
The Netherlands: **What went well** – balancing decarbonization with economic growth

Think Tank Energy Transition – PwC Strategy&
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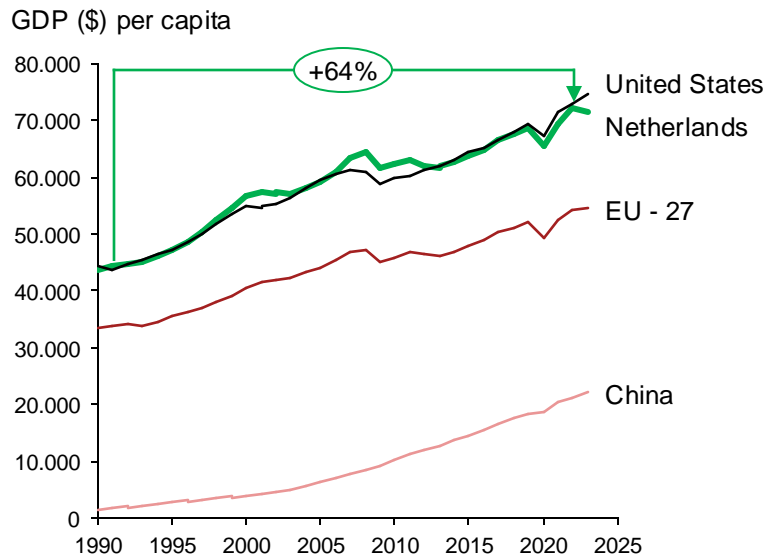
The Netherlands: **What went well** – balancing decarbonization with economic excellence



The Dutch economy has achieved impressive **GDP per capita growth...**

71k (+64%)

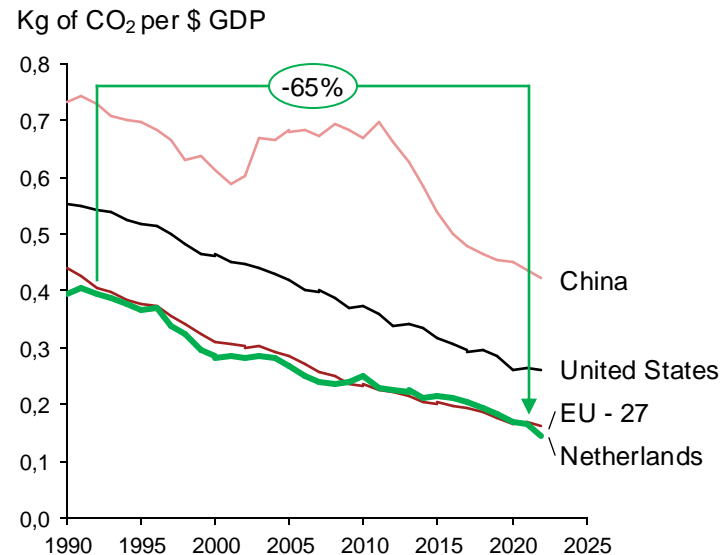
GDP per capita (% change since 1990)



...this growth has been successfully **decoupled from carbon emissions...**

-65%

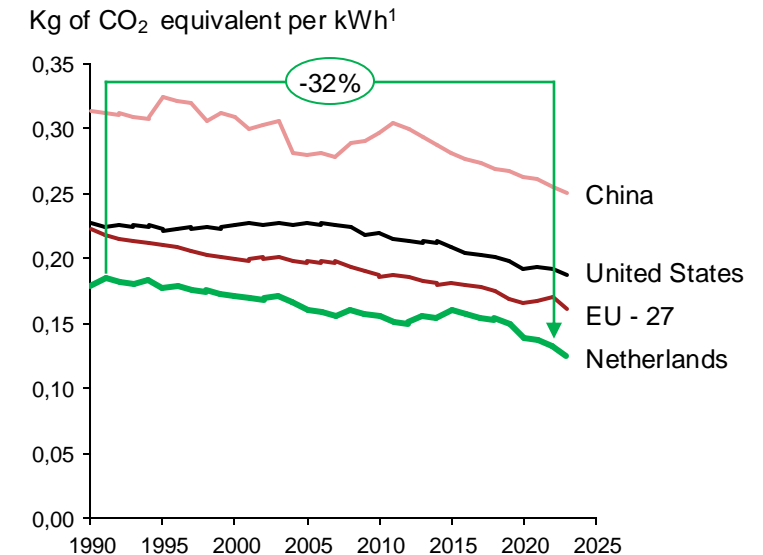
of emissions per GDP since 1990



...this decoupling is also visible in the **declining carbon intensity** of Dutch energy generation

-32%

Emission reduction for energy production (1990)



Note: 1) Measured in kilograms per kilowatt-hour of primary energy consumption (incl. oil and natural gas); all dollar figures are purchasing power parity adjusted
Source: Strategy& analysis; Our World in Data (2023)

The rise in renewable energy share is driven by a **world-leading adoption of solar, wind and EV** technologies



The Netherlands has become a frontrunner in solar power generating 1200kWh per capita in '23, **double of the EU average**

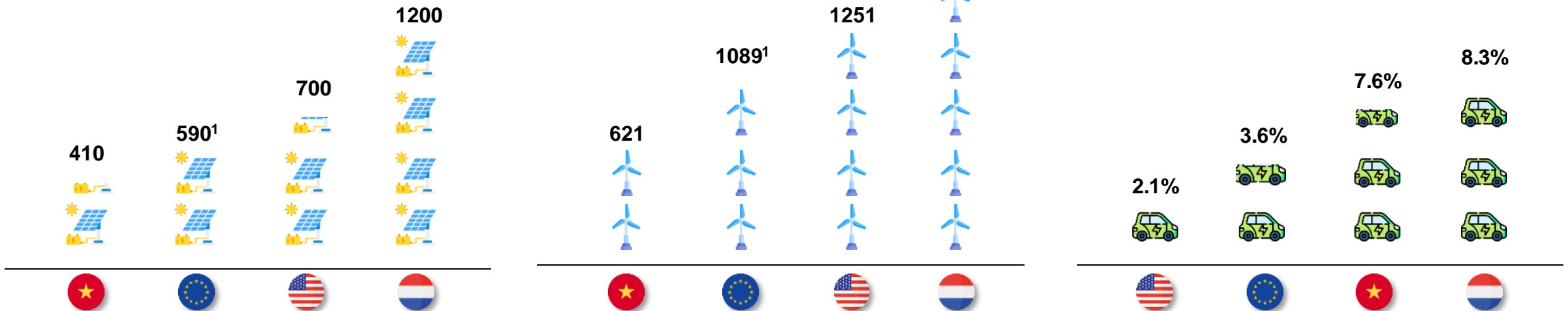
The Dutch became a frontrunner in wind energy, generating 1644kWh per capita in '23, which is **60% more than EU**

The Netherlands is accelerating EV adoption growing its share to 8.3% in '23, **double of the EU average** and just ahead of China

Solar energy generation per capita (kWh, 2023)

Wind energy generation per capita (kWh, 2023)

Share of electric² cars in existing fleet (% of total, 2023)



Note: NL is ranked 3rd worldwide in terms of solar generation per capita, 7th worldwide in terms of wind per capita and 5th in terms of electric share; 1) 2023 not available, estimated from 2022 figures; 2) electric cars include fully battery-electric and plug-in hybrid
 Source: Strategy& analysis, Our World in Data (2023)

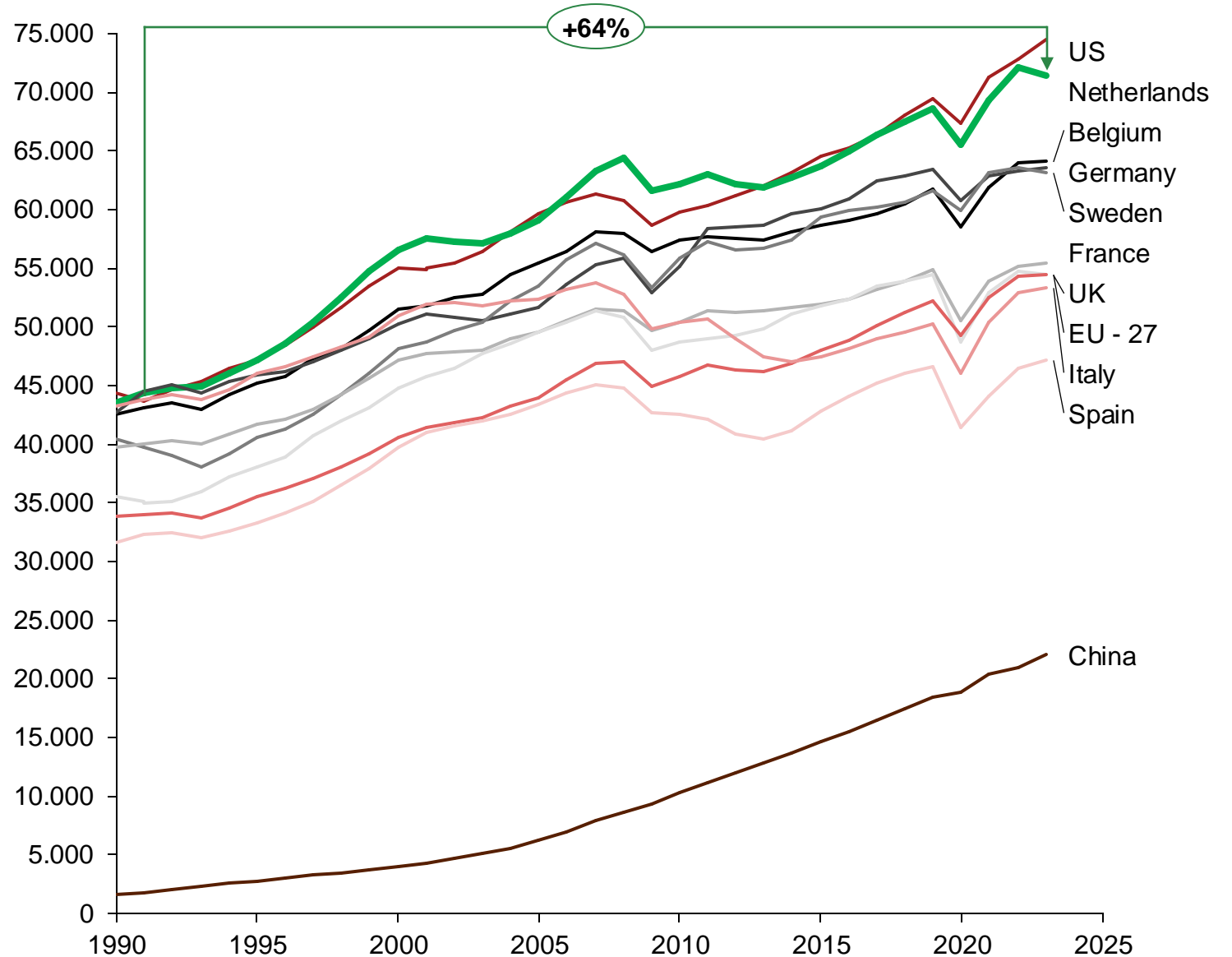
Content - deep dive



The Dutch economy has experienced phenomenal **economic growth**

71k (+64%)
GDP per capita (% gain since 1990)

GPD per capita



Note: All dollar figures are purchasing power parity adjusted
Source: Strategy& analysis, World bank (2023)

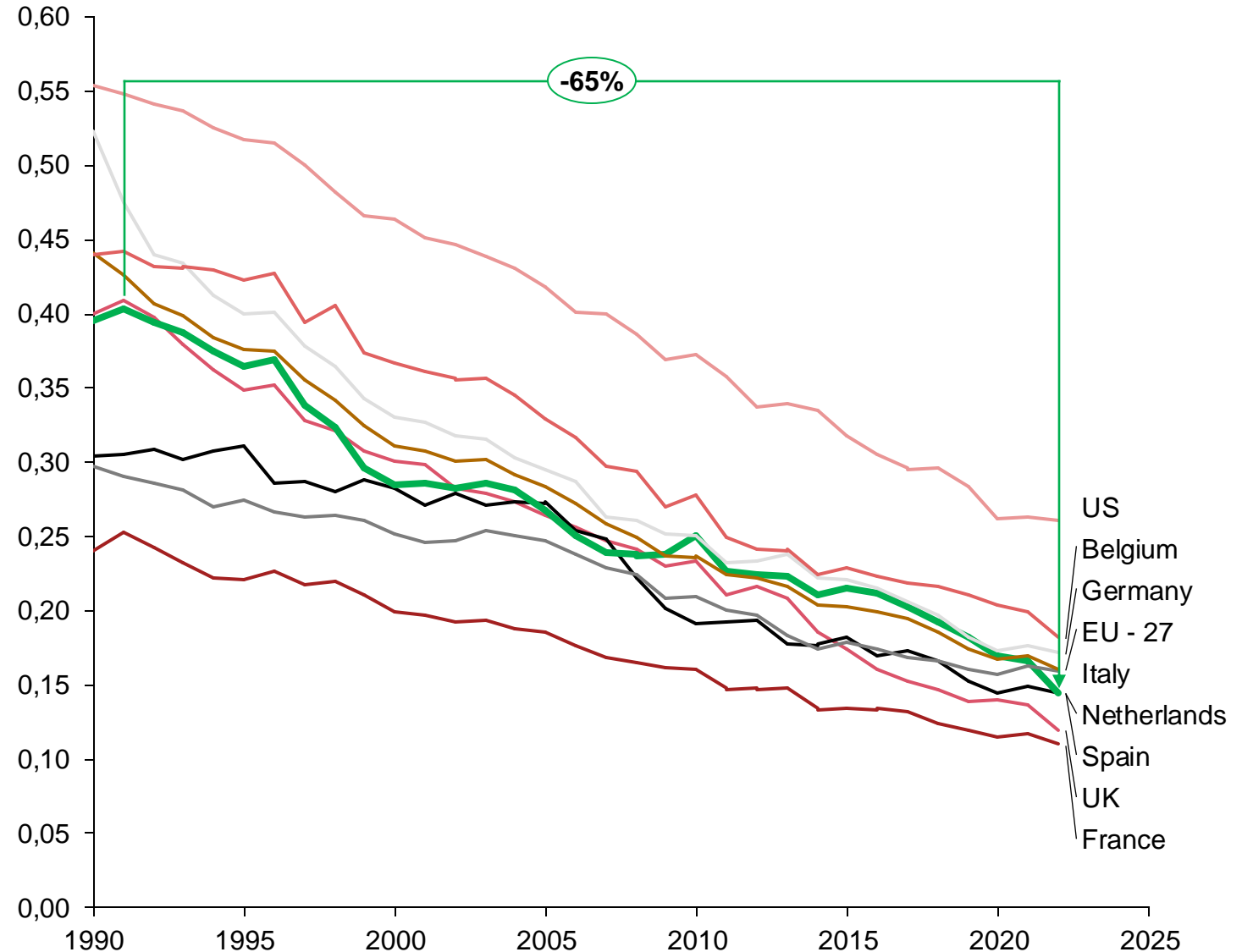


...this growth has been successfully **decoupled** from carbon emissions...

-65%

CO₂ emissions per GDP since 1990

CO₂ (kg) per GDP



Note: All dollar figures are purchasing power parity adjusted
Source: Global Carbon Budget (2024)

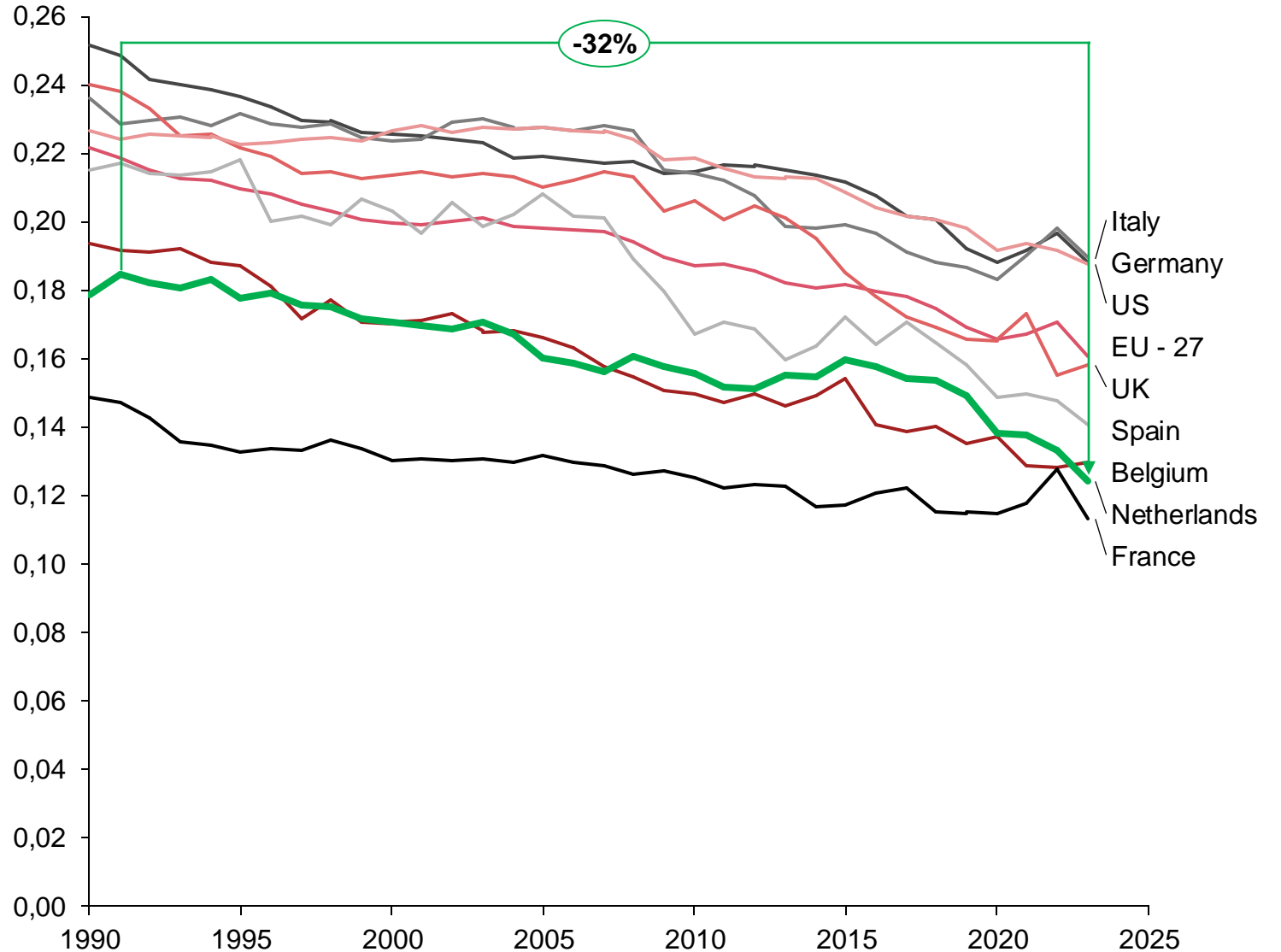


...this decoupling is also visible in the declining carbon intensity of Dutch energy generation

-32%

Emission reduction for energy production (1990)

CO₂ equivalent (kg) per kWh¹

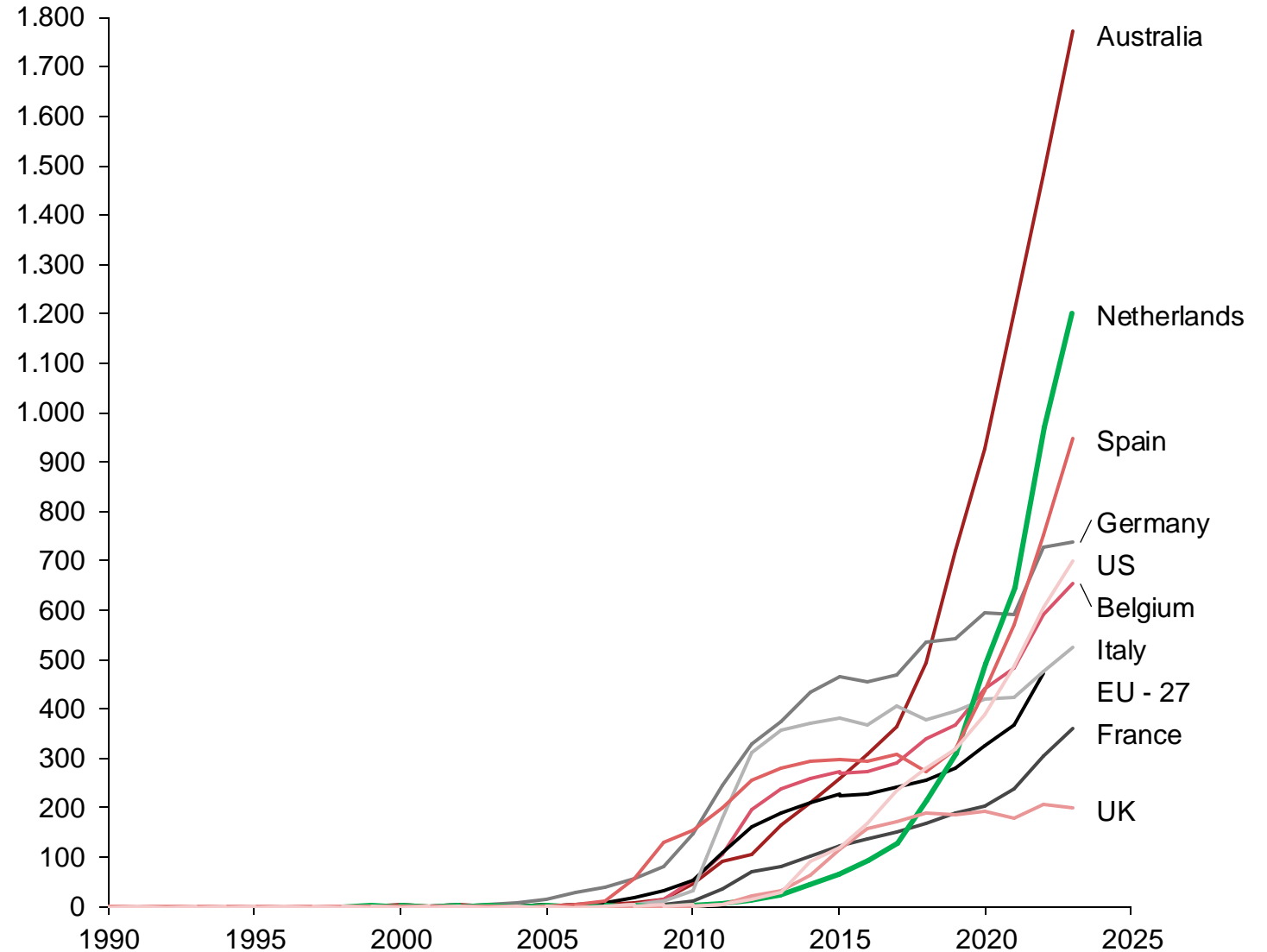


Note: 1) Measured in kilograms per kilowatt-hour of primary energy consumption (incl. oil and natural gas)
Source: Global Carbon Budget (2024)



The Netherlands became a frontrunner in solar power generating 1200kWh per capita in '23, **double of the EU average**

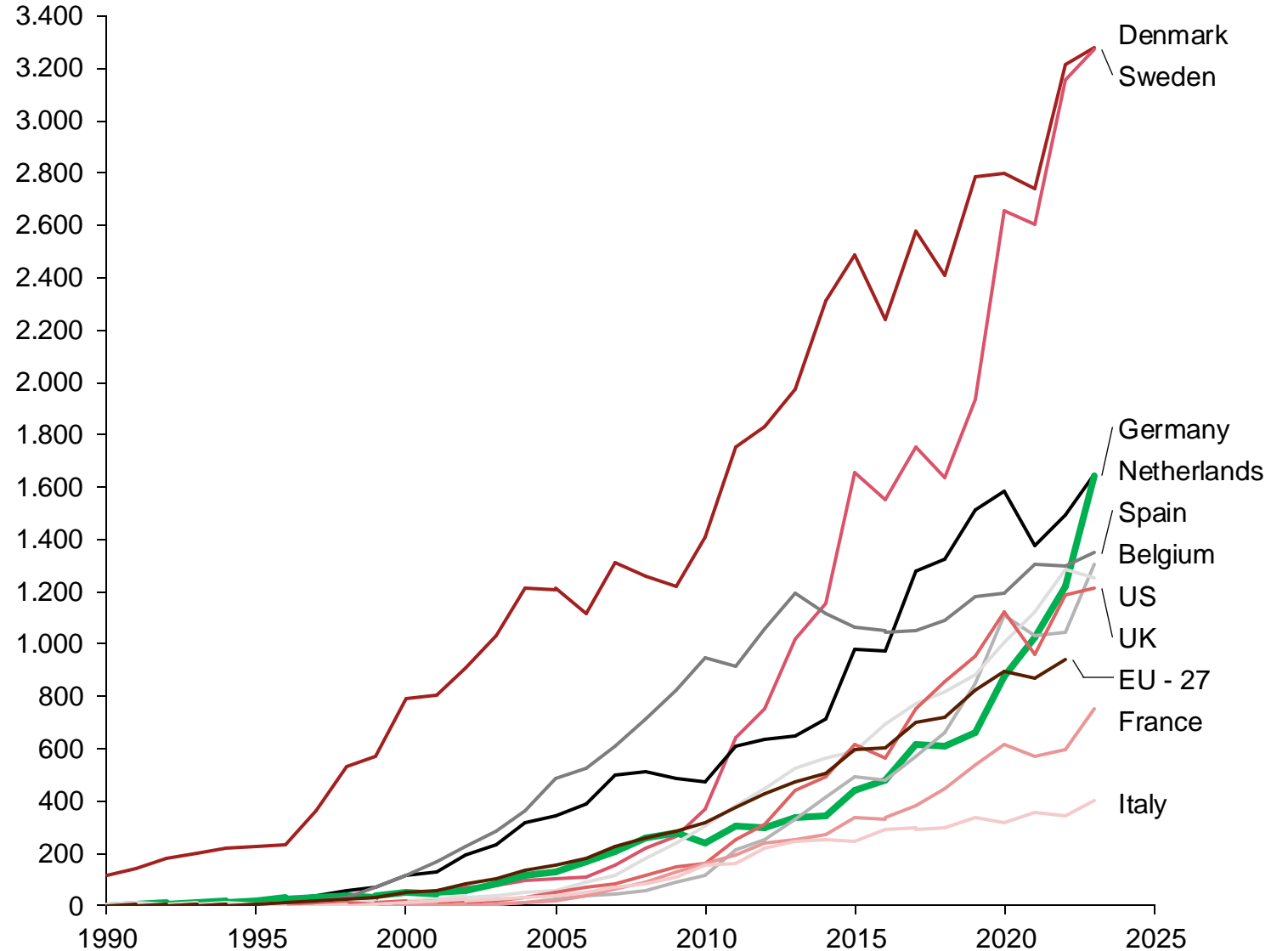
kWh of solar energy per capita





The Dutch has become a frontrunner in wind energy, generating 1644kWh per capita in '23, which is **60% more than EU**

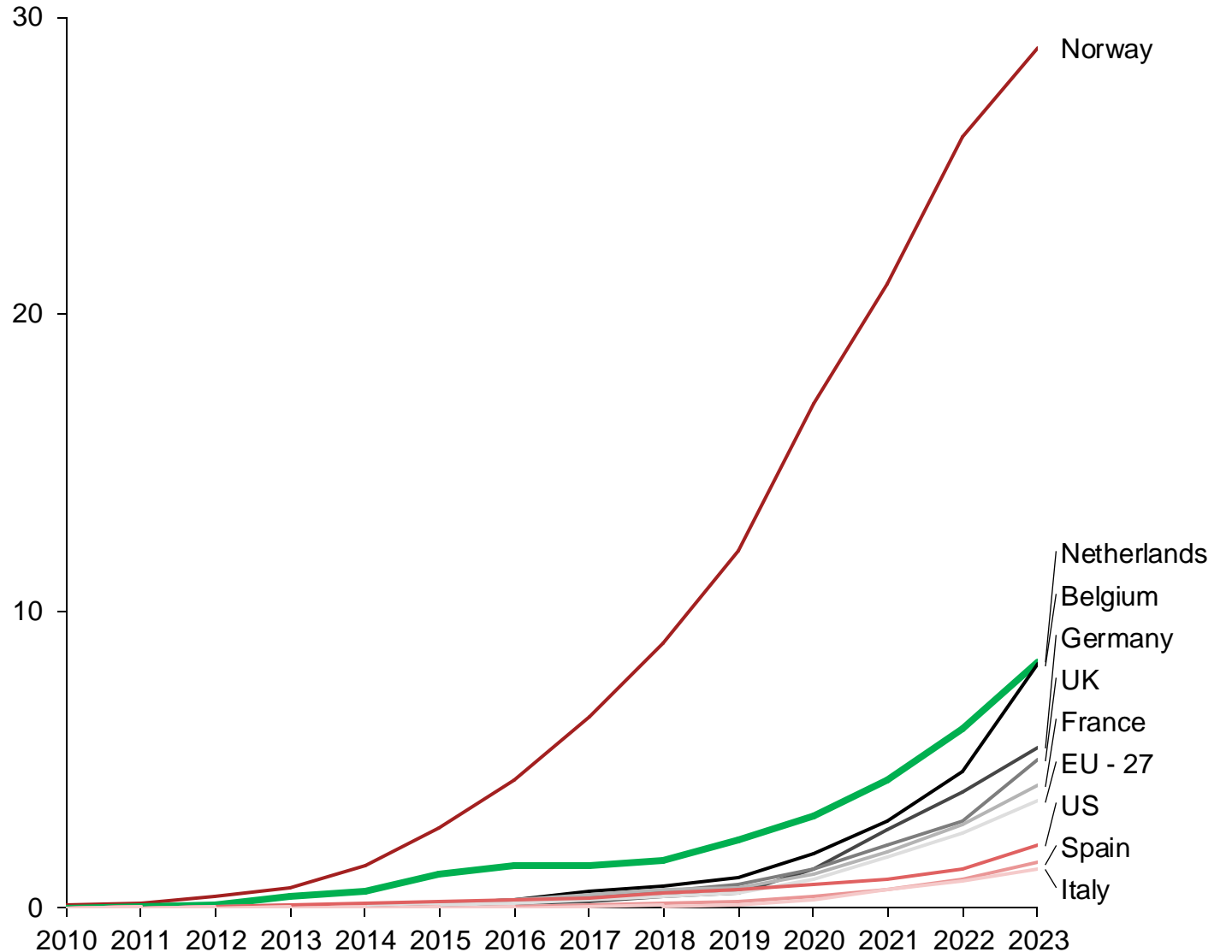
kWh of wind energy per capita





The Netherlands is accelerating EV adoption growing its share to 8.3% in '23, **double of the EU average** and just ahead of China

Share of electric¹ cars in existing fleet



Note: 1) electric cars include fully battery-electric and plug-in hybrid
Source: International Energy Agency. Global EV Outlook 2024

Contact us!



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