



LA UNIÓN EUROPEA ANTE EL RETO DE LA SEGURIDAD ENERGÉTICA Y EL CAMBIO CLIMÁTICO

XIRA RUIZ CAMPILLO

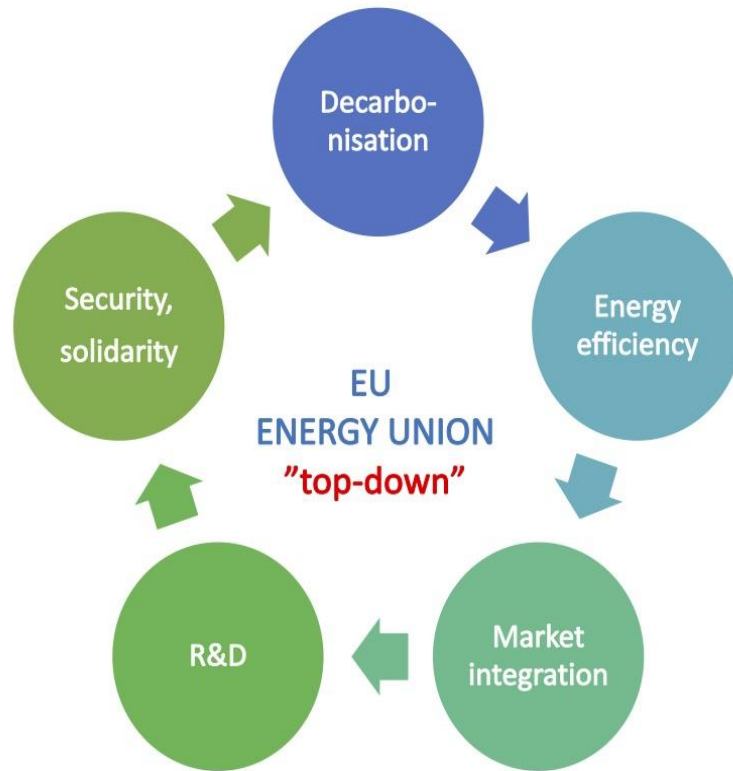
SOLEDAD SEGOVIANO MONTEERRUBIO



SEGURIDAD ENERGÉTICA Y CAMBIO CLIMÁTICO

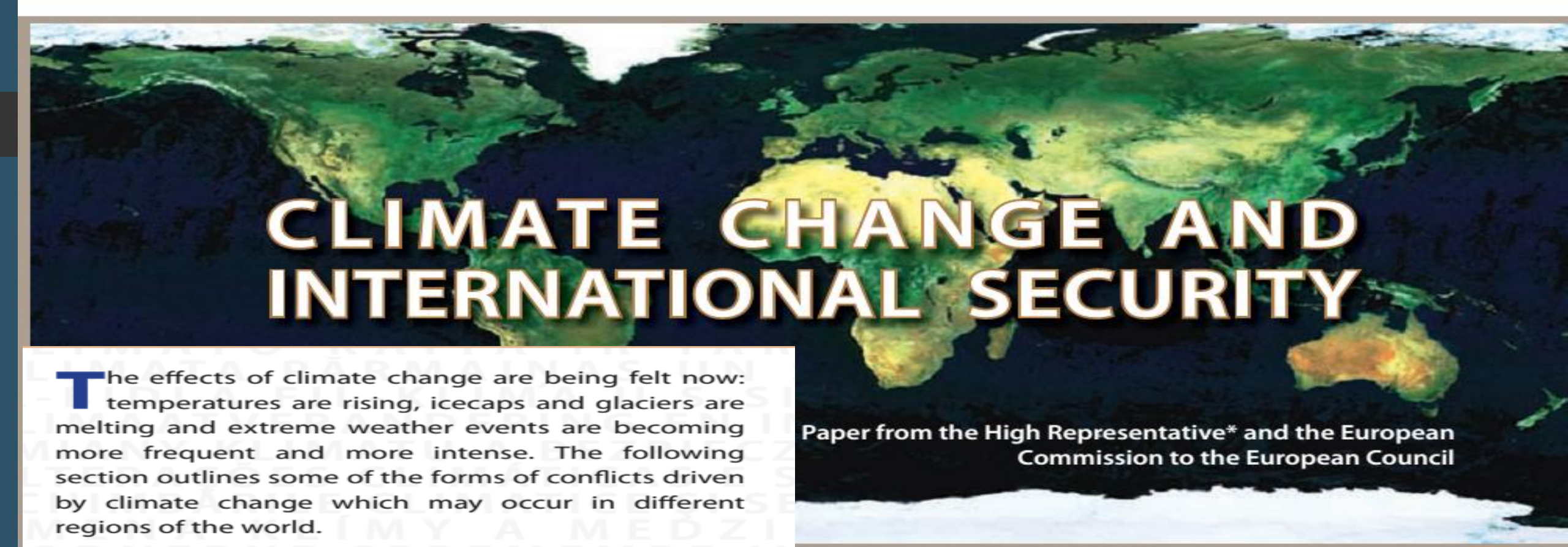


Project background and aims



ENABLE.EU

- **"Bottom-up" approach**
- Empowering **citizens, and industry**
- Three areas: **transport, heating and cooling and electricity**
- Interactions between **individual and collective** energy choices
- **Social acceptability** of energy transitions (participatory foresight and assessment process)
- **Governance** practices



CLIMATE CHANGE AND INTERNATIONAL SECURITY

The effects of climate change are being felt now: temperatures are rising, icecaps and glaciers are melting and extreme weather events are becoming more frequent and more intense. The following section outlines some of the forms of conflicts driven by climate change which may occur in different regions of the world.

vi) Tension over energy supply

One of the most significant potential conflicts over resources arises from intensified competition over access to, and control over, energy resources. That in itself is, and will continue to be, a cause of instability. However, because much of the world's hydrocarbon reserves are in regions vulnerable to the impacts of climate change and because many oil and gas producing states already face significant social economic and demographic challenges, instability is likely to increase. This has the potential to feed back into greater energy insecurity and greater competition for resources. A possible wider use of nuclear energy for power generation might raise new concerns about proliferation, in the context of a non-proliferation regime that is already under pressure. As previously inaccessible regions open up due to the effects of climate change, the scramble for resources will intensify.

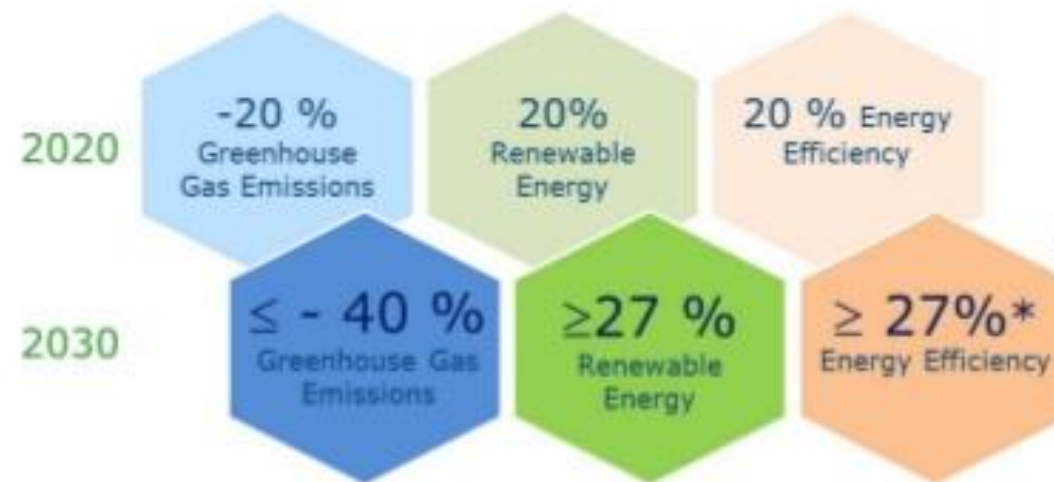
Paper from the High Representative* and the European Commission to the European Council

iv) Environmentally-induced migration

Those parts of the populations that already suffer from poor health conditions, unemployment or social exclusion are rendered more vulnerable to the effects of climate change, which could amplify or trigger migration within and between countries. The UN predicts that there will be millions of «environmental» migrants by 2020 with climate change as one of the major drivers of this phenomenon. Some countries that are extremely vulnerable to climate change are already calling for international recognition of such environmentally-induced migration. Such migration may increase conflicts in transit and destination areas. Europe must expect substantially increased migratory pressure.



2030 Climate and Energy Framework





AGENDA 2030



Next Generation EU

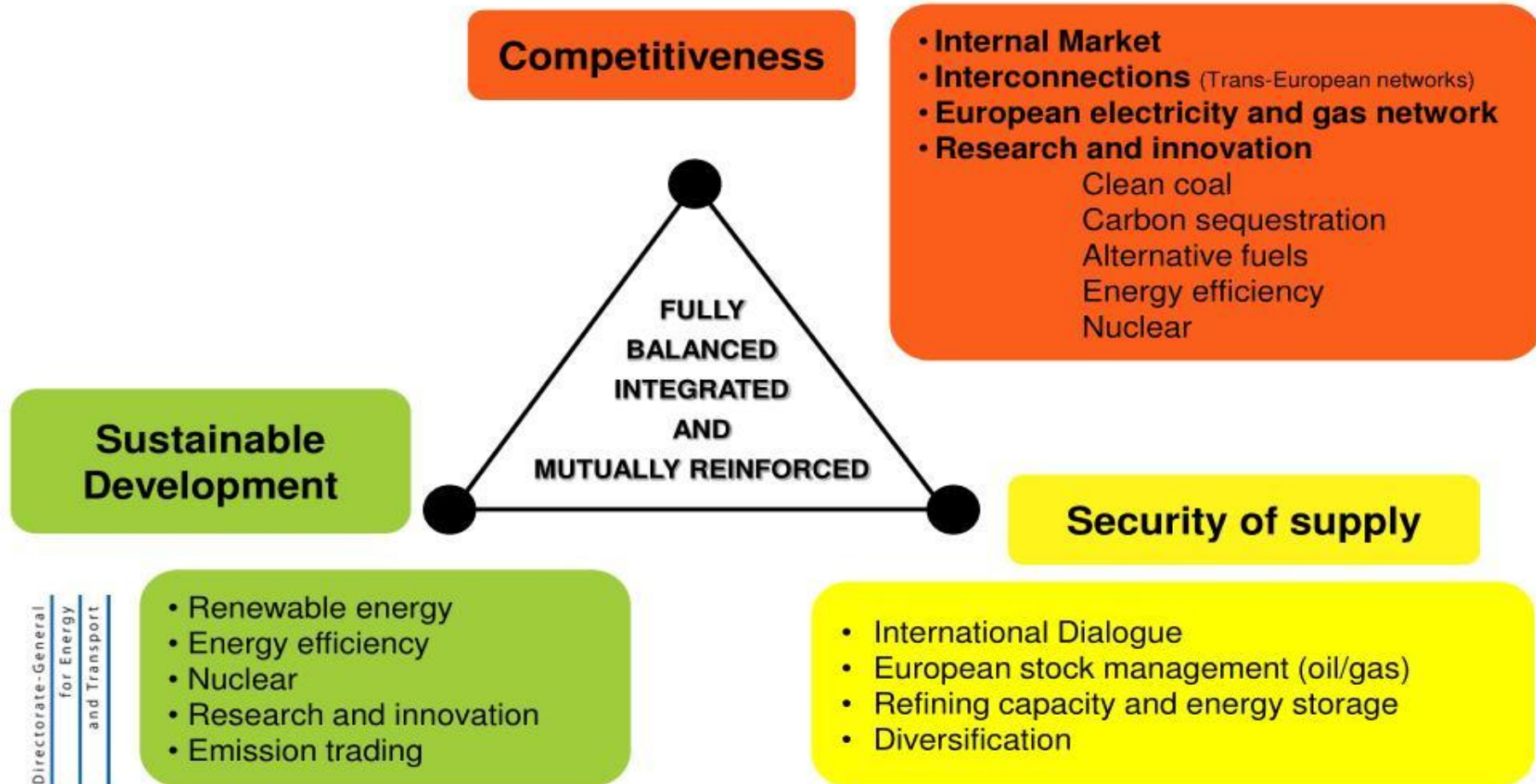
#NextGenerationEU #EUBudget



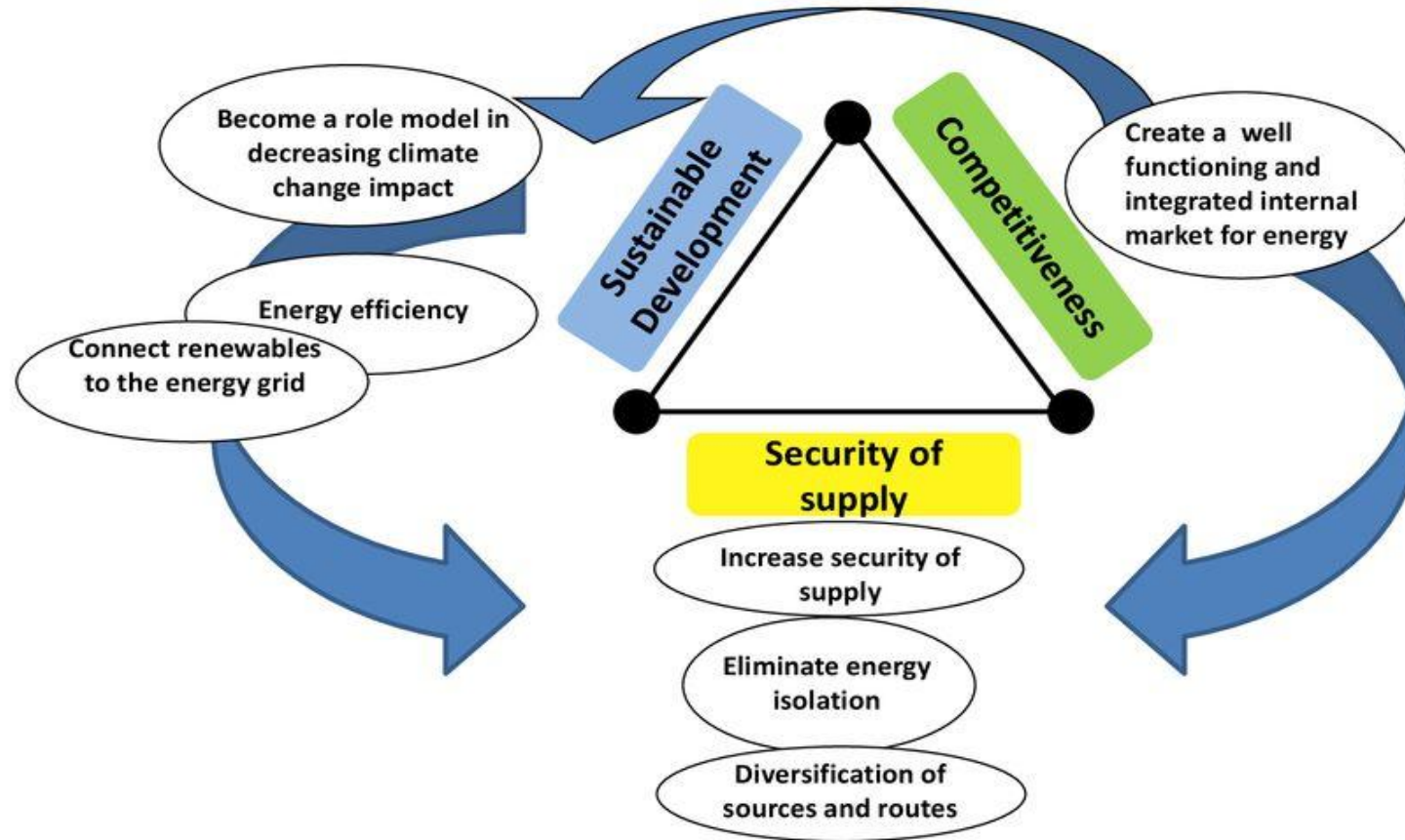
European
Commission



● Integrated climate and energy policy



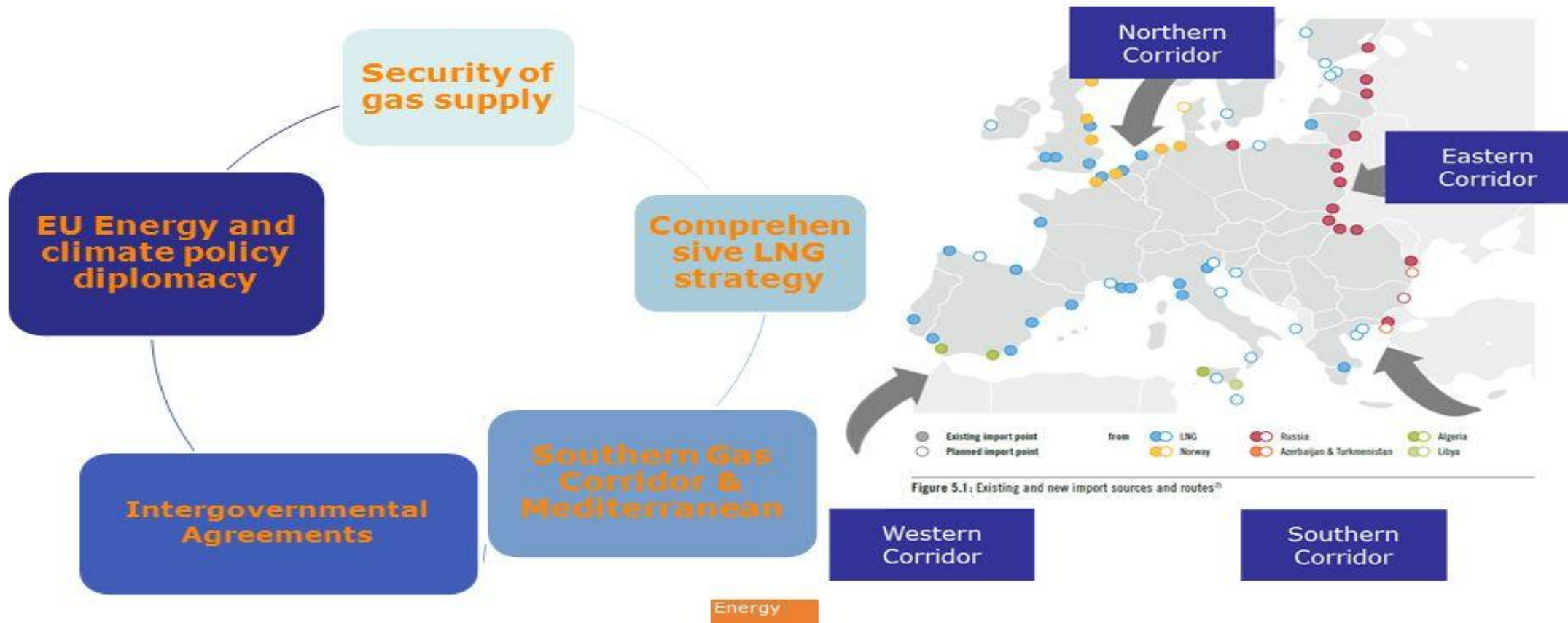
The three pillars of EU energy policy



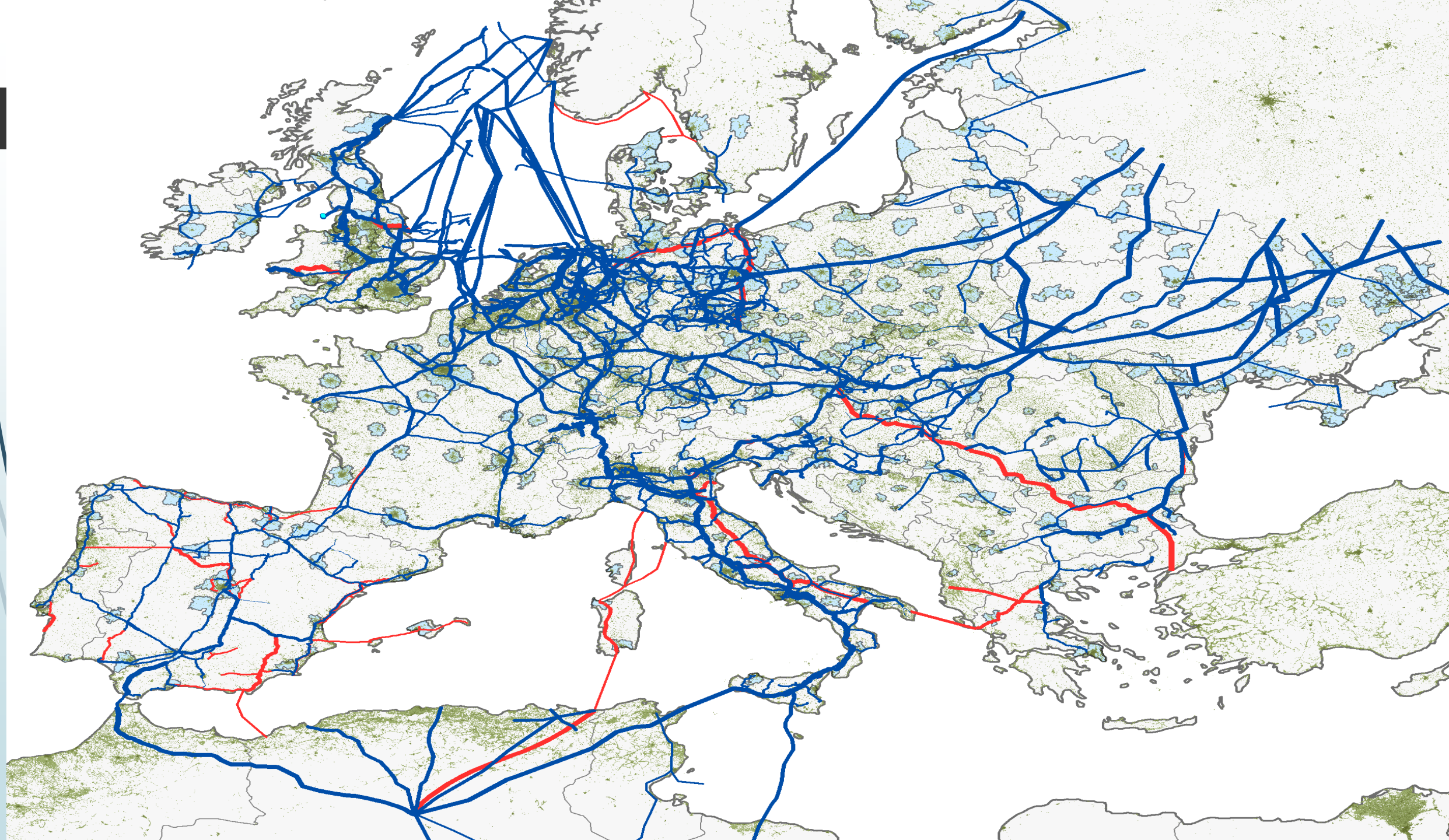
Europe has agreed a forward-looking political agenda to achieve its core energy objectives of sustainability, competitiveness and security of supply.

Energy Security, solidarity and trust

Diversify sources, suppliers and routes









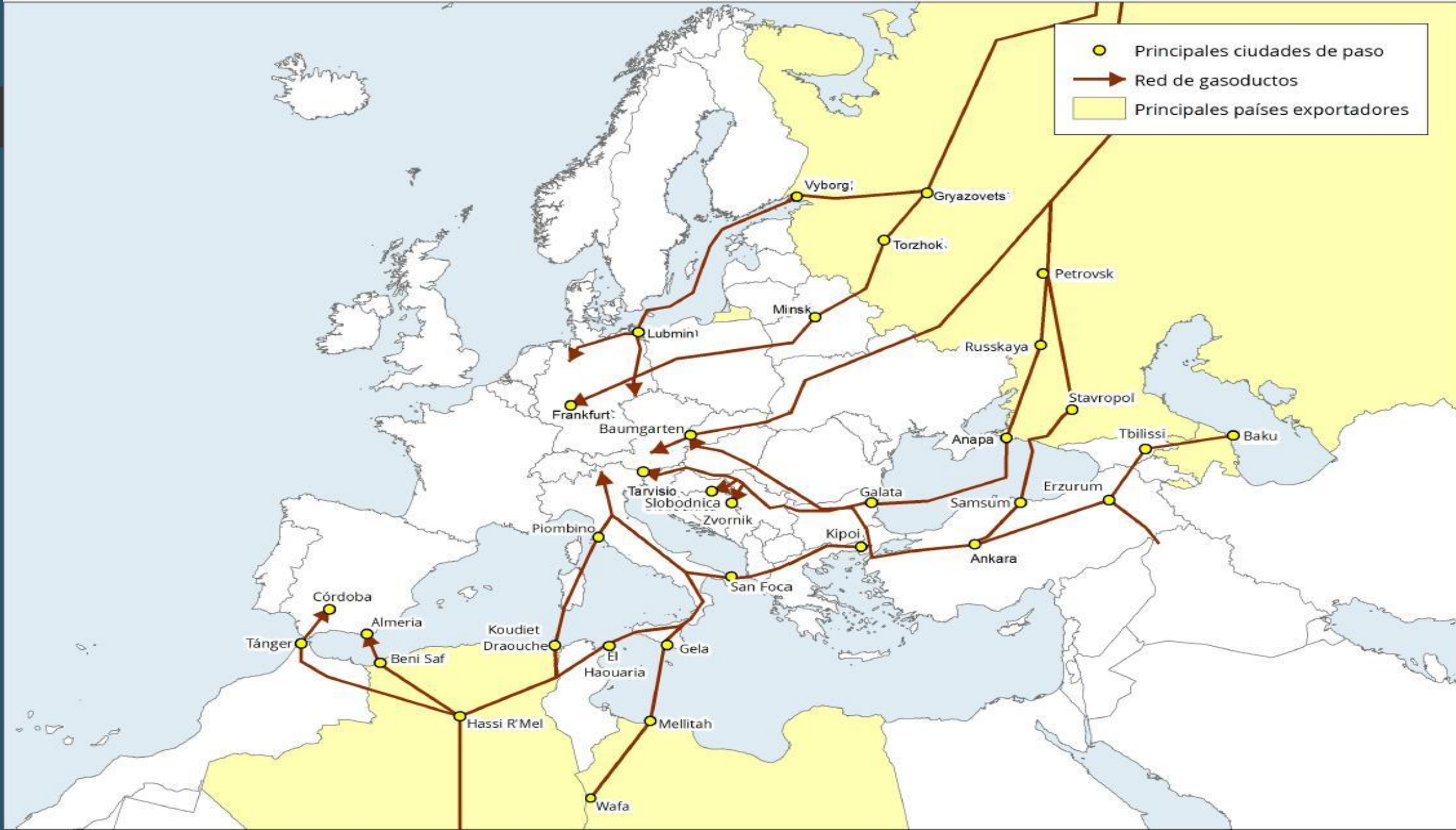
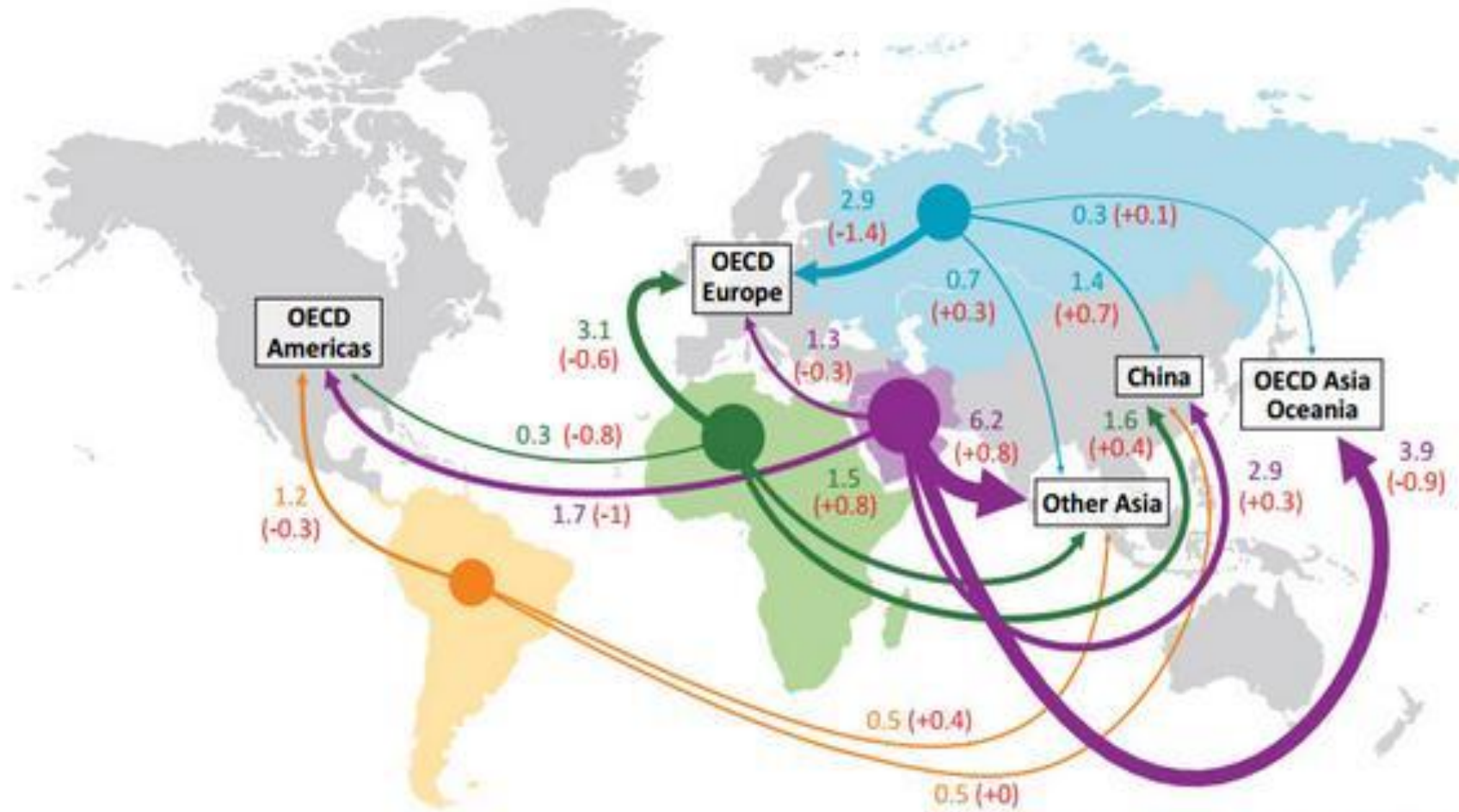


Figure 1.4 Crude exports in 2018 and growth over 2012-18 for key trade routes



Red numbers in brackets denote growth in period 2012-18

This map is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

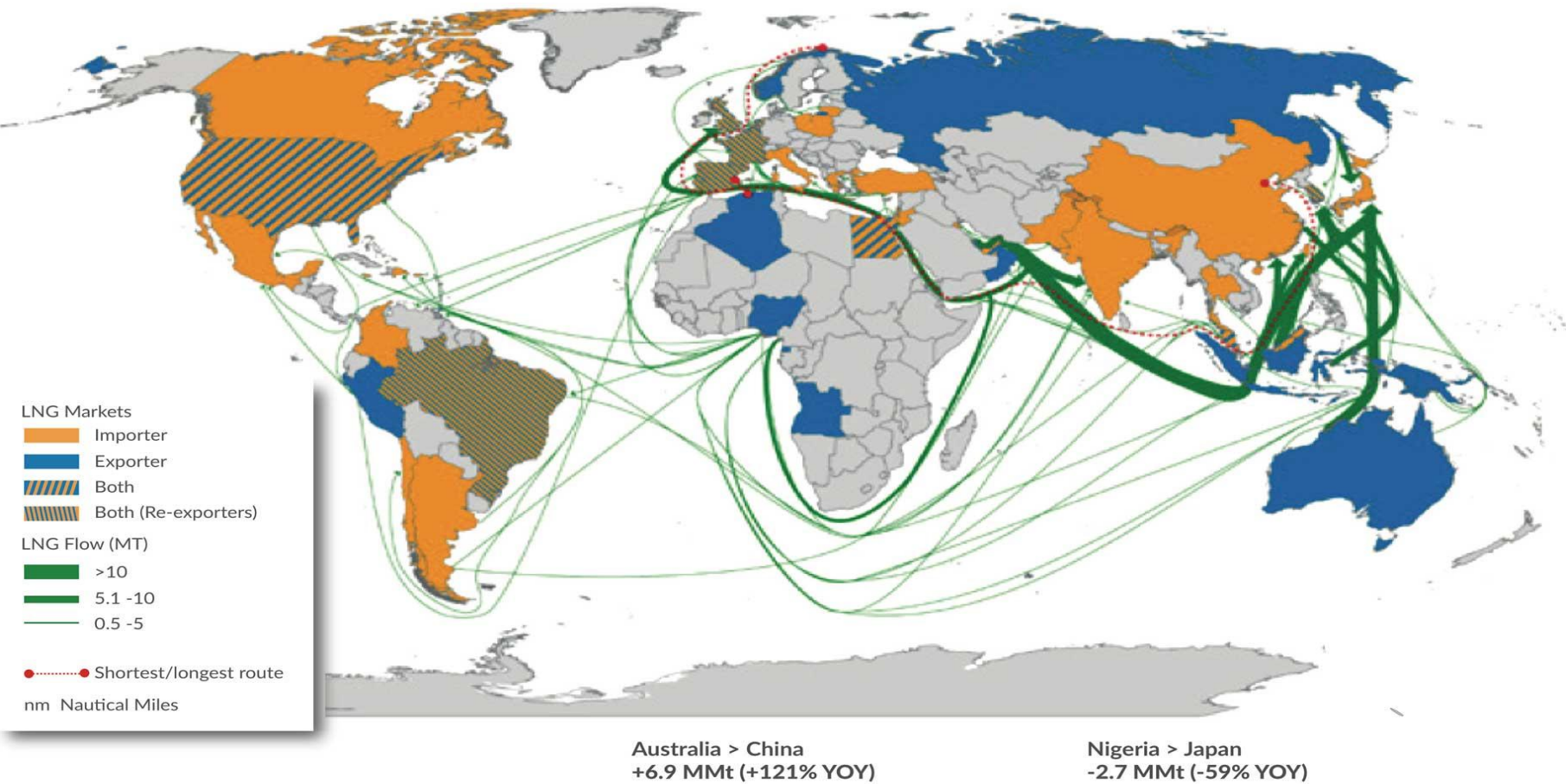
Source: IEA, 2013a.

Major LNG Shipping Routes (2016)

Shortest LNG voyage length in 2016
130 nm (Algeria to Spain)

Average LNG voyage length in 2016
7,640 nm

Longest LNG voyage length in 2016
12,280 nm (Norway to China)



Note: Route start and end points are not always indicative of project location.

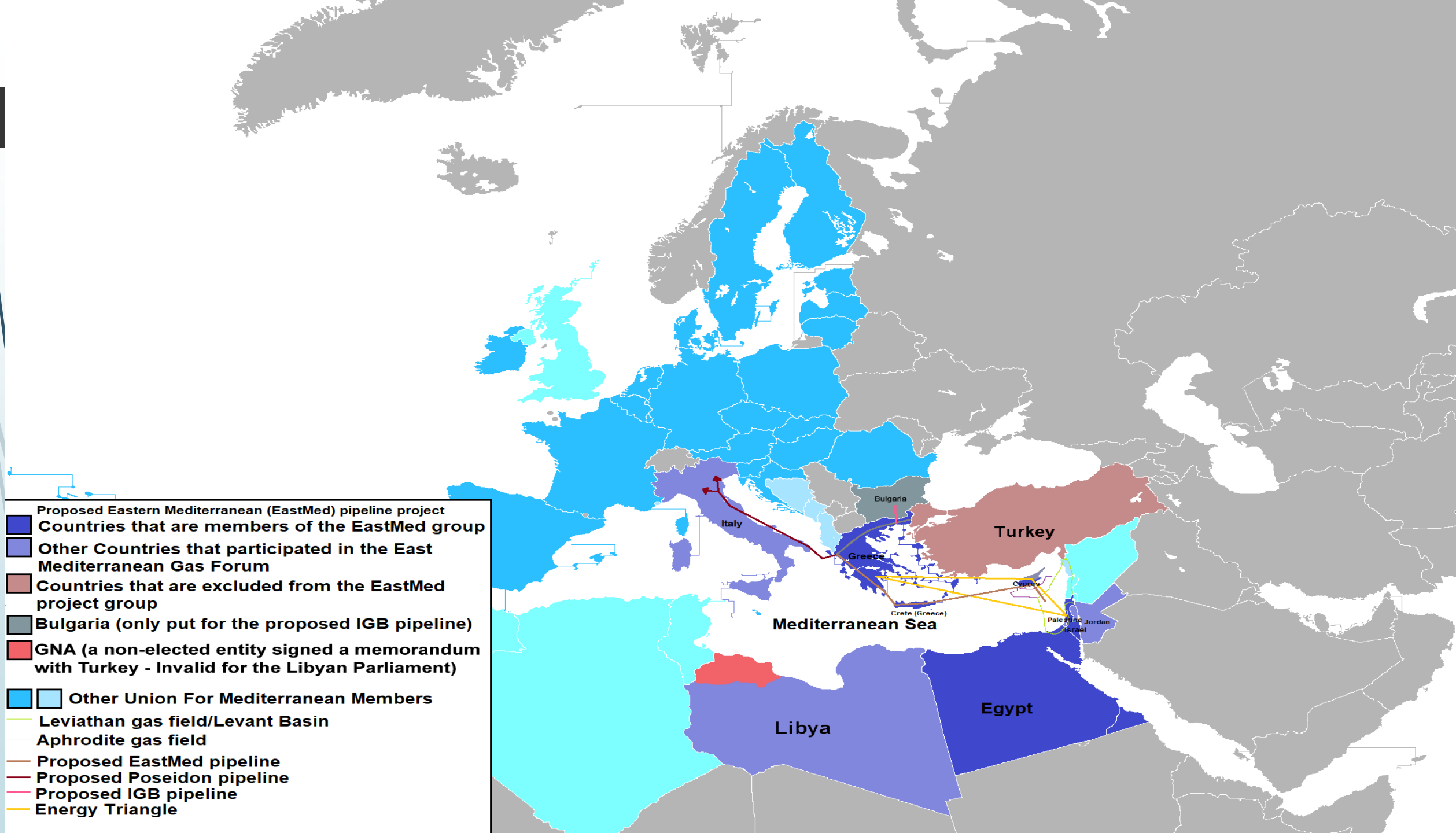


Non-renewable Natural Resources

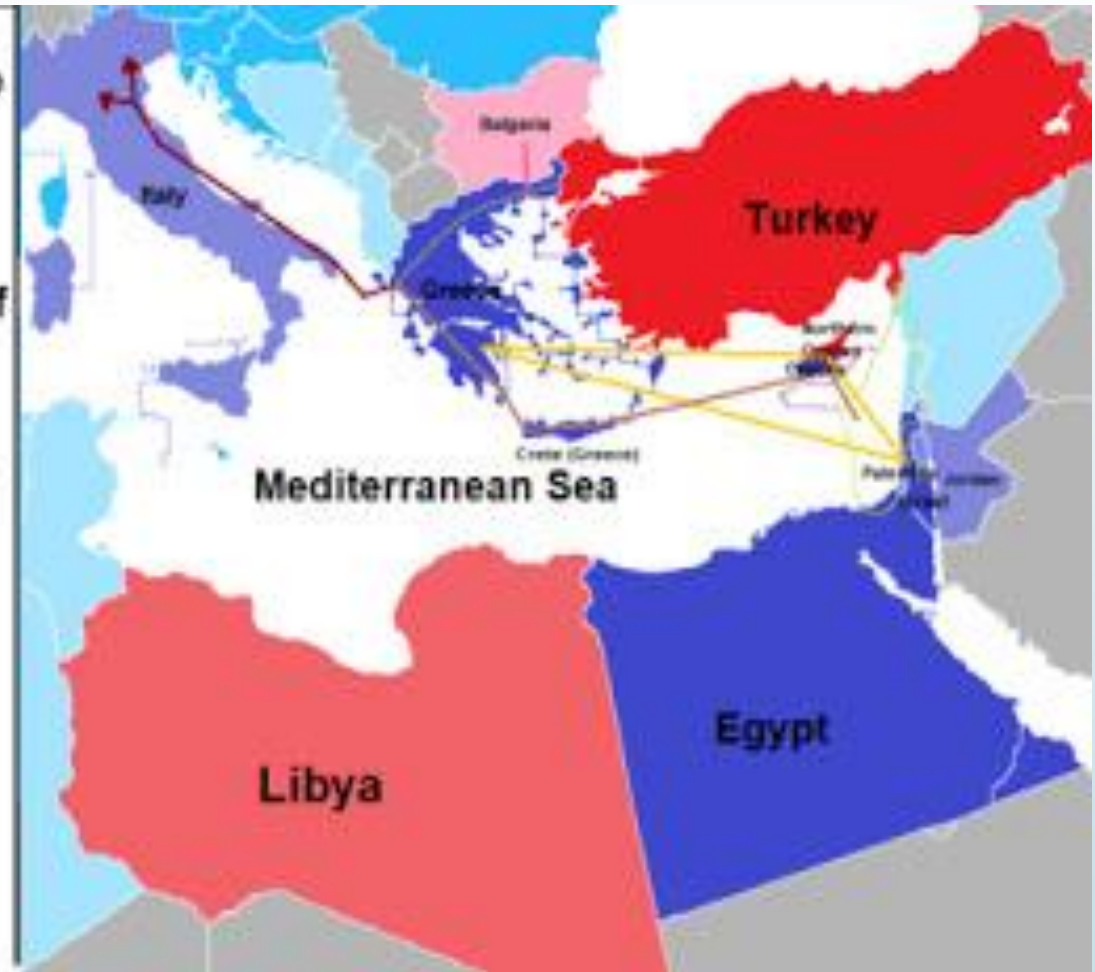
Gasfield	Gaspipeline	Mining	Silver	Copper	Lead
Oilfield	Oilpipeline	Coal	Aluminium	Potassium	Sulfur
LNG terminal	LNG transport route	Uranium	Asbestos	Marble	Antimony
			Gold	Magnesium	Tungsten
			Bauxite	Manganese	Tin
			Chromium	Phosphorus	Zinc

Sources: Russian Energy Atlas, Swiss World Atlas, Plan Bleu,
www.nabucco-pipeline.com, Energy Tribune





- Proposed Eastern Mediterranean (EastMed) pipeline project
- Countries that are members of the EastMed group
- Other Countries that participated in the East Mediterranean Gas Forum
- Countries that are excluded from the EastMed project group (including the unrecognized state of Turkish Republic of Northern Cyprus)
- Bulgaria (only put for the proposed IGB pipeline)
- Libya (a country that signed a maritime boundary deal with Turkey)
- Other Union For Mediterranean Members
- Leviathan gas field/Levant Basin
- Aphrodite gas field
- Proposed EastMed pipeline
- Proposed Poseidon pipeline
- Proposed IGB pipeline
- Energy Triangle



27 de Noviembre de 2019



The Proposed East Med Pipeline

Approximate distances

A-B: 55 km	E-F: 430 km
B-C: 675 km	F-G: 150 km
C-D: 205 km	H-B: 235 km
D-E: 130 km	

ITALY

TURKEY

GREECE

LEBANON

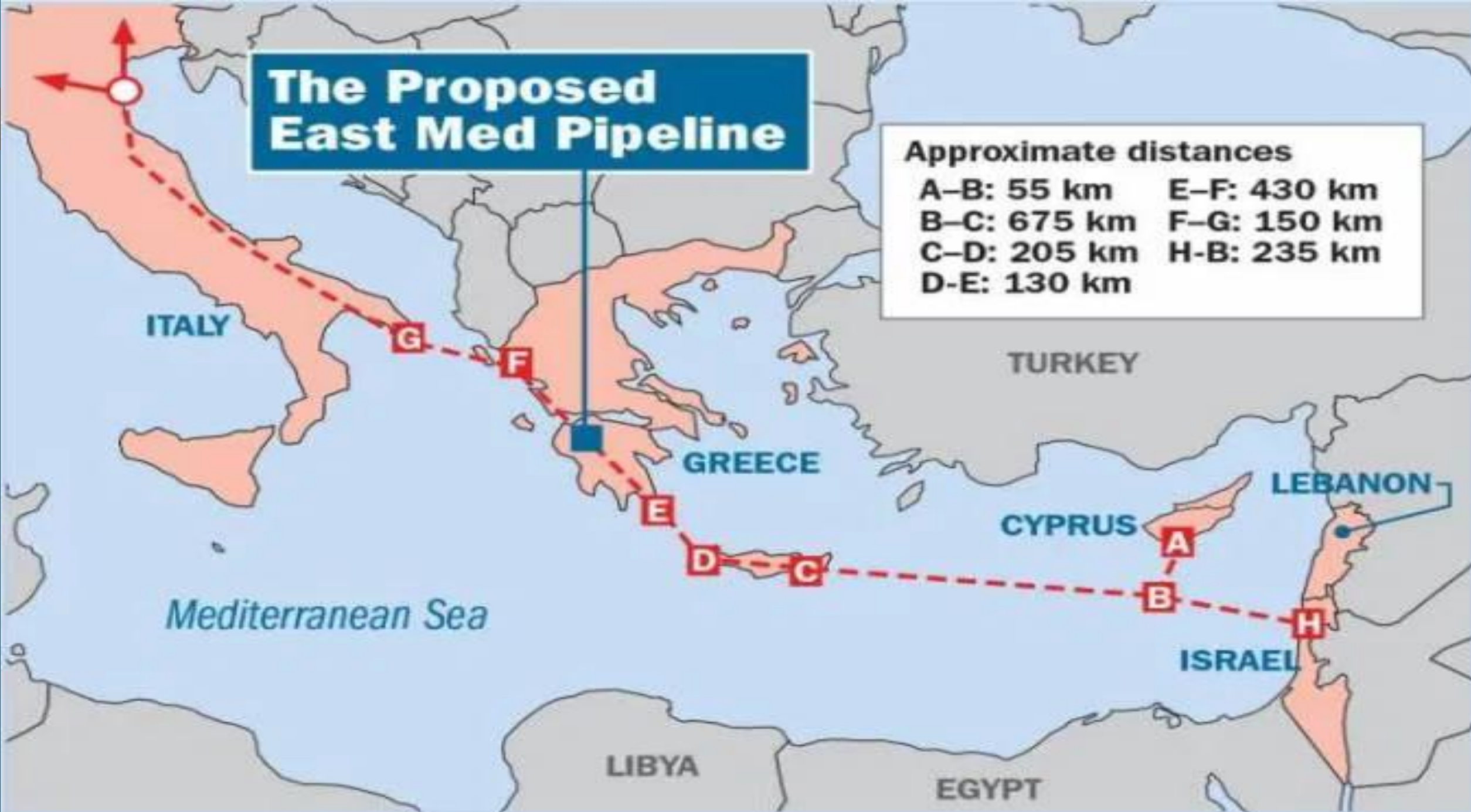
CYPRUS

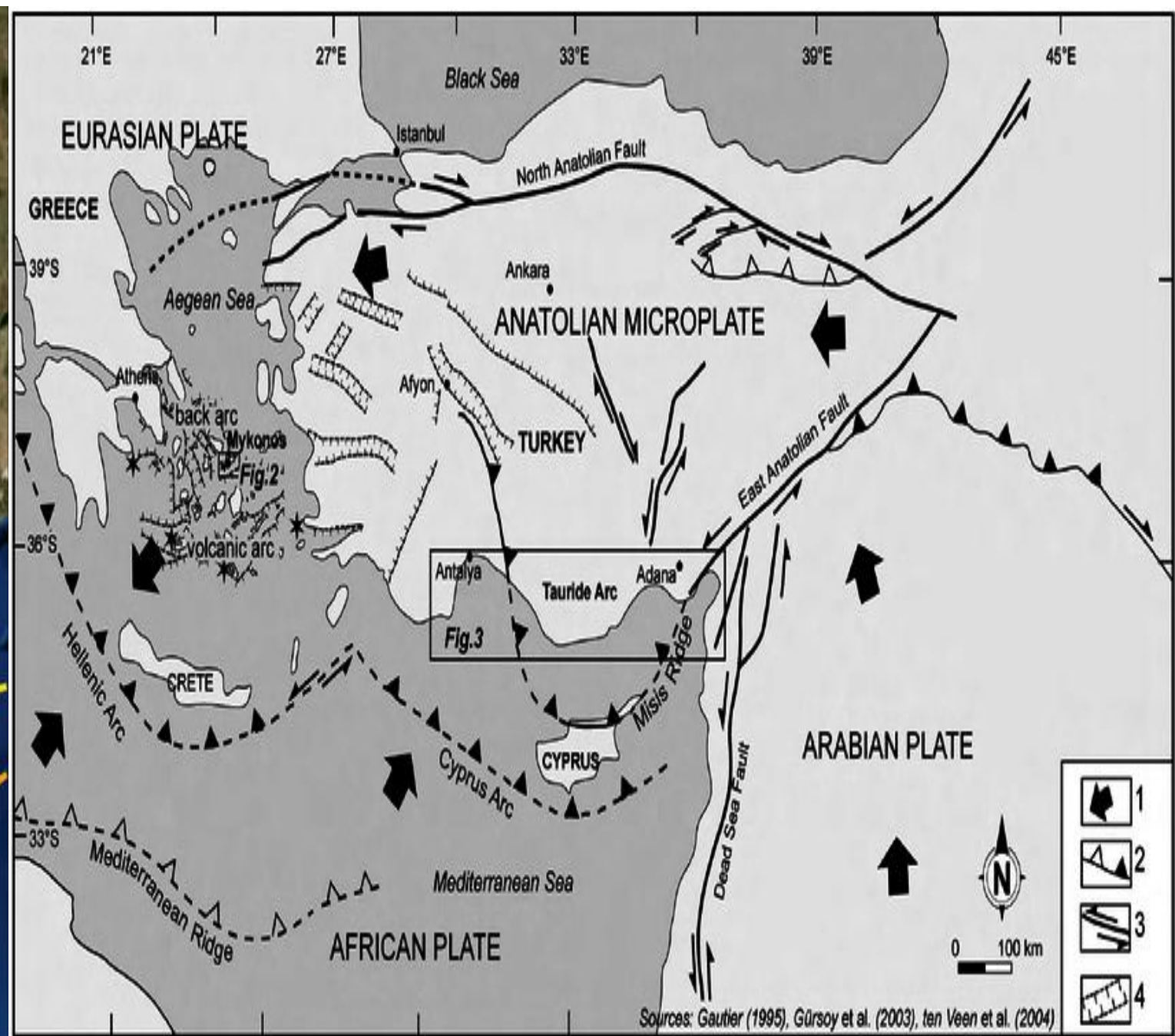
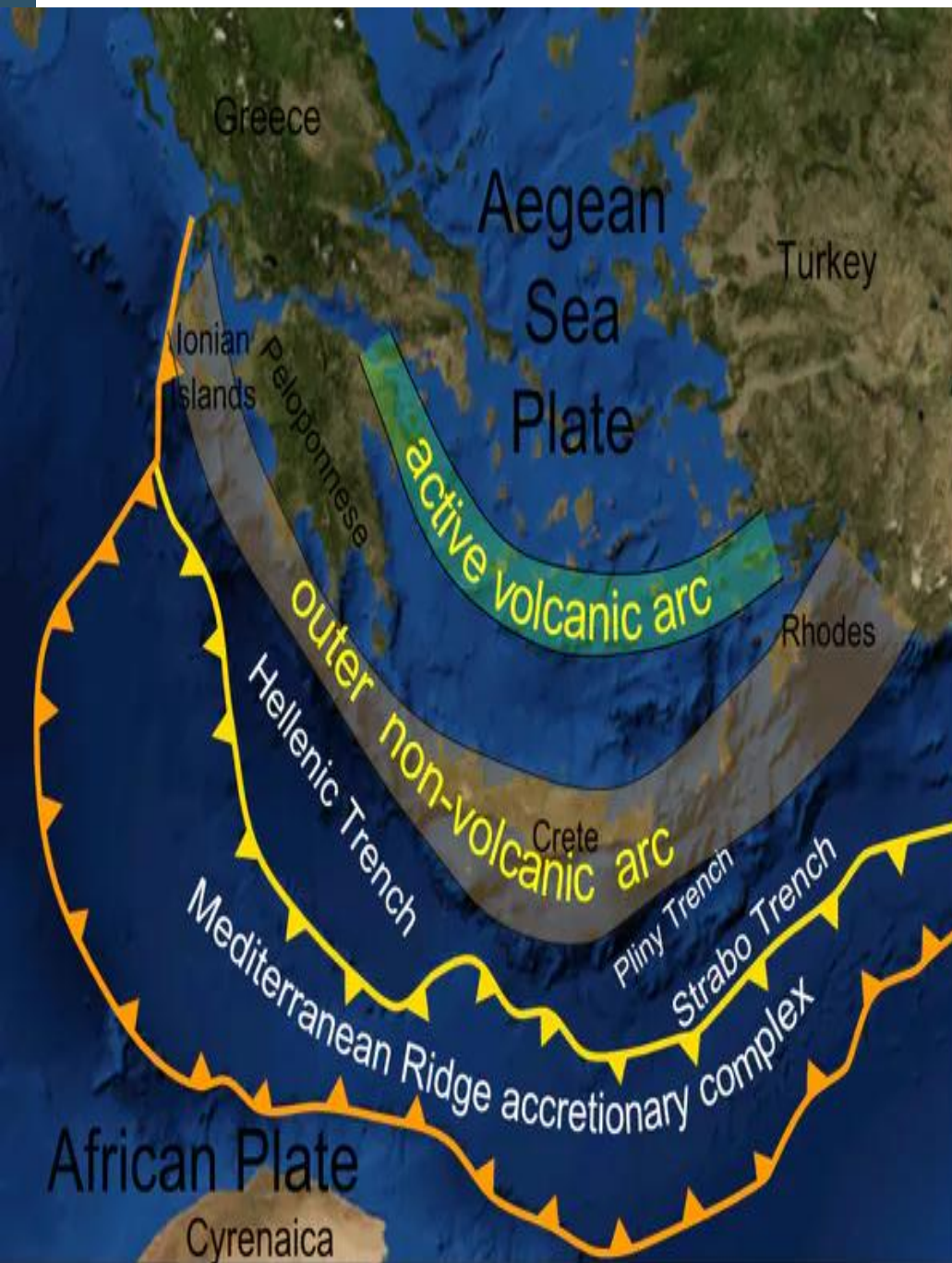
Mediterranean Sea

ISRAEL

LIBYA

EGYPT





Sources: Gautier (1995), Gürsoy et al. (2003), ten Veen et al. (2004)

NATURAL GAS COOPERATION IN THE EASTERN MED

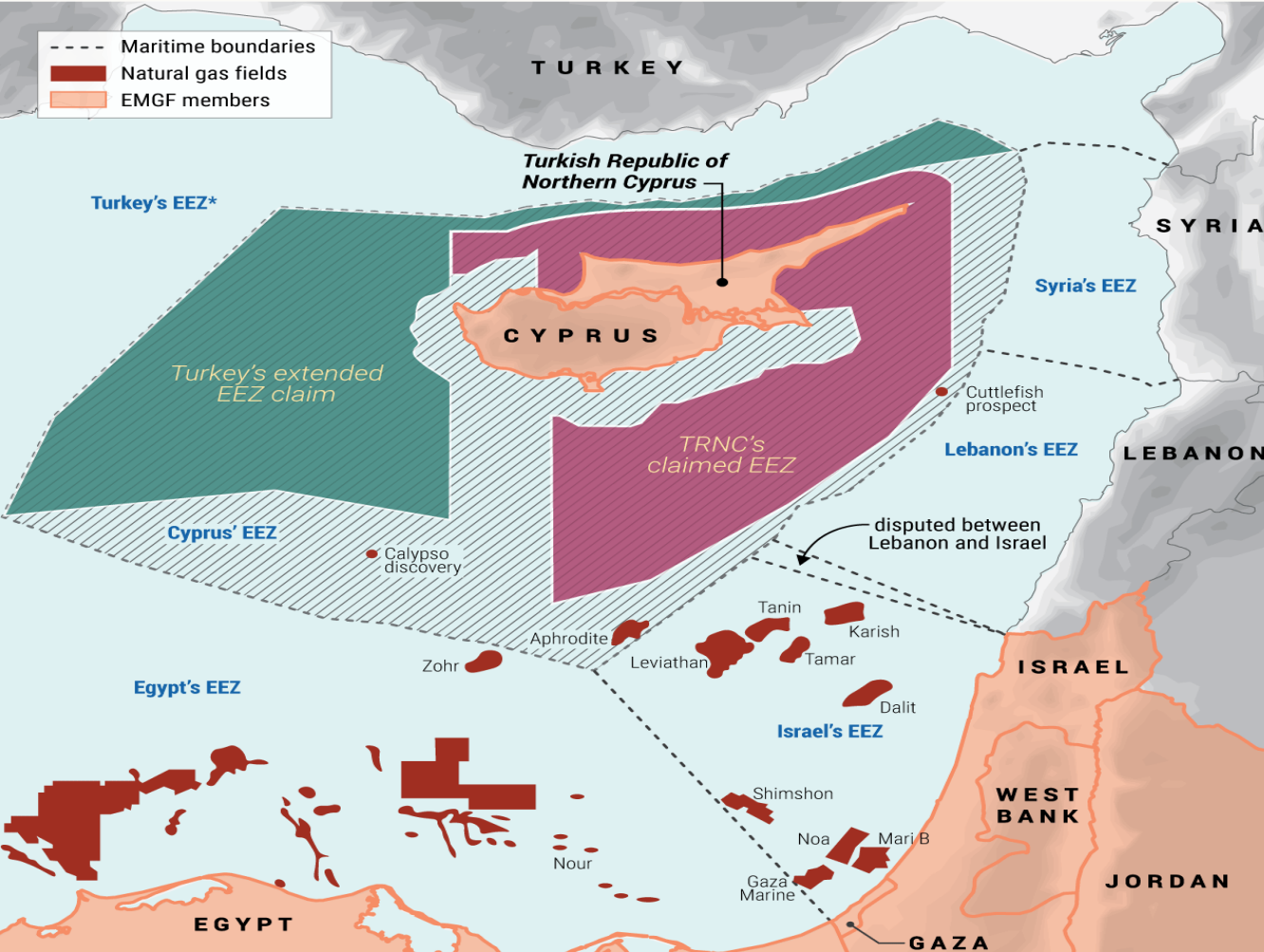


EMGF
CYPRUS
EGYPT
GREECE
ISRAEL
ITALY
JORDAN
PALESTINIAN
TERRITORIES

On July 25, in light of numerous recent natural gas discoveries in the Eastern Mediterranean, the energy ministers of Cyprus, Egypt, Greece, Israel, Italy, Jordan and the Palestinian Territories gathered to form a committee. This group, the *Eastern Mediterranean Gas Forum (EMGF)*, is intended to promote respect for the rights of its members to their natural resources. The forum is an expression of the changing face of the region, in which political and military rivalries and animosities are overshadowed by economic interests, even as some regional states, including Lebanon, Syria and Turkey, have yet to join.

non-EMGF
LEBANON
SYRIA
TURKEY

--- Maritime boundaries
■ Natural gas fields
■ EMGF members



*Exclusive Economic Zone
Sources: S&P Global Platts, Al-Monitor

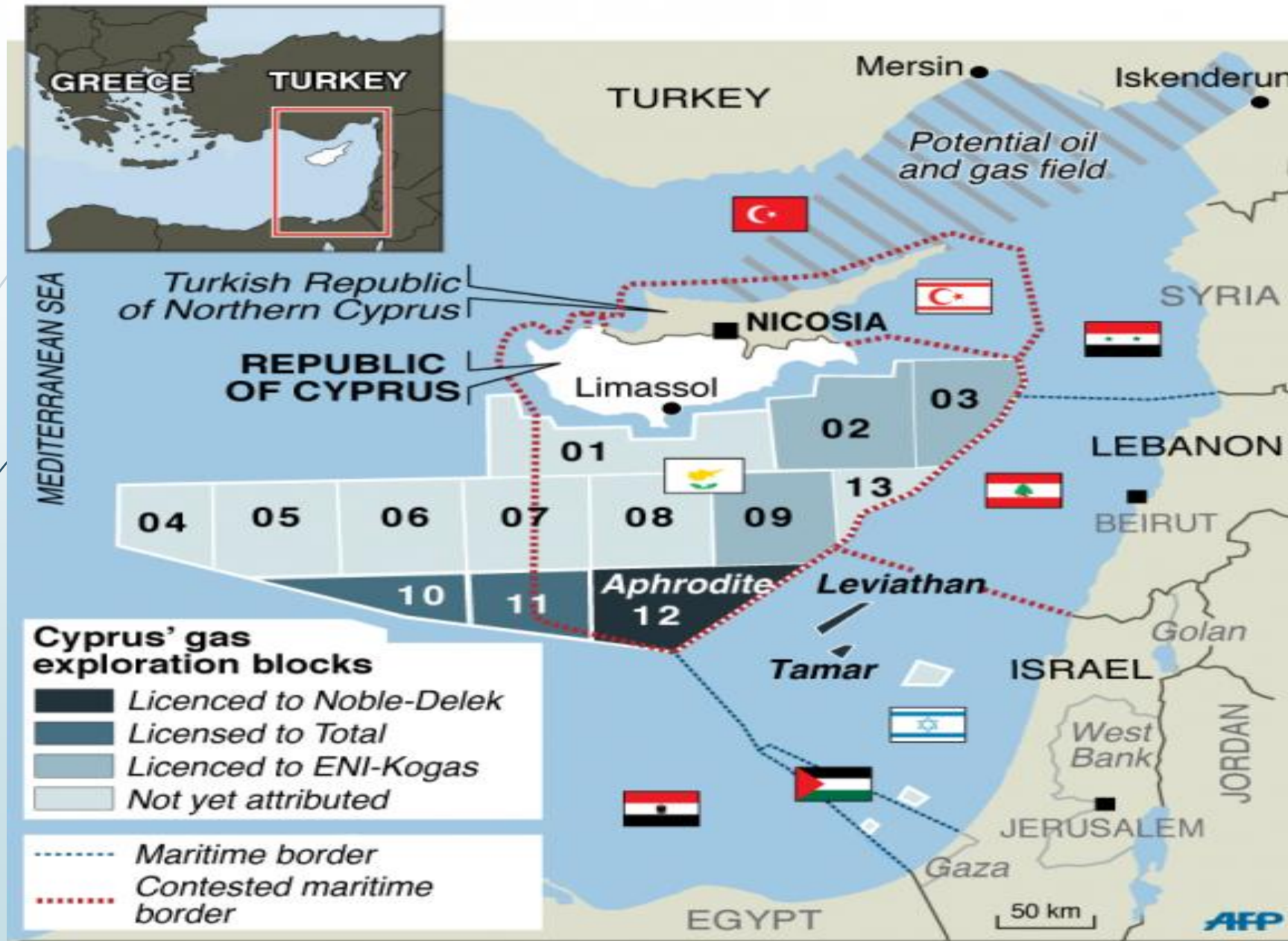
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Eastern Mediterranean Disputes



Maritime Economic Zones
Turkey's EEZ Claim
TRNC's EEZ Claim
Natural Gas Fields
Exploration Sites

Gas reserves around Cyprus





Turkish Revised EEZ
18.6 nautical miles of a continental shelf and Exclusive Economic Zone boundary line between Turkey and Libya

US strike group
US aircraft carrier strike group enters the mediterranean

Turkish Frigates
Vessels have been sighted off the Libyan coast

Turkish Frigates
Support Turkish drill ships *Fatih* and *Yavuz* in Cypriot EEZ

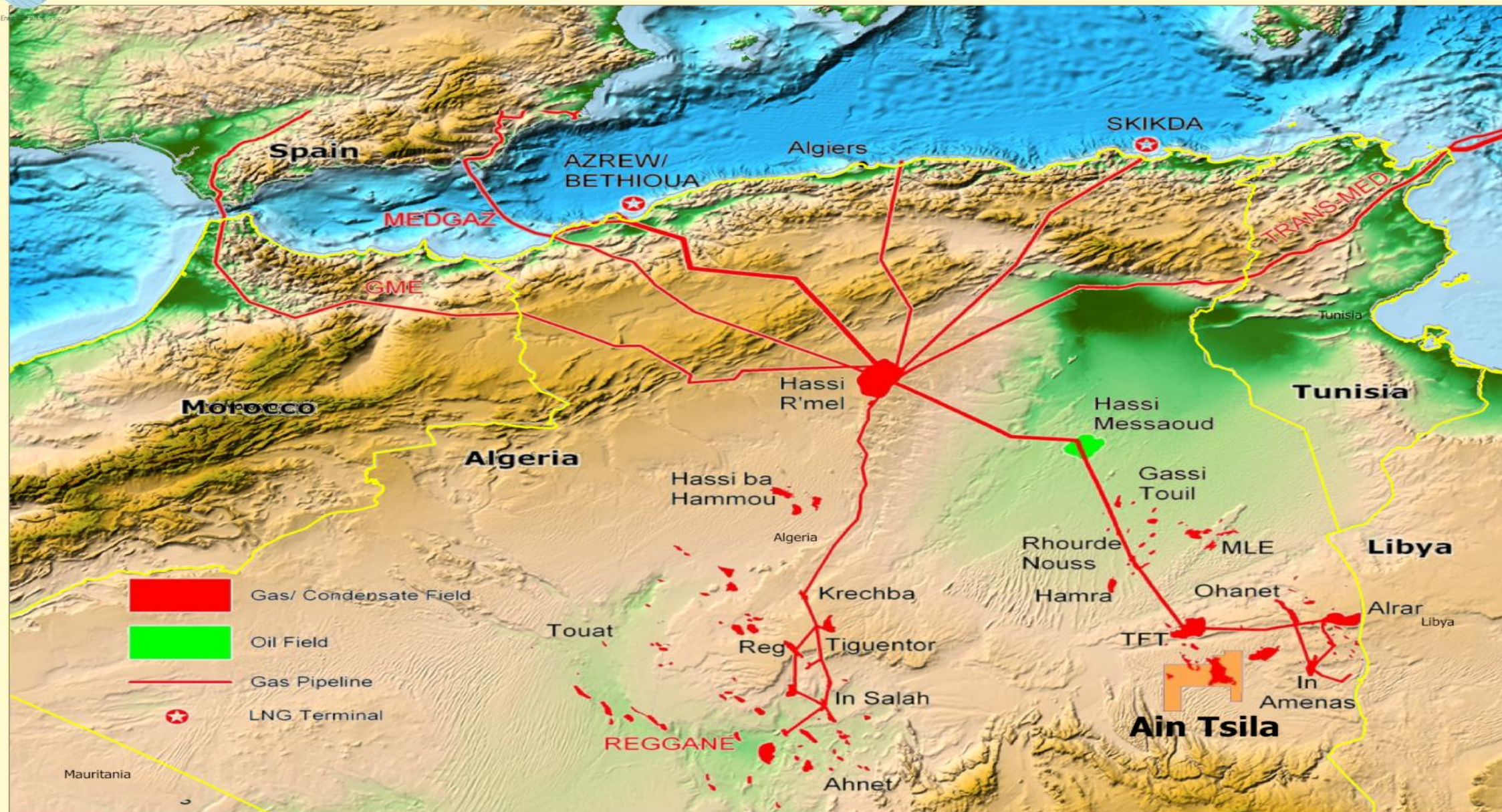
EU Navy forces
EU launched Operation Active Surveillance to police Libya arms embargo

Egyptian Navy forces
Large-scale amphibious exercises in early January

French warships
French government has sent naval vessels including aircraft carrier *Charles de Gaulle* to the region



Algerian New Gas Field Development



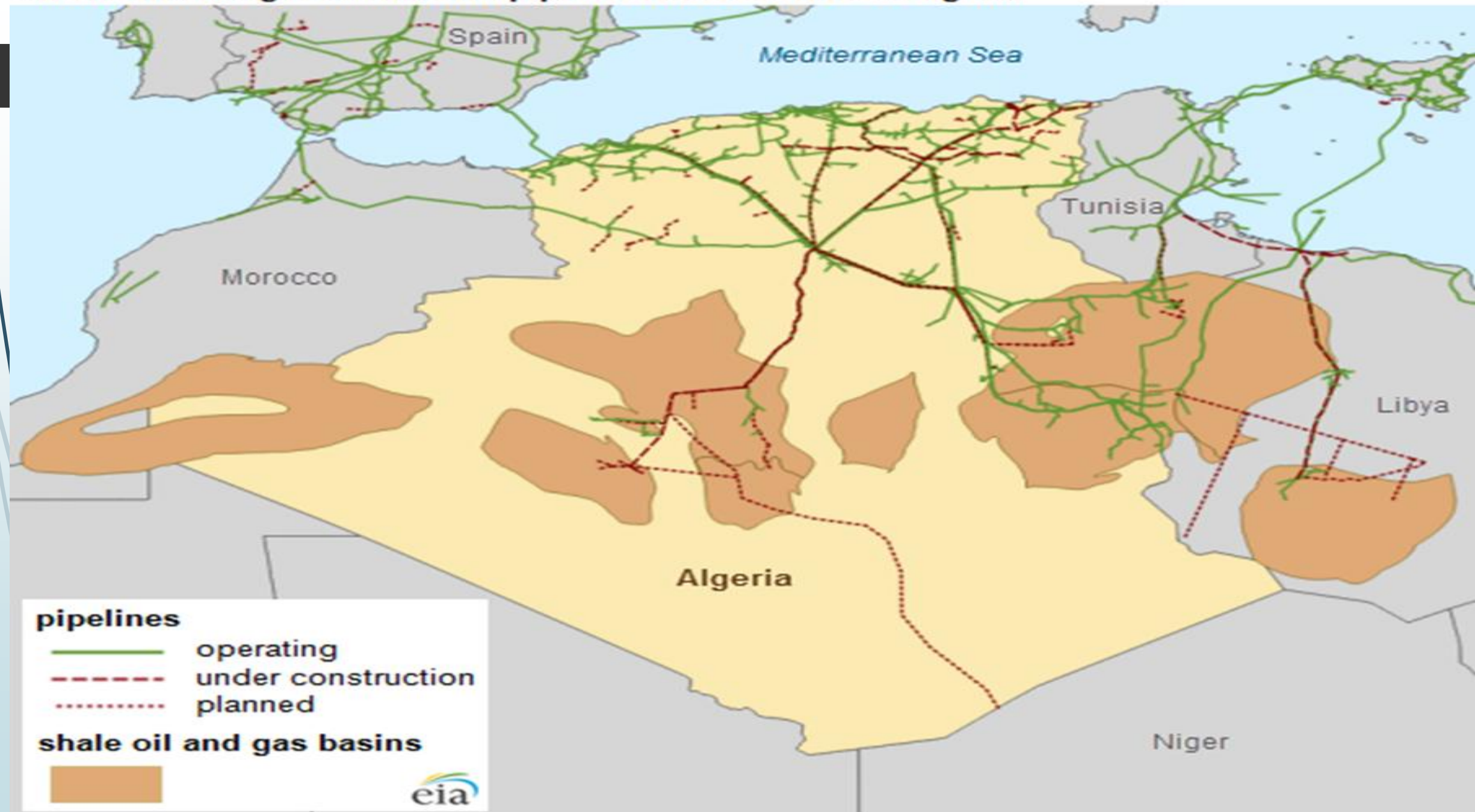
The Energy Consulting Group

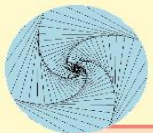
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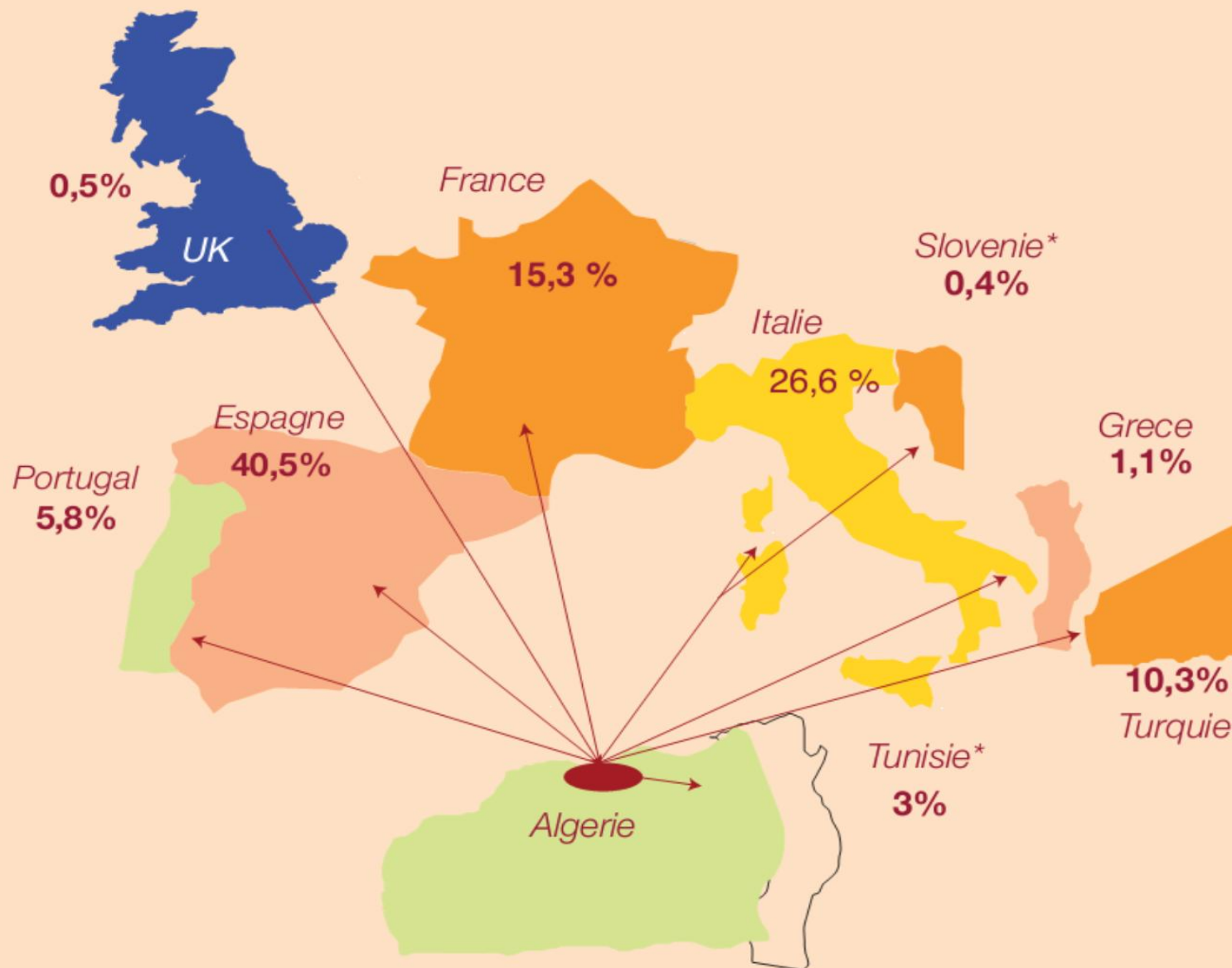
Oil and natural gas basins and pipeline infrastructure in Algeria





The Energy Consulting Group

Algerian Natural Gas Export Markets- 2013



Source: Sonatrach

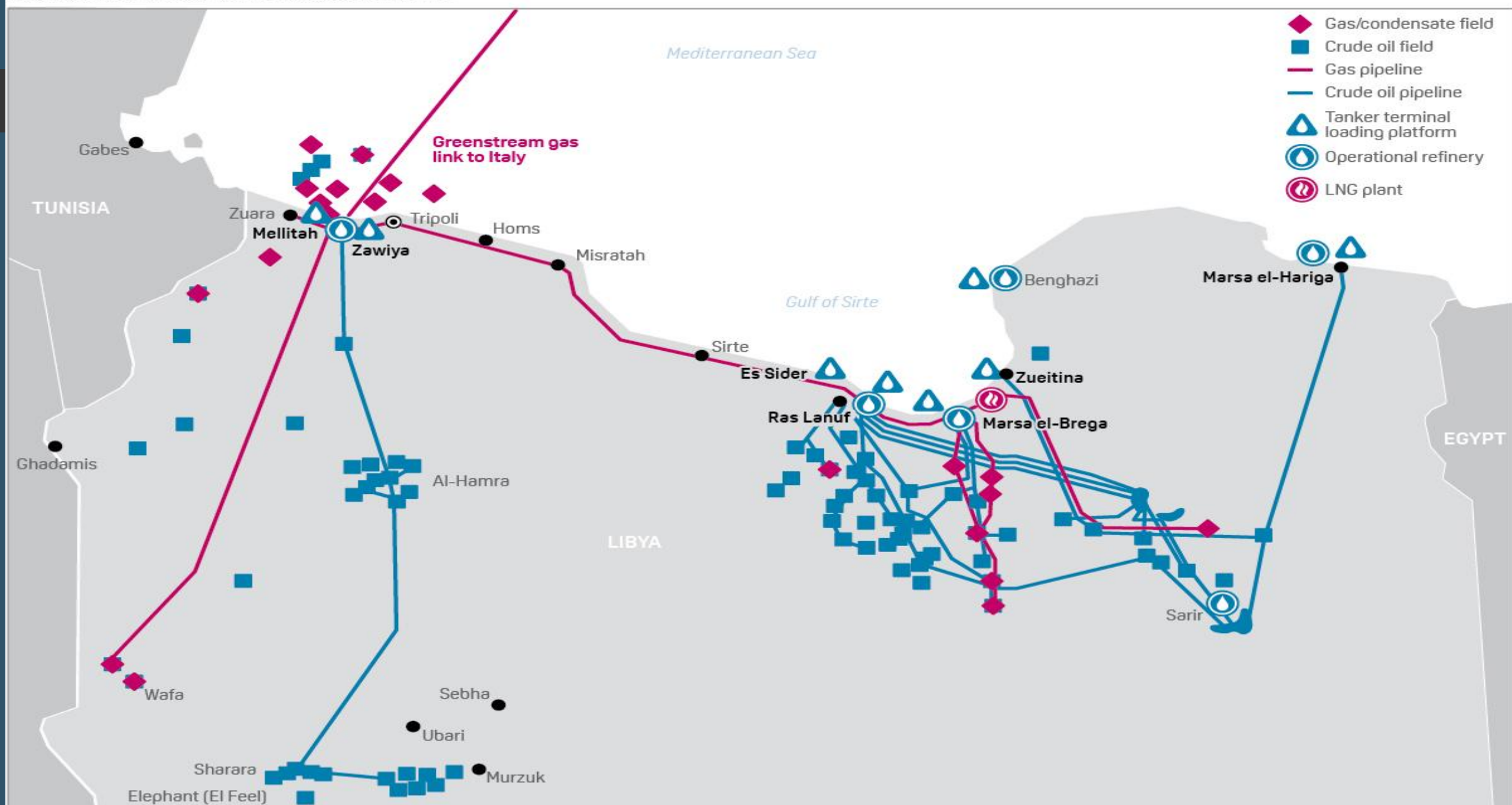
The Energy Consulting Group

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Source: Sonatrach

LIBYAN OIL AND GAS INFRASTRUCTURE



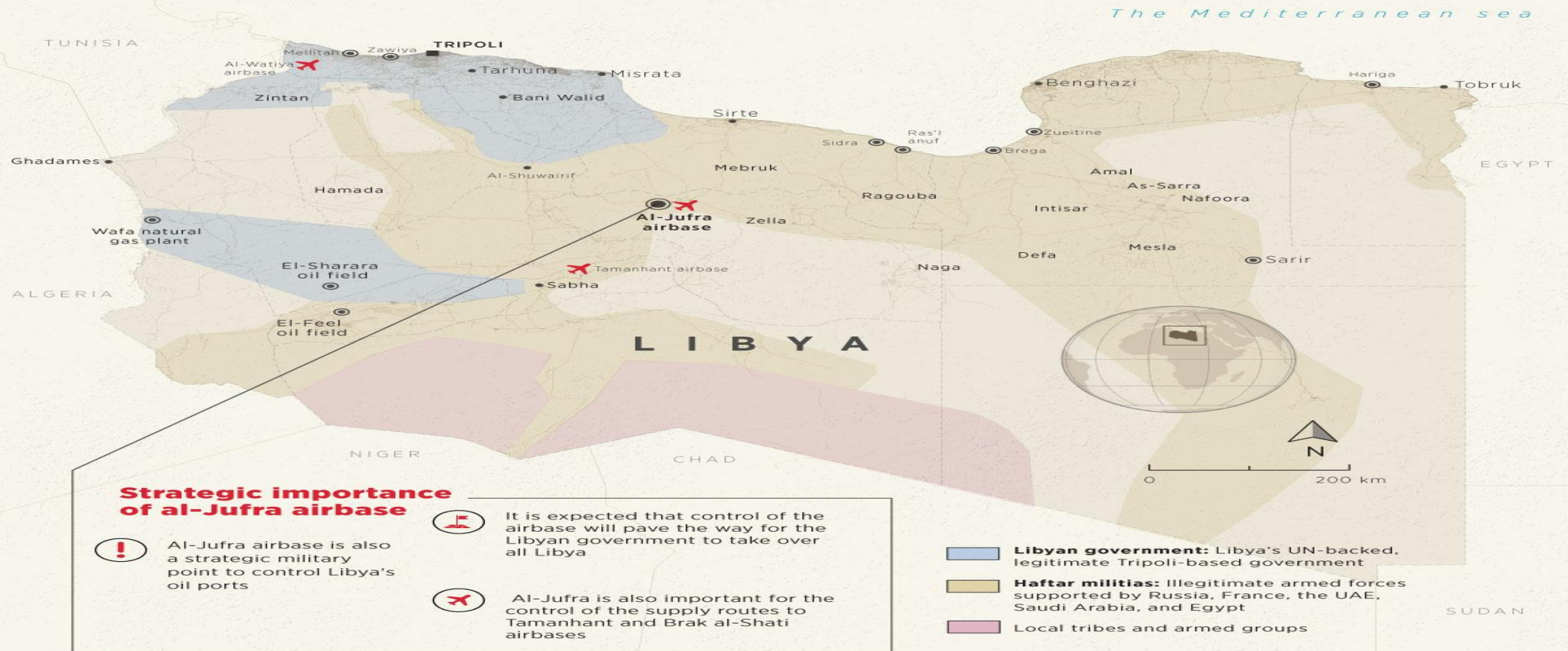
MILITARY SITUATION IN LIBYA JUNE 23, 2020



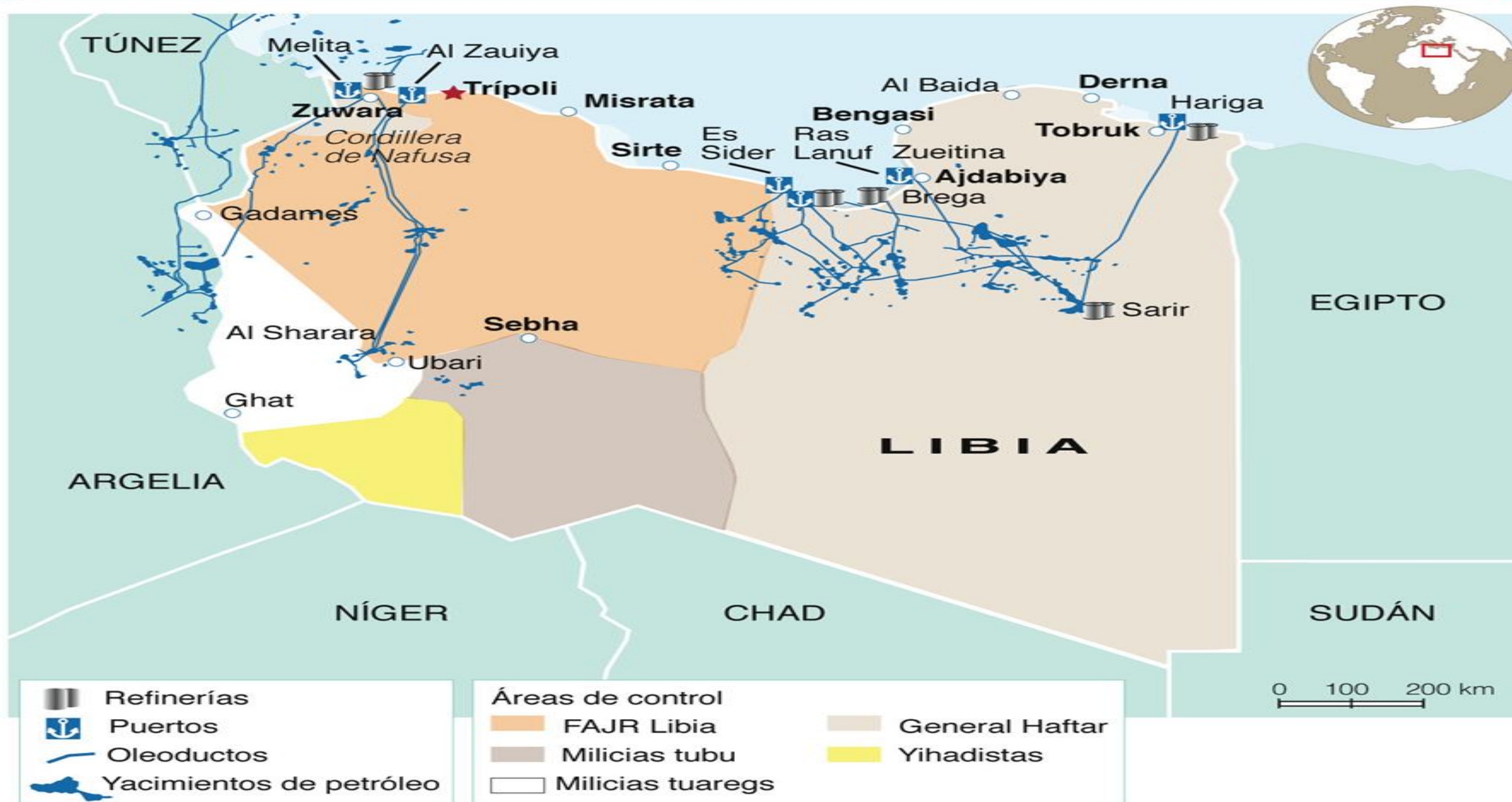
Al-Jufra airbase is key to achieve control throughout all Libya

After gaining control in the Tarhuna province on June 5, the Libyan army declared Sirte province and then al-Jufra airbase, located 650 kilometers (403 miles) southeast of the capital Tripoli, as legitimate targets

- Haftar's militias captured al-Jufra airbase in 2017
- Mercenaries of Russian private military contractor Wagner were deployed in the airbase, where there is Russian-made Pantsir air defense systems
- According to the US African Command (AFRICOM), there are still 14 Russian-made MiG-29 fighter jets and Sukhoi-24 fighter bombers in the airbase

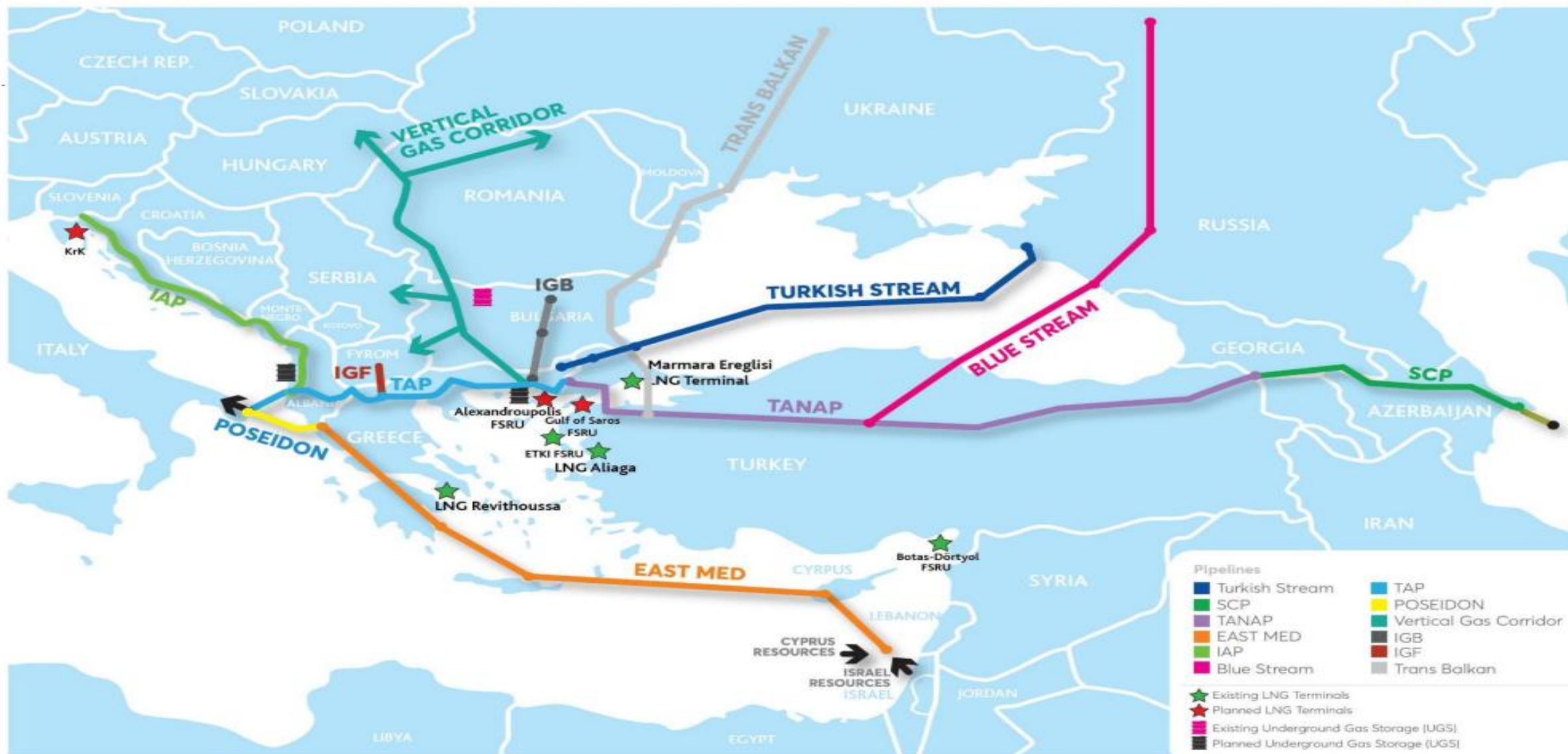


Petróleo en Libia y control del territorio



Fuentes: JDD, Economist Petroleum y El País.

An Expanded South Gas Corridor



NB.: The TANAP and TAP gas pipelines as well as Turkish Stream are under construction, with IGB at an advanced planning stage with FID already taken. The IAP, the IGI Poseidon in connection with East Med pipeline and the Vertical Corridor and the IGF are still in the study phase. Blue Stream and Trans Balkan are existing pipelines.

Source: IENE (February 2018)

Nord Stream
Nord Stream 2

NORWAY

FINLAND

VYBORG

UST-LUGA

SWEDEN

ESTONIA

LATVIA

RUSSIA

DENMARK

LITHUANIA

RUSSIA

BELARUS

GREIFSWALD

GERMANY

POLAND

UKRAINE

CZECH REP.

UNITED
KINGDOM

NETHERLANDS

Calendario bloque energía

► PLANIFICACIÓN SESIONES CON SOLEDAD SEGOVIANO:

► JUEVES 25 DE JUNIO:

- **SOLEDAD SEGOVIANO:** INTRODUCCIÓN Y APROXIMACIÓN CONCEPTUAL. LA SEGURIDAD ENERGÉTICA DE LA UNIÓN EUROPEA

► LUNES 29 DE JUNIO:

- **SOLEDAD SEGOVIANO:** LA DIMENSIÓN EXTERIOR DE LA POLÍTICA ENERGÉTICA DE LA UE: HACIA UNA ESTRATEGIA DE SEGURIDAD ENERGÉTICA EUROPEA.

► JUEVES 2 DE JULIO:

- **GONZALO ESCRIBANO:** LA ESTRATEGIA ENERGÉTICA DE LA UE EN EL MARCO DE LAS TRANSFORMACIONES GLOBALES.

► LUNES 6 DE JULIO:

- **SOLEDAD SEGOVIANO:** EL ESPACIO DE VECINDAD DE LA UE COMO FUENTE DE SUMINISTRO ENERGÉTICO: EL MEDITERRÁNEO AMPLIADO Y LA GEOPOLÍTICA DE LA ENERGÍA.
- **DOLORES RUBIO:** TURQUÍA EN LA ESTRATEGIA DE SEGURIDAD ENERGÉTICA DE LA UE

► MARTES 7 DE JULIO:

- **CARLOS ECHEVERRÍA:** DESAFÍOS Y AMENZAS A LA SEGURIDAD ENERGÉTICA EN EL NORTE DE ÁFRICA
- **XIRA RUIZ Y SOLEDAD SEGOVIANO:** PRÁCTICA CONJUNTA/FINAL

APROXIMACIÓN CONCEPTUAL A DEBATE

- Podrías identificar las dimensiones de la seguridad energética?
- ¿Qué entendemos por PRODUCCIÓN-DISTRIBUCIÓN-CONSUMO ENERGÉTICOS?
- ¿Cómo se genera la electricidad?
- ¿Existe dependencia respecto de los combustibles fósiles/hidrocarburos? Si es así, ¿para qué actividades? Identifica estos hidrocarburos.
- Establece las diferencias entre hidrocarburos convencionales y no convencionales
- ¿Puedes identificar los principales países suministradores de energía a la Unión Europea?
- ¿Qué entendemos por vulnerabilidad física?
- ¿Cómo se transportan los hidrocarburos?
- ¿Quiénes definen la política energética de la UE?
- ¿Quiénes tienen las competencias? ¿Las instituciones? ¿Los Estados Miembros?
- ¿Qué es la descarbonización? Define posibles obstáculos
- ¿Qué entendemos por interdependencia energética?
- ¿En qué consiste la diversificación energética?
- ¿Qué es la GEOPOLÍTICA DE LA ENERGÍA?
- ¿Podrías identificar los principales desafíos y oportunidades del panorama energético global?
- ¿Cuáles son las diferencias entre política exterior de la UE, la política energética exterior y la estrategia de seguridad energética de la Unión?