



FONDAZIONE  
PER LO SVILUPPO  
SOSTENIBILE

Sustainable Development Foundation

# *The green economy era: World, Europe, China and US*

Raimondo Orsini  
Fondazione per lo sviluppo sostenibile  
[www.fondazionesvilupposostenibile.org](http://www.fondazionesvilupposostenibile.org)



# A classroom in 1967

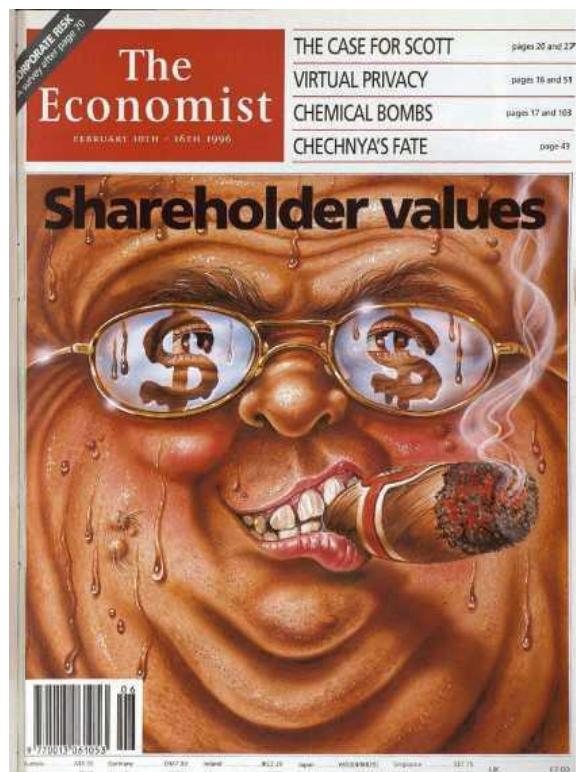
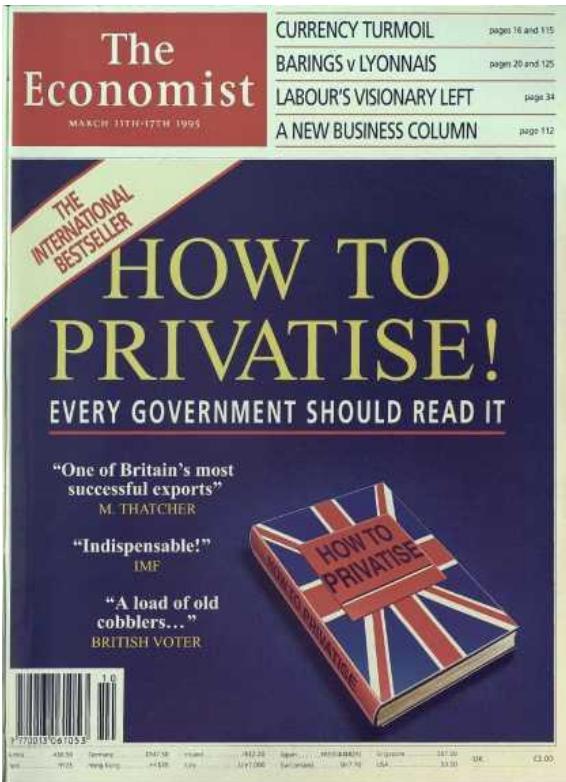


# A classroom in 1969



# A music band in 1966







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The Economist  
SEPTEMBER 25TH - 1ST OCTOBER 2010 Economist.com

The Lib Dems, Vince Cable and capitalism  
How to fix the euro  
Great managers: born, not made?  
Cleaning up sport  
North Korea: thanks Dad

# The world's lungs

Forests, and how to save them

A 14-PAGE SPECIAL REPORT



The Economist  
DECEMBER 9TH-11TH 2010 Economist.com

Silvio Berlusconi, your time is up  
Iran throws down the gauntlet  
Sovereign risk after Dubai  
Has Obama got Afghanistan right?  
Our books of the year

# Stopping climate change

A 14-PAGE SPECIAL REPORT



SPECIAL HOLIDAY DOUBLE ISSUE  
The Economist  
DECEMBER 23RD 2010 - JANUARY 5TH 2011 www.economist.com

The Palestinians at war  
Reviving America's small towns  
Blair's bribery blues  
Japan's monetary crunch  
Invading your office: Google and Skype

# Happiness

(and how to measure it)

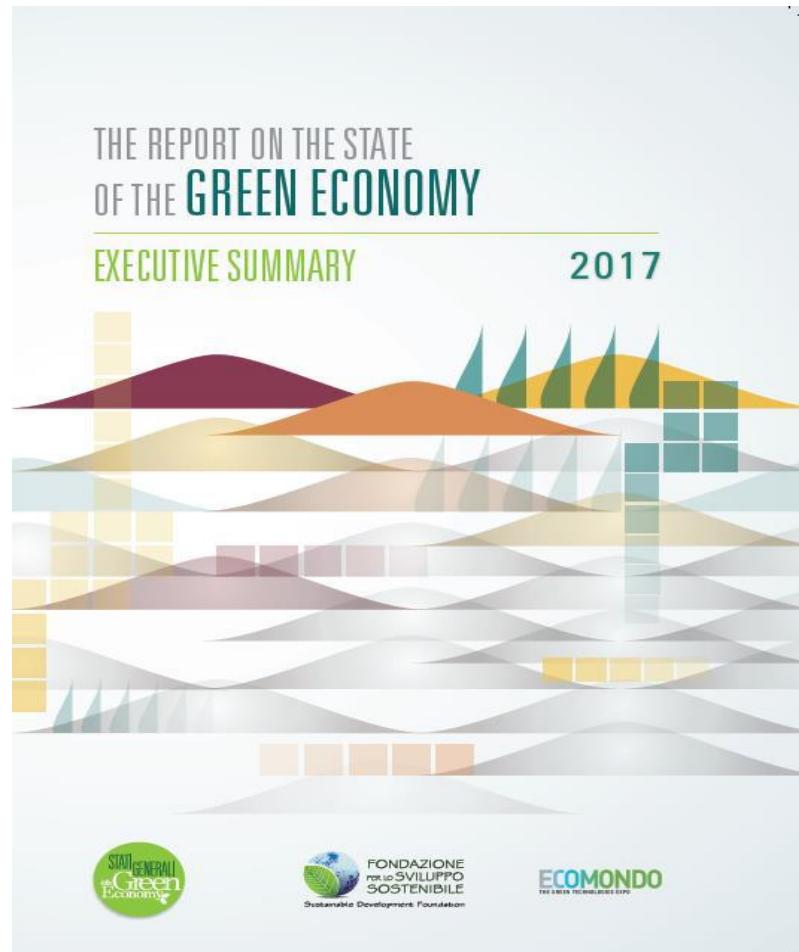


PLUS: WHO DO YOU THINK YOU ARE? A 10-page report on the brain  
The art of conversation • Genghis Khan's heirs • Meteorites • The Maldives • Country music  
Bethlehem • Russian airports • Buying babies • Cured meat • Sugar boycott • Pushtunwall  
The etiquette of bribery • Pentecostals • Jinn • Shopping and philosophy • Popular press



THE REPORT ON THE STATE  
OF THE **GREEN ECONOMY**

EXECUTIVE SUMMARY      **2017**



STATO GENERALE  
**Green**  
ECONOMY

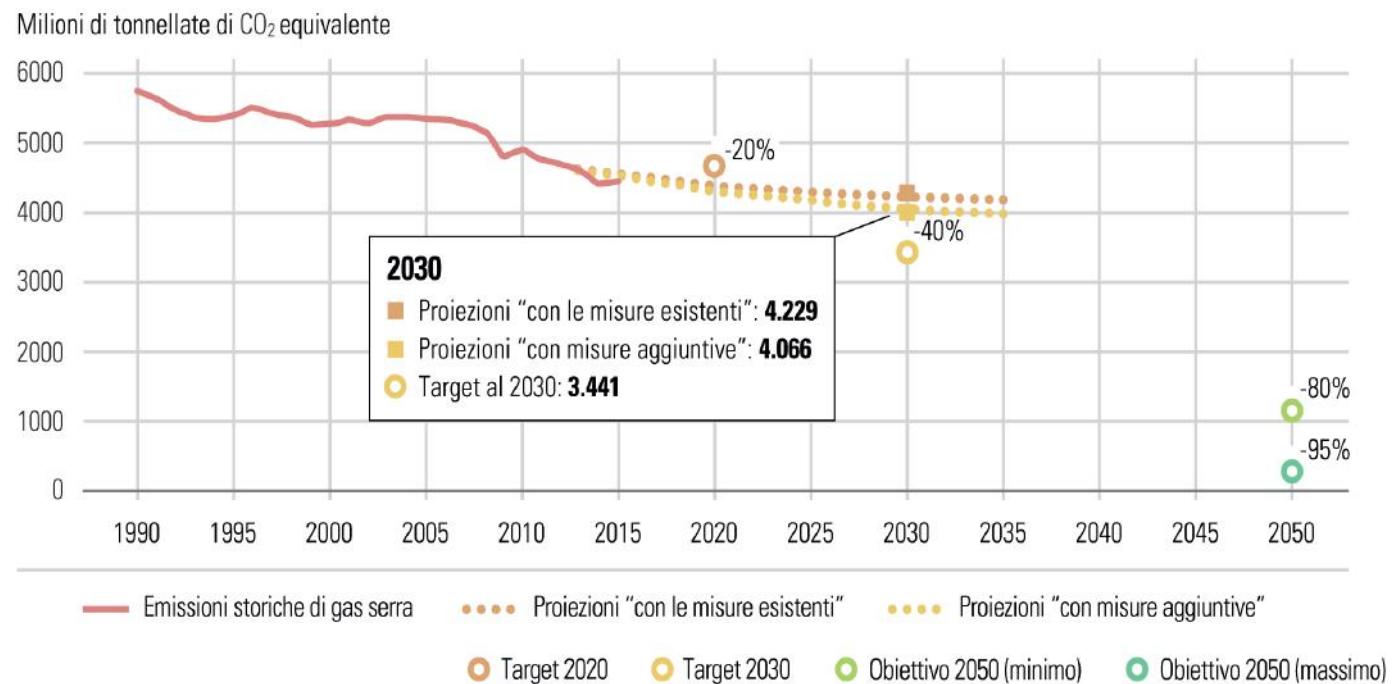
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**ECOMONDO**  
THE GREEN INDUSTRIES

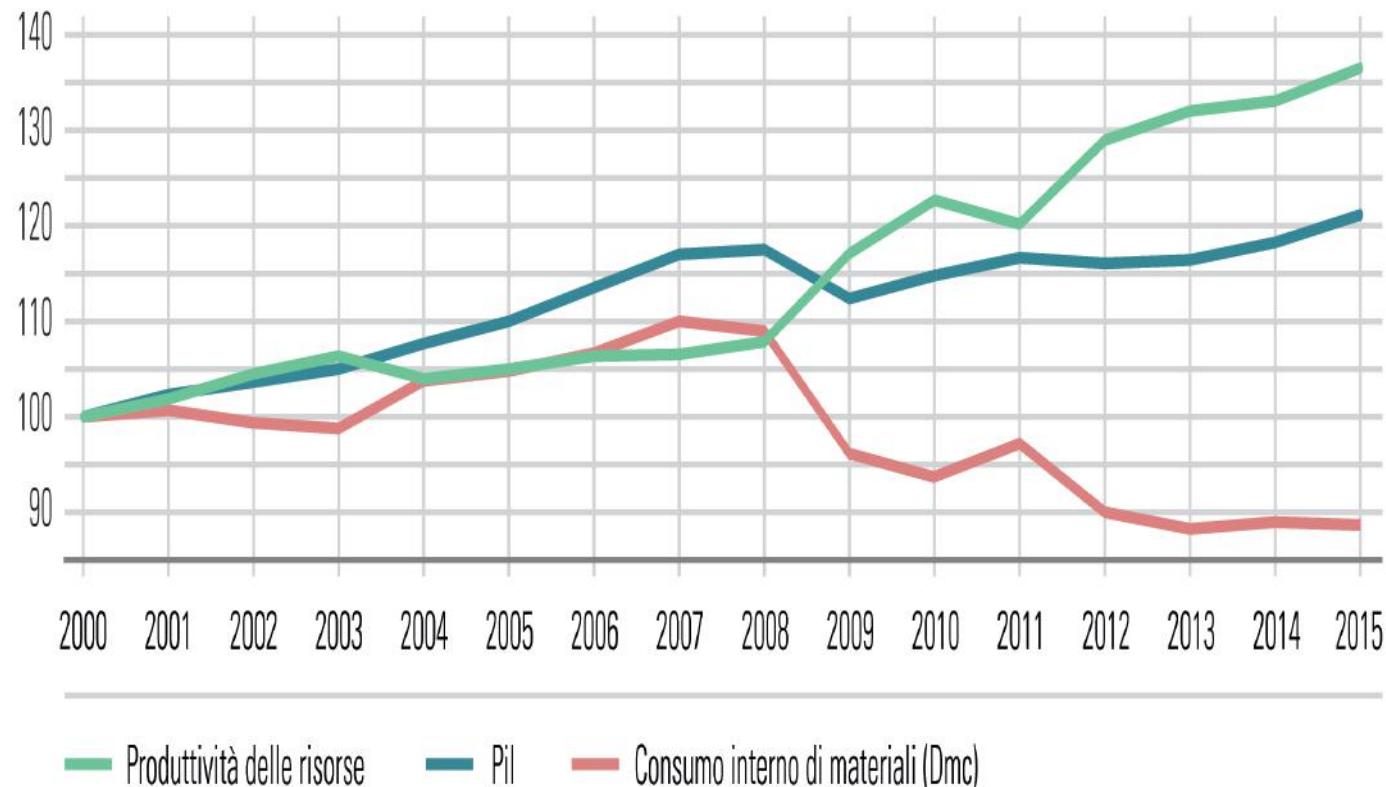


While Europe met well in advance its 2020 Climate and Energy package targets, the new 2030 Climate & Energy Framework sets a target (at least a 27% share for renewable energy and an indicative energy savings target of 30%) **that will not possibly meet the GHG emissions cut target of 40%**.

It is widely agreed that the implementation of the Paris Agreement will require a review of the EU 2030 targets: **the EU will maintain the world leadership on climate change only if it will implement this review on time** (as pushed for by France and Germany).



We are also on the eve of the adoption of a **new important directive on waste management and circular economy**, aiming at making EU economy the most efficient one in the world in resource use, meaning greener and more competitive, by boosting waste reduction and reuse, setting new challenging recycling targets and reducing incineration and waste disposal in landfill.

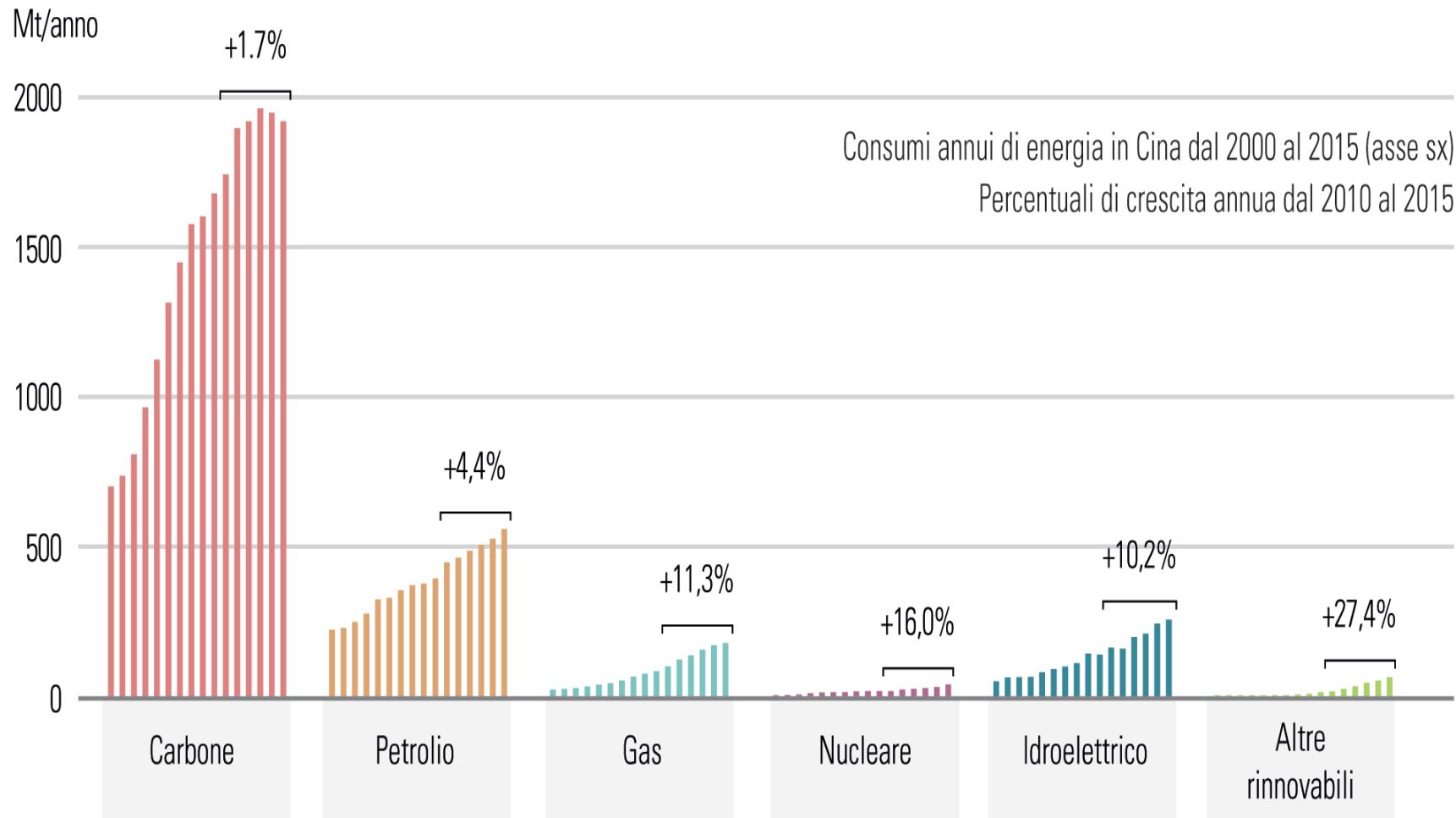


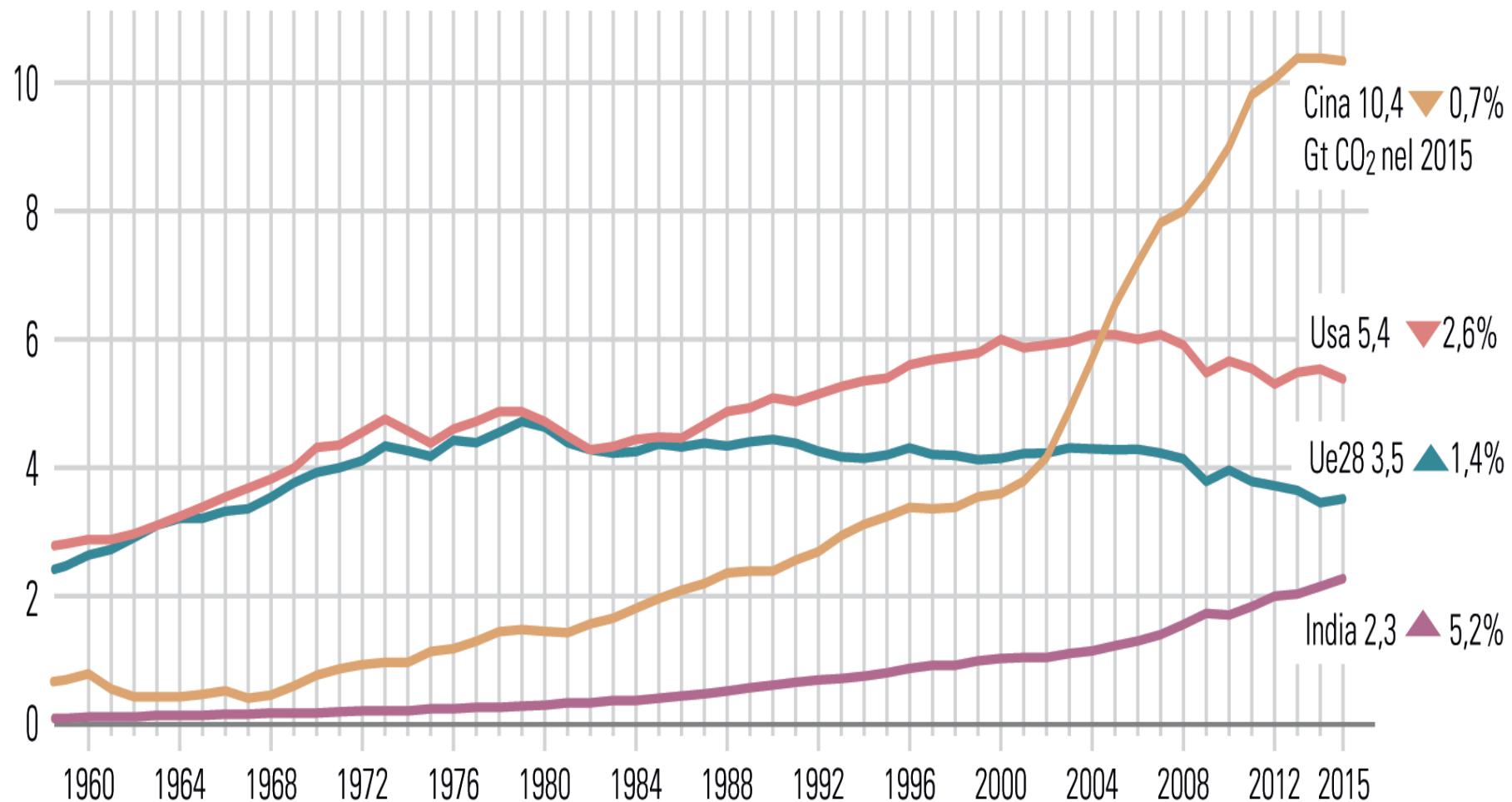
In the past, China has focused on an accelerated, export-based, low quality and high environmental impact growth model, with huge use of coal as prevailing source of energy. This growth model not only made China a world economic power, but it also made this country **the top world GHG emitter (29% of CO<sub>2</sub> world emissions), with total emissions higher than the United States and per capita emissions higher than Europe.**

Now China is apparently willing to change: **coal use is diminishing and renewable energy is increasing**. While **GHG emissions in the country have not increased since 2014**, China submitted an inadequate implementation plan for the Paris Agreement, and it plans to continue to increase greenhouse gas emissions until reaching a peak in 2030 and start decreasing afterwards.

This trend would make virtually impossible to keep the trajectory for containing global warming well below 2°C, as set by the Paris Agreement. On the other hand, recent studies suggest that **China could reduce its emissions well before 2030**, thanks to economic growth and technological advancements.





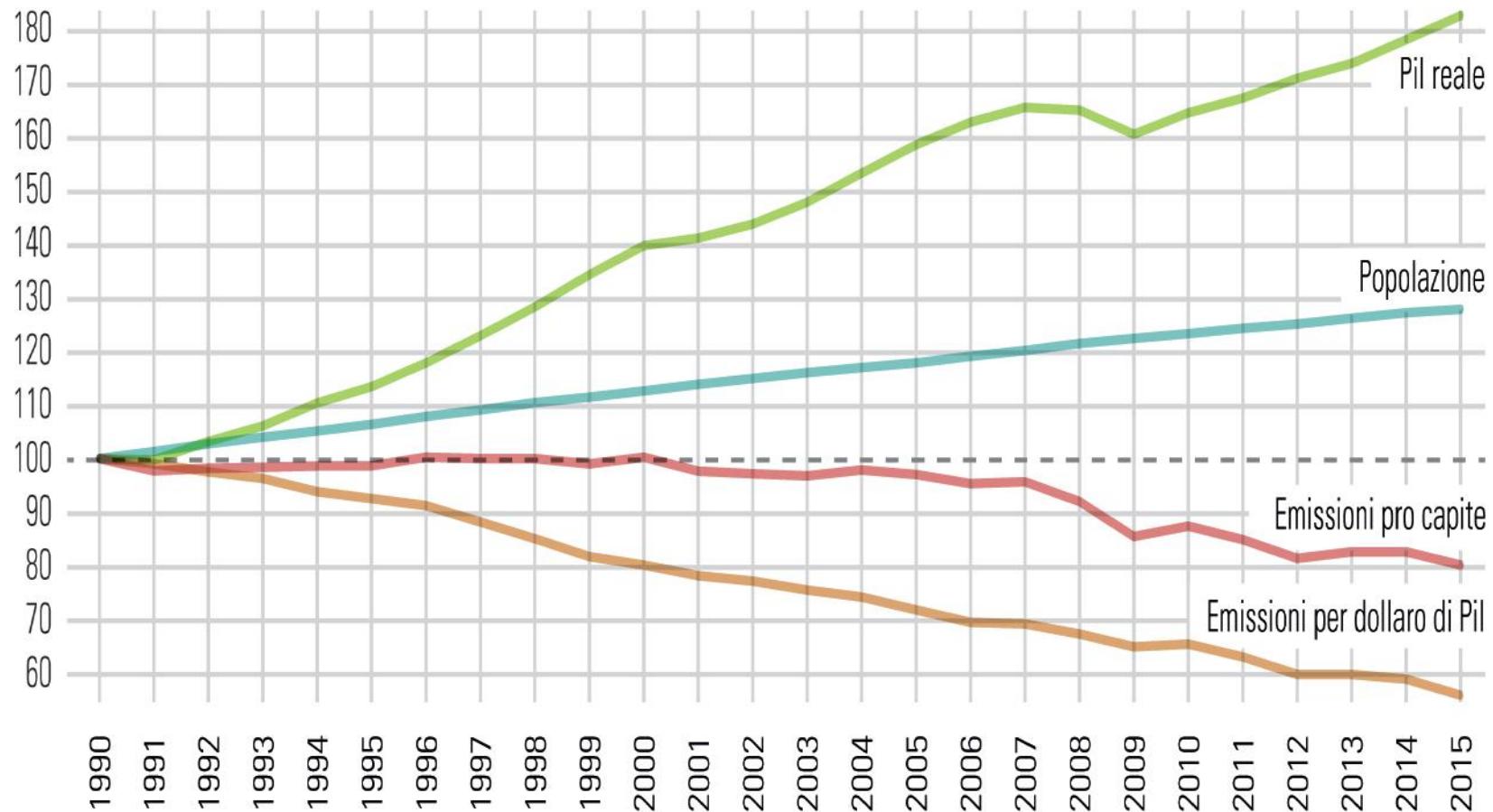
Emissioni CO<sub>2</sub> (GtCO<sub>2</sub>/anno)

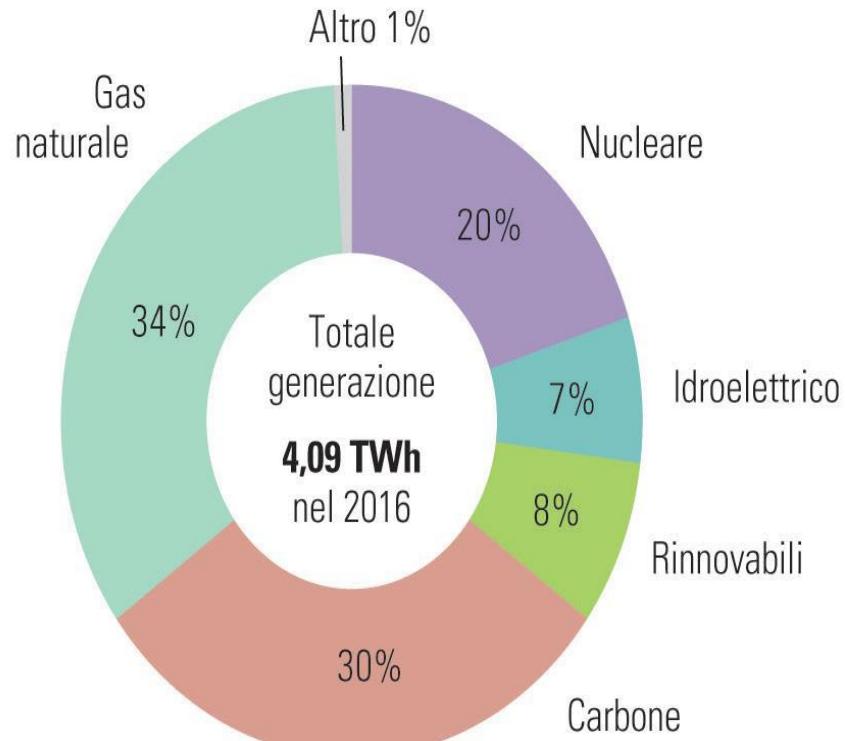
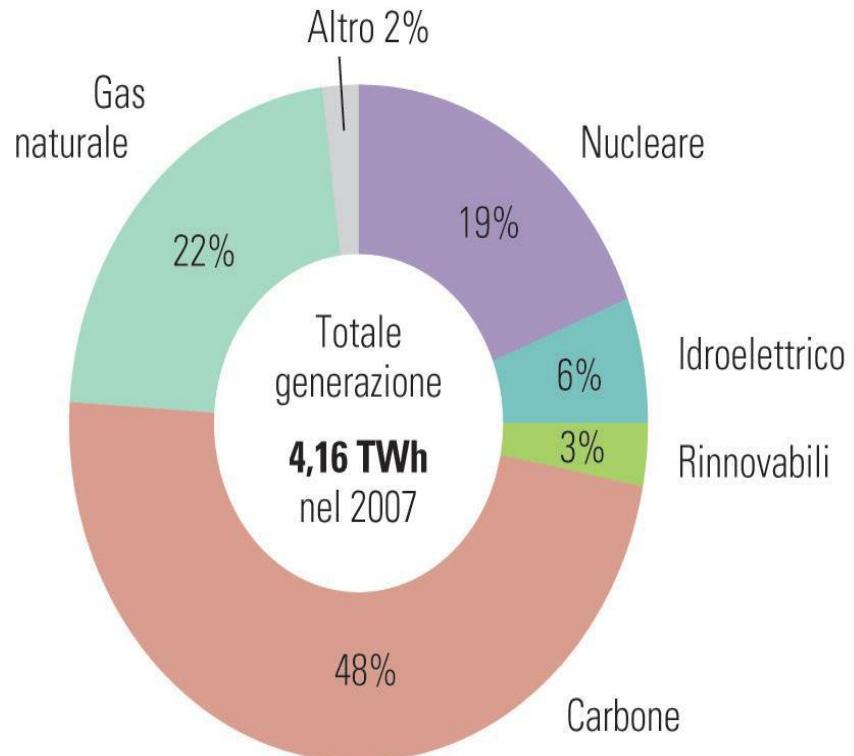
For the green economy and climate change global policies it is of great importance to start evaluating possible effects of President Trump's decision, officially announced at G7 Summit in Taormina last June, to withdraw the United States from the Paris climate change Agreement. The effects of this decision are not quite predictable.

Approximately 40% of GHG emissions in the United States are produced by **States that officially declared their intention to implement the Paris Agreement. In June 2017, the United States Conference of Mayors**, representing 1,408 cities with populations of 30,000 or more, not only supported the Paris Agreement, but also proposed **targets that are more ambitious**.



indice (1990=100)





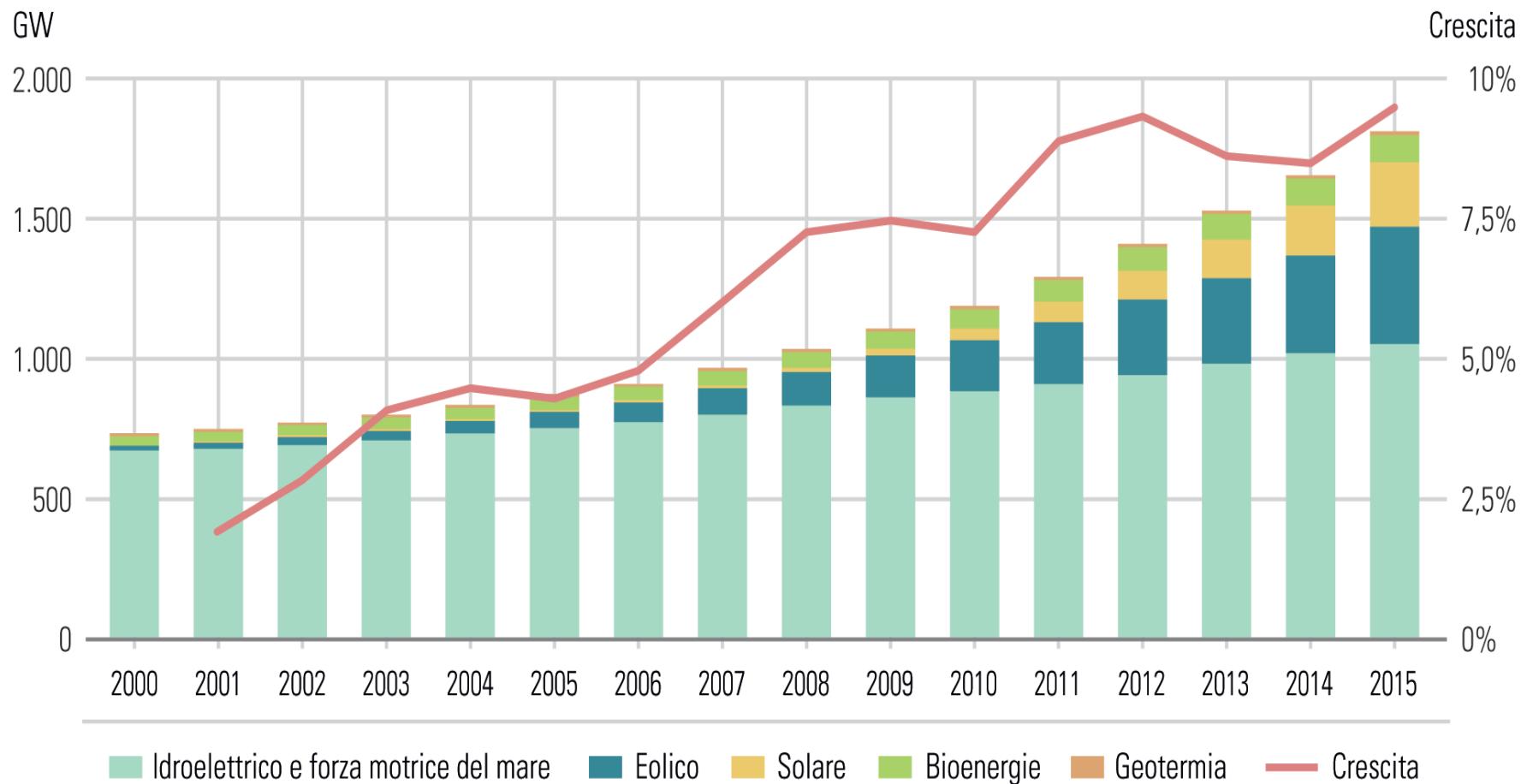
At the moment Trump's statements on the Paris Agreement do not seem to be producing any tangible effects on the concrete economic and technological measures for climate change mitigation that are being implemented in the United States.

Investments in **renewable energy** in the US are currently growing: in March and April 2017, solar and wind energy exceeded 10% of electricity demand for the first time.

The United States is still the world leader in **biofuels production**, as well as in **energy efficiency technologies**. **Green bonds** emissions in 2016 were 80 times higher than in 2012, reaching 38.4 billion dollars.

In addition, the Administration showed some hesitations and put forward ideas of renegotiating the withdrawal as well as the possibility of renegotiating the Agreement itself: this means the Government is acknowledging the difficulties in implementing a decision that would imply an **isolated position**, since the Paris Agreement was, and still is, supported by almost all countries.

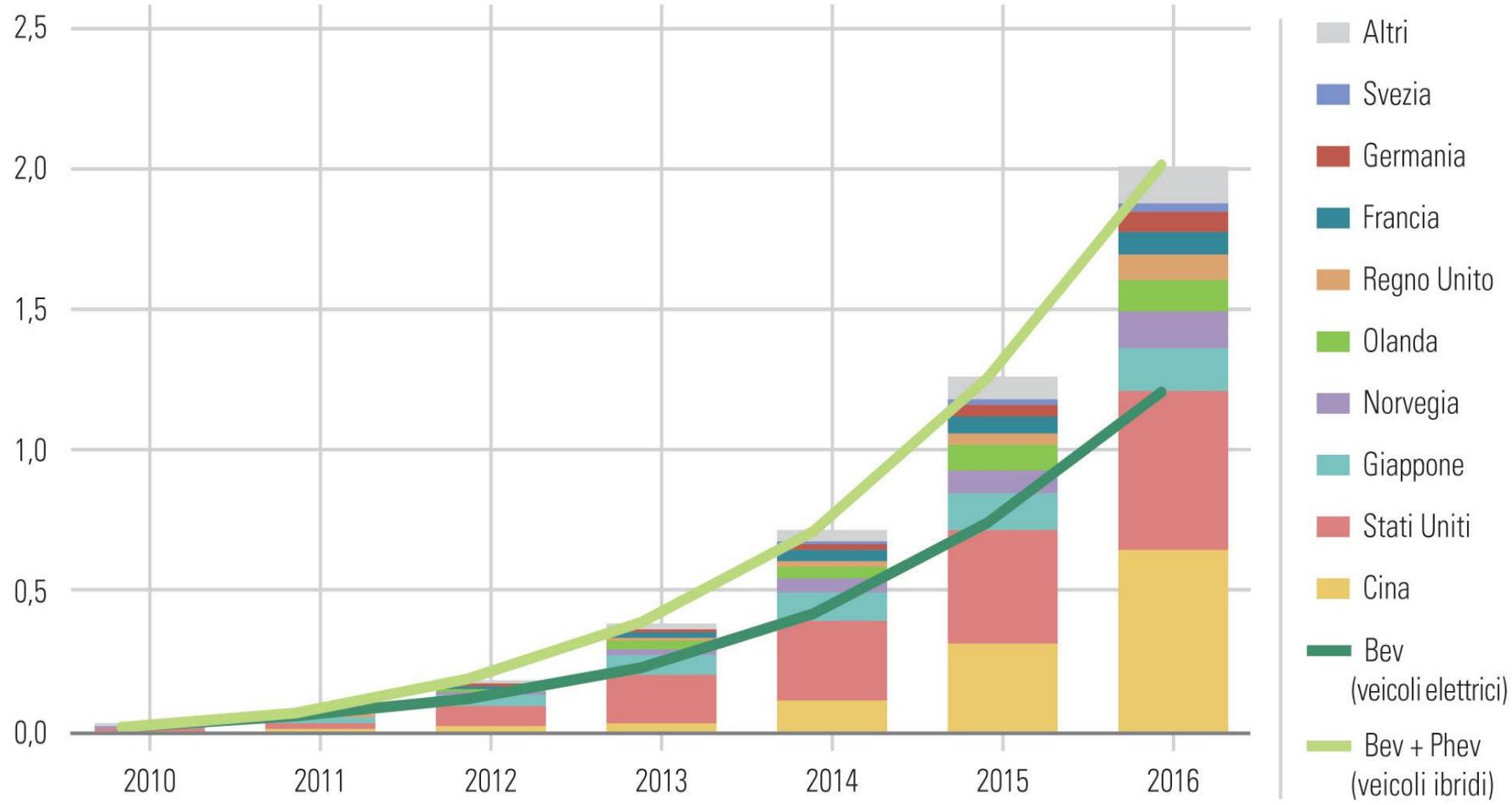




■ Idroelettrico e forza motrice del mare ■ Eolico ■ Solare ■ Bioenergie ■ Geotermia ■ Crescita



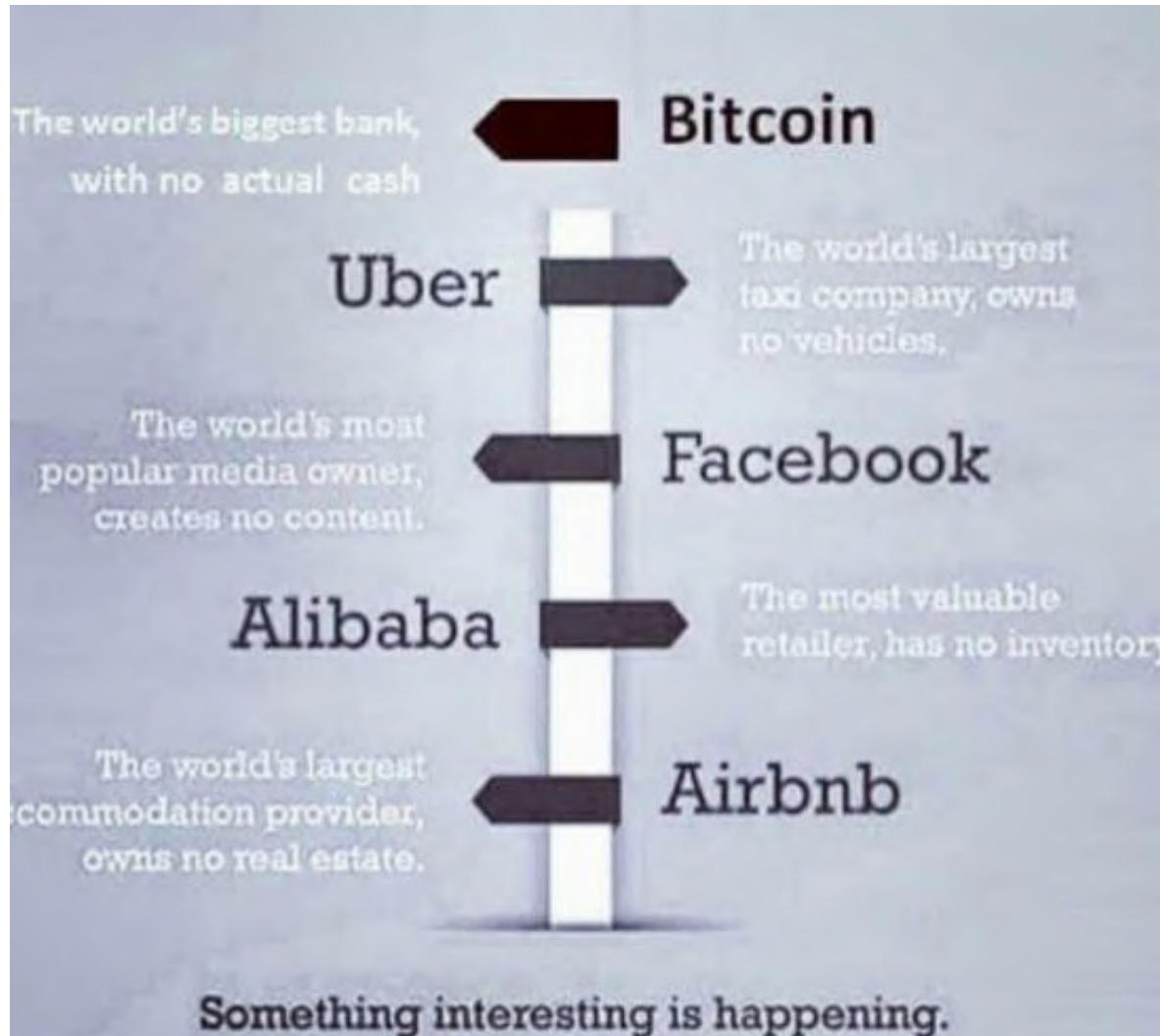
Stock di auto elettriche (milioni)



In 2017, the **International Energy Agency (IEA)** assessed 26 energy technologies tendencies in the 2°C scenario. **Renewable energy sources, electric vehicles and electricity storage** are growing at a good pace and are expected to continue to do so.

**Energy saving and efficiency** in the industry should increase at a higher rate because the final energy consumption trend in this sector would still be too high. While gas consumption is increasing, further improvement is needed in order for it to contribute, together with renewable sources, to **replace coal** that is still the main source of energy worldwide (40%). Less efficient coal plants should be closed and new plants without carbon capture and storage (CCS) should not be opened, although CCS projects stopped because of lack of investment. **New generation biofuels** should increase by 25 times by 2025. The average **energy consumption in the building sector** should decrease by at least 10% by 2025 and renewable thermal energy should increase by 32% by 2025 compared to 2014.

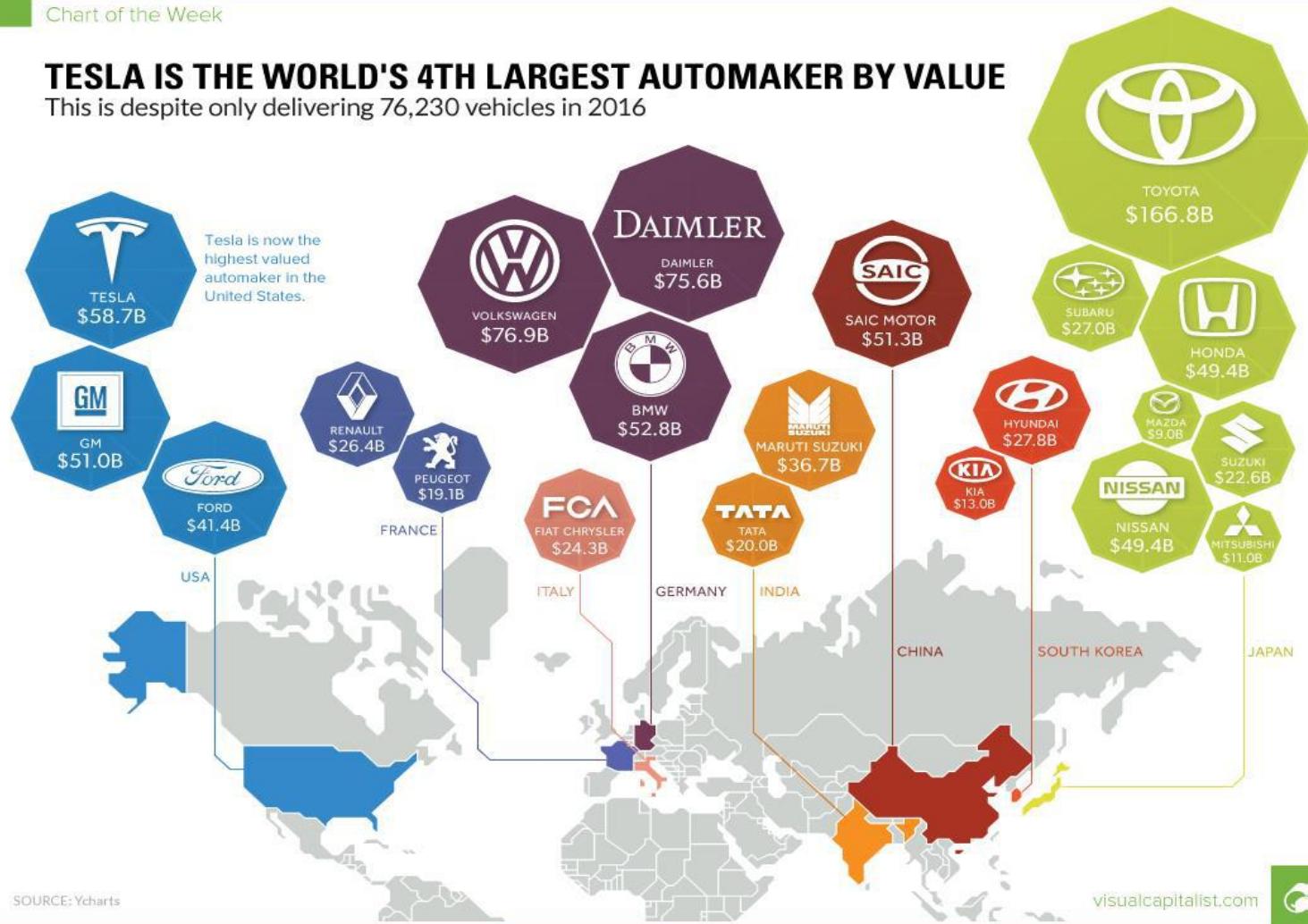




## Chart of the Week

### TESLA IS THE WORLD'S 4TH LARGEST AUTOMAKER BY VALUE

This is despite only delivering 76,230 vehicles in 2016





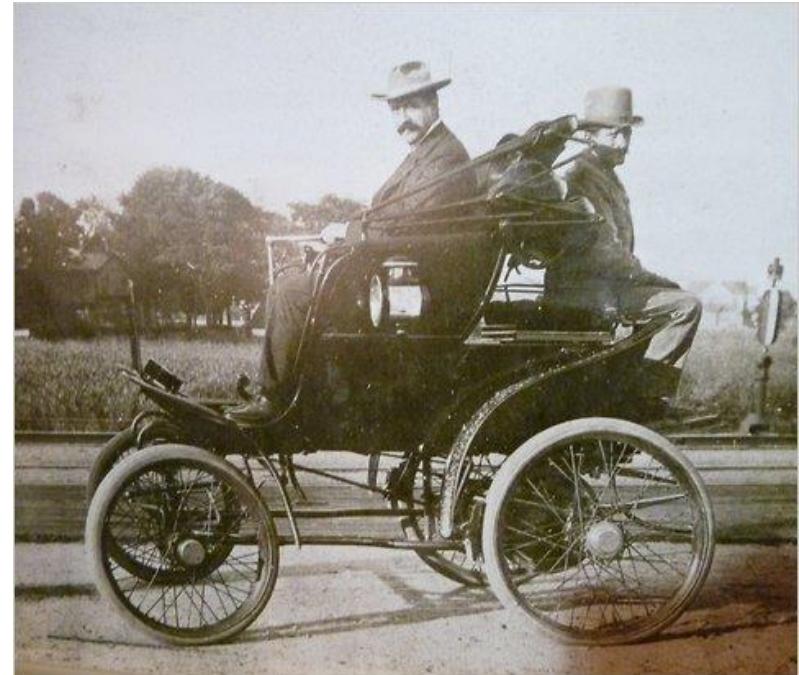


# Examples of lasting innovations



Colonel Albert Hope

1901:  
500 electric cars



“.....It's cleaner and less noisy.  
Furthermore nobody will willingly sit  
atop an explosion”



**08 novembre 2017**

**STATI GENERALI della GREEN ECONOMY**

# **EUROPA, CINA E USA: IL FUTURO DELLA GREEN ECONOMY NEI NUOVI EQUILIBRI MONDIALI**

**ore 09.30 • 12.30**

Promossi dal Consiglio Nazionale della Green Economy  
in collaborazione con



MINISTERO DELL'AMBIENTE  
E DELLA TUTELA DEL TERRITORIO E DEL MARE



Ministero  
dei beni e delle  
attività culturali  
e del turismo



Ministero dello Sviluppo Economico



European  
Commission