

Energy security and ecological transition

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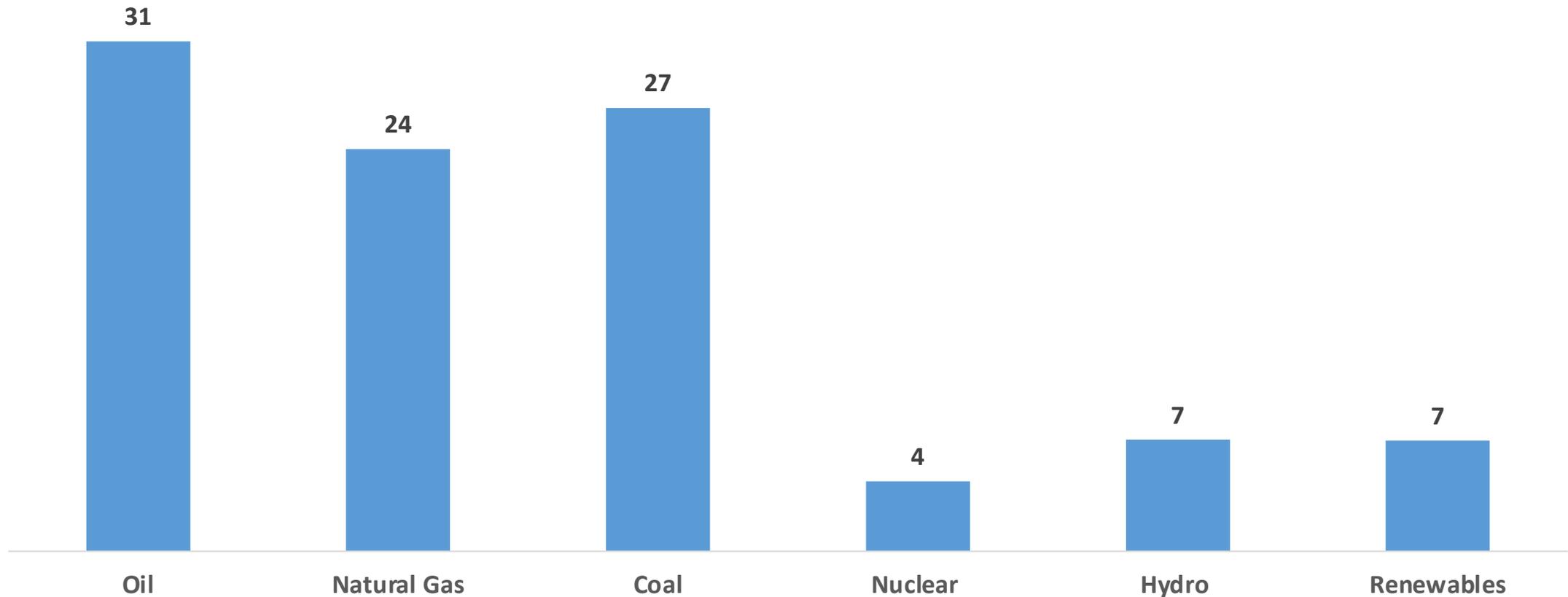
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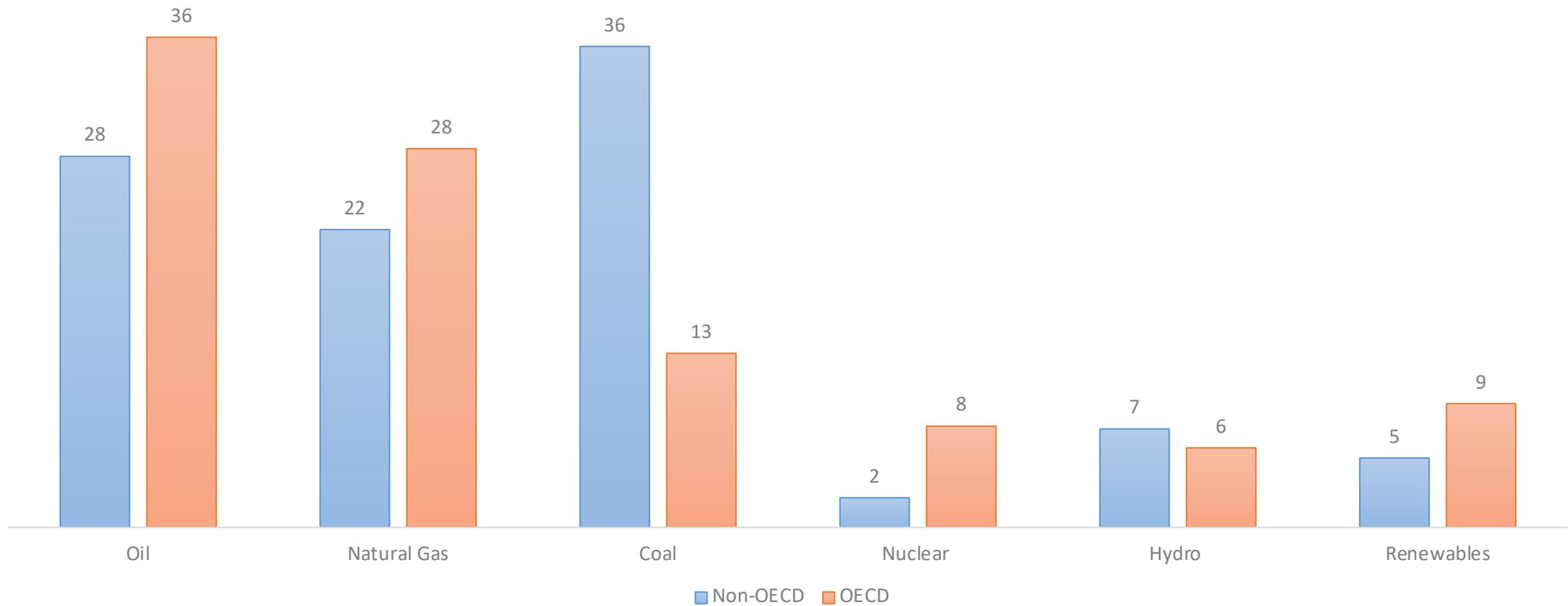
Main topics

- Recent changes in the geopolitics of energy.
- The problem of energy security.
- The strategic role that the Mediterranean region can play in accelerating the transition to clean energy.
- The new geography of energy supplies

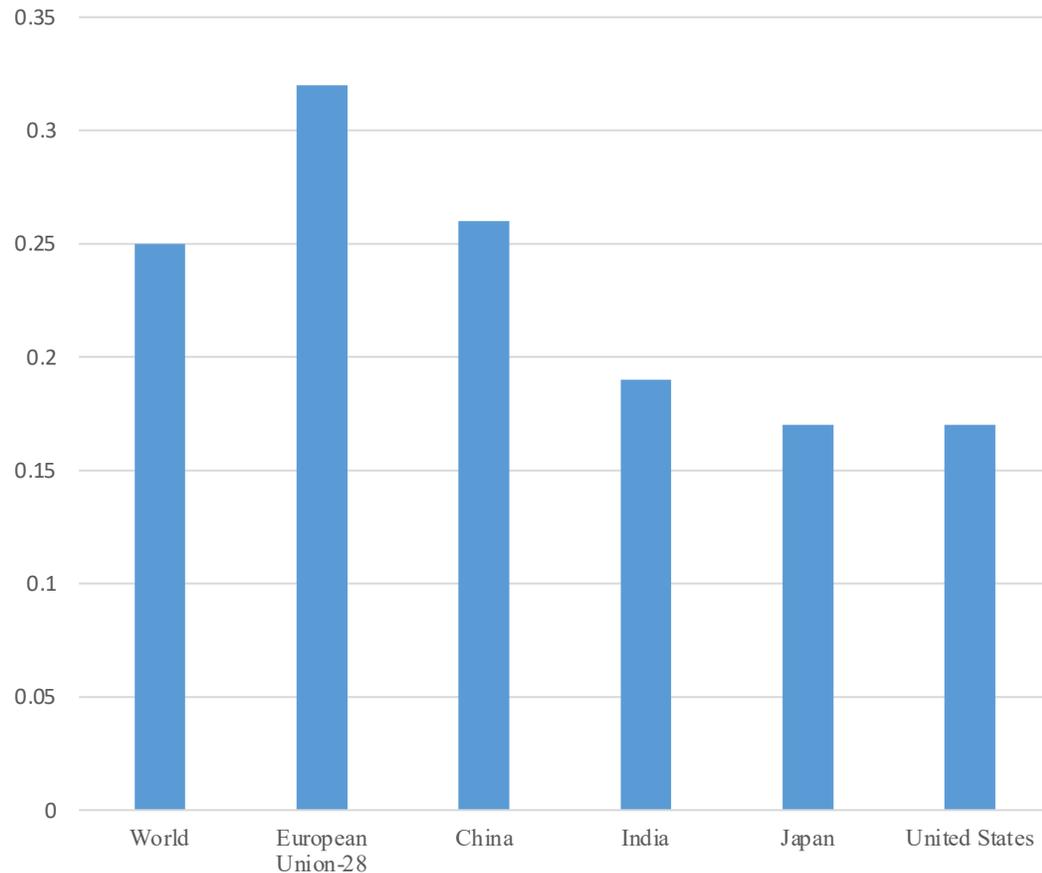
World energy consumption by fuel in 2021 (%)



OECD and non-OECD energy consumption by fuel in 2021 (%)



Share of renewable sources in electricity generation



- **Renewable energy sources represent only 25% of world electricity production**. This means that about **64% of electricity is produced by fossil fuels**. Another important aspect is that coal, which is the most polluting fossil fuel, continues to represent the main energy source in electricity generation, with a share of about 38% (IEA, 2022). If we consider world CO₂ emissions from fuel combustion, coal is the main polluter, with a share of 44%, followed by oil (34%), and natural gas (21%)

Energy «insecurity»

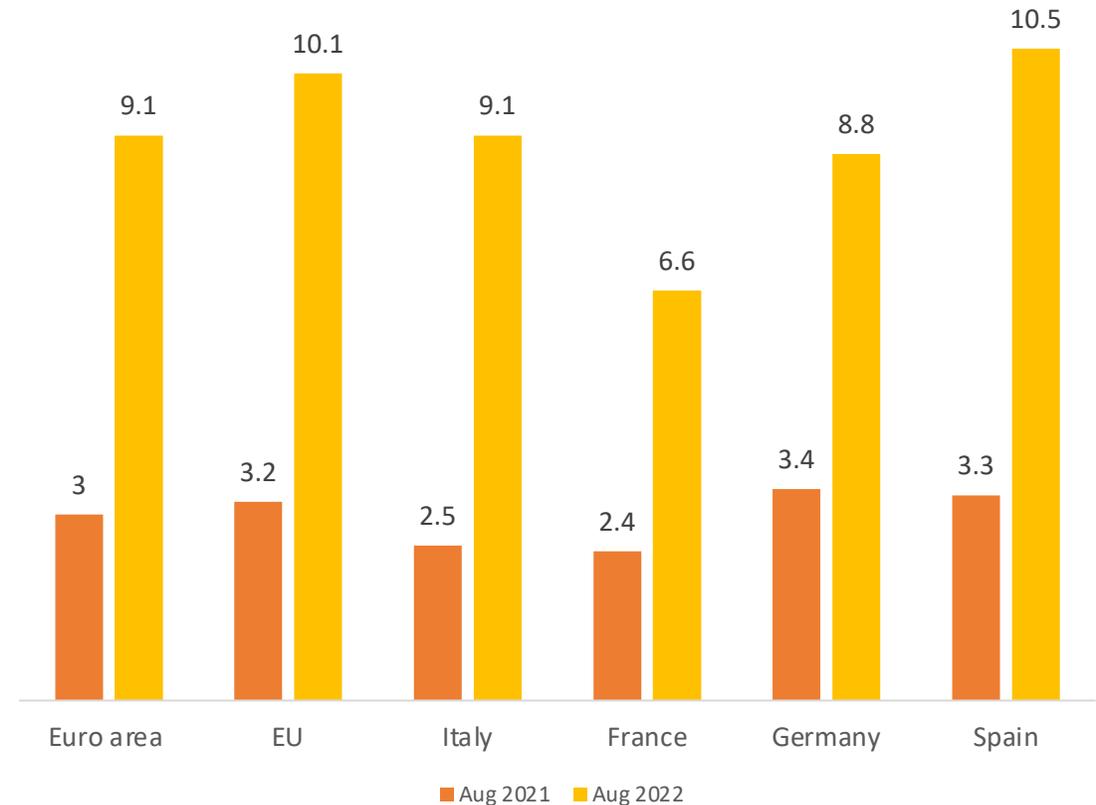
- Global energy markets have been ravaged by the war in the Ukraine, which is increasing energy insecurity, especially for European countries.
- The current war in the Ukraine is driving a rapid growth of energy prices, inflation, causing a slowdown of GDP growth, and increasing the possibility of a global recession, which are similar to the developments that resulted from the Yom Kippur war in 1973.

Real GDP growth (%)-Oecd estimations

Real GDP growth	2013-2019 (average)	2021	2022	2023
World	3.4	5.9	3.1	2.2
OECD	2.2	5.6	2.8	0.8
United States	2.4	5.9	1.8	0.5
Euro area	1.9	5.3	3.3	0.5
NON OECD	4.4	6.2	3.4	3.3
China	6.8	8.1	3.3	4.6
India	6.8	8.7	6.6	5.7

The rise of inflation

- Annual inflation up to 10% in the [euro area](#) (Eurostat, September 2022)
- A year earlier, the rate was 2.2% in the [euro area](#)
- The highest contribution to the euro area inflation came from energy, followed by food.



The new geography of energy supplies

- **Europe** has planned to reduce and then stop energy imports from Russia, but Europe is highly dependent on Russian gas, and reducing imports from Russia means finding alternative countries from which to import gas.
- At the same time, **Russia**, whose economy is very dependent on gas exports, is trying to find alternative routes for selling gas, and it would be not surprising if the gas that is no longer sold to Europe is sold to Asian countries, such as China and India.

The new geography of energy supplies

- Indeed, Chinese imports of Russian oil rose to a record level, displacing Saudi Arabia as China's largest provider.
- Unlike France, which has a large share of nuclear energy for electricity production, both Germany and Italy are more reliant on gas.
- Germany and Italy are among the most vulnerable European countries as they imported 58% and 40% of total gas consumption from Russia in 2020, respectively.

Italy energy dependency

- **Italian energy dependency (73%)**
- Italy is trying to quickly reduce its dependence on Russia, and for this reason, it is signing new agreements to further increase gas imports from Algeria and other African countries.
- In 2021, Italy increased imports from Algeria and, thanks to the start of the Trans Adriatic Pipeline (TAP), from Azerbaijan.

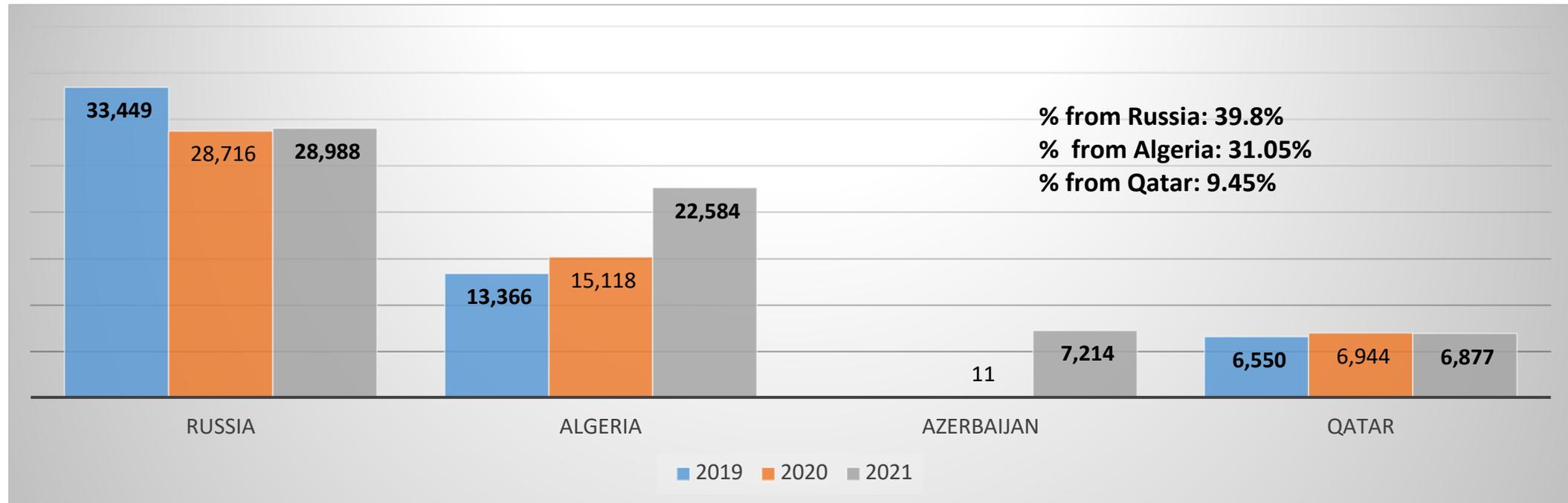
The strategic role of Mediterranean region

- The Mediterranean region is strategic for world energy markets due to the presence of important producer countries such as Libya and Algeria that have large reserves of oil and gas.
- The Mediterranean region is also an important energy transit area due to the presence of strategic chokepoints for the maritime transport of oil and liquefied natural gas (LNG), such as the Suez Canal and the Turkish straits (U.S. Energy, 2022a).
- The role of the Mediterranean region as an energy corridor is reinforced by the presence of pipelines that transport oil and gas from North Africa, the Middle East, Russia, Azerbaijan, and other former Soviet Union states to Europe and other consumer countries.

The Mediterranean region

- In addition, the discovery in recent years of new offshore gas fields in Egypt, Israel, and Cyprus reinforces the strategic role of the Mediterranean region in the energy markets.
- **The Mediterranean region has great potential for renewable sources.**
- The implementation of Euro-Mediterranean cooperation could represent an important opportunity to increase energy security, peace and sustainable development.
- The establishment of an international organization for the development of renewable energy in the Mediterranean area would be a strategic tool for the transition to clean energy.

Italy: Gas Imports by countries (million cubic meters)



Source: Ministero della transizione ecologica (november 2022)

Thank you for your attention!

References

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 - **BP Stats Review**
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