

# The EU's misleading decarbonisation and its geopolitical consequences.

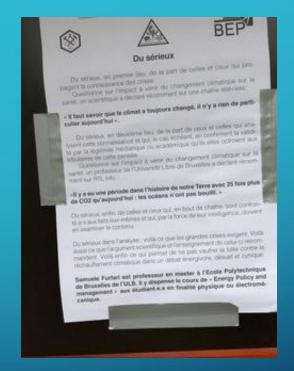
Prof. Samuel Furfari

EU senior official (retired)

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# What is energy?

Work ≡ energy

 $W = \overrightarrow{F} \times \overrightarrow{d} \quad W = \int \overrightarrow{F} \cdot \overrightarrow{du}$ 

[1 Joule = 1 Newton x 1 mètre]

d (m)



F (Newton)



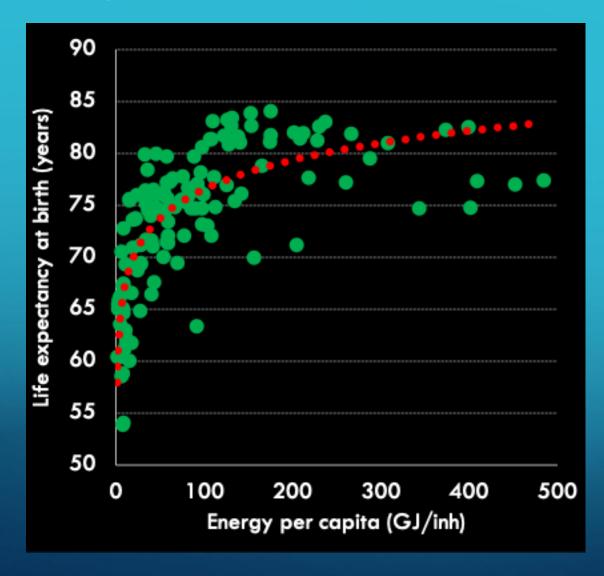
## Energy, the foundation of the EU

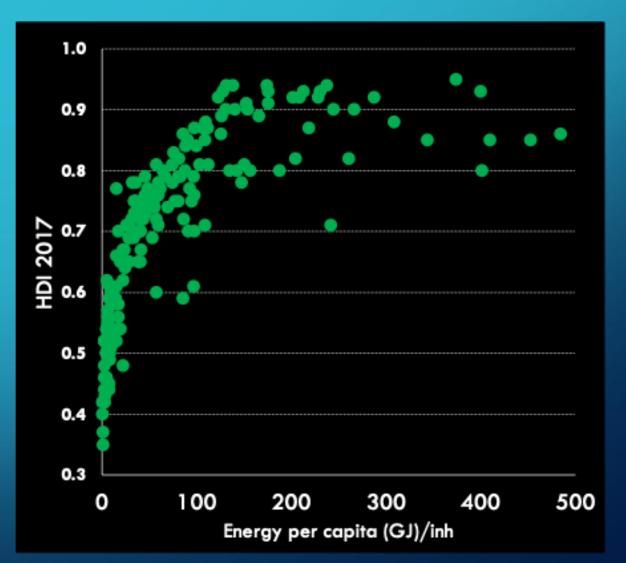


'There will be no future for the Community without cheap and abundant energy.'

Messina, 2 June 1955

# Energy is work and, therefore, life and quality of life.



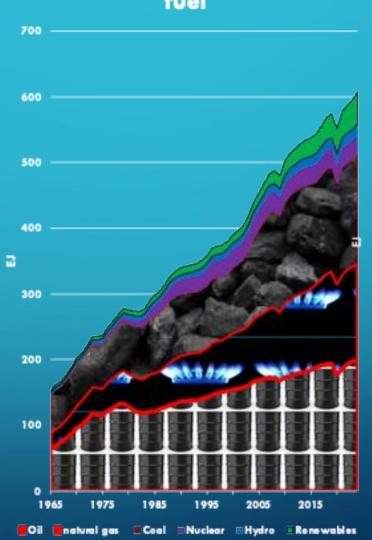


### Growing demand for all forms of energy

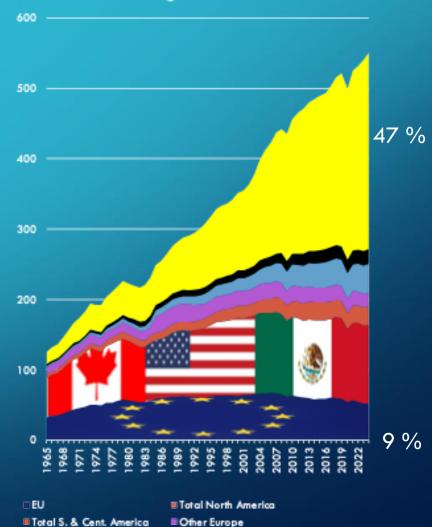








# Primary energy demand by region

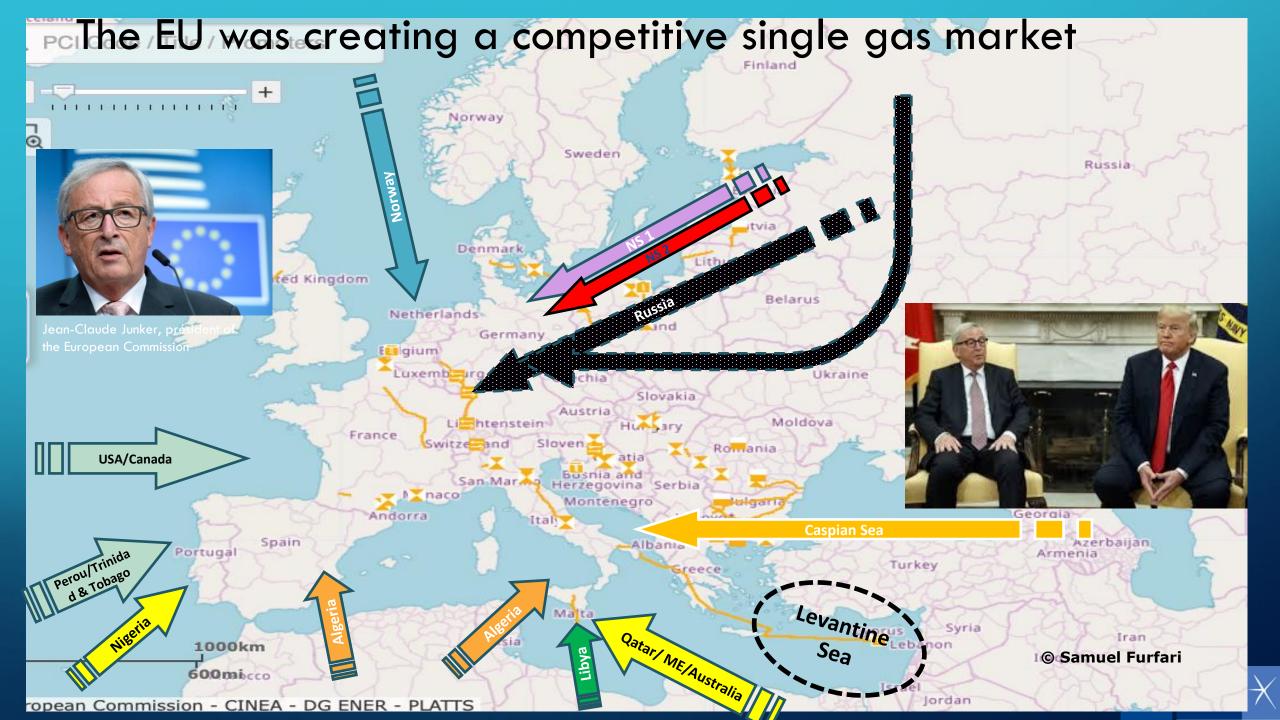


■Total Africa

■ Total Asia Padfic

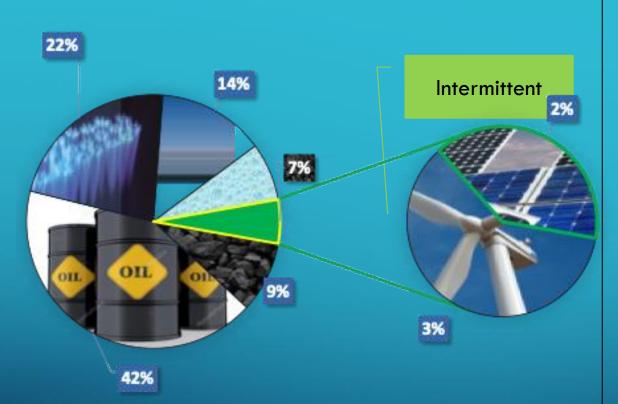




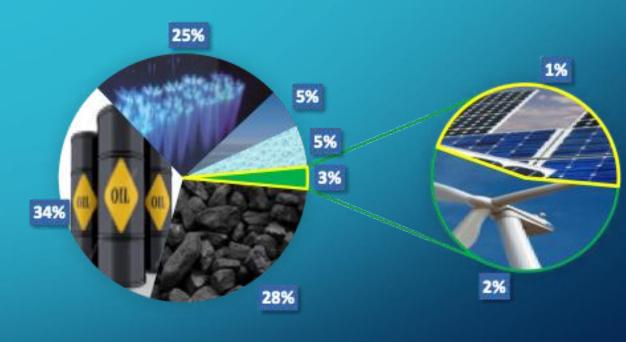


### Primary energy consumption in the EU and worldwide

UE 2024



Mundo 2024



Fossil energy: EU 75%, world 87%



ne Brief

Ukraine

Intelligence

### Fossil gas 'has no viable future', EU's Timmermans says



#### Supporter

This stakeholder supports EURACTIV's c of industrial decarbonisation. This su enables EURACTIV to devote additional resources to cover the topic more wid deeply. EURACTIV's editorial conter independent from the views of its supp

> MITSUBISH HFAVY

EC President Von der Leyen tells Davos countries of future 'don't need oil and gas'





A growth model centred on fossil fuels is simply obsolete

15 May 2023, EU Parliament, Brussels





### The EU energy policy since the war of 2022

No mention at all of nuclear anergy

Importing from Ukraine electricity, H<sub>2</sub>

> More wind and more solar PV





Energy efficiency buildings, Heat pumps

Hydrogen

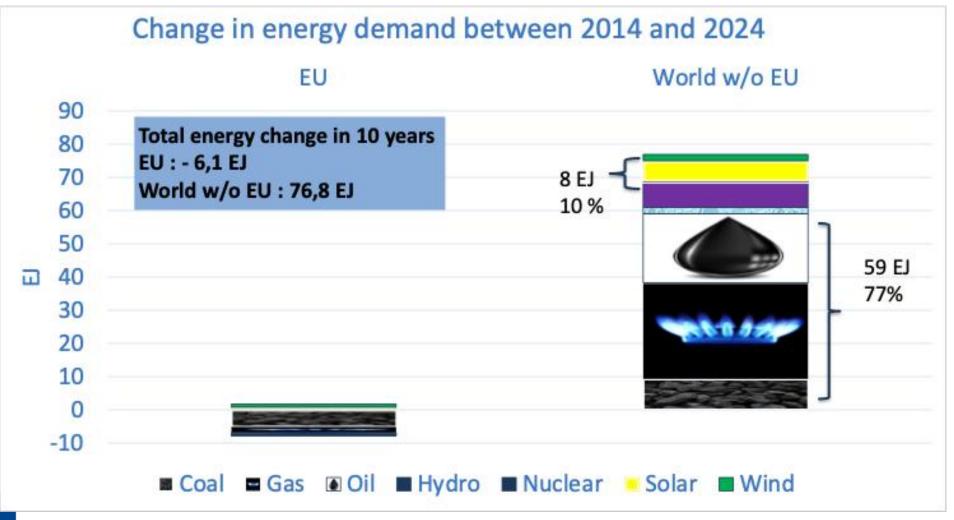
More non-Russian gas

### **REPower EU** May 2022

- €300 billion in financing
  - grants
  - €228 billion in loans

## Addition, not transition

Worldwide fossil fuel is growing 7.3 time more than new energy



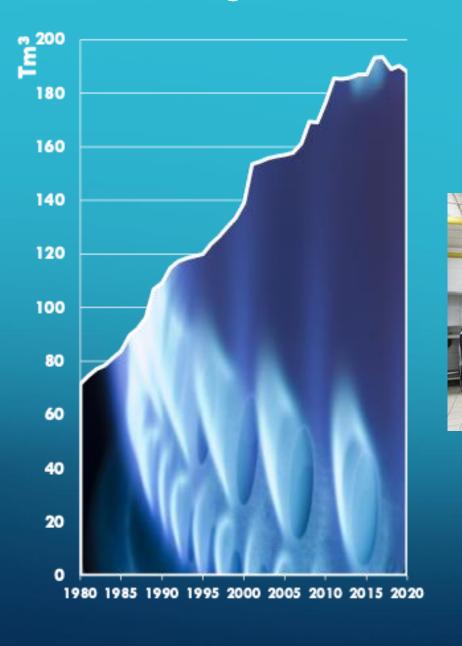


ULB





## Natural gas, the future of energy



Abundant

Available

Clean

Cheap

All uses

Geopolitics

### LNG trade has surpassed pipeline trade.



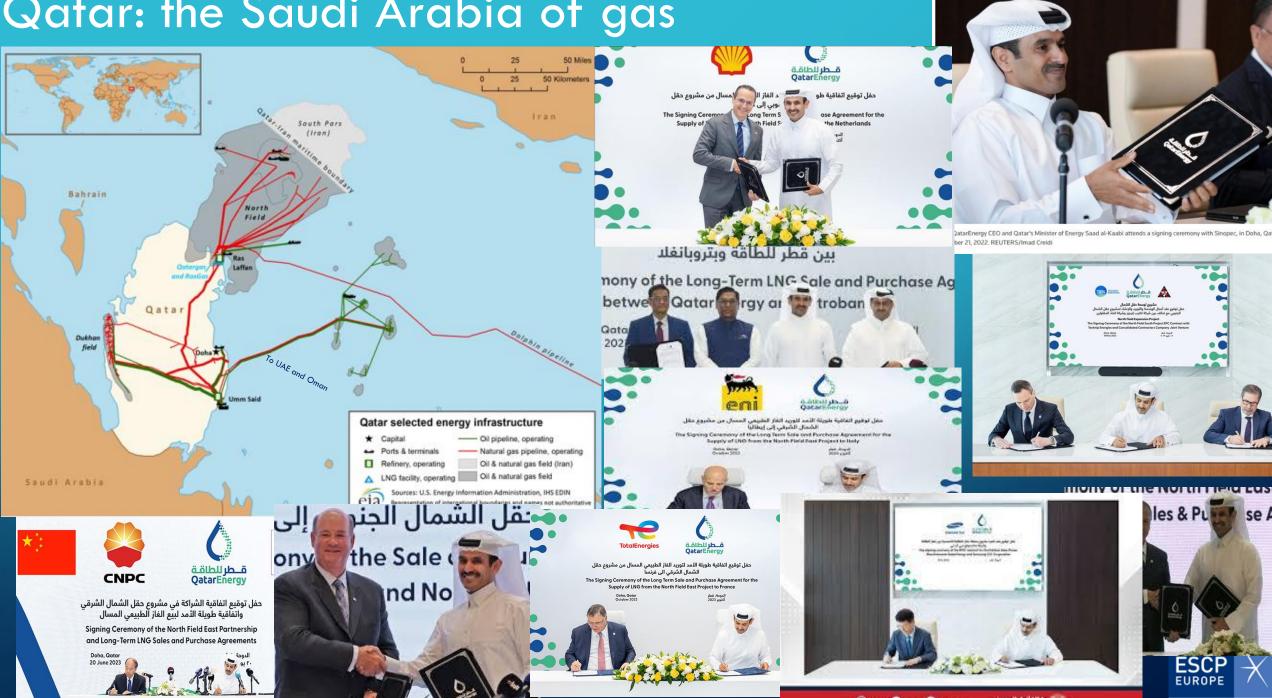
- From Russia to the EU
- Interregional trade in gas pipelines
- LNG trade

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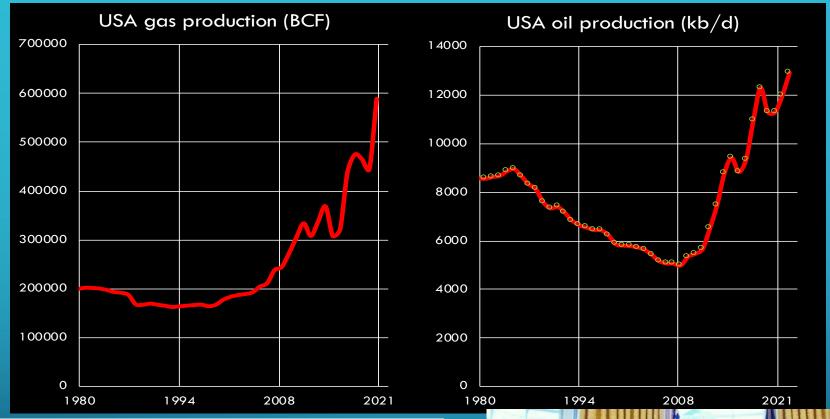


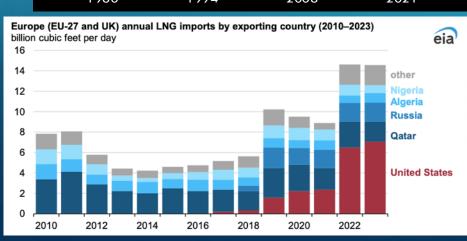


# Qatar: the Saudi Arabia of gas



### The real energy transition











### IEA: renewables set to meet world's power demand by 2

Led by China, world expected to add more than 5.5TW of ne between this year and end of decade



Fatih Birol, executive director IEA. (Photo: Dean Calma / IAEA / Flickr)



### s Wright Says Is Now on the Table

PROXIMATELY \$5.8 MILLION DGET, AS REPORTED FOR 2024, F THE AGENCY'S TOTAL FUNDING.

B Pub Note, Energy Policy, Energy IEA, International News, Net Zero, News, US Energy News, Wind

Cyber Sale: Less than \$1/week



### ris Wright Has His

s a Texas-based...

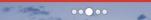


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# The US Export-Import Bank will invest \$100 billion to achieve US energy dominance.

#### **Export-Import Bank of the United States**

Export-Import Bank to spend \$100bn to achieve US energy dominance

New chief floats deals in Egypt, Pakistan and Europe as the agency backs away from renewables under Donald Trump

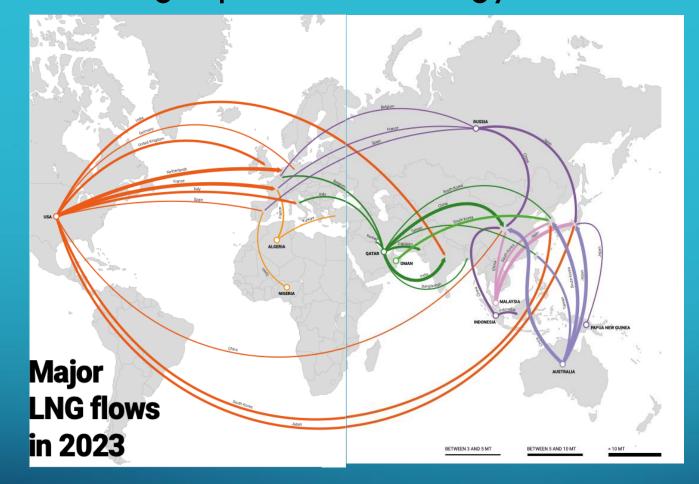


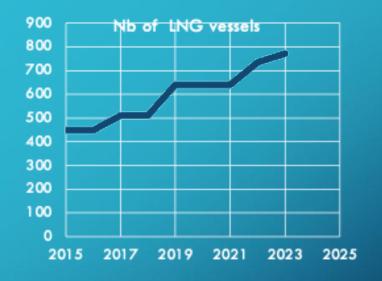
The US Export-Import Bank made a \$4.7bn loan for an LNG project in Mozambique led by France's TotalEnergies © Anadarko

Its aim would be to bring 'American energy molecules to every corner of the world'...



### The new geopolitics of energy thanks to the freedom of LNG

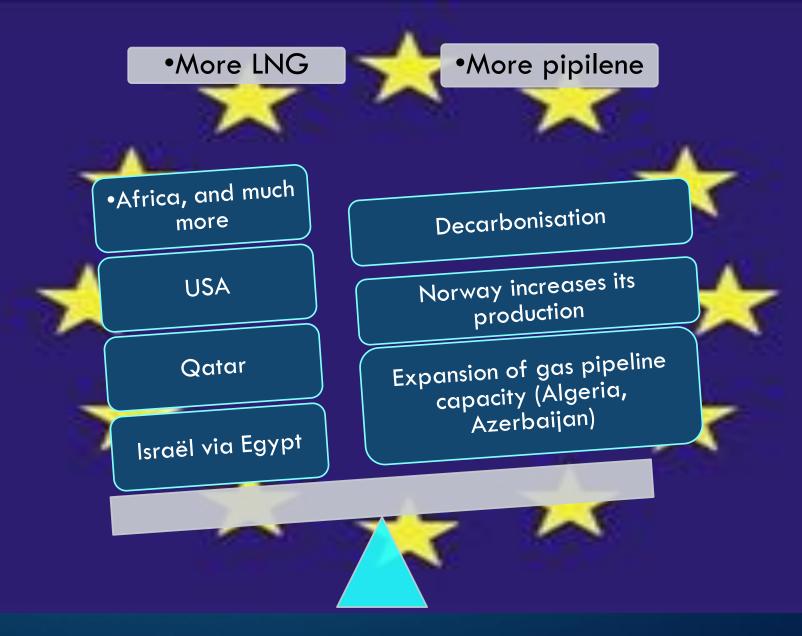








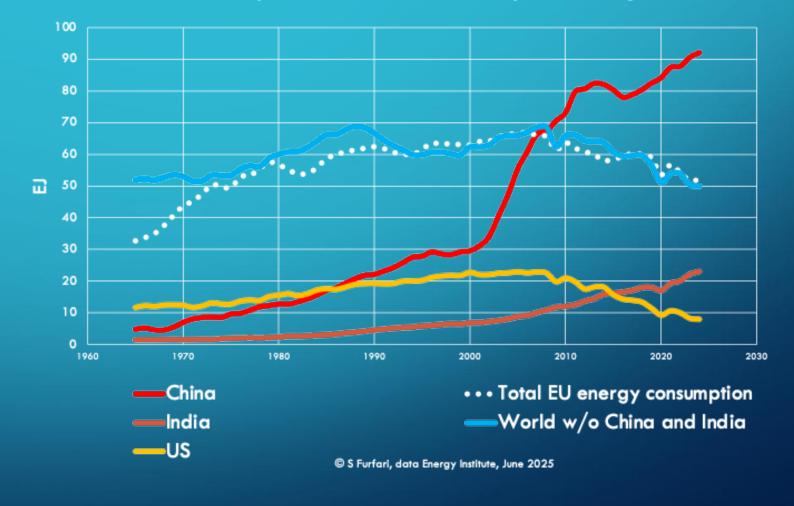
### The future of gas in the EU?

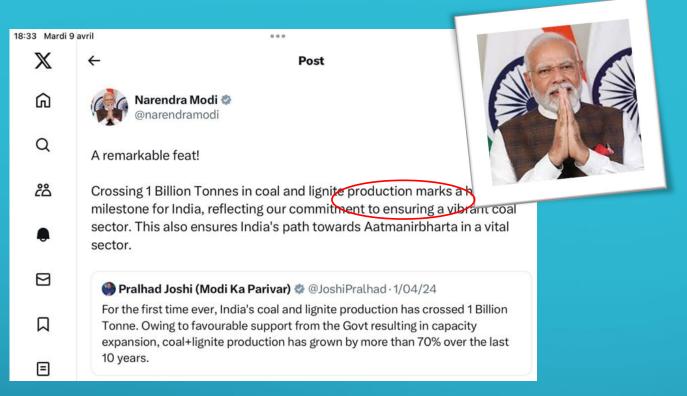


# Coal use in China is 1.8 time the total primary energy of the EU

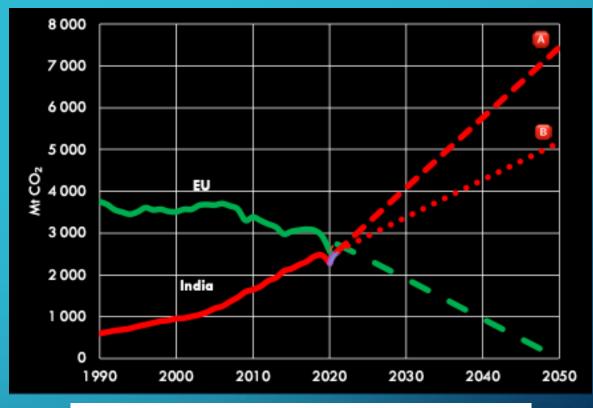


China use  $\approx 20$  time more coal than EU (92,2 EJ : 4,7 EJ) Coal use without China and India: 50 EJ Total EU primary energy : 52 EJ The consumption of coal is constantly increasing.





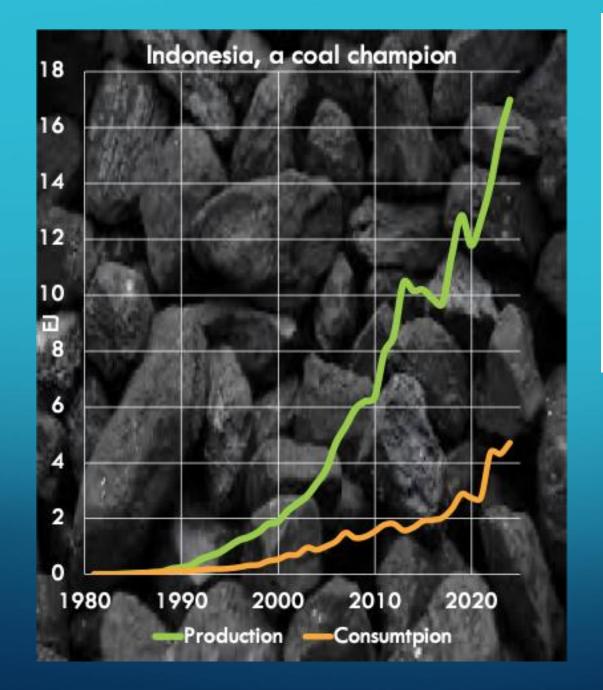
Atmanirbharta Atmanirbhar Bharat, which translates to "self-governing India", is a phrase that Indian Prime Minister Narendra Modi and his government have used and popularized in relation to the country's economic development plans. This is an overarching concept for the Modi government's plans for India to play a bigger role in the global economy and become more efficient, competitive, and resilient.







SAMUEL FURFARI





Indonesia Shelves Decarbonization for Prosperity and Security



By Vijay Jayaraj October 30, 2023

#### WORLD

# U.S., Allies Announce \$20 Billion Package to Wean Indonesia Off Coal

Indonesia, the world's biggest coal exporter, will see its power-sector emissions peak seven years sooner than current projections, say U.S. officials

By Ed Ballard Follow and Jon Emont Follow Updated Nov. 15, 2022 at 10:05 am ET



### Decarbonisation!















### Delivering the Clean Industrial Deal for the 2040 climate target

Green deal

Clean deal

Flexibility

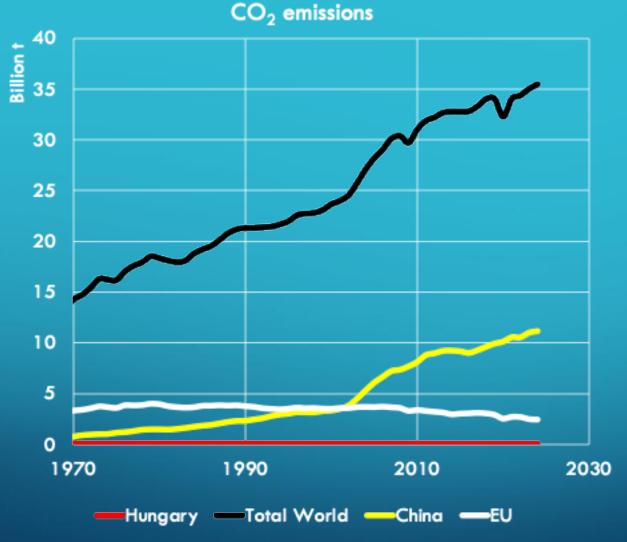
Greater flexibilities across sectors

simplification of the Carbon Border Adjustment Mechanism (CBAM)

international credits starting from 2036

**Clean Industrial Deal State Aid Framework** 

### Trends in global and EU CO<sub>2</sub> emissions



| otal World —China —EU         | Hungary  | - 32                              |  |
|-------------------------------|--|-----------------------------------|--|
|                               | Hungary = $0,1^{\circ}$  | Hungary = 0,1% of global emisions |  |
| Data : Energy Institute, 2023 | The second secon |                                   |  |
|                               |  |                                   |  |

% increase since Party to the adoption of the **UNFCCC UNFCCC** World +65 Latin America +90 Africa +111 Non-OECD +153 Turkey +216 Pakistan +175 Indonesia +464 +379 India China +373 Vietnam +1758 USA -8 EU -30



### Whom is emiting CO<sub>2</sub>?

| Région/<br>Country | CO <sub>2</sub> energy emissions | Population | t CO <sub>2</sub> / | % of<br>the world |
|--------------------|----------------------------------|------------|---------------------|-------------------|
|                    | (million t)                      | (millions) | capita              |                   |
| World              | 35500                            | 8240       | 4,3                 | 100%              |
| China              | 11200                            | 1425       | 7,9                 | 31,5 %            |
| USA                | 4619                             | 347        | 13,3                | 13,0 %            |
| India              | 2953                             | 1429       | 2,1                 | 8,3 %             |
| EU                 | 2484                             | 450        | 5,5                 | 7,0 %             |
| Africa             | 1400                             | 1400       | 1,0                 | 1,4 %             |
| France             | 254                              | 69         | 3,7                 | 0,7 %             |
| Hungary            | 39,1                             | 9,6        | 4,1                 | 0,1 %             |



Ministry of Power



Need to shift Climate Change Narrative from Total Emissions to Per Capita Emissions of each country: Union Minister for Power and New & Renewable Energy

Once the global South starts controlling the narrative, the world will be a much fairer place: Union Power and NRE Minister R. K. Singh

"Citizens need to come together and build new frameworks to address the climate crisis": Tata
Trusts CEO at 22nd Darbari Seth Memorial Lecture

प्रविष्टि तिथि: 25 AUG 2023 8:01PM by PIB Delhi

https://www.pib.gov.in/PressReleasePage.aspx?PRID=195226 0&reg=3&lang=2





# COP 15, Copenhagen, 2009

















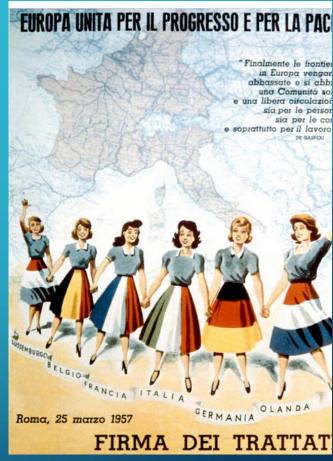
<u>Tropical Forest Forever Facility (TFFF) fell short of its \$25 billion initial target,</u> raising only \$6.6 billion in pledges, a failure

- given the conference was held in Brazil's humid Amazon forest
- The personnal engagement of Luiz Inácio Lula da Silva









#### THE TASKS OF THE COMMUNITY

Article 1

By this Treaty the HIGH CONTRACTING PARTIES establish among themselves a EUROPEAN ATOMIC ENERGY COMMUNITY (EURATOM).

It shall be the task of the Community to contribute to the raising of the standard of living in the Member States and to the development of relations with the other countries by creating the conditions necessary for the speedy establishment and growth of nuclear industries.





Samuel Furfari

The Truth About the COPs

30 years of illusions

### Samuel Furfari

Préface de Carlo Ripa di Meana

Ancien Commissaire européen à l'environnement Ancien Ministre italien de l'environnement

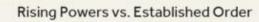
# La vérité sur les COP

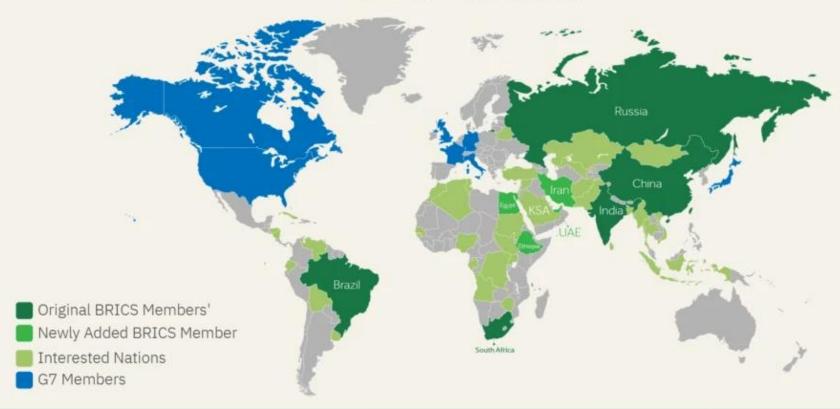
Trente ans d'illusions





### Building a New World "Brick by Brick"





|                        | Oil (Gt) | Gas (Tm3) | Coal (Bt) |
|------------------------|----------|-----------|-----------|
| Potential of the BRICS | 84,4     | 70,6      | 494       |
| No BRICS               | 160.0    | 117.5     | 580       |
| World                  | 244,4    | 188,1     | 1074      |
| % BRICS                | 35 %     | 38%       | 46%       |



### Changes are coming...



# "Une COP tous les ans, cela n'a pas de sens"

Samuel Furfari a suivi toutes les COP en tant qu'expert de la Direction générale de l'énergie à la Commission européenne. Il dénonce, dans son livre choc, les illusions engendrées par ces sommets qui ne changent rien aux émissions de CO<sub>2</sub>,

#### Propos recueillis par Charles Jaigu

### La 30° COP s'est ouverte au Brésil. Les précédentes ont-elles servi à quelque chose?

Très peu! Au risque d'avoir l'air d'un vieux combattant, je dirais que les États n'ont pas attendu les COP pour prendre conscience d'un double problème: la crise de l'énergie et le réchauffement climatique. La crise pétrolière des années 1970 a donné le coup d'envoi. Les ingénieurs ont depuis lors cherché avec acharnement des solutions de remplacement. J'ai moi-même été embauché à la Commission européenne pour cette raison, dans les



Samuel Furfari, ex-fonctionnaire européen, est l'auteur d'une vingtaine d'ouvrages

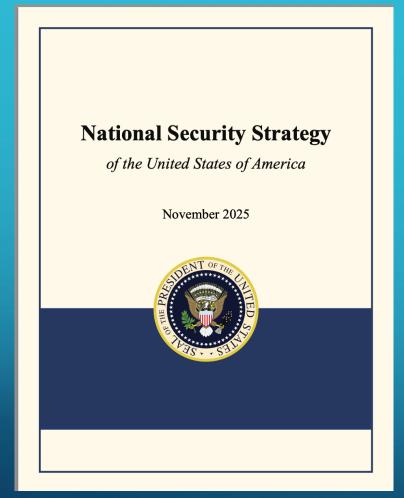
années 1980. Mais personne n'a trouvé ces solutions, en dehors de celles qui existaient déjà: le nucléaire et l'hydroélectricité, ce qui est déjà beaucoup. Ni l'hydrogène, ni l'éolien, ni le solaire n'ont été capables de se substituer aux énergies fossiles, contrairement à ce que nous ont fait croire les marchands de sable.

Vous abordiez la question à partir d'un problème spécifique : la hausse du prix de l'énergie et la raréfaction des réserves. Les écologistes mettaient en avant le réchauffement climatique.

Il y a une différence importante. Notre réflexion était pragmatique.







We reject the disastrous "climate change" and "Net Zero" ideologies that have so greatly harmed Europe, threaten the United States, and subsidize our adversaries.

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# **National Security Strategy** of the United States of America November 2025

### **European Decadence**

"[Europe's] economic decline is overshadowed by the real and darker prospect of the disappearance of civilisation. Among the more significant problems facing Europe are the activities of the European Union and other transnational bodies that undermine political freedom and sovereignty, migration policies that are transforming the continent and creating conflict, censorship of free speech and repression of political opposition, the collapse of birth rates, and the loss of national identities and self-confidence.

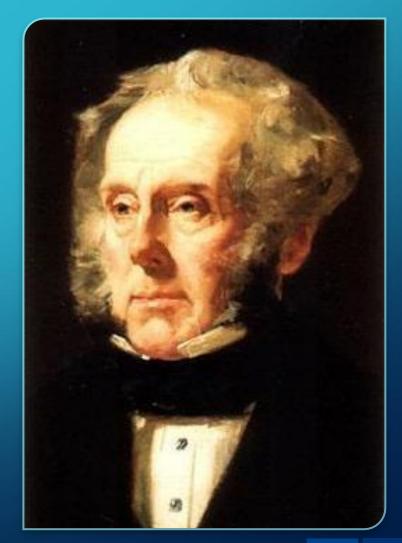
If current trends continue, the continent will be unrecognisable in 20 years or less. (...) We want Europe to remain European, to regain confidence in its civilisation, and to abandon its failed strategy of regulatory suffocation."



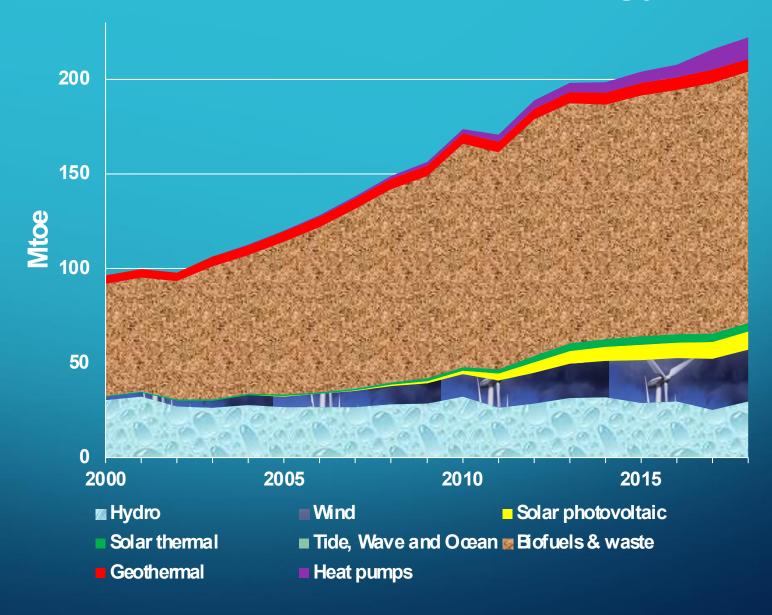
# In geopolitics, there is no morality

We have no eternal allies nor perpetual enemies. Our interests are eternal and perpetual, and it is our duty to pursue those interests.

Lord Parlmerston, Foreign Secretary of Great Britain and then Prime Minister (1784-1839)



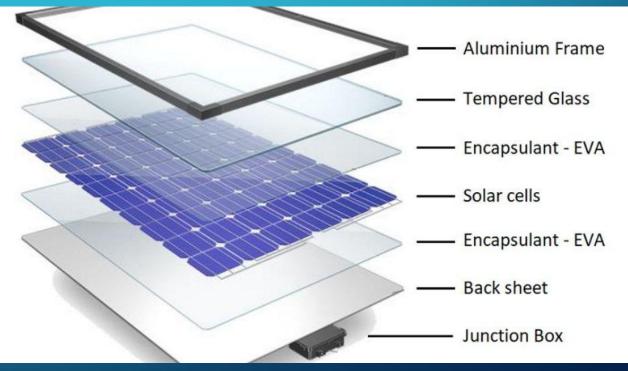
### Development of "renewable energy" in the EU



# If You Want 'Renewable Energy,' Get Ready to Dig

Building one wind turbine requires 900 tons of steel, 2,500 tons of concrete and 45 tons of plastic.





EVA = ethylene vinyl acetate

 $SiO_2 + 2C + heat \rightarrow Si + 2CO$ 



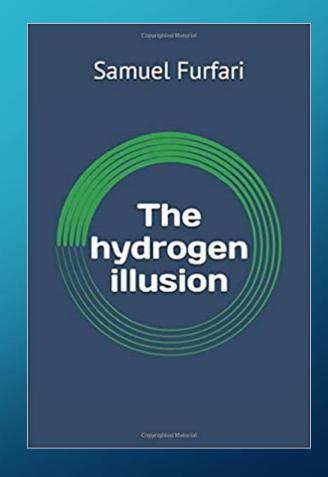
#### **BUSINESS**

#### 'The hydrogen economy is blooming' – European Commission President Ursula von der Leyen

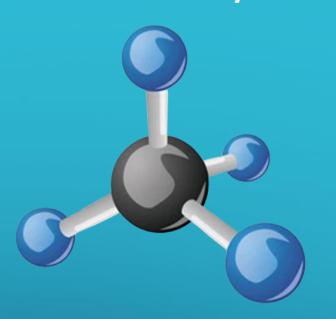
This week, the EU is launching its first auction of the European Hydrogen Bank



# Von der Leyen to continue prioritising green hydrogen in second five-year term following re-election Newly re-elected European Commission president vows to launch Clean Industrial Deal n first 100 days



### Why are the 130 million tonnes of H<sub>2</sub> produced almost exclusively from methane conversion?



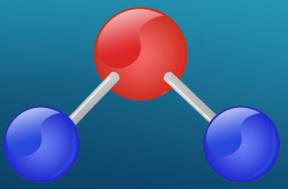
$$CH_4 + 2 H_2O \rightarrow 4 H_2 + CO_2$$

$$\Delta H = -164.7 \text{ kJ}$$

$$H_2O(I) \rightarrow H_2 + \frac{1}{2}O_2$$
  $\Delta H = -285.8 \text{ kJ}$ 

$$\Delta H = -285.8 \text{ kJ}$$

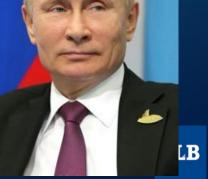
$$\frac{4 \times 285.8}{164.7} = 6.9$$





Key role of Russia thanks to its very cheap gas price

- Leader in H<sub>2</sub>
- Leader in ammonia
- Leader in fertilizer









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in the Member States and to the development of relations with the other countries by creating the conditions necessary for the speedy establishment and growth of nuclear industries.

https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:12016A/TXT&qid=1700135847292



SAMUEL FURFAR

Energy addition, not transition: fossil fuels remain the bedrock of progress



