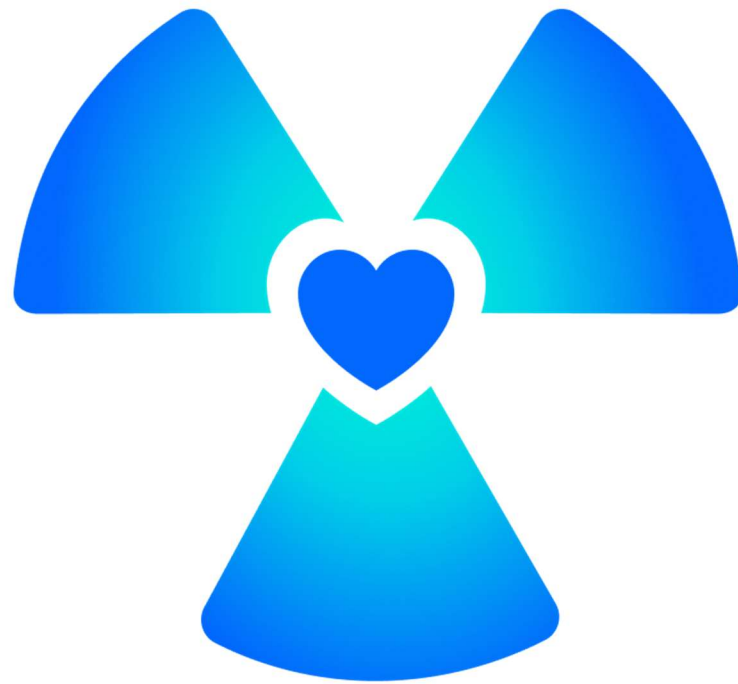


Anschalt
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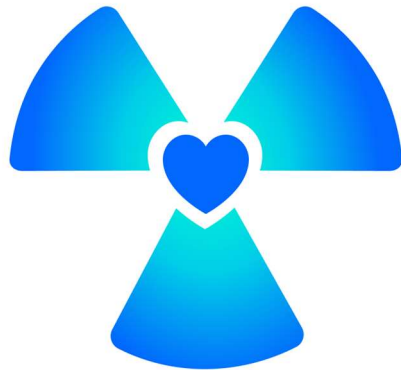
Speaker

Luca Romano
L'Avvocato dell'Atomo



Is Nuclear power back in Italy?

by Luca Romano



Luca Romano, Physics MS and Industrial Engineering PhD candidate, is the founder and director of the project "L'Avvocato dell'Atomo", which educates the Italian public about the benefits of nuclear power. The project is the largest of its kind, with over [350,000 unique followers](#) across various social media platforms, and has been a driving factor in changing the public discourse in Italy about nuclear energy.

Past, Present and Future

Italy has a great history when it comes to nuclear, we could actually say nuclear was an Italian invention.

In the 60s, Italy was for a brief period the 3rd civil nuclear country in the world...

Unfortunately, the development of nuclear energy was stalled through political corruption by the Oil Companies.



Past, Present and Future

After a tentative revival in the 70s, the Italian nuclear program was discontinued between 1987–1990, following the Chernobyl disaster. No, it was not decided through a referendum.

Between 2008–2011 there was a tentative revival, but it was killed in the wake of the Fukushima meltdown — this time it was a referendum.

Italian referendum likely to dash Berlusconi's nuclear energy plans

Prime minister dealt second political blow in less than two weeks as opponents succeed in getting turnout above 50%



📷 Silvio Berlusconi's plans for a big nuclear construction programme and water privatisation look set to be dashed in four nationwide ballots. Photograph: Andrew Medichini/AP

Past, **Present** and Future

After 1987, nuclear research in Italy was severely defunded. The Brasimone nuclear research center, which employed more than 1000 people, was reduced to only 50. Public research was further gutted in the 2010s, surviving only with European funds.

However, private companies who were active in nuclear never stopped growing, working with other nuclear-powered countries.

newcleo
Futurable Energy

walter tosto 

SAFAS
1959 / 2019

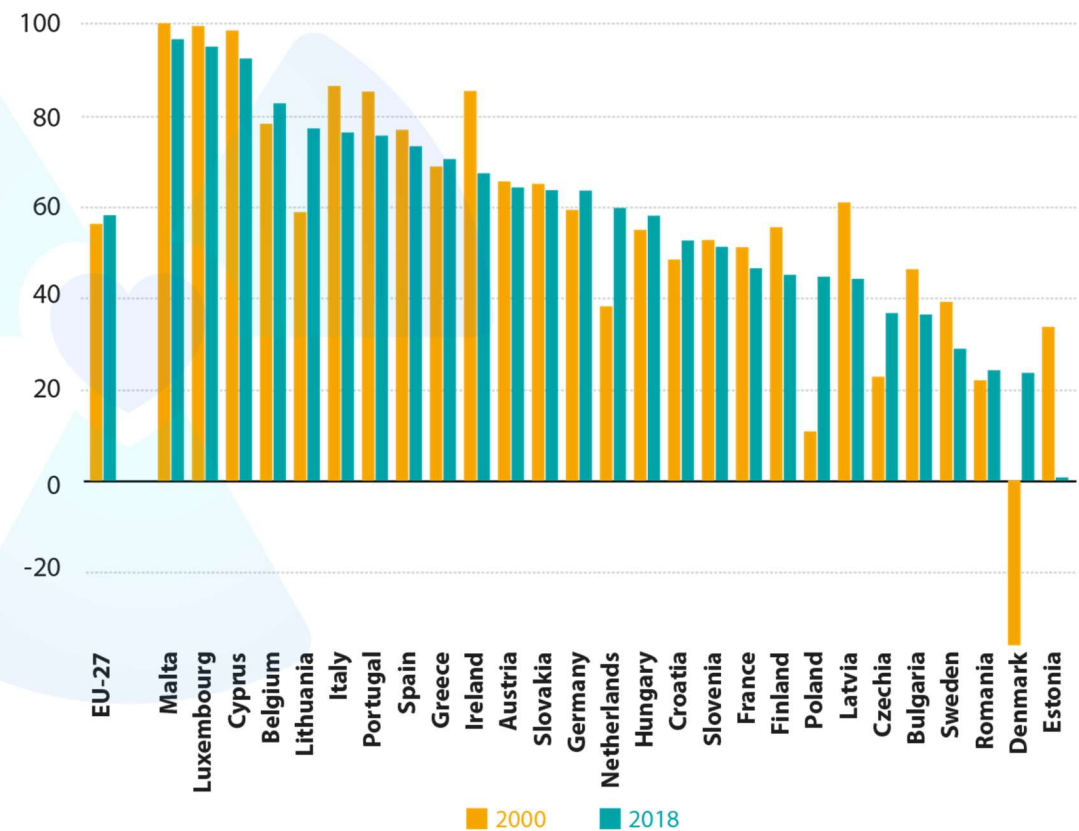
 **ASG**
SUPERCONDUCTORS

ansaldo | **nucleare**

What Did We Gain from Nuclear Exit?

One of the highest energy dependence in Europe.

Energy dependency rate (%)

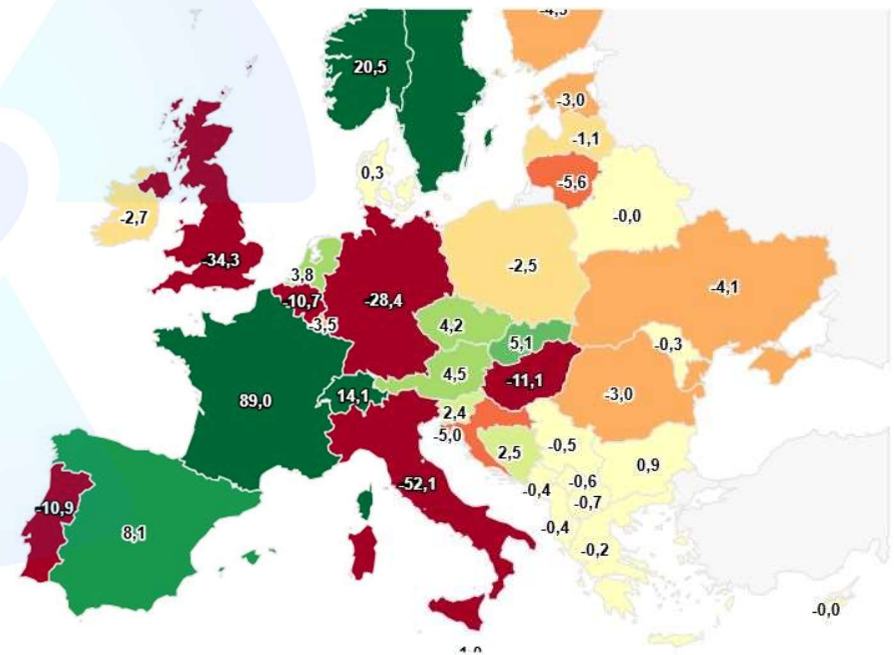


Source: Eurostat

Biggest net importer of Electricity in Europe.

Commercio transfrontaliero di energia elettrica in 2024

In TWh, i valori positivi (verdi) le esportazioni, quelli negativi (rossi) indicano le importazioni

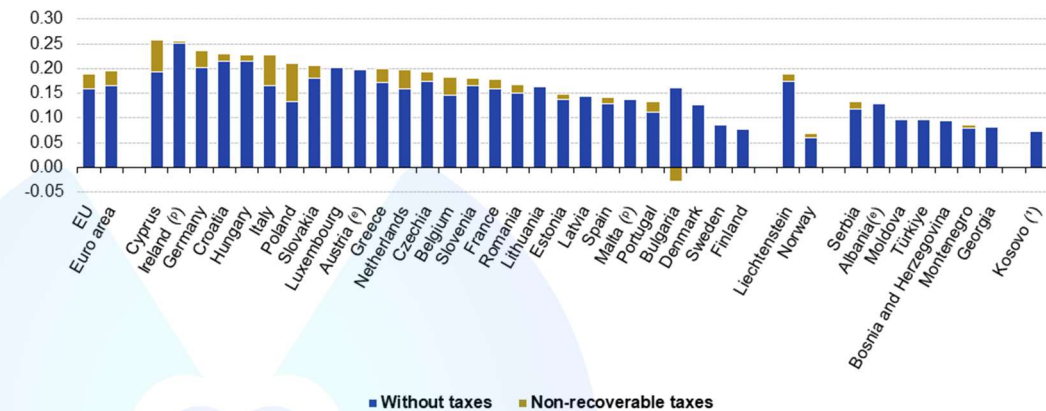


Energy-Charts.info; Ultimo Aggiornamento: 30/12/2024, 08:06 CET

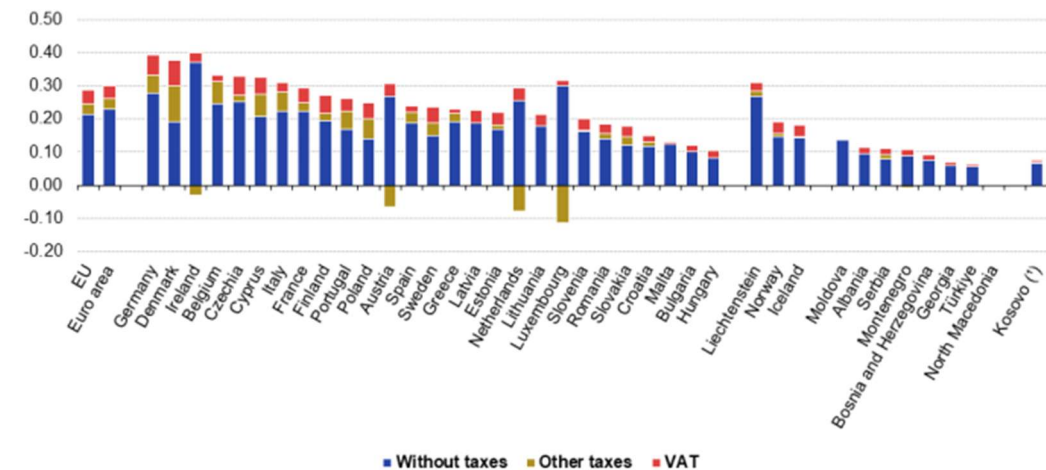
What Did We Gain from Nuclear Exit?

Very high electricity prices, both for household and non-household consumers

Electricity prices for non-household consumers, second half 2024
(€ per kWh)



Electricity prices for household consumers, second half 2024
(€ per kWh)



(*) This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo Declaration of Independence.
Source: Eurostat (online data code: nrg_pc_204)

eurostat

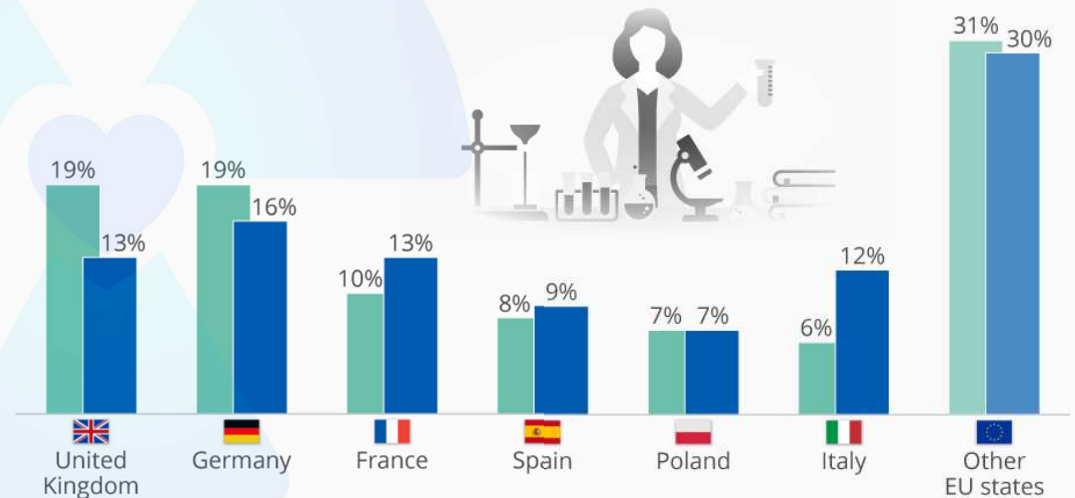
What Did We Gain from Nuclear Exit?

A worrying brain drain.

Brain Drain Within the EU?

Distribution of scientists and engineers in the European Union, by location in 2017*

■ Country's share of total EU scientists & engineers ■ Country's share of total EU population



* Aged between 25 and 64.
@StatistaCharts Source: Eurostat

statista

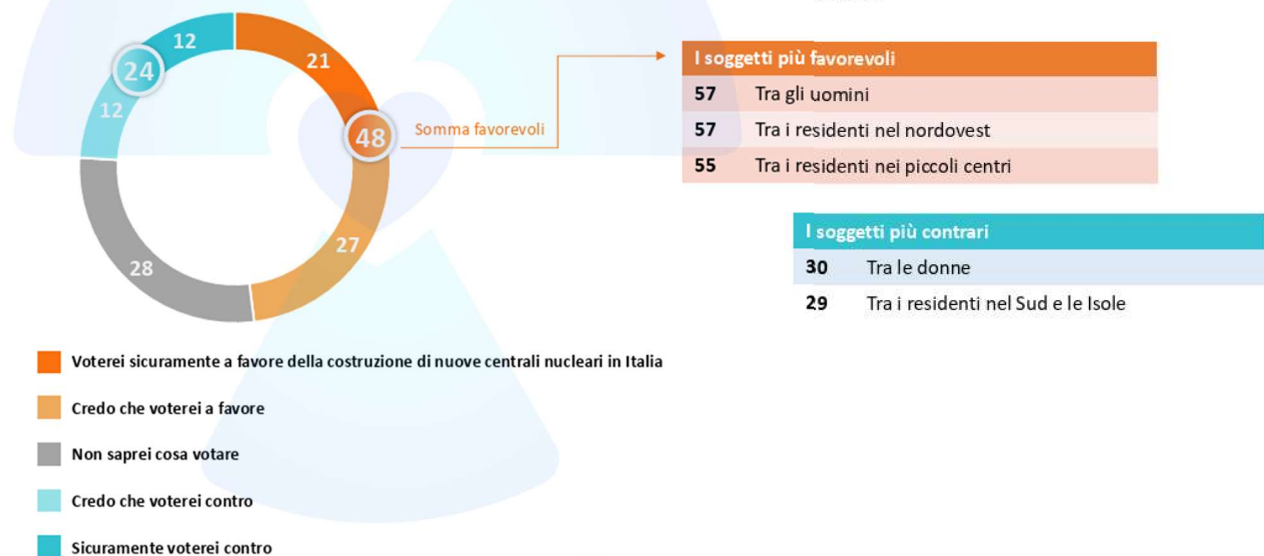
Past, Present and Future

In the last few years, nuclear started gaining back some popularity, especially amongst younger people (who are afraid of Global Warming) and entrepreneurs (because of the gas crisis).

Today, 1 every 2 Italians is either in favor or leaning towards nuclear power, the others being split almost evenly between undecidedness and strong opposition.

Se avesse la responsabilità della decisione, 1 italiano su 2 sceglierebbe di costruire nuove centrali nucleari, 1 su 4 si opporrebbe

Se lei avesse la responsabilità di decidere sul futuro delle politiche energetiche in Italia e dovesse esprimersi sull'opportunità o meno di costruire nuove centrali nucleari in Italia pensa che?



Tutti i diritti riservati



Valori %.

16

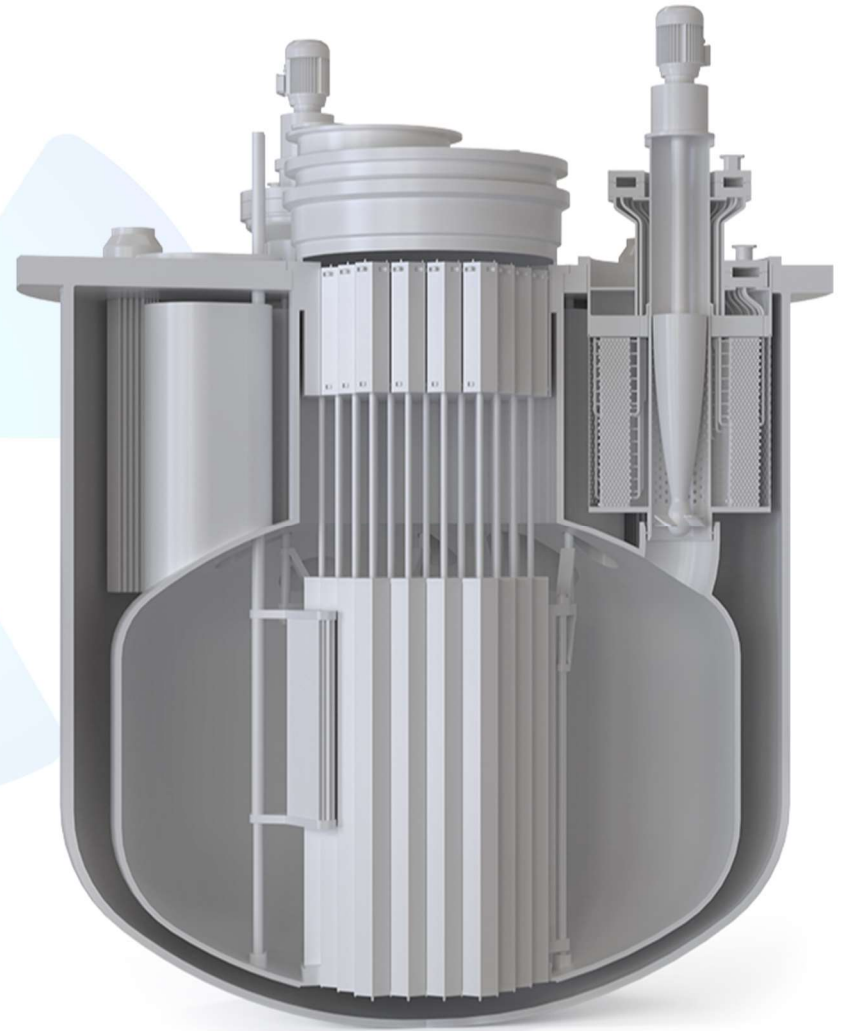
Italian nuclear technology is still pioneering.

In 2021, Italian entrepreneur and physicist [Stefano Buono](#) gives birth to newcleo, to develop a proprietary nuclear technology.

newcleo reactor: Lead cooled, fast neutrons, waste converter. Runs on MOX and can recycle spent nuclear fuel.

Timeline:

- Precursor on schedule to be built next year
- 30 MW prototype by 2030 (in France)
- Commercial reactor (200 MW) in the 2030s
- Currently the most advanced 4th gen reactor developer in the EU.



The Challenges

- Nimby syndrome;
- Political instability (governments last much less time than it takes to develop a nuclear program);
- Despite popularity, nuclear still not a deciding factor amongst voters;
- Government influenced by powerful Oil & Gas player ENI;
- Progress is slow, might pick up pace after 2027 elections.

What is going on?



A popular draft bill proposal **gathered 70k signatures in 3 days** in November '24.

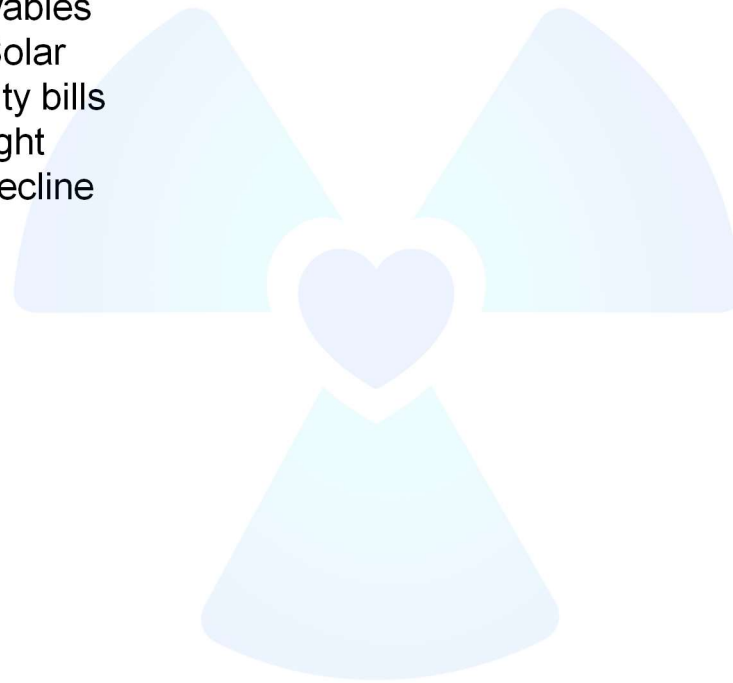
Some key points were included in a government proposal that was approved in the council of ministers in February '25.

The draft is to be discussed by parliamentary commissions and then by the two chambers, but discussion was postponed so far.

If approved, the bill will reintroduce regulations and criteria to build and operate nuclear reactors in Italy. It does not automatically reintroduce nuclear power in the energy mix, but it opens the door for it.

What is going on?

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Germany is now above 150 GW of installed renewable capacity, but German industries still suffer because of high energy prices reducing competitiveness. German economy receded both in 2023 and 2024.

Figure 28 –Industrial retail prices for SMEs in selected EU countries

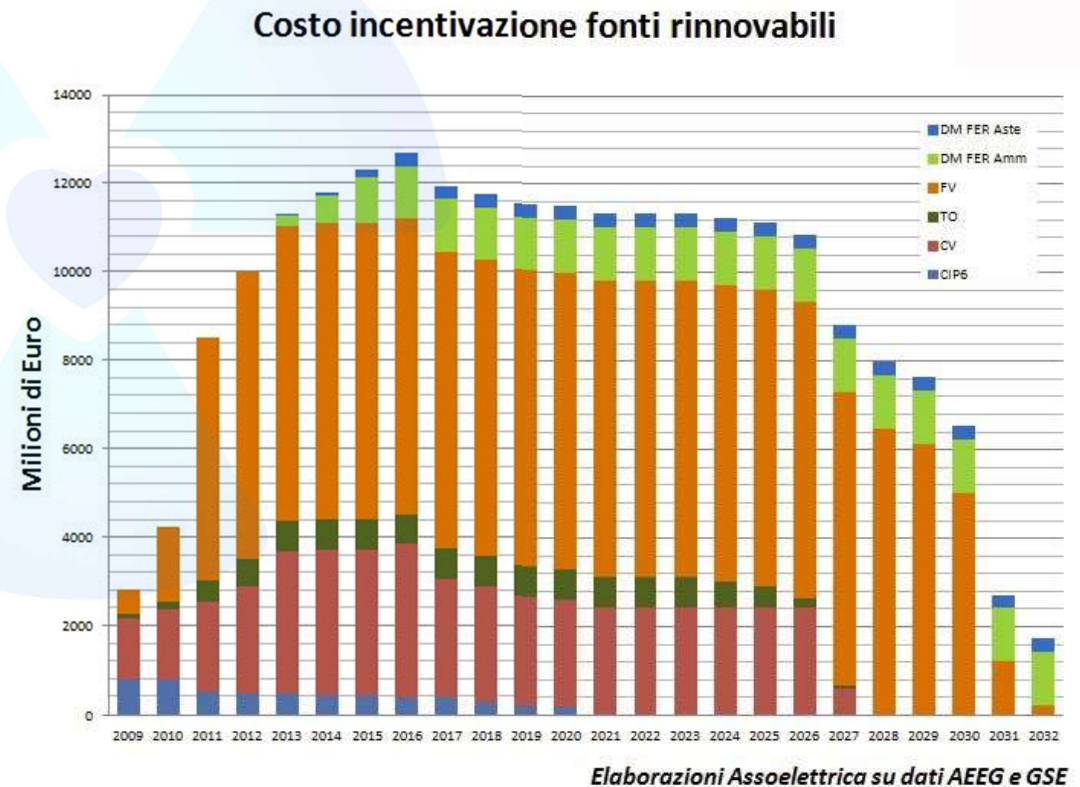


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While Italy is slowly waking from its slumber, Germany CAN achieve results much faster, by reactivating mothballed reactors.

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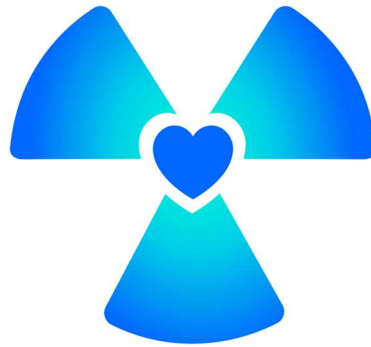
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Either Germany or Italy swinging in the direction of nuclear would massively shift the balance within the EU. EU policies are extremely important to drive down interest rates and speed up bureaucracy of new nuclear.



Europe is now at a crossroad:
either embrace nuclear and sustainable development
or keep chasing degrowth nurturing far-right
extremism.

We need a unified European nuclear plan.

Thank you for your attention.

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+39 348 4784889