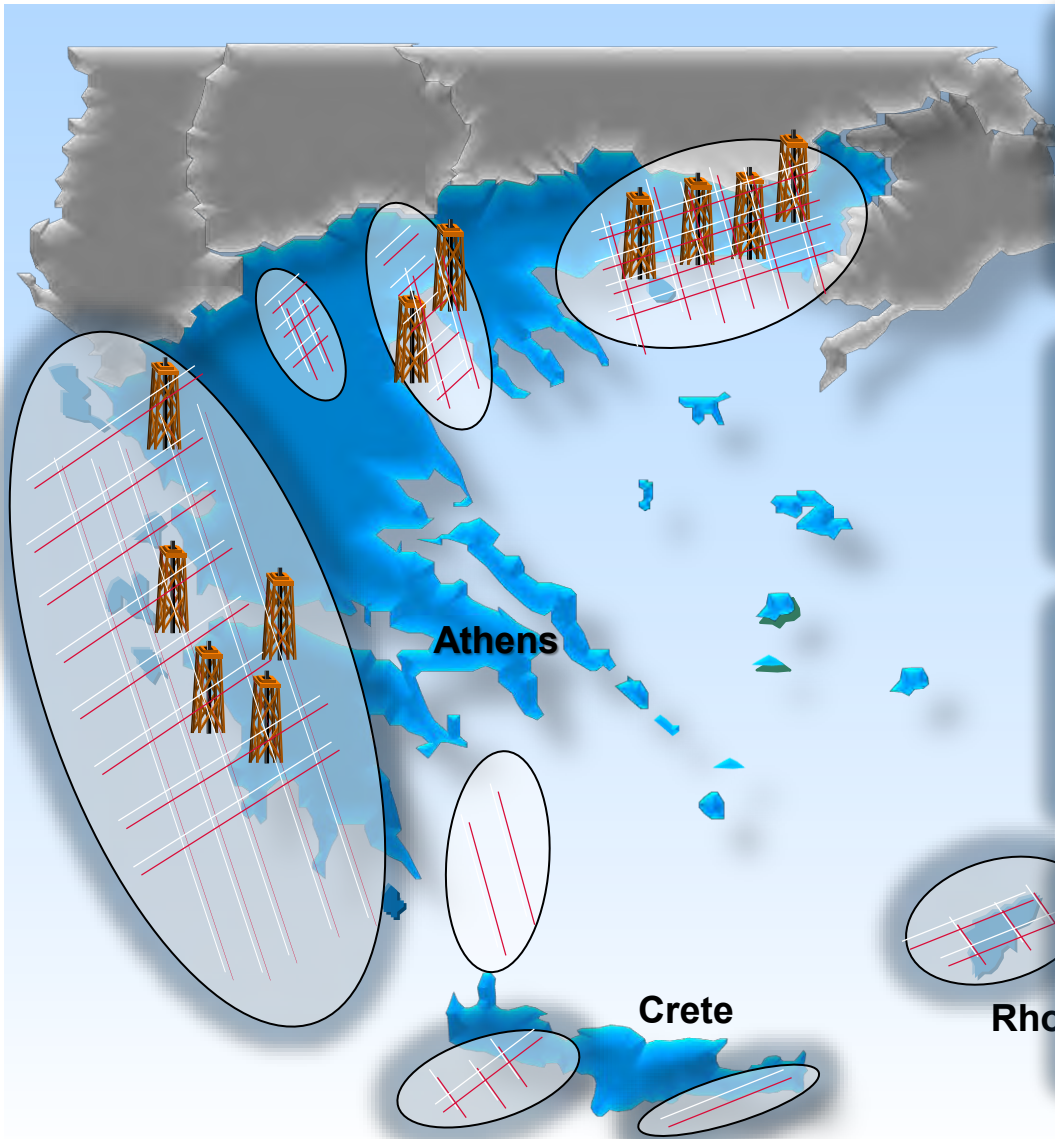
Participation in 17 international rounds mainly in MMEA area in Joint Ventures with reputable oil companies as GdFSuez, Edison, Repsol, Woodside, Statoil, OMV, Lukoil, JAPEX, Kuwait Energy etc.

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



therefore we are building a promising portfolio of blocks

Oil promising basins in greek territory

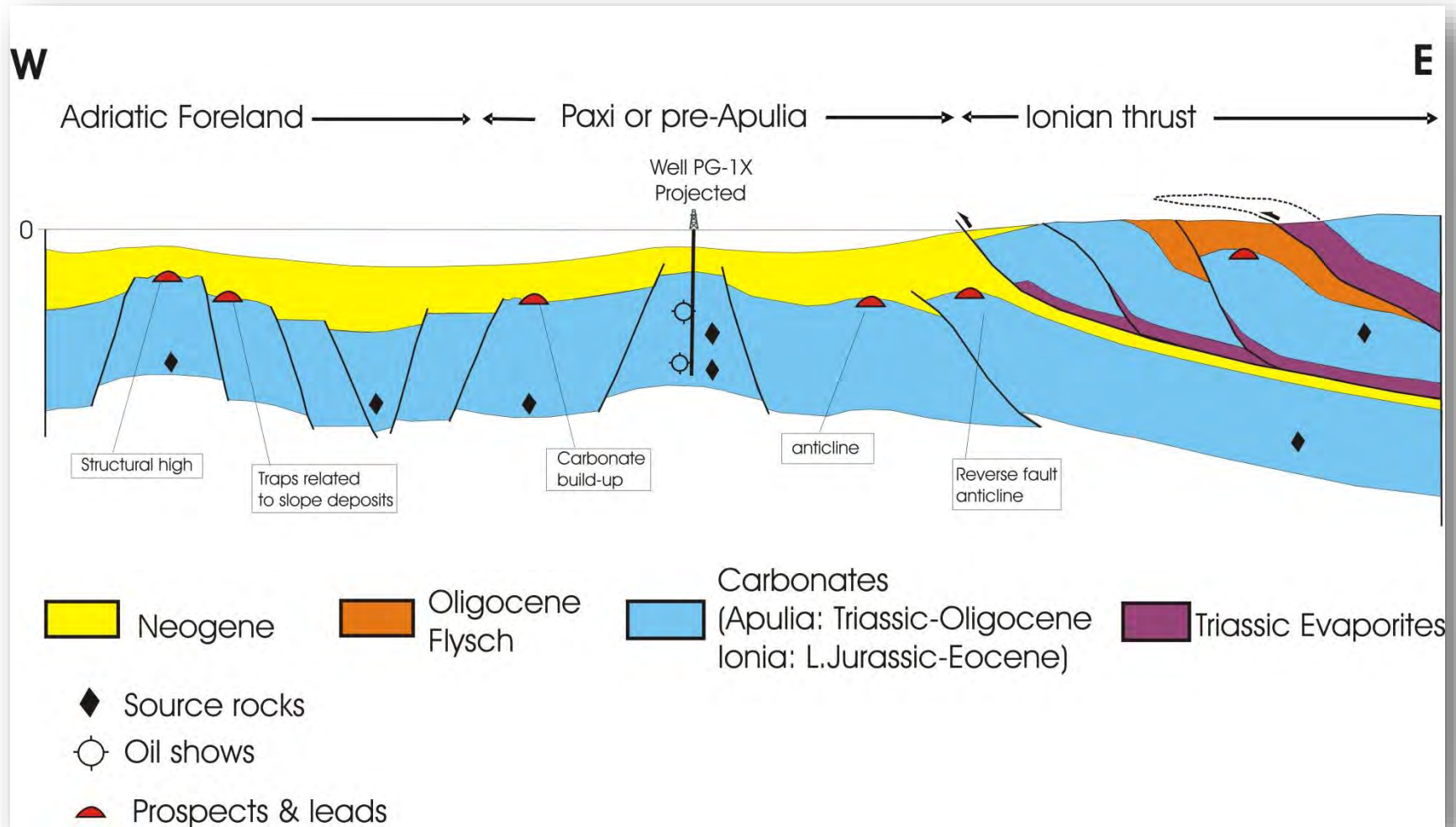


Based in HELPE's exploration activity and the collected legacy G&G and drilling data country's oil potential is promising

Past exploration effort is not completed in all blocks, especially in W. Greece

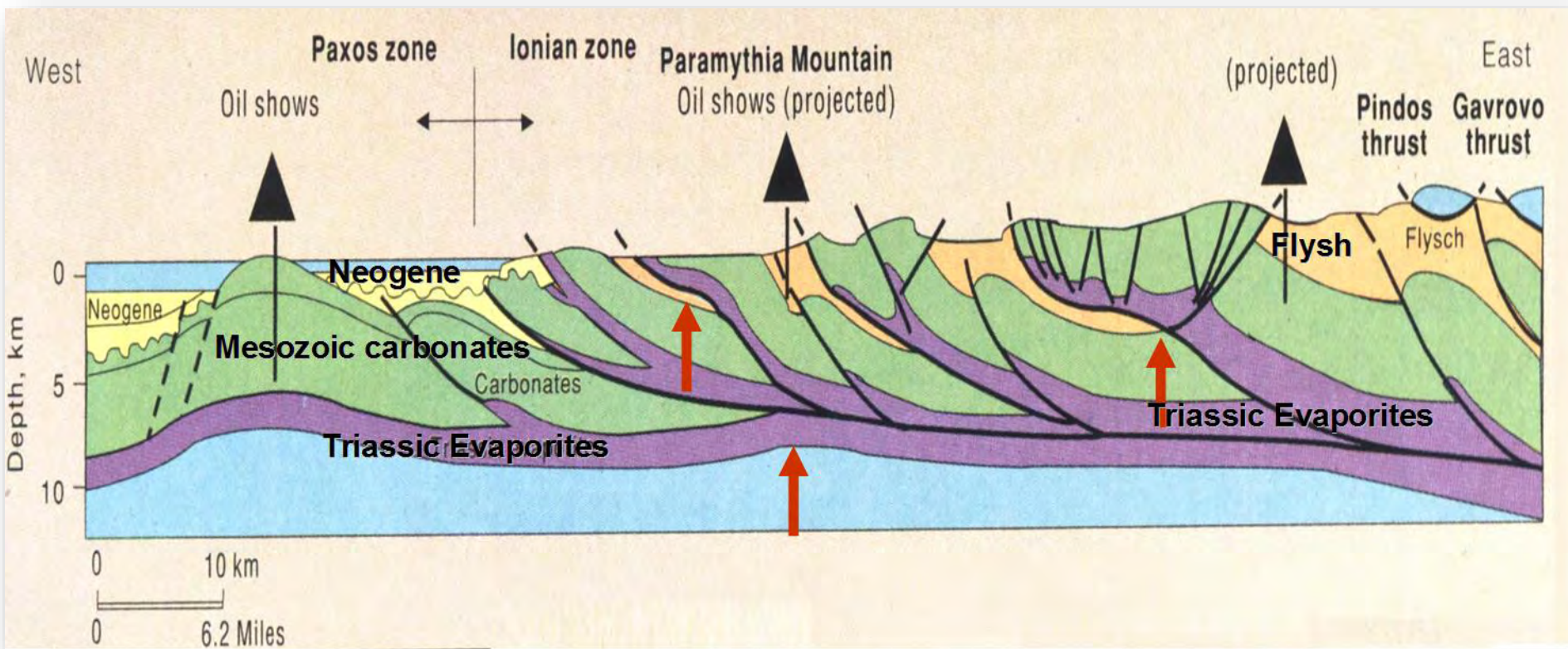
Huge offshore areas are practically unexplored with limited exploration data

Promising geological targets never drilled so far (i.e. deep targets below Triassic evaporites)



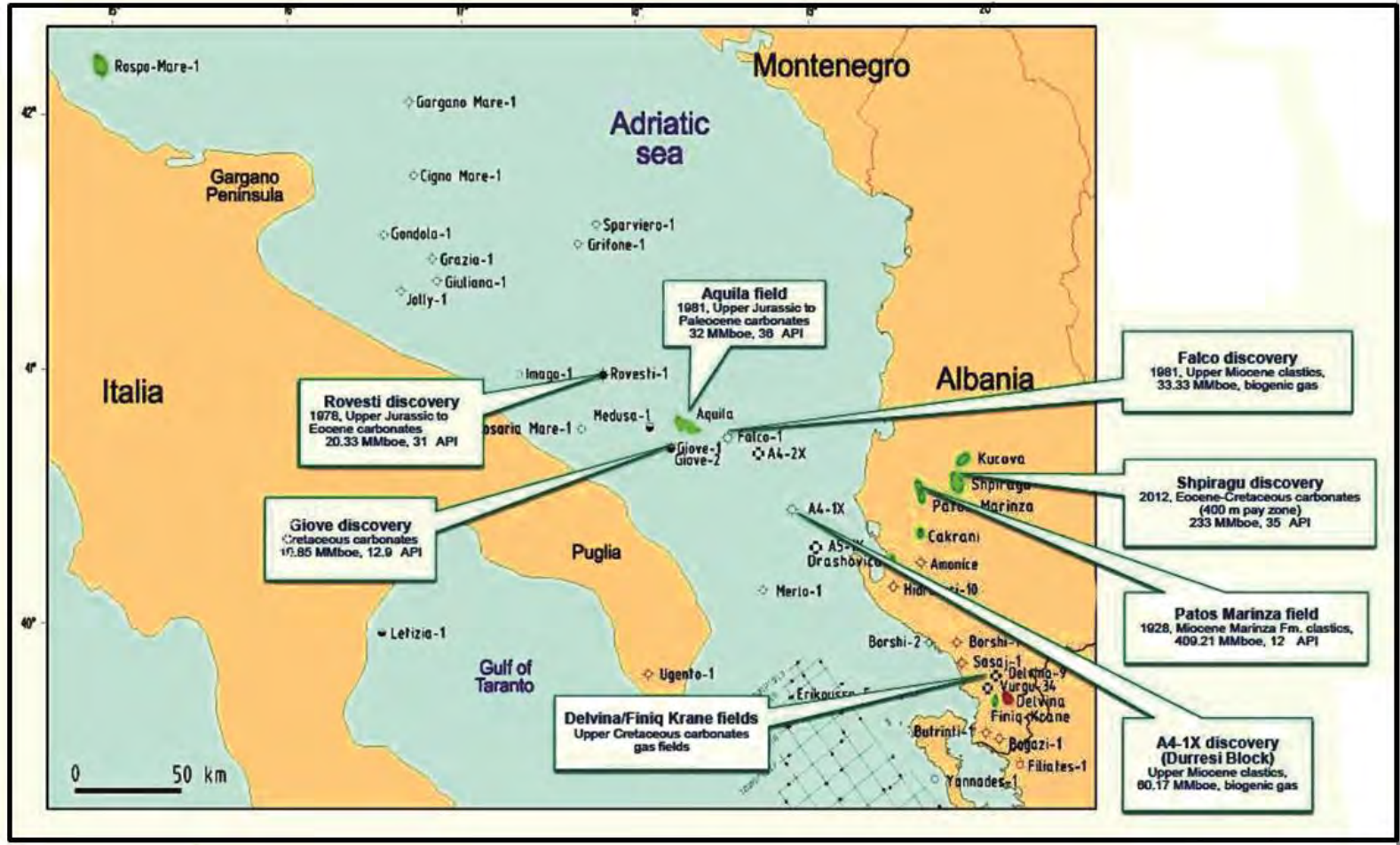
Anticlines and reefal buildups in Mesozoic carbonates covered by Neogene clastic sediments in the Apulian foreland

W. Greece – deep geological targets



Unexplored deep oil plays below Triassic evaporites

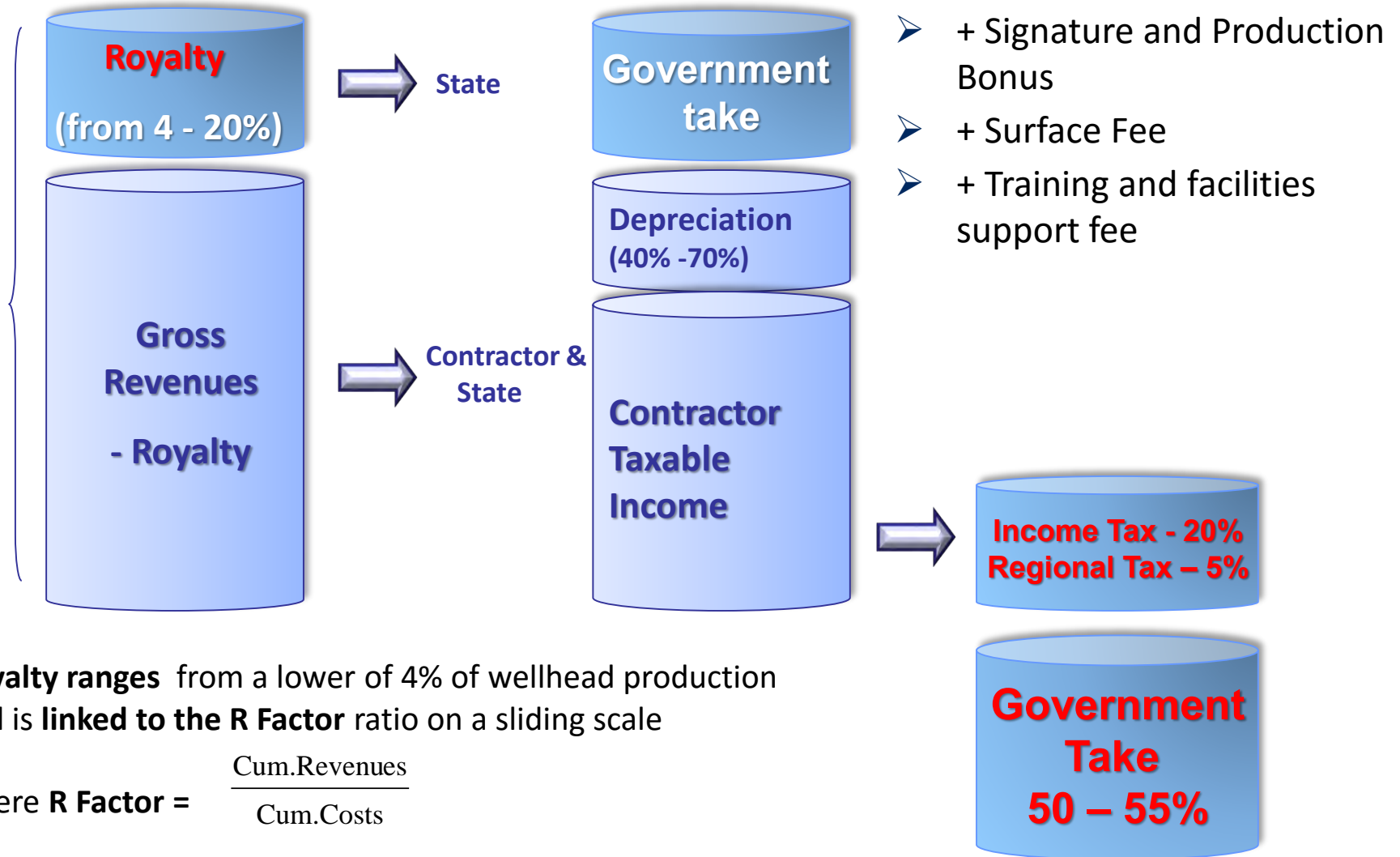
Petroleum system (oil and gas discoveries)



(Beicip, 2014)

There are many oil and gas discoveries in the Adriatic Sea and Albania in both geological environments (Apulia/Pre-Apulia and Ionian zone) encountered in Block 1

Fiscal and tax regime is competitive



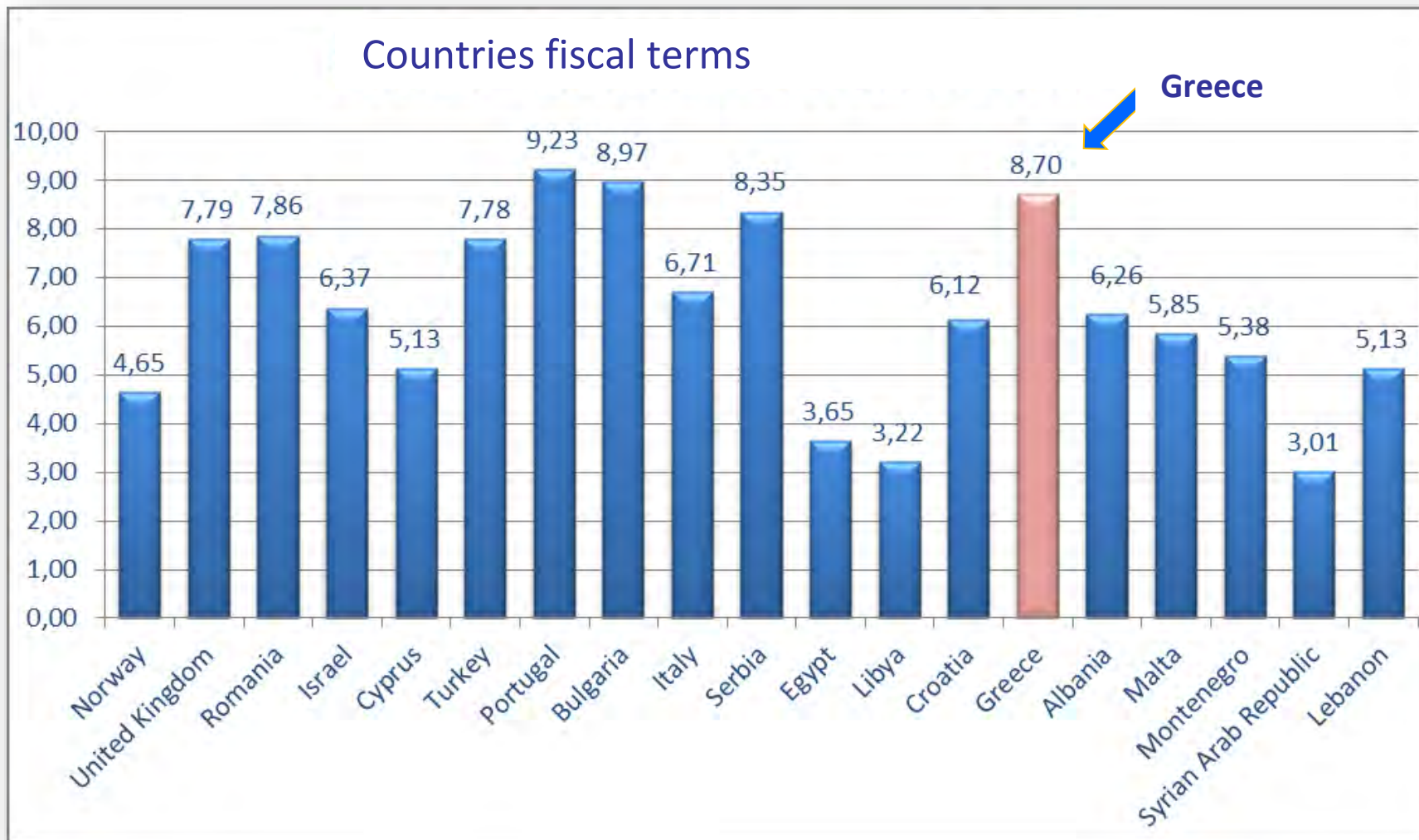
Royalty ranges from a lower of 4% of wellhead production and is **linked to the R Factor** ratio on a sliding scale

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

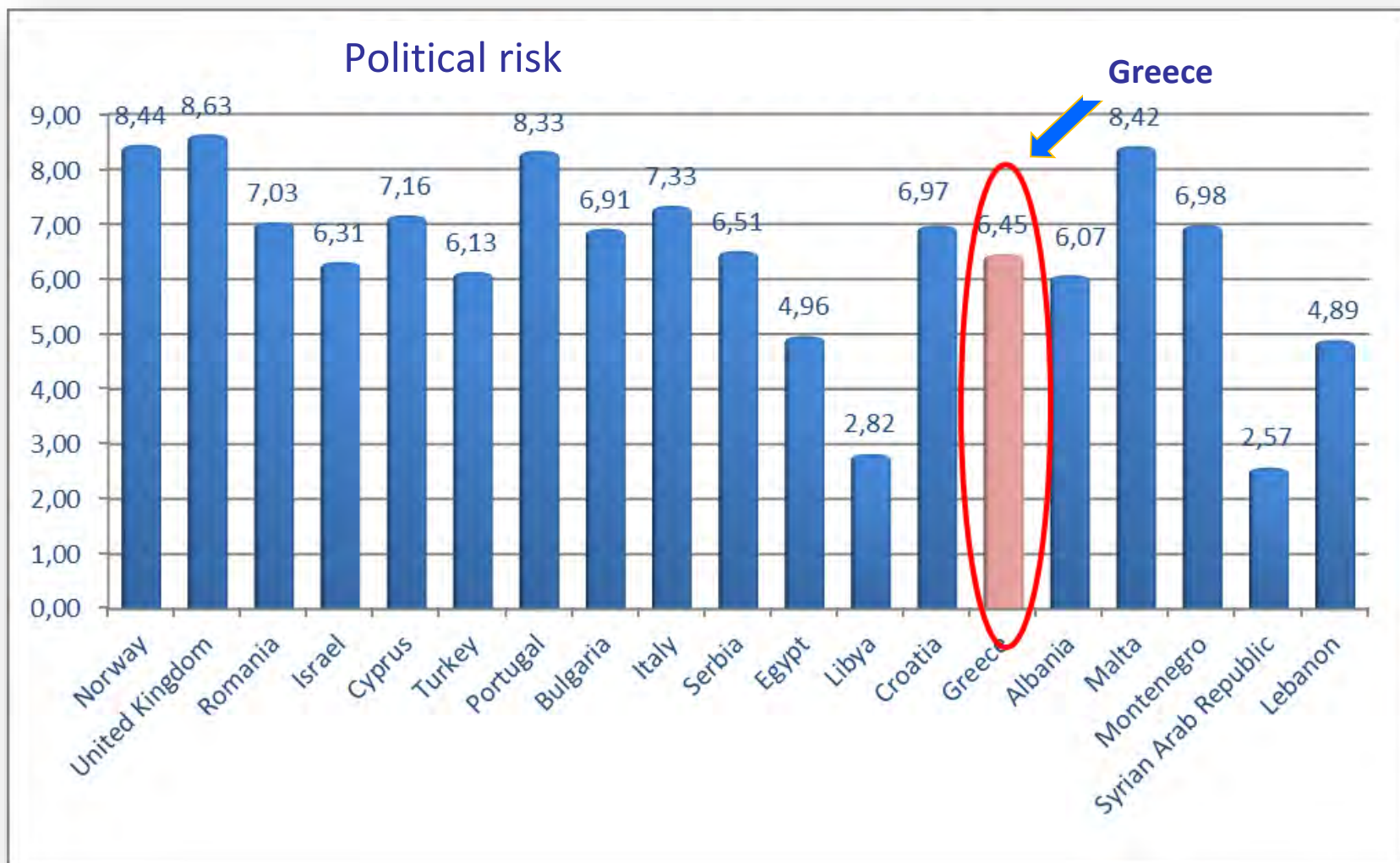
Source: IHS PEPS Report 4Q 2015



Fiscal regime: Greece is ranked 8th amongst 127 countries

Political stability with low risk in a safe EU country

Source: IHS PEPS Report 4Q 2015



Political risk: Greece is ranked 43rd amongst 127 countries

Open Door round 2012 – West Patraikos Lease



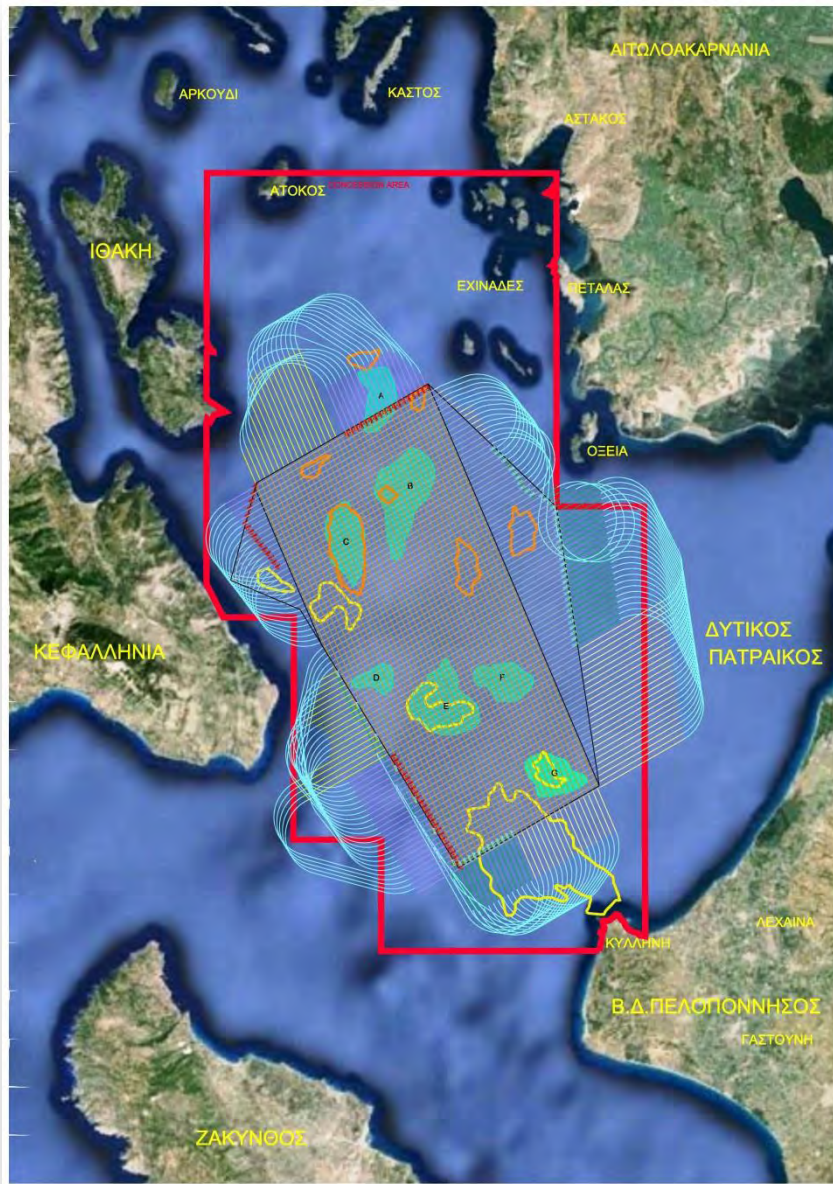
➤ Following a competitive bid process and extensive negotiations, in **October 2014** the **West Patraikos** Lease Agreement was ratified to JV

- **Hellenic Petroleum** (33.3%, operator),
- **Edison International** (33.3%)
- **Petroceltic Resources** (33.3%)

with competitive terms

amongst others the tax regime overrides the Greek law

Lease Agreement of W. Patraikos Gulf



- After the transfer of Petroceltic shares, **Hellenic Petroleum** (50%, operator) **Edison International** (50%) **continue the existing approved** exploration program.
- Up to Oct. 2017, when the 1st exploration period 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 is to drill one well in each phase

Exploration strategy: At the end of the exploration period we will know if there is oil existence or not in the block

- Specialized geological studies (2015 – 2017)
- Double azimuth PSDM 3D seismic survey of 2X800 km² (2015 – 2016)
- 2 -5 exploration wells (2017 – 2018)

applying

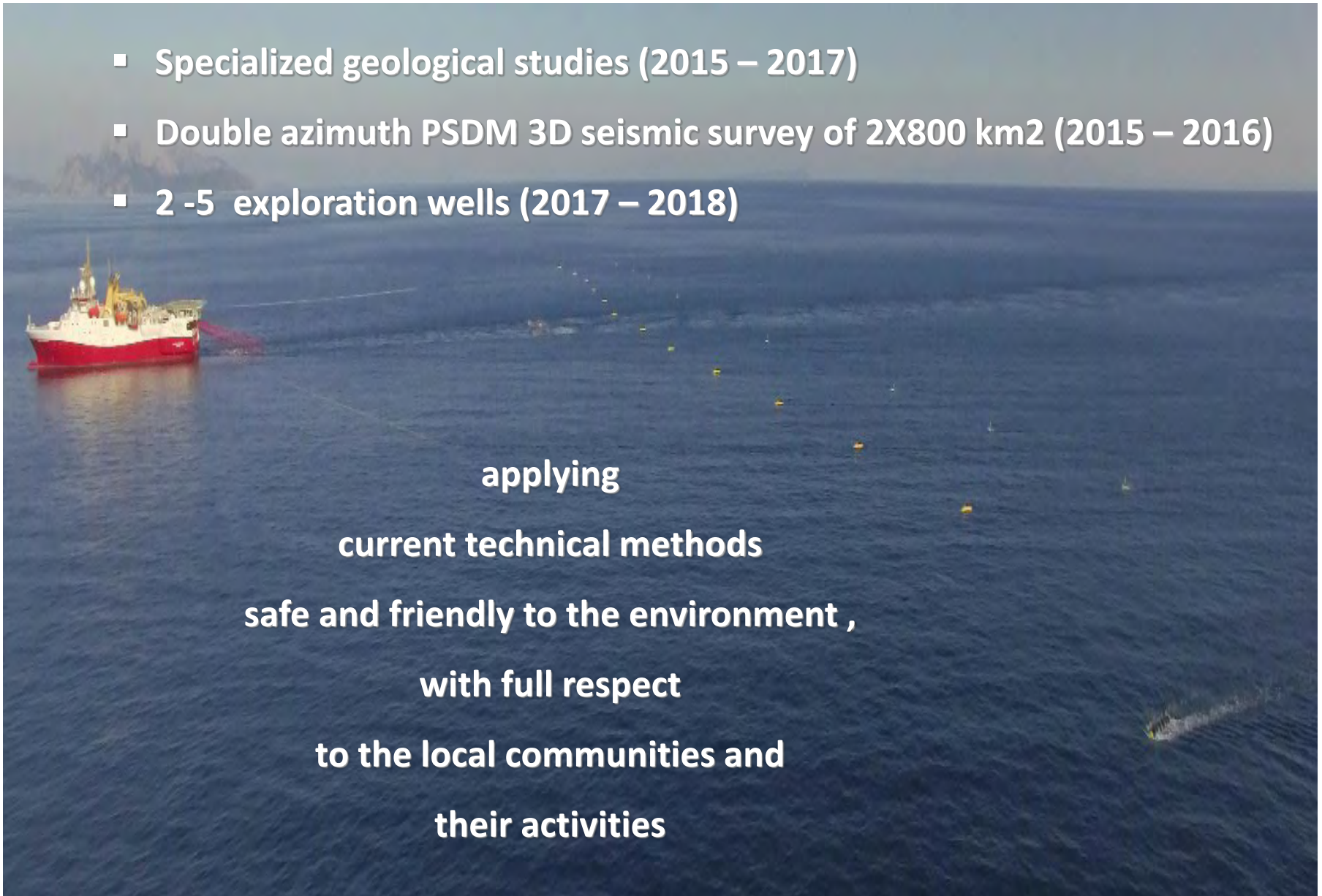
current technical methods

safe and friendly to the environment ,

with full respect

to the local communities and

their activities



Geophysical acquisition 1Q2016

3D data

E-W azimuth: 1011 km²

N-S azimuth : 810 km²

2D data: 325 km

Gravity– magnetics

2.000km

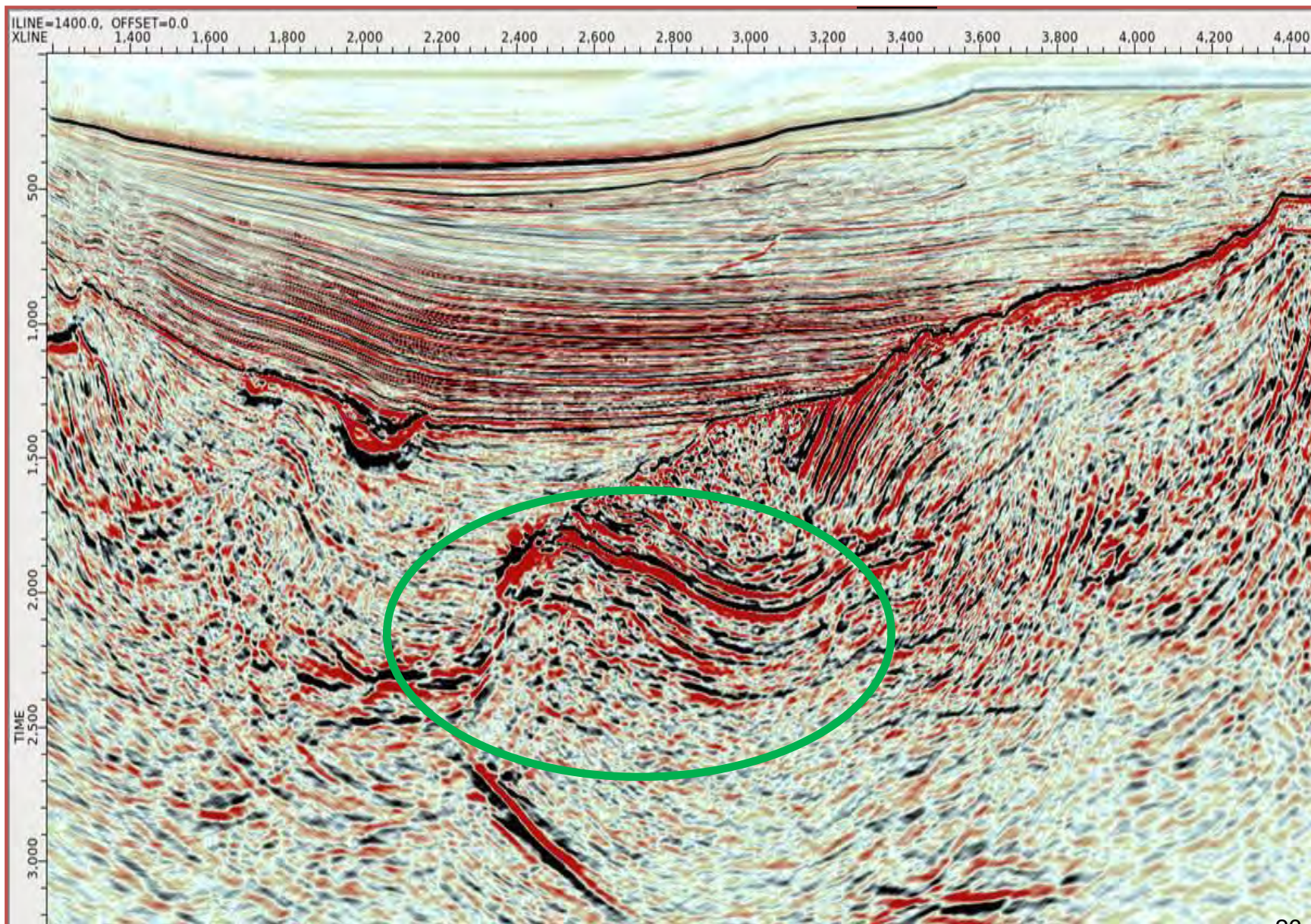
Applying all environmental provisions set by international treaties produced “zero” environmental impact.

Close cooperation with local communities

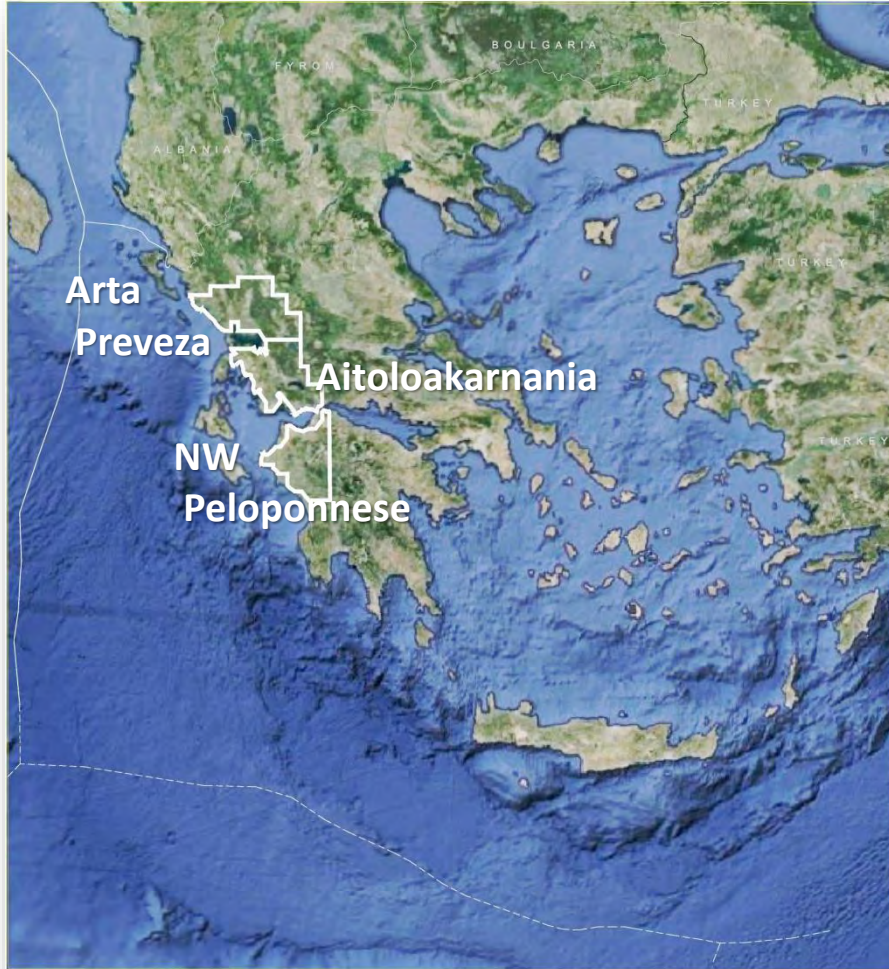
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image © 2016 CNES / Astrium
Image © 2016 DigitalGlobe

Google earth

Fast Track PSTM Carbonate 4-way closure?

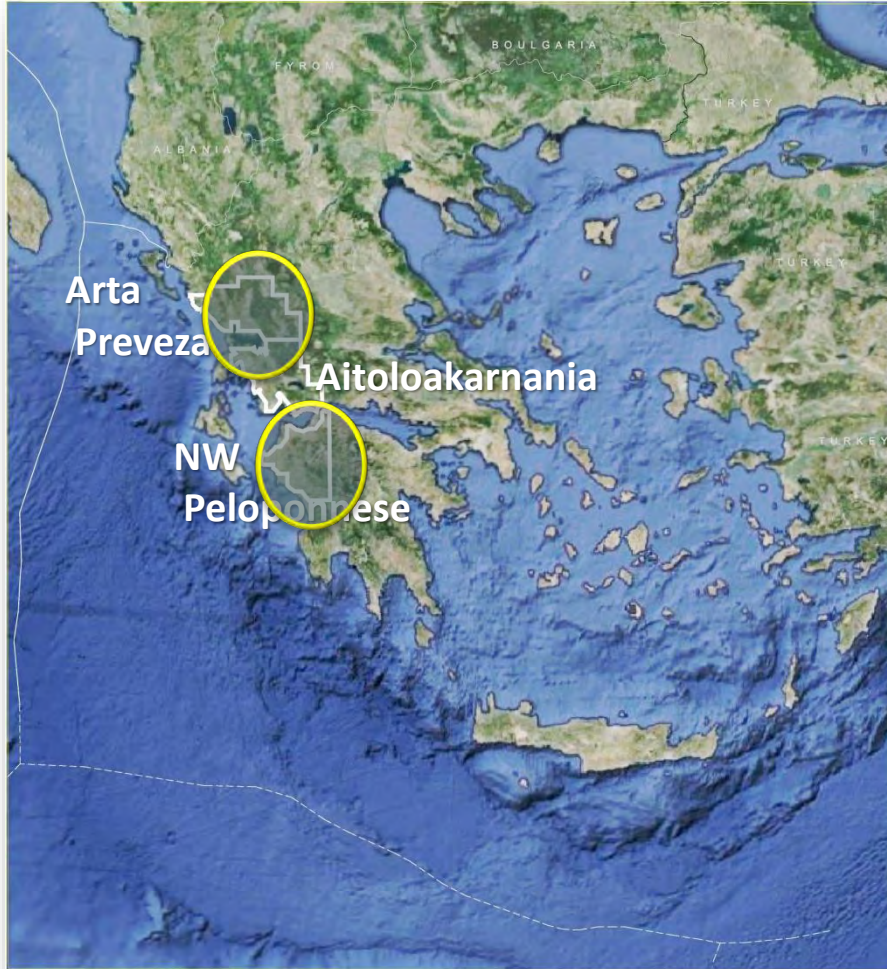


Licensing Round for three onshore areas W. Greece (2014)



- 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 Aitoloakarnania blocks

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



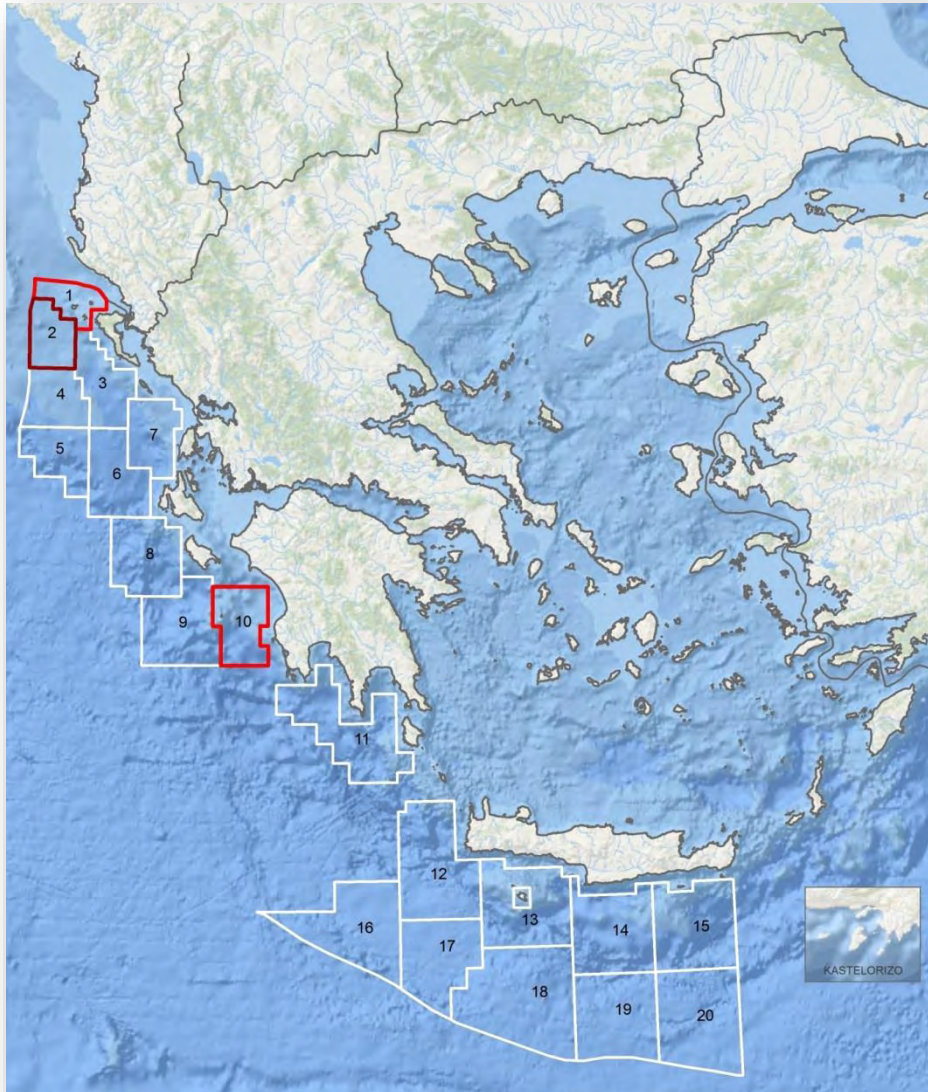
- Following a competitive evaluation process the Ministry of Energy (4 Feb 2016) has declared **HELPE** as the “preferred bidder” for two blocks:
 - **Arta – Preveza** and
 - **NW Peloponnese**
- Energean is declared “preferred bidder” for Aitoloakarnania block
- The Lease Agreements are under negotiations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

International round for 20 offshore blocks in W. Greece

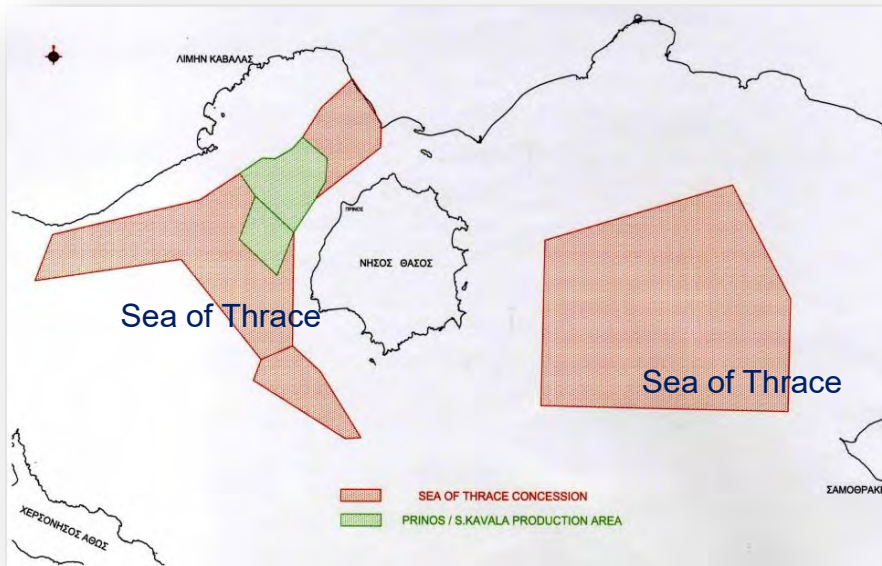
- The Ministry of Energy announced international round for 20 blocks in the area of Ionian sea and SW of Crete with bid date **14 July 2015**



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 S. Ionian sea)
- 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 acquire their interest and 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

How we could connect

EUROPE

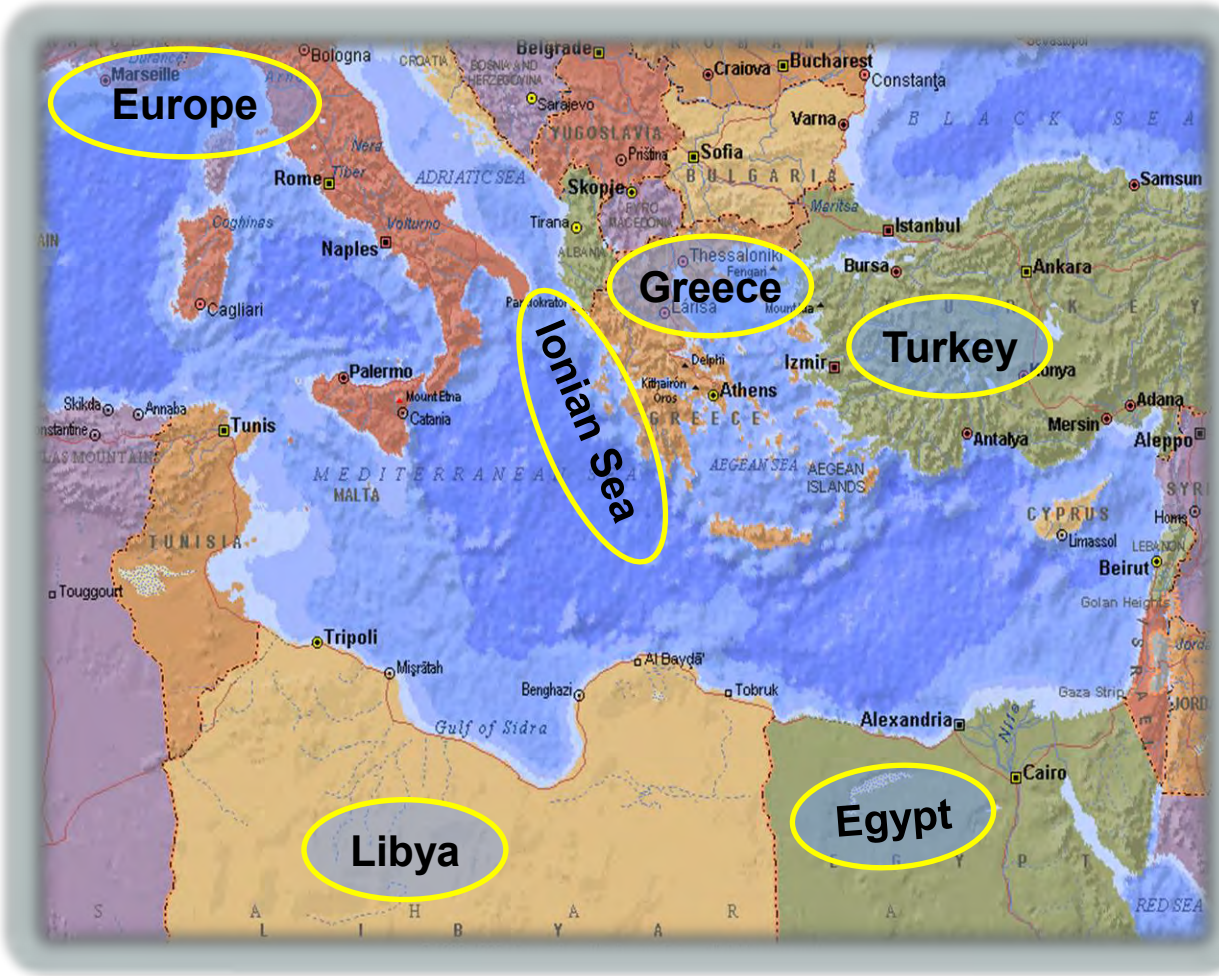
GREECE

IONIAN SEA

M. EAST

EGYPT

LIBYA



How we could connect

EUROPE

GREECE

IONIAN SEA

M. EAST

EGYPT

LIBYA

PRETTY WOMAN

JEALOUS WIFE

COW

HORSE FLY



... some thousands years ago, in ancient Greece ...



L. v. Klenze, 1784-1864: Die Akropolis von Athen. Photo © Meiser Förlag - GMI

... some thousands years ago, in ancient Greece ...

***IO,
a pretty woman
was
princess in Argos
a famous city in
Peloponnesus,
Greece***

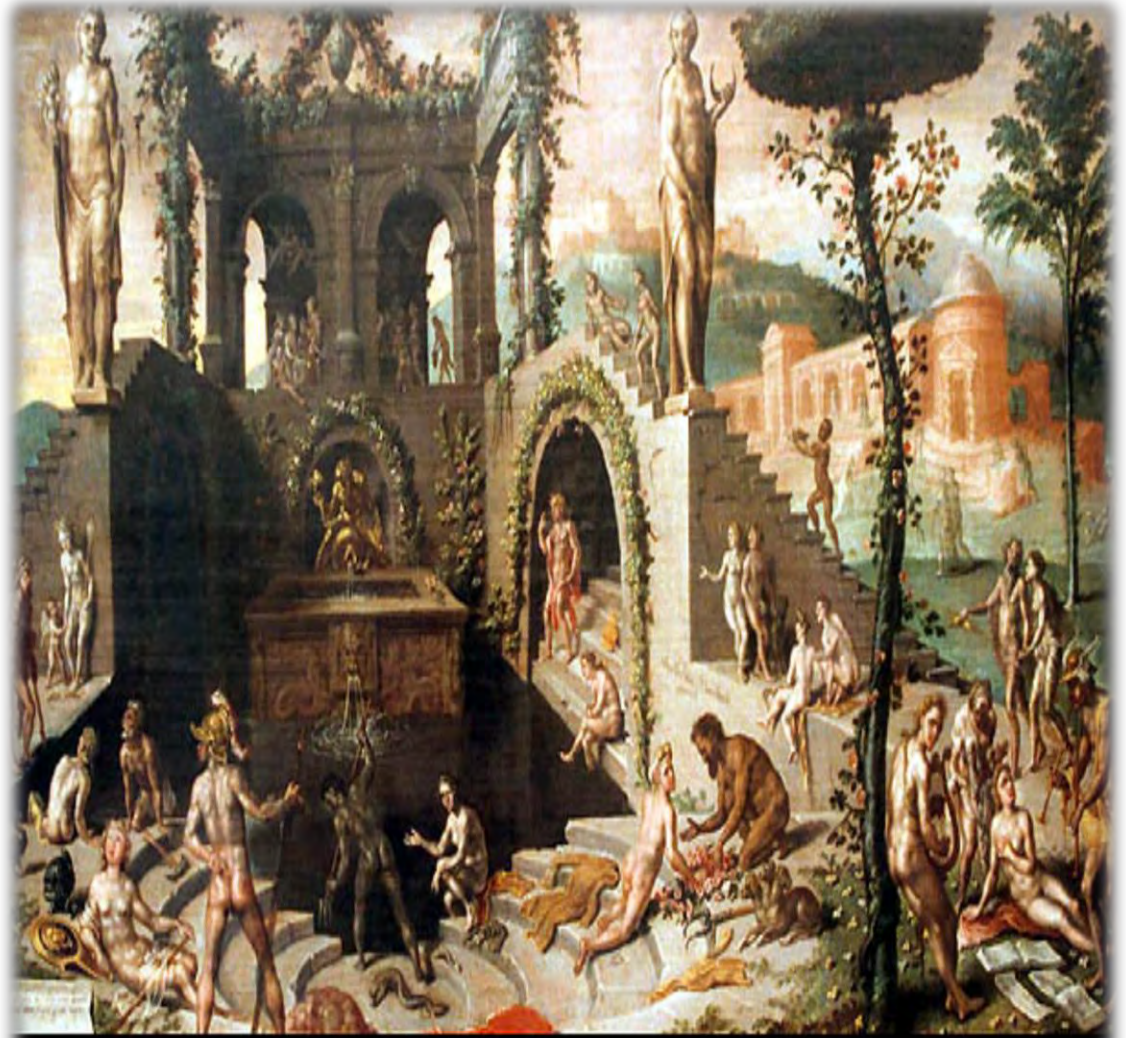


... Zeus, God's father ...

*When he saw
beautiful IO
fall in love
with her*

....

*Something not
unusual at all*



Maerten van Heemskerck 1498-1574: De Olympische goden. Photo © Meiser Rödel - GMI

... some thousands years ago, in ancient Greece ...

*IO soon
was pregnant*

HERA,

*Zeus jealous wife
found out
the romance*

and

*IO
was
in trouble*



... some thousands years ago, in ancient Greece ...

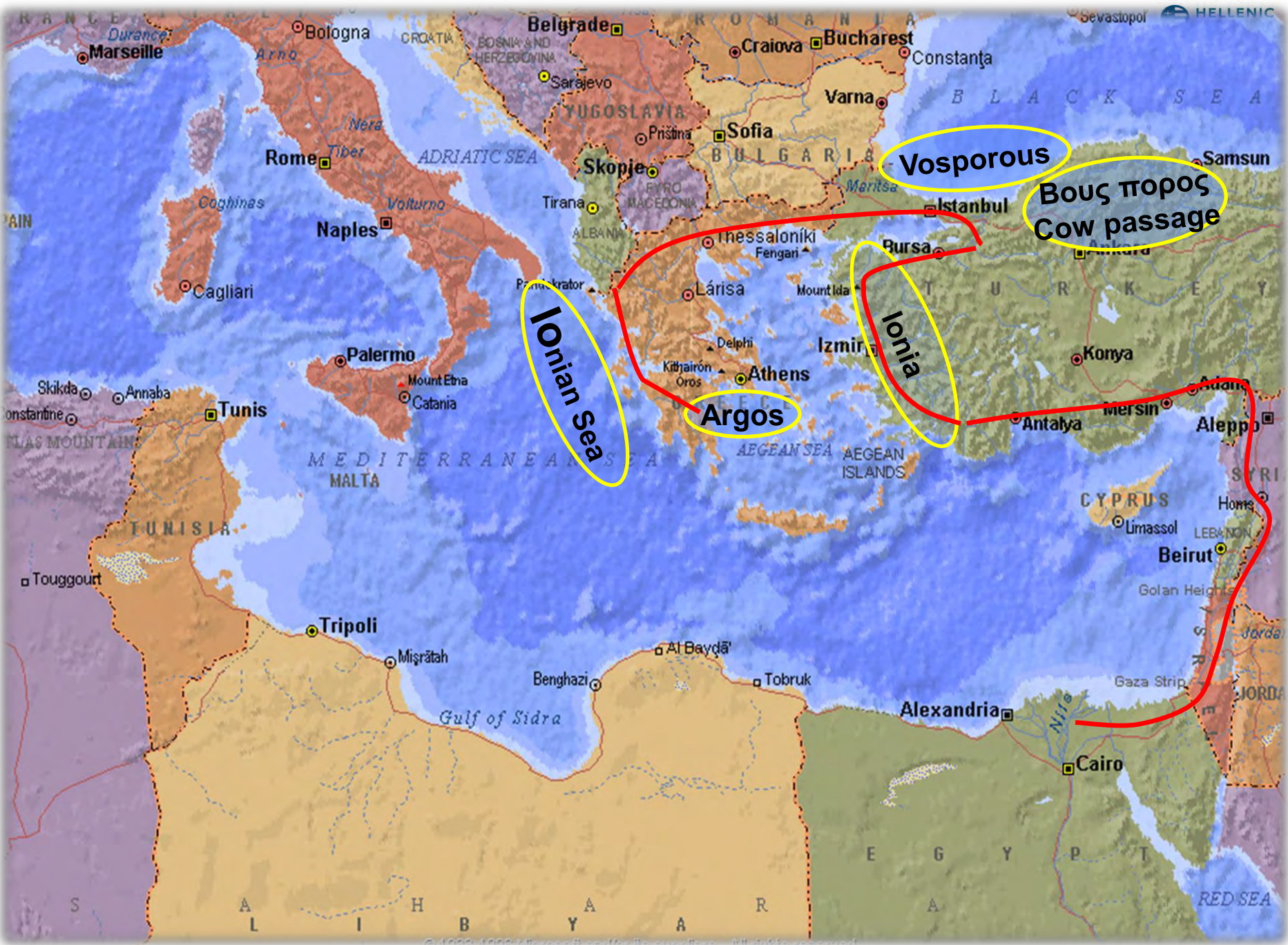
ZEUS,
was thinking
how to save IO
and transformed her
to a COW

HERA sent a

HORSE FLY

to sting and
bother IO





Vosporous

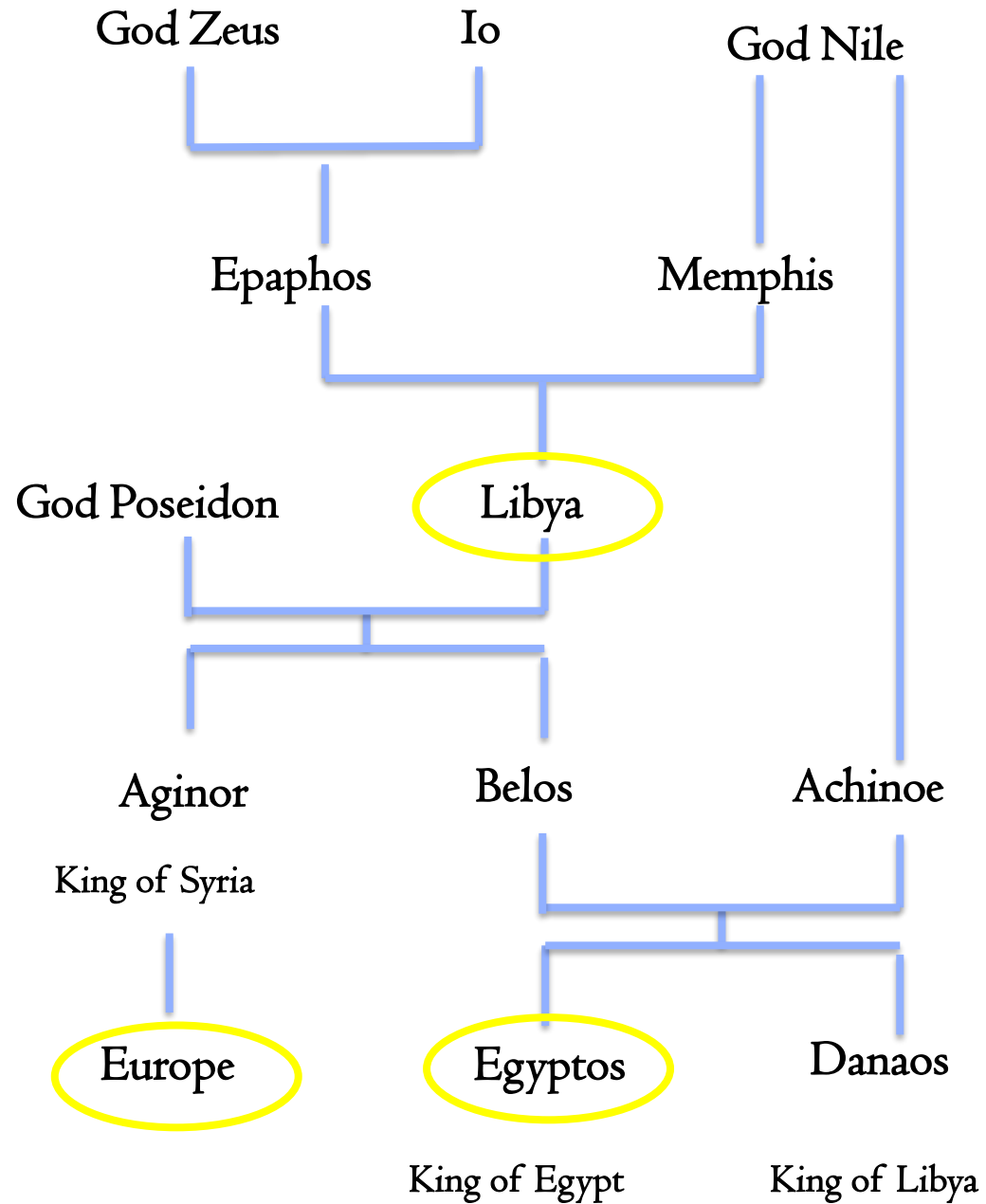
Bouς ποπος
Cow passage

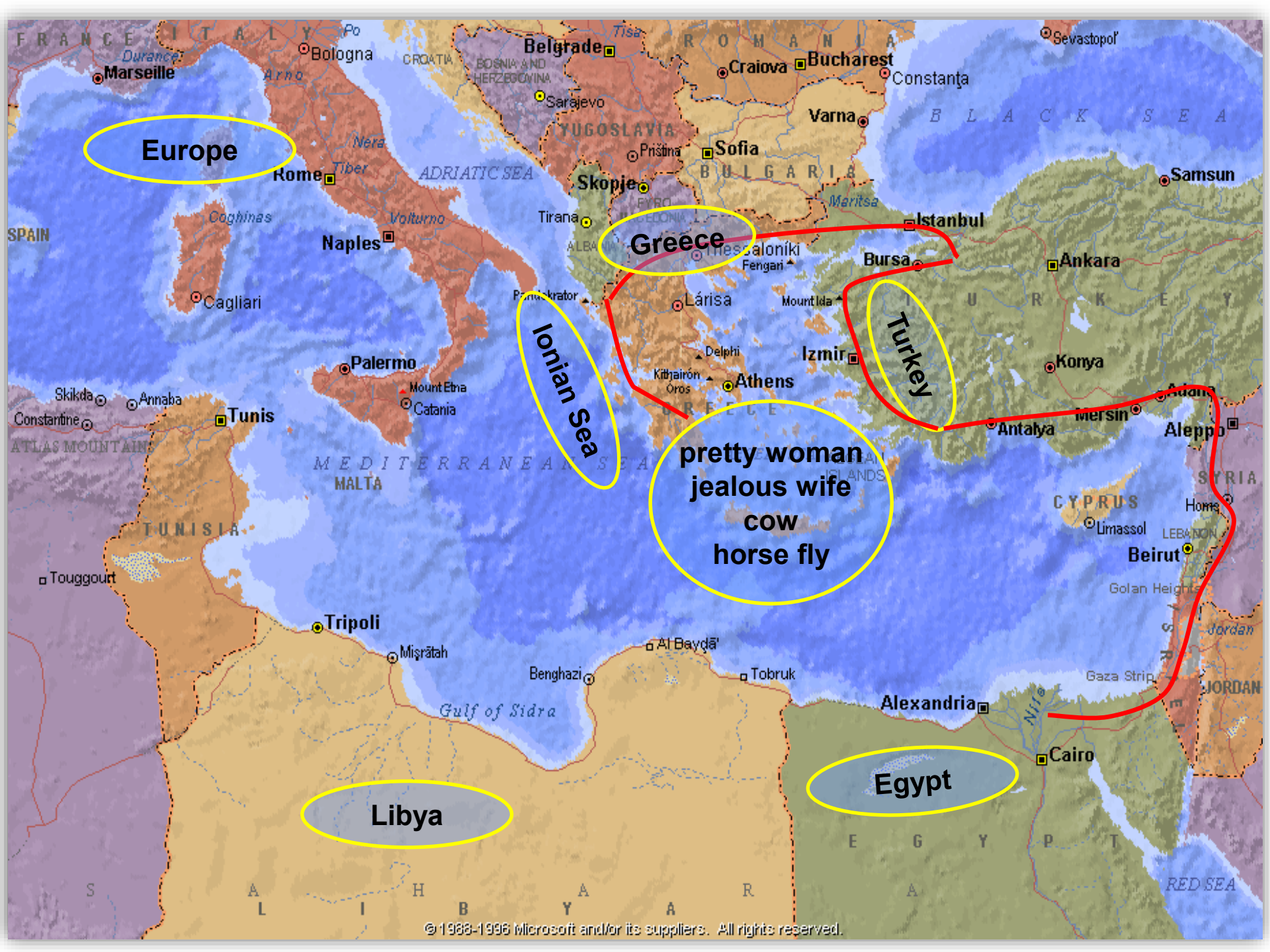
Ionian Sea

Ionia

Argos

Genealogy





Europe

Greece

Turkey

Ionian Sea

pretty woman
jealous wife
cow
horse fly

Libya

Egypt

Lesson learnt by the myth

*... connecting people,
interests, culture ...*

*... is an efficient way
of open - mind
creative
strategic thinking ...*



A vertical photograph on the left side of the slide shows an offshore oil rig structure extending into the sea. The rig is a complex of metal platforms and towers, with a prominent derrick. The water is dark blue with whitecaps, and the sky is a pale, hazy blue.

*... this is the approach,
that we,
in Hellenic Petroleum,
are following
to establish
commercial relations
with our partners...*

You are welcome at Greece

...either

you are partnering with us

or

competing us !

Many thanks for your kind attendance

Many thanks

for your kind attendance