

Worum es wirklich geht – Entscheidungen für die Transformation

Florian Maringer





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TPA – energy tomorrow
24. April 2024



84 %

denken, dass die Polarisierung und Spaltung in der Gesellschaft zunimmt und eine lösungsorientierte Debatte zu Klimathemen immer schwerer wird.

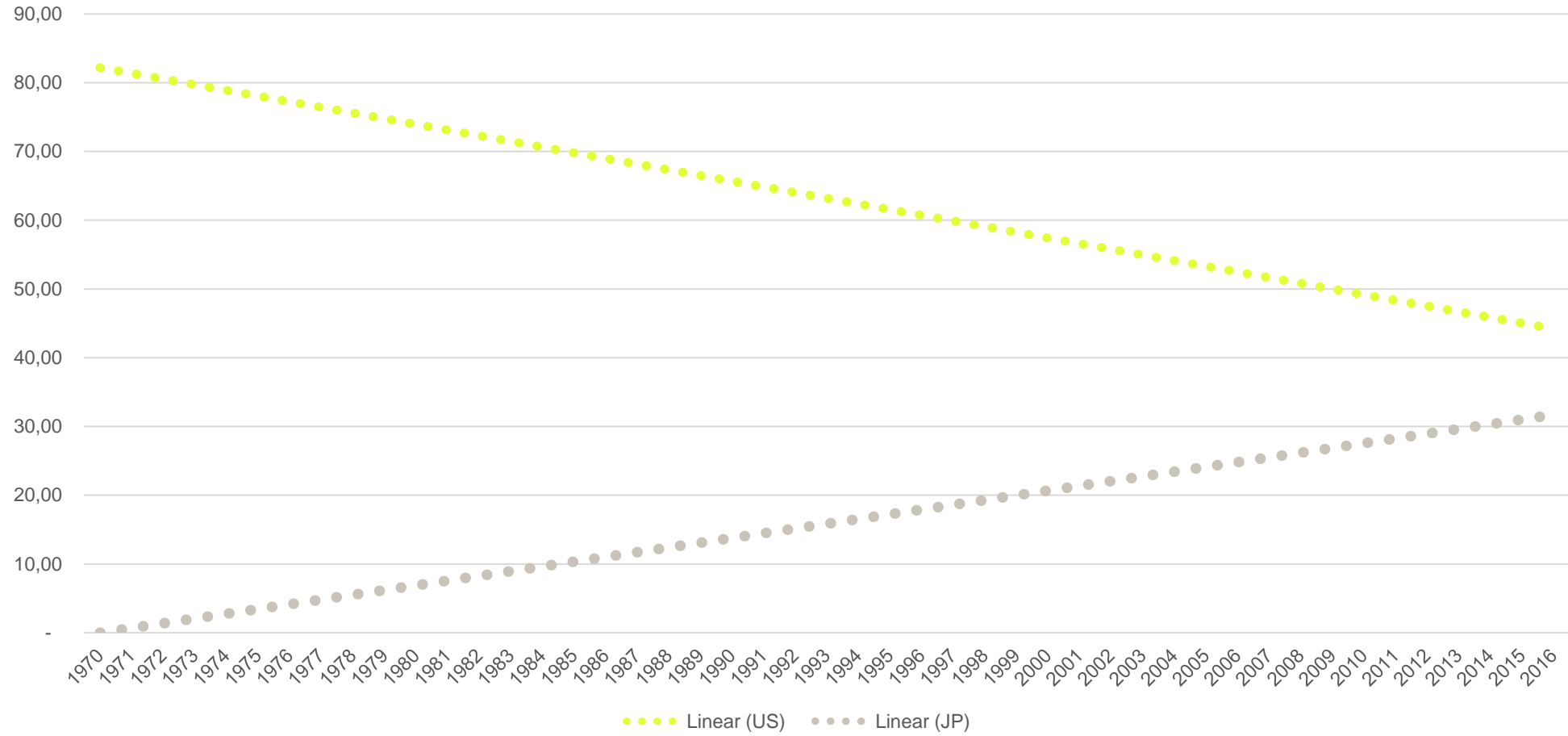


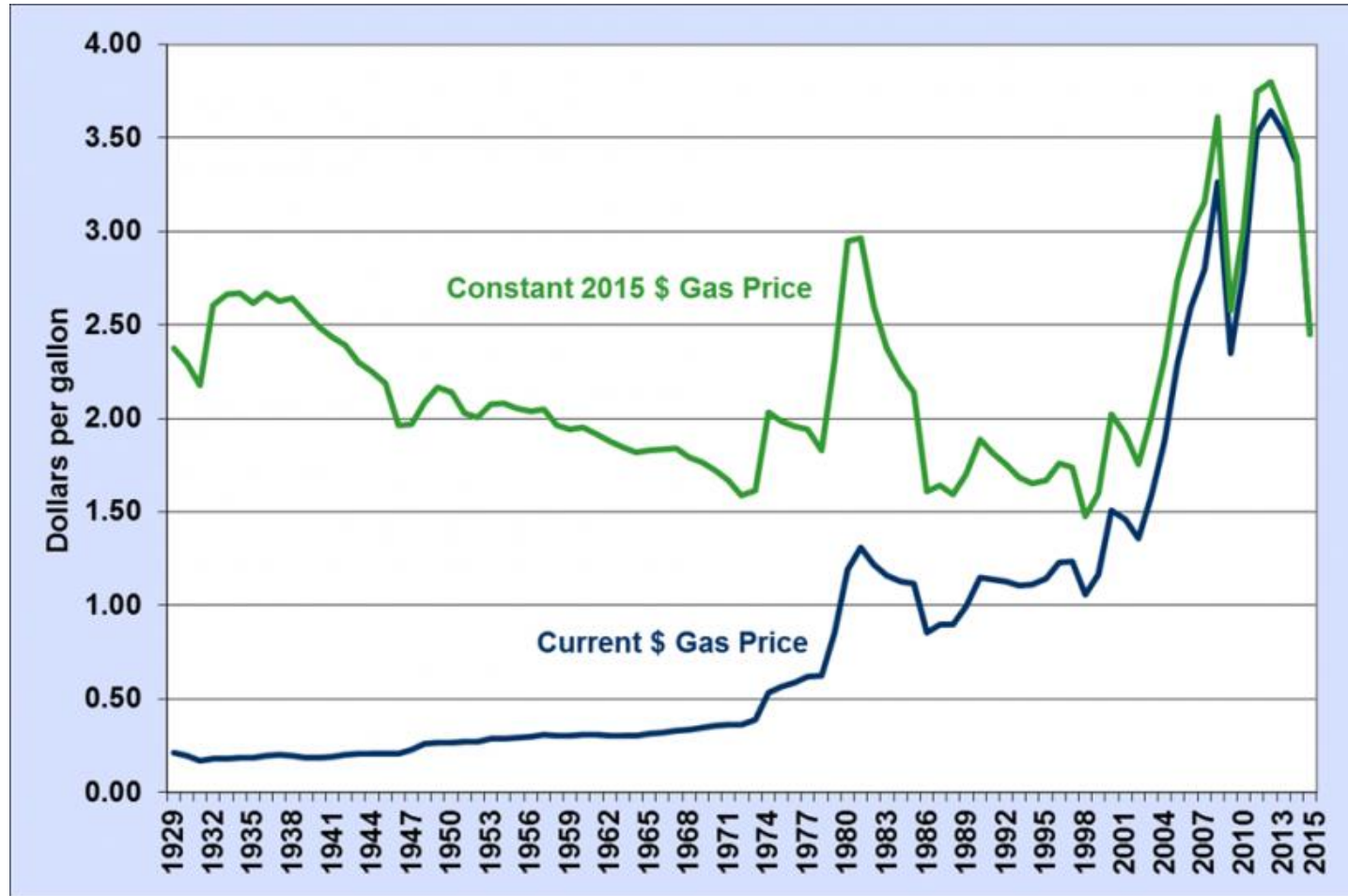
**sieben
von
zehn**

Befragten haben das Gefühl, manche Lösungen werden aktiv verhindert.



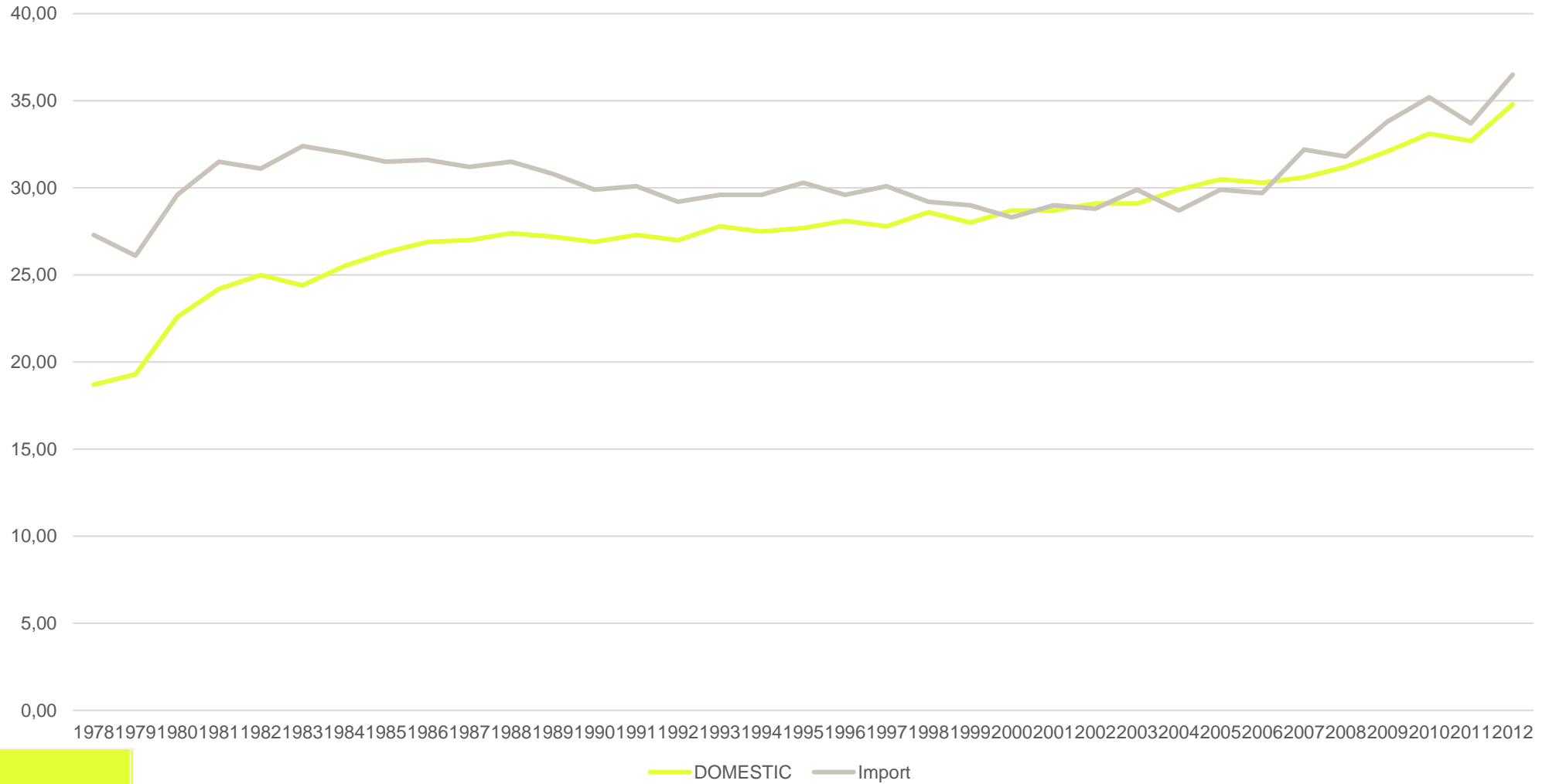
Fahrzeugverkäufe USA (Trend)





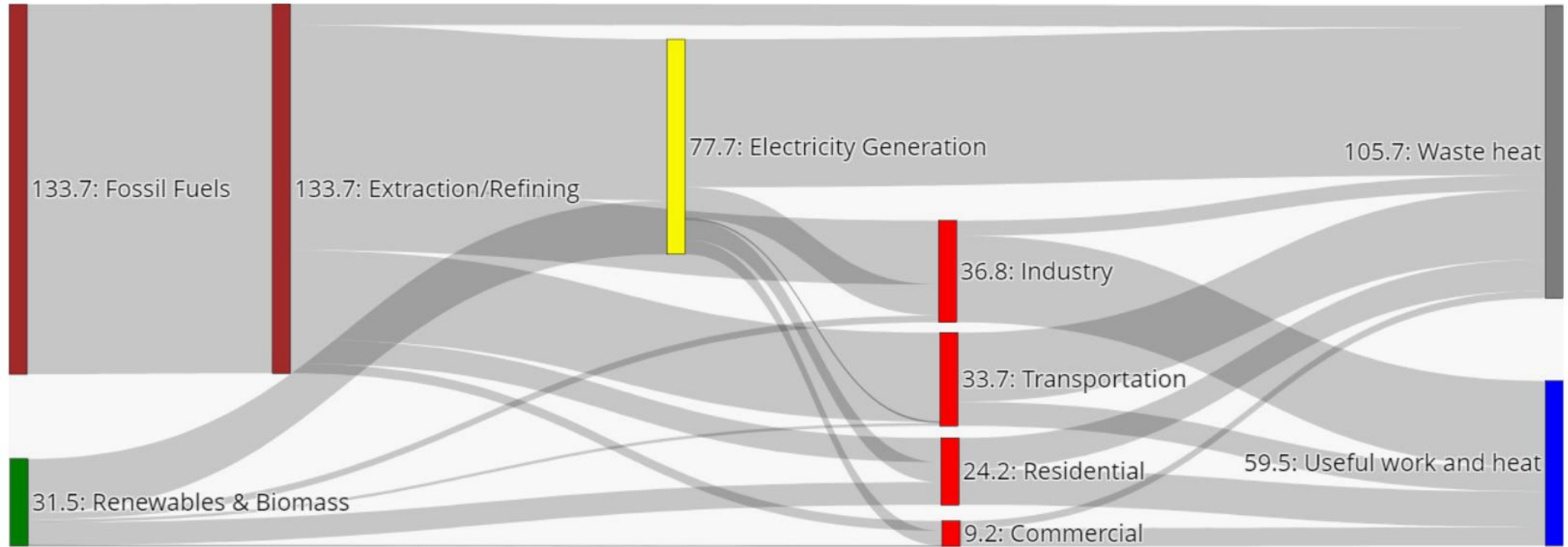


Reichweite US PKWs vs. Import-PKWs (Meilen/Gallone)





Today's Energy Economy (PWh/year)



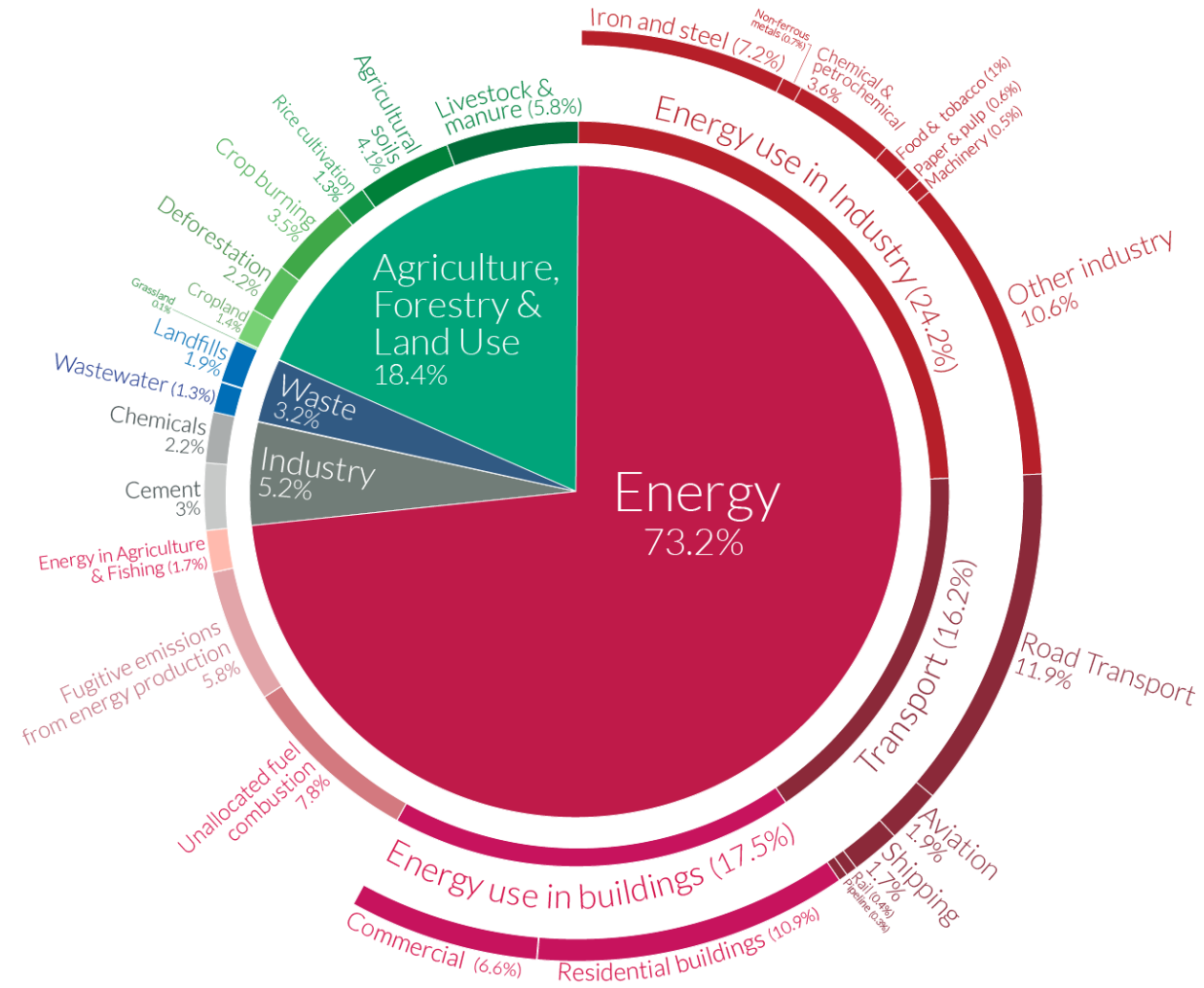
©Tesla, 2023



Global greenhouse gas emissions by sector

Our World
in Data

This is shown for the year 2016 – global greenhouse gas emissions were 49.4 billion tonnes CO₂eq.



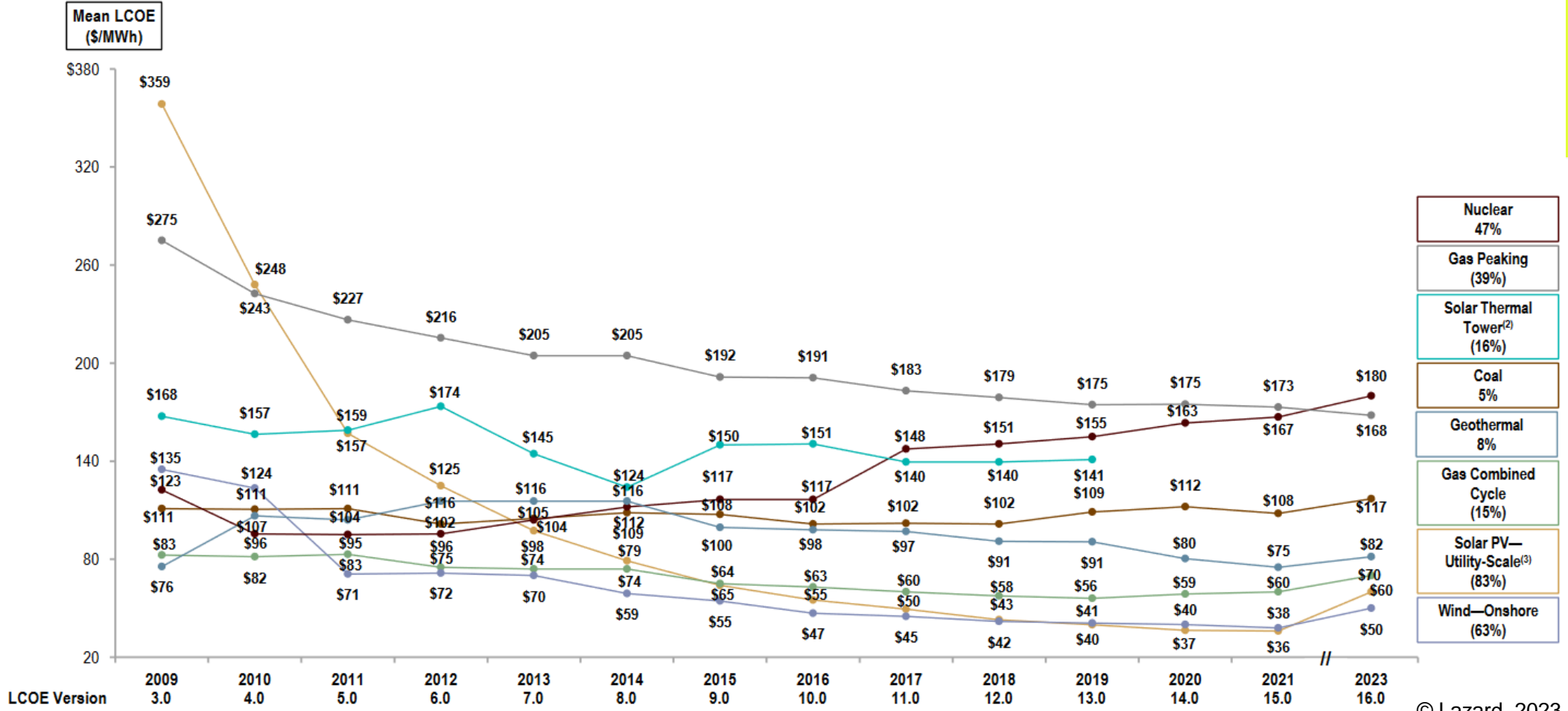
OurWorldinData.org – Research and data to make progress against the world's largest problems.

Source: Climate Watch, the World Resources Institute (2020).

Licensed under CC-BY by the author Hannah Ritchie (2020).

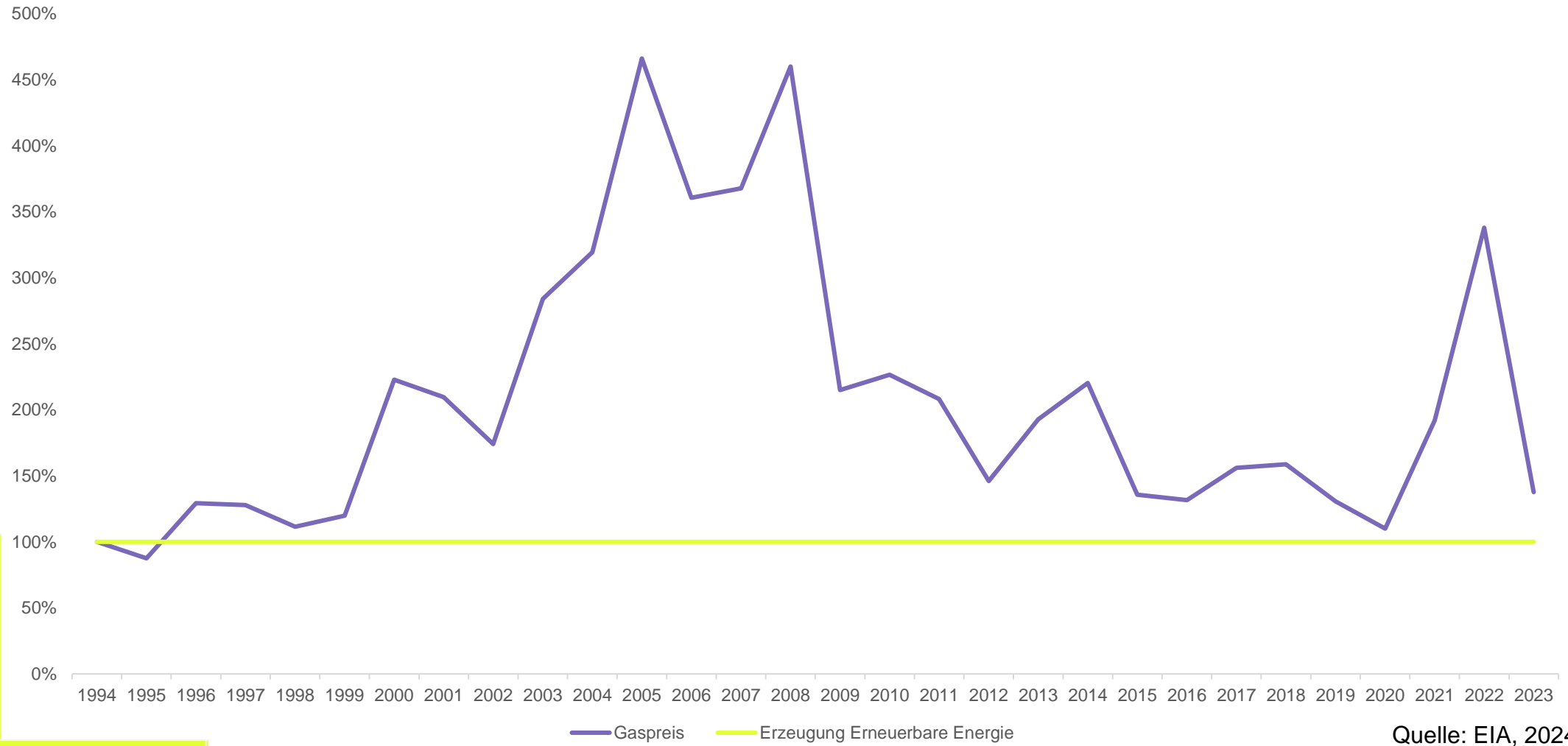


Selected Historical Mean Unsubsidized LCOE Values⁽¹⁾





Energiepreise Gas vs. erneuerbarer Strom (1994=100%)

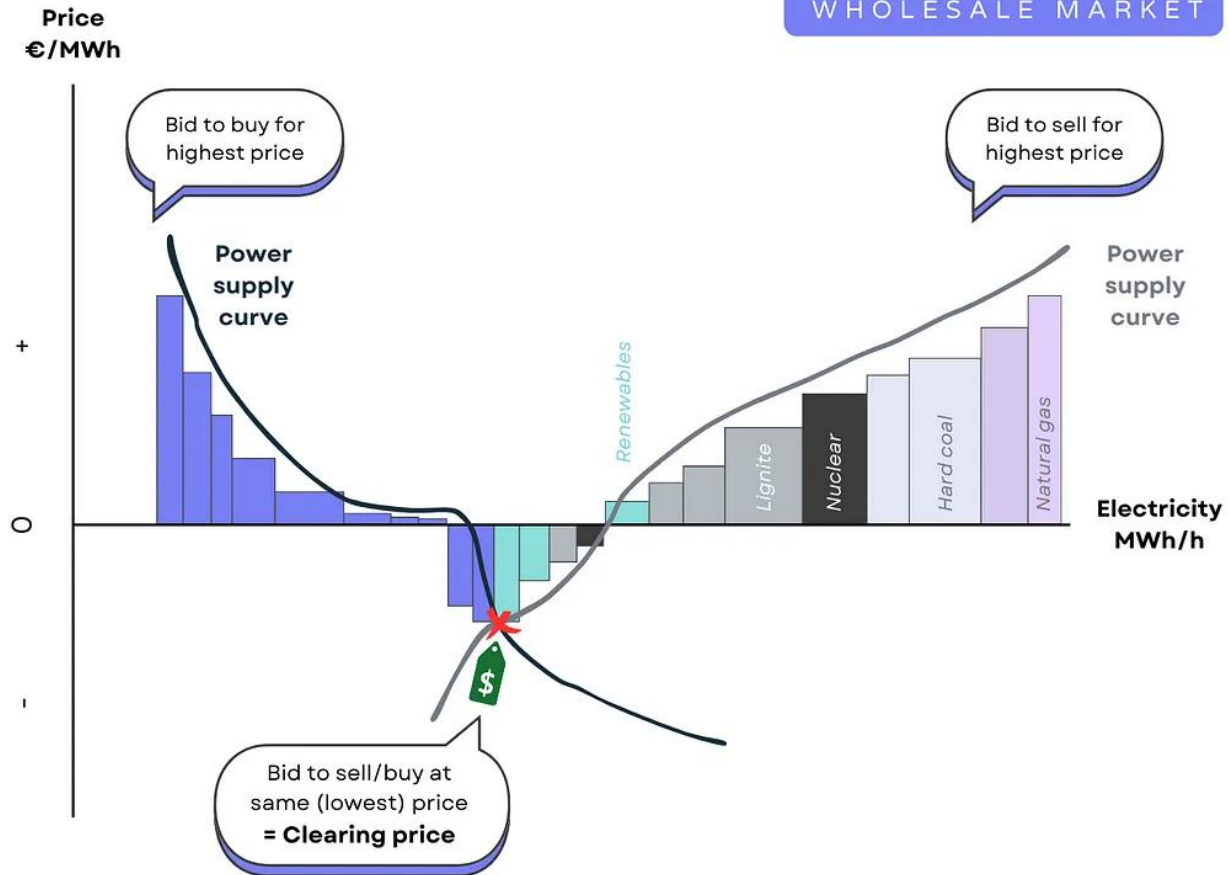


Quelle: EIA, 2024



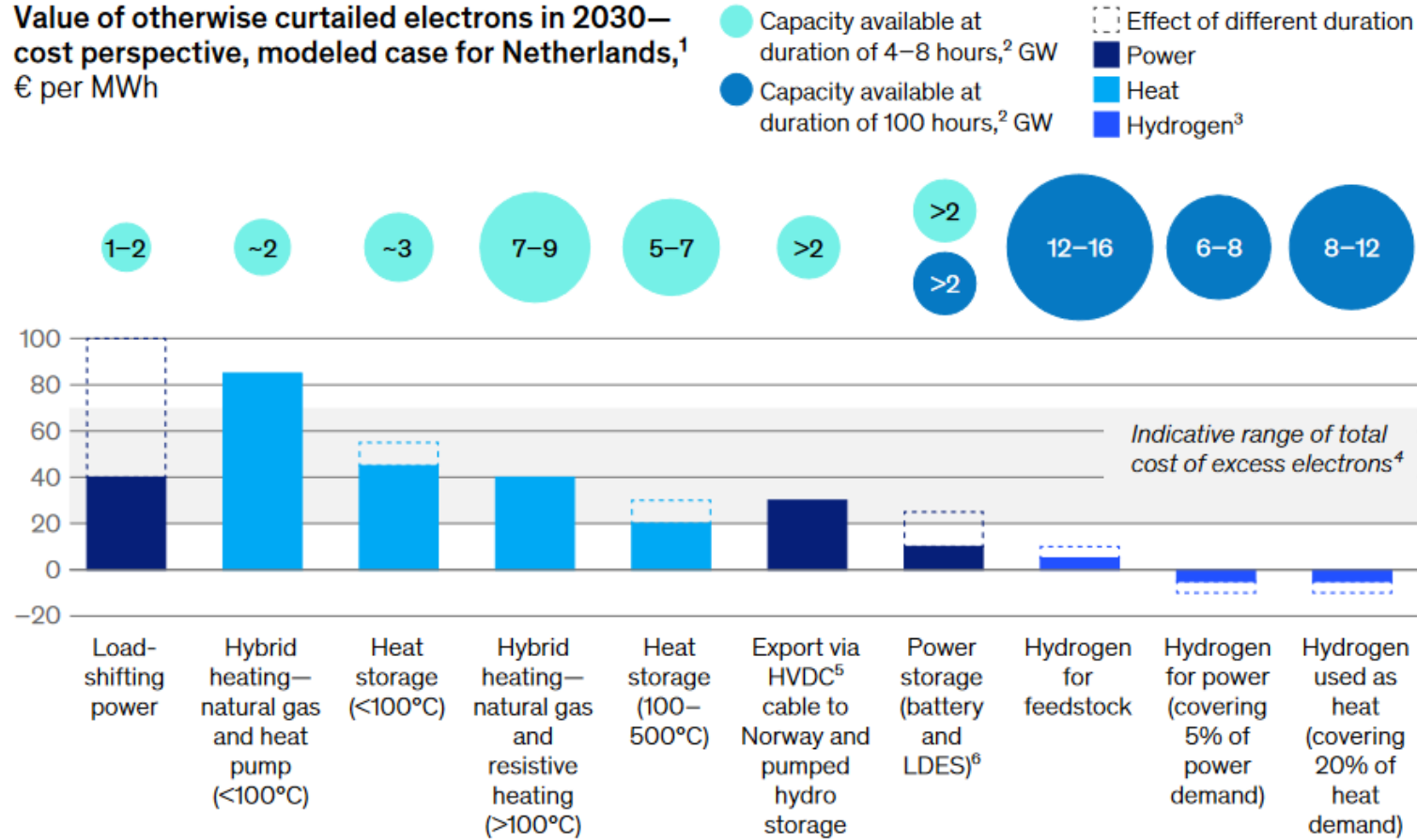
Negative Clearing Price

WHOLESALE MARKET





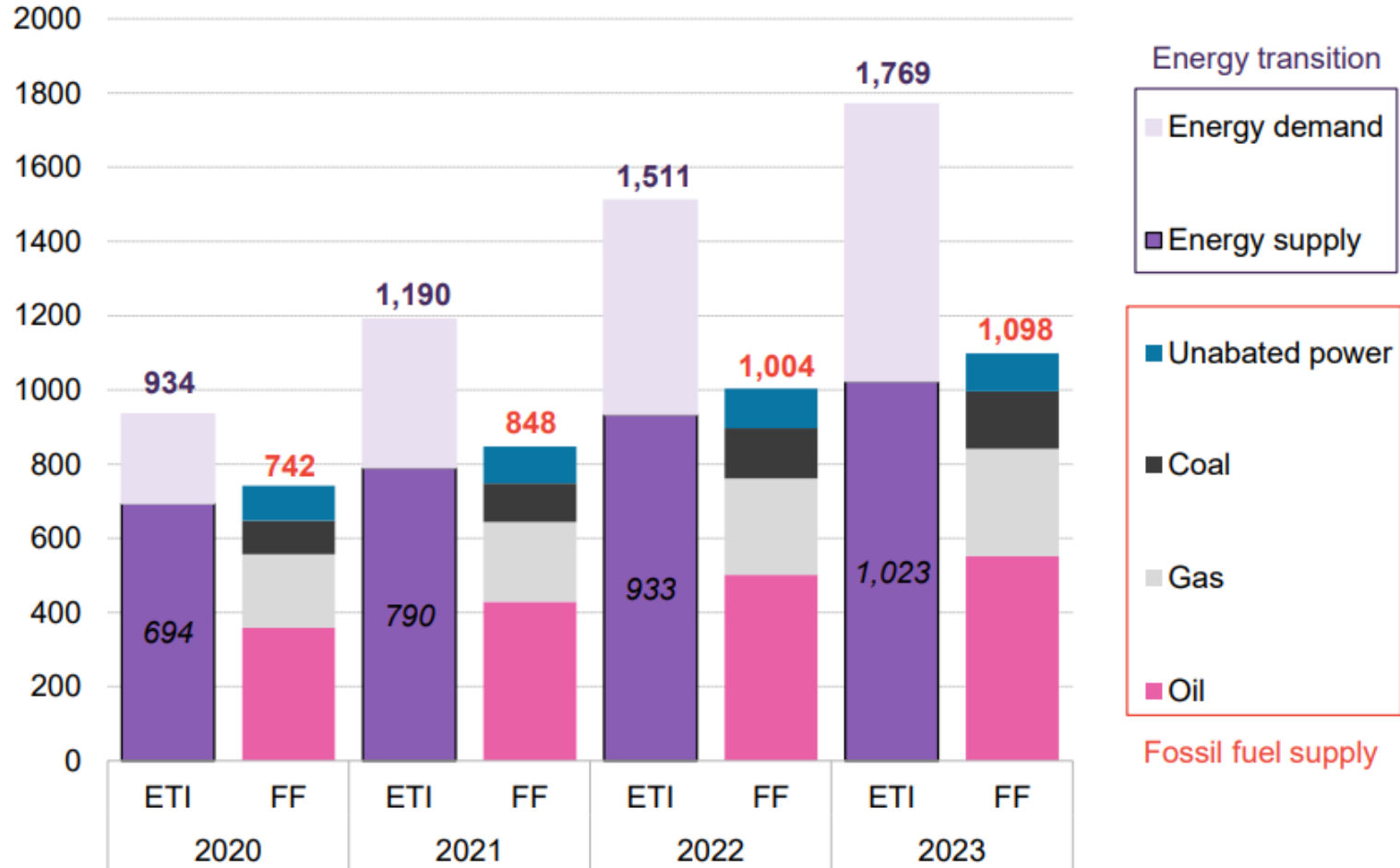
Value of otherwise curtailed electrons in 2030— cost perspective, modeled case for Netherlands,¹ € per MWh





Investment comparison: energy transition versus fossil fuel supply

\$ billions

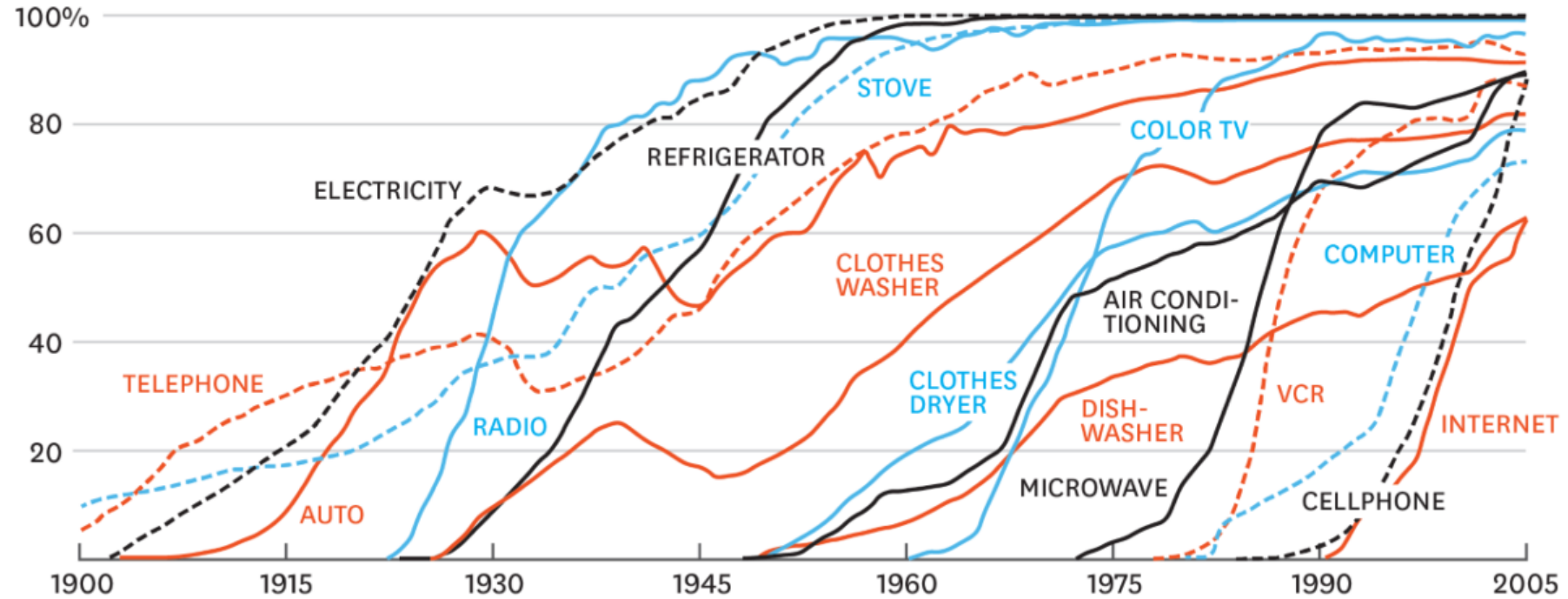


Source: BloombergNEF, IEA. Note: ETI stands for energy transition investment. FF stands for fossil fuels. Historical volumes for FF investment were aggregated from IEA World Energy Investment 2023 ([web](#)). Investment includes upstream, midstream, and downstream sectors and unabated fossil power generation. Dollar values have been adjusted to nominal terms. Investment in demand for fossil fuels - like gas boilers - is not included.



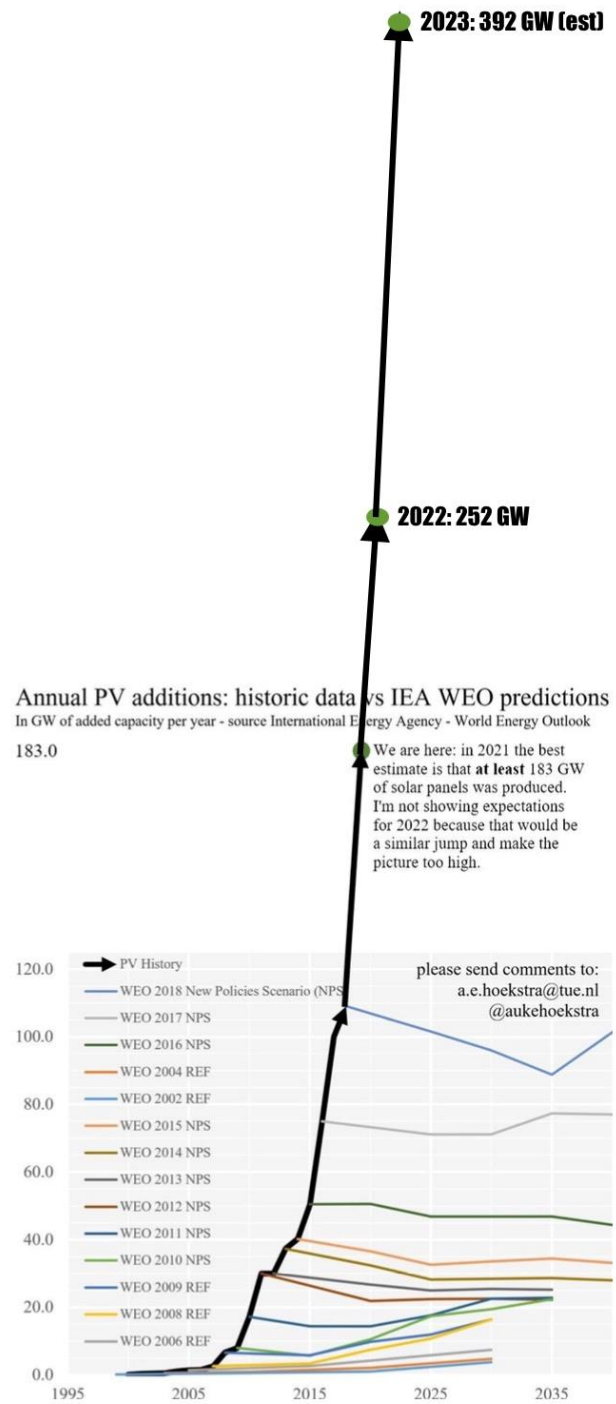
CONSUMPTION SPREADS FASTER TODAY

PERCENT OF U.S. HOUSEHOLDS



SOURCE NICHOLAS FELTON, THE NEW YORK TIMES

HBR.ORG



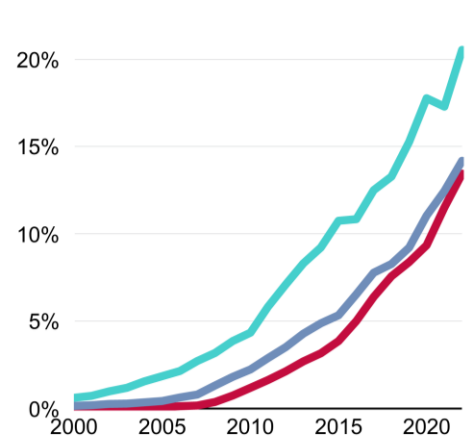


Three regions compete over three major clean tech markets

Renewable power

Europe is leading the *United States* and *China*

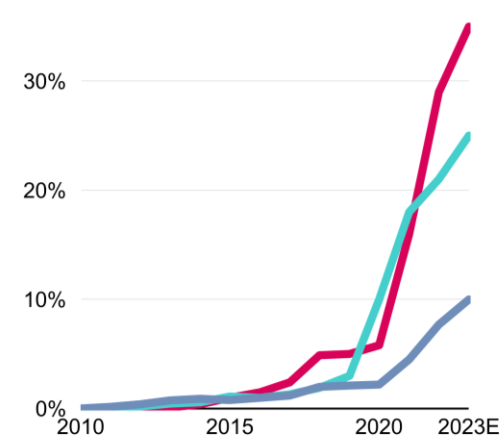
25% share of generation from solar and wind



Electric Vehicles

China is ahead of *Europe* and the *United States*

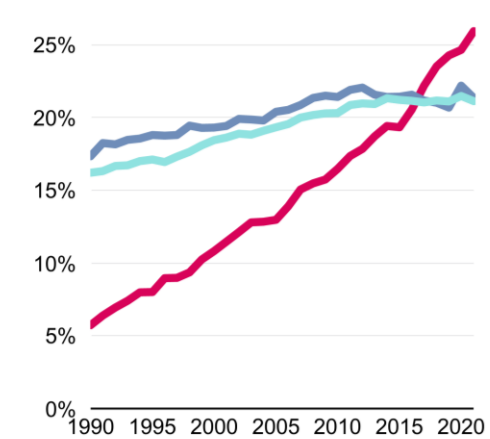
40% share of car sales EV



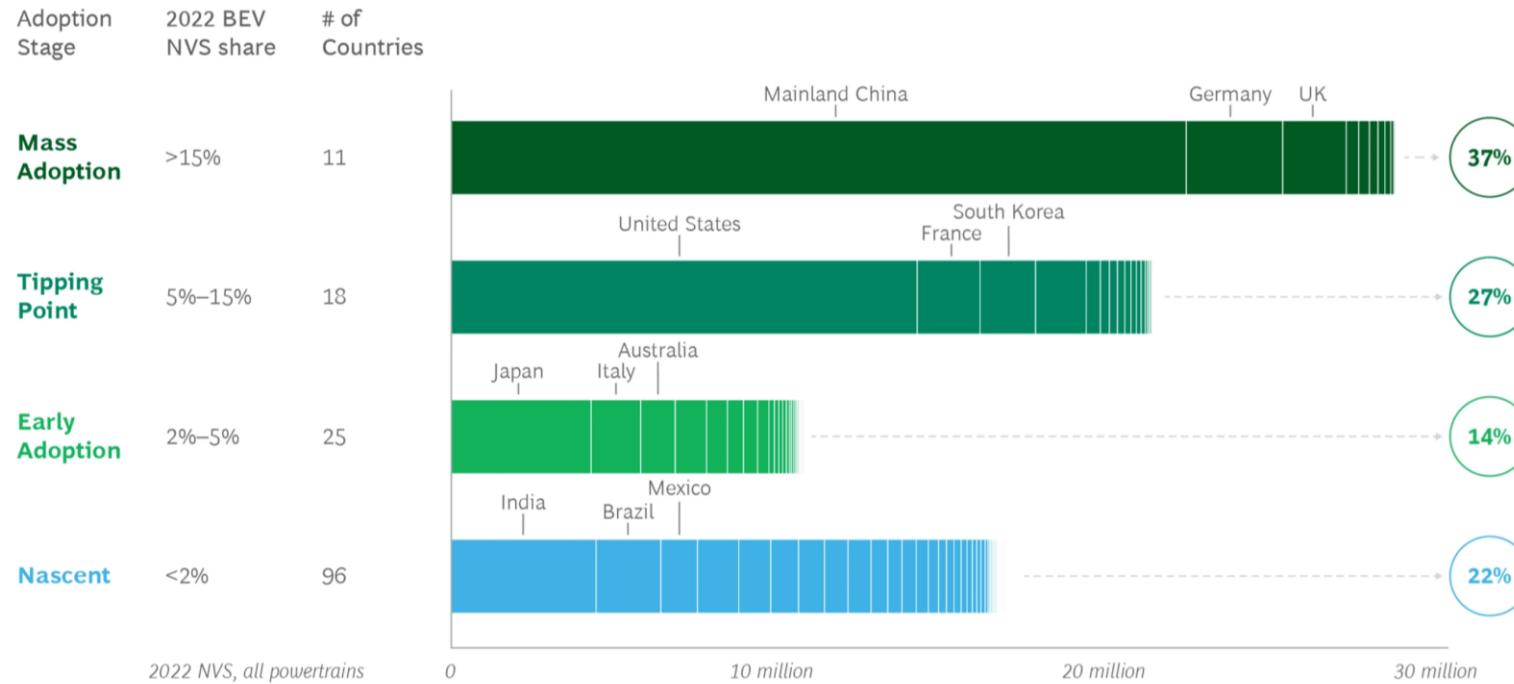
Electrification

China leapfrogged *Europe* and the *United States*

30% share of final energy from electricity



China dominates production across clean tech markets today, but there is ample growth opportunity for Europe and United States to catch up



Länder mit 65% des globalen PKW Absatzes sind in der Phase der Massenanwendung

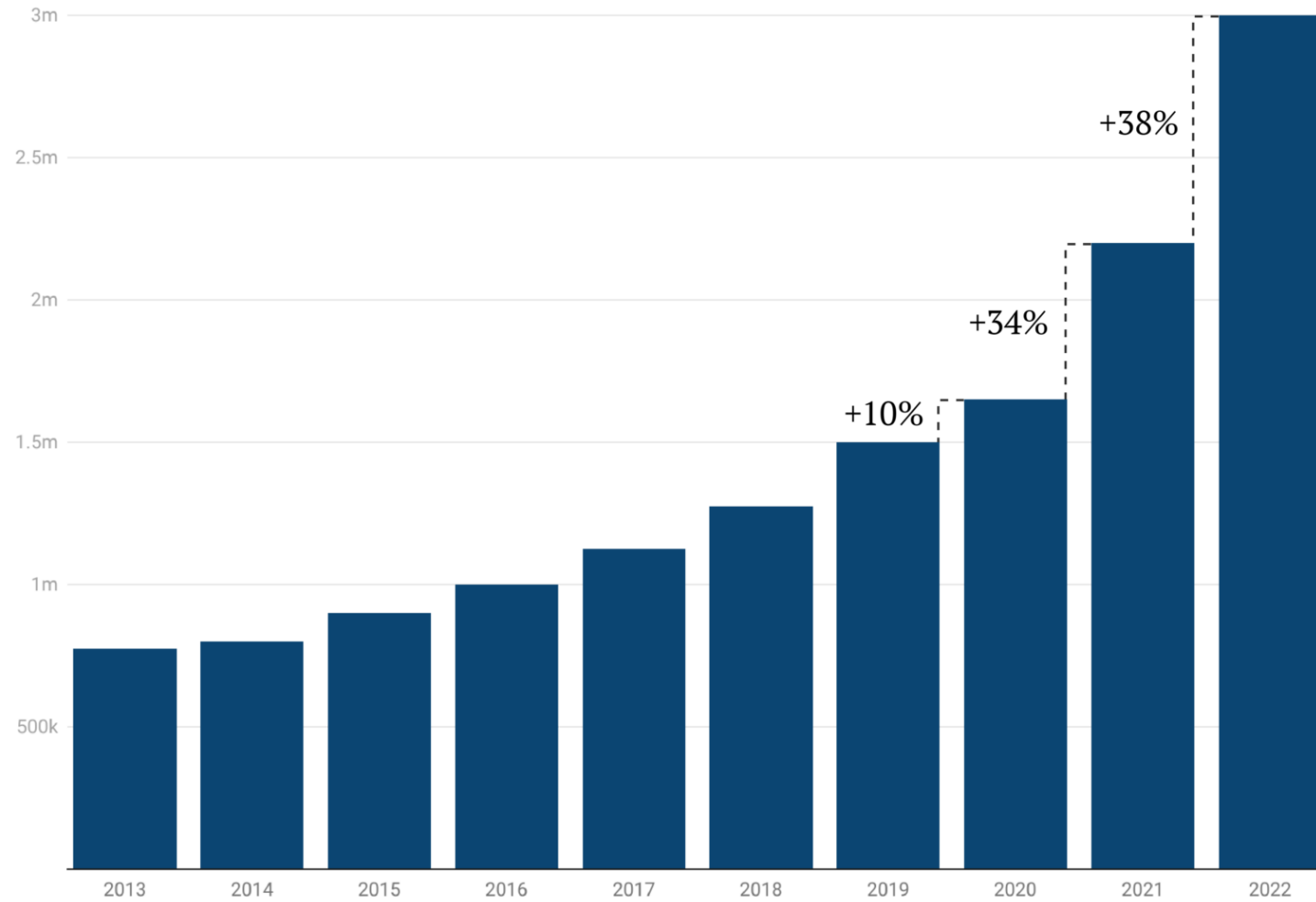
Source: S&P Global Mobility - Global Auto Demand Tracker (09/2023), BCG Analysis.

Note: BEV = battery electric vehicle, NVS = new vehicle sales (light vehicle only), Includes countries only with reported volume (150 countries).

©BCG, 2023



A record 3 million heat pumps were sold across Europe in 2022

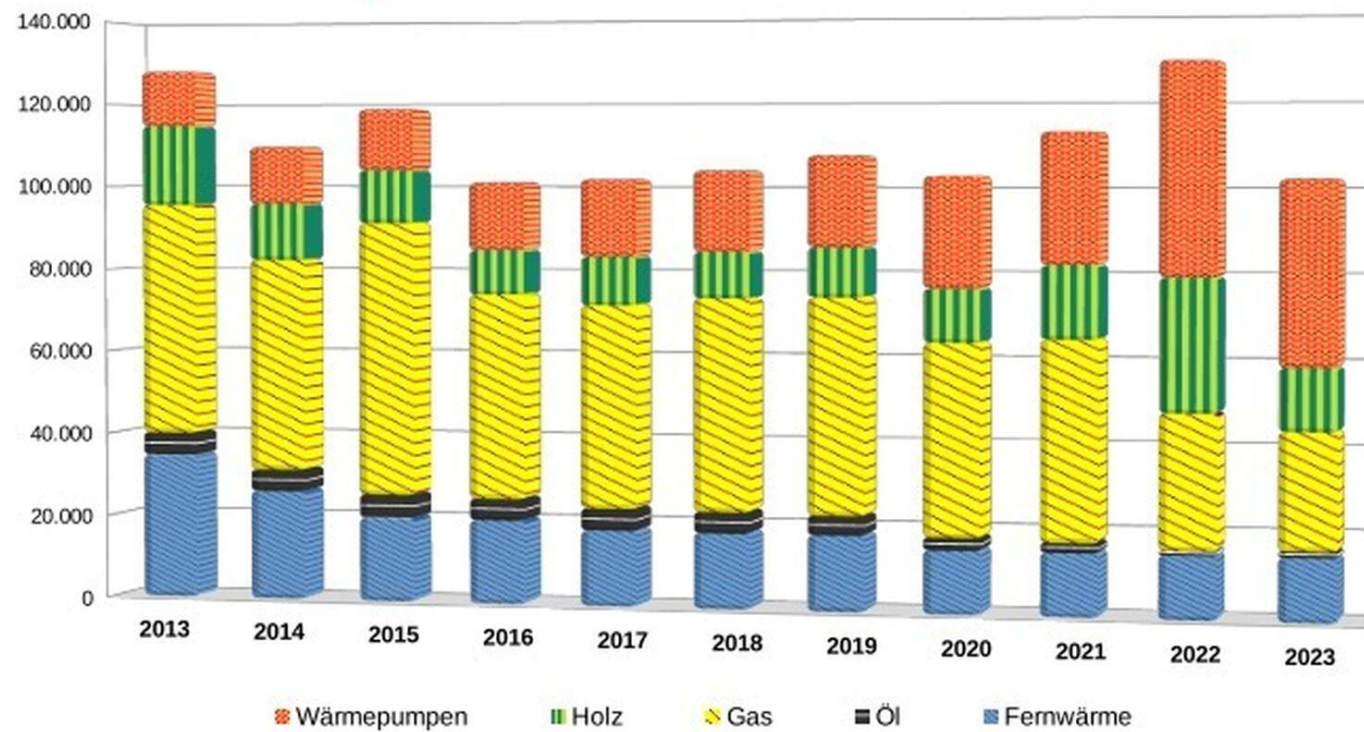


Created with Datawrapper







Source: EHPA. Chart: Carbon Brief.

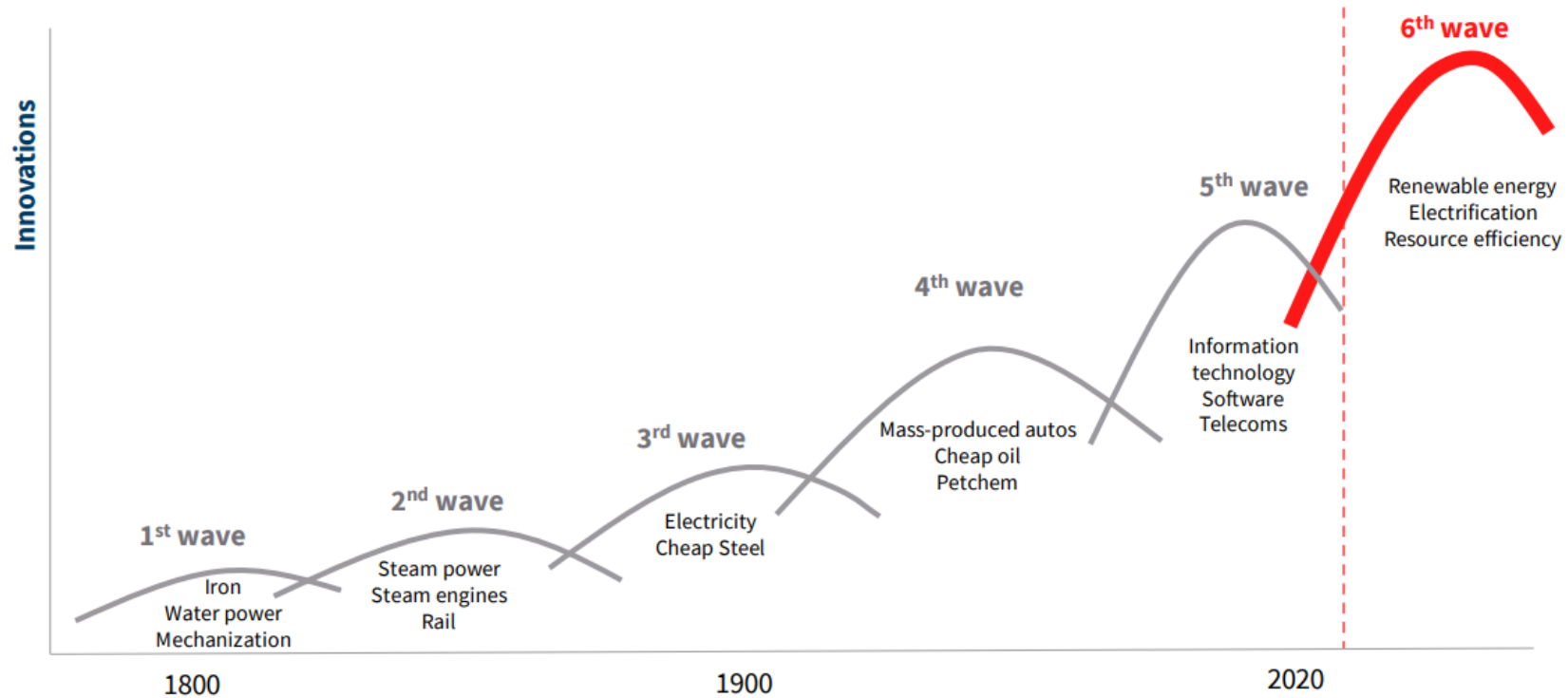


10 Jahres-Marktstatistik





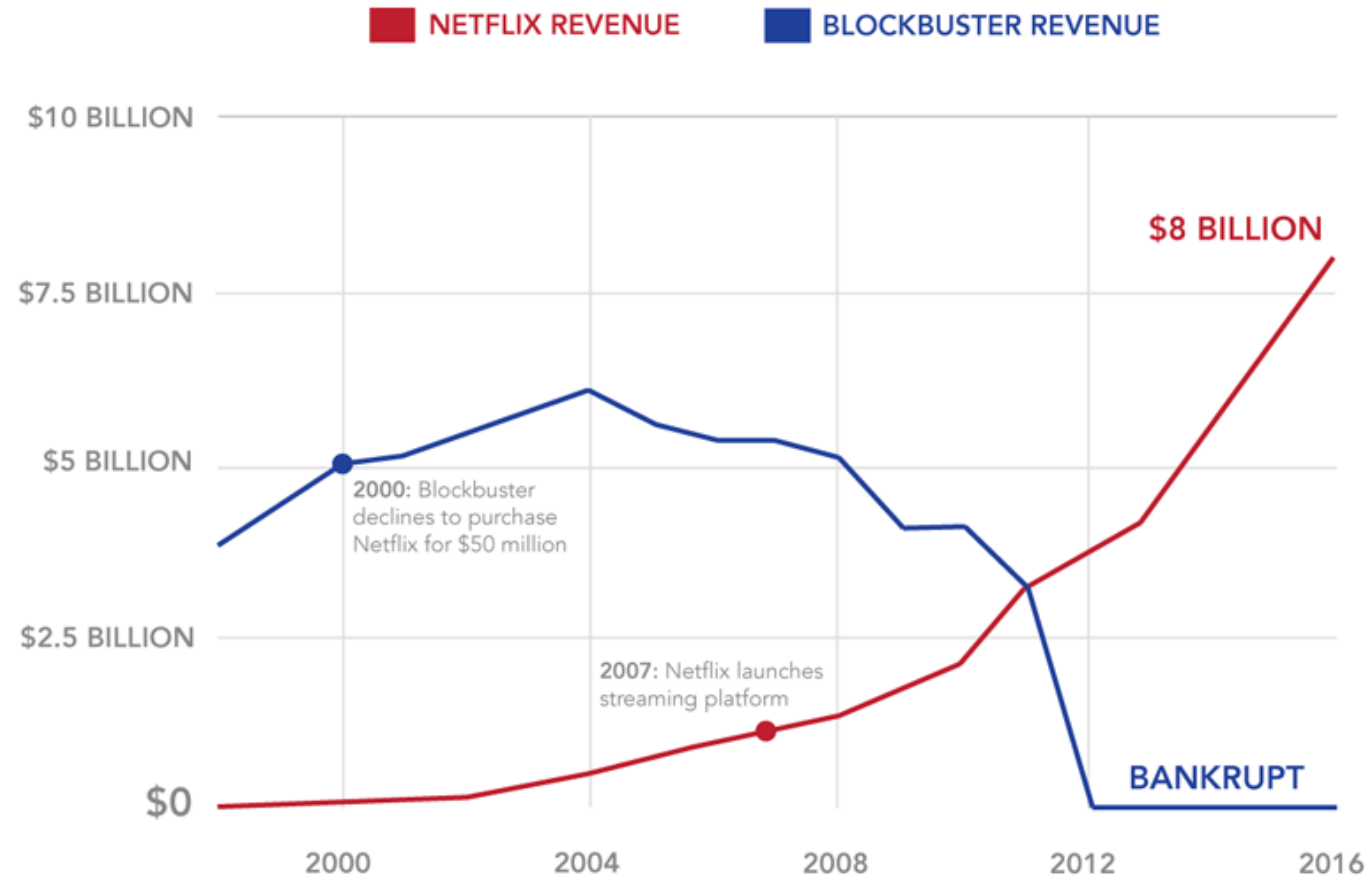
Name	Industrial Revolution	Age of Steam & Rail	Age of Steel & Electricity	Age of Oil & Mass Production	Information Age	The Renewable Age
Led by						



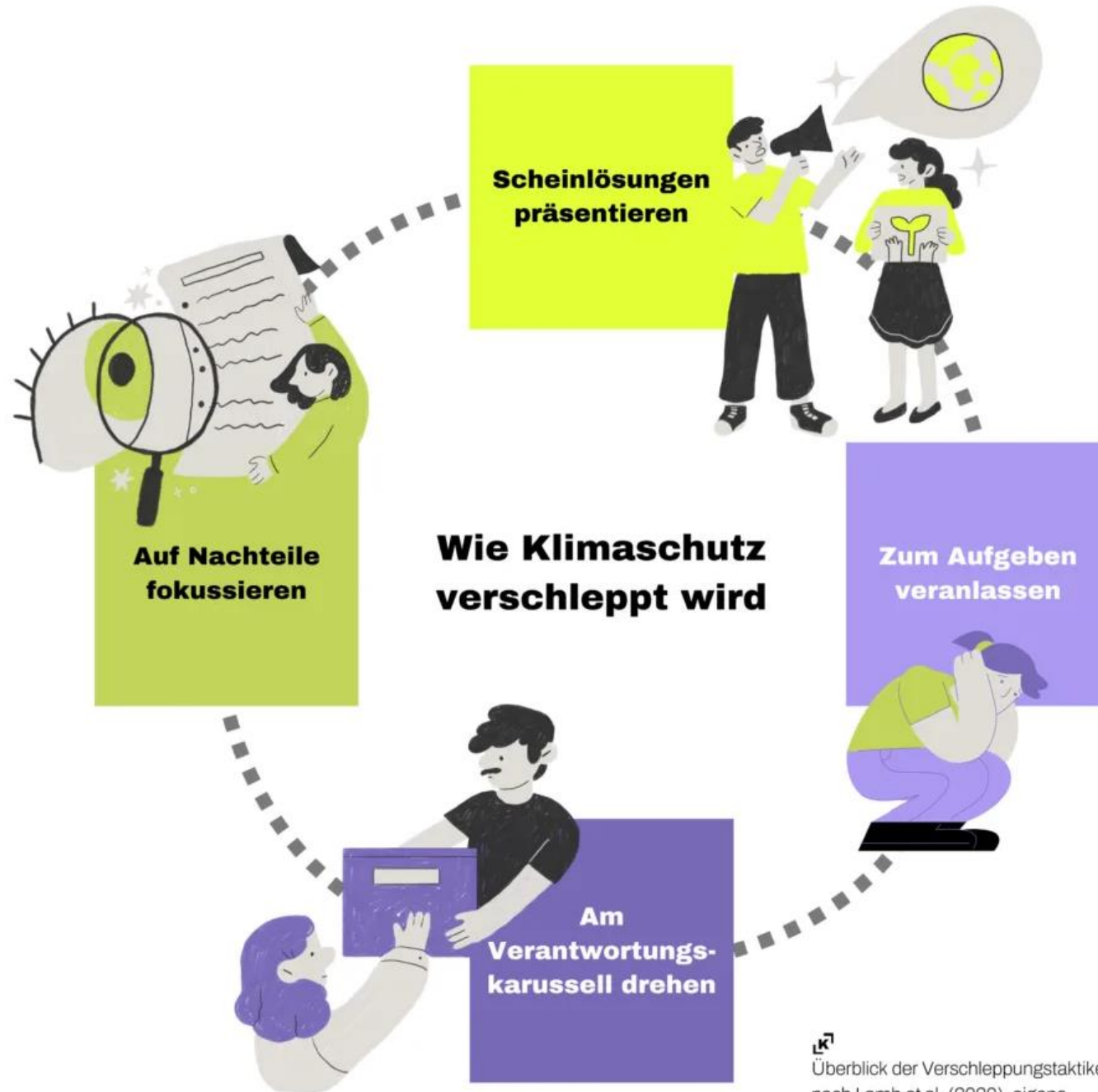
Source: Carlota Perez (first five), RMI (renewable age)



NETFLIX VS. BLOCKBUSTER (1998 - 2016)



Source: *Disrupted or Disrupter: Which One Will You Be?* (Cloud Technology Partners, 2017)



Überblick der Verschleppungstaktiken
nach Lamb et al. (2020), eigene
Darstellung



Wie Desinformation bei uns ankommt

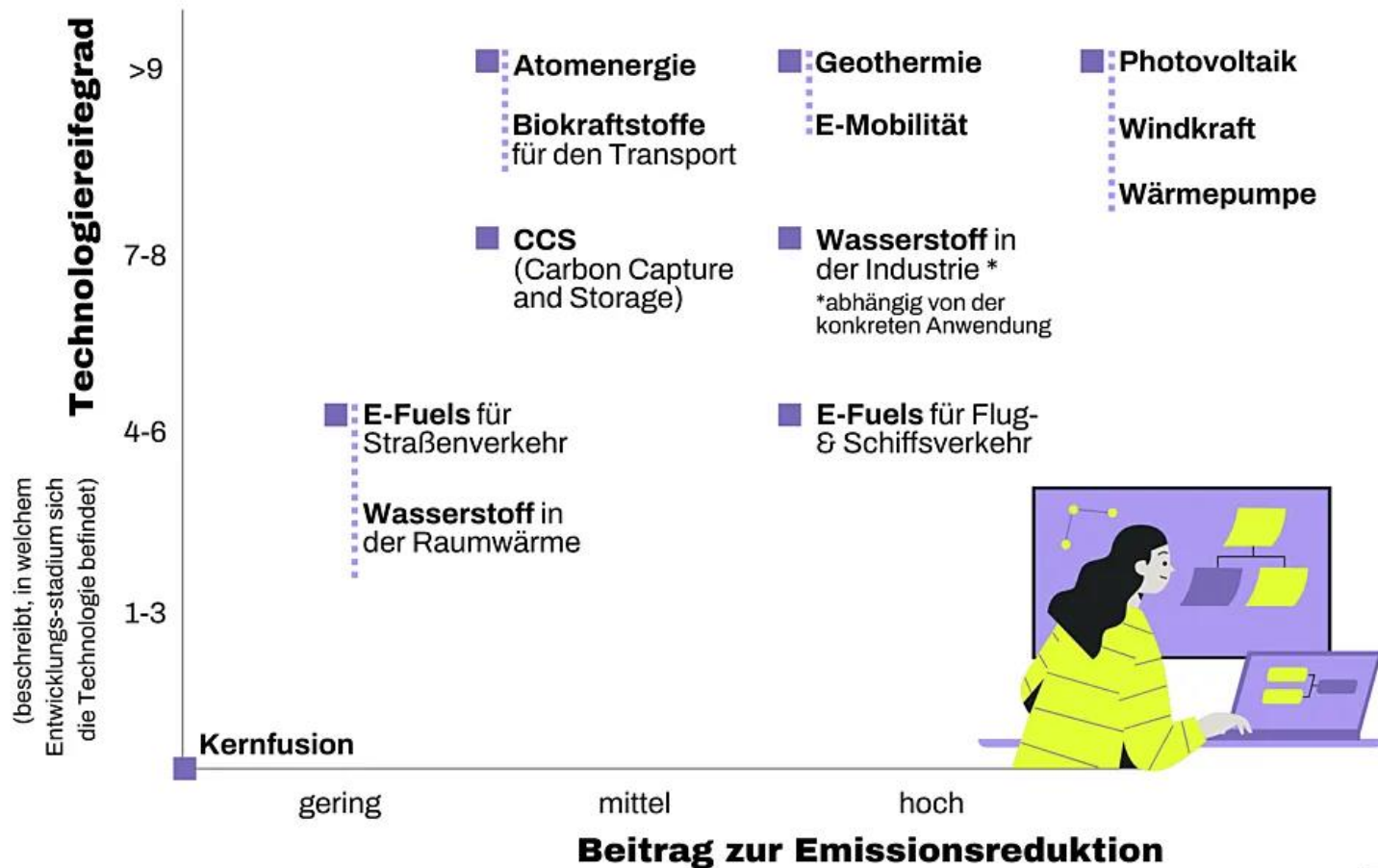
WER?

MACHT WAS?





Technologien für die Energiewende bereit zum Einsatz



Scheinlösungen präsentieren



Quelle: Basierend auf Steinger et al. (2024), IEA (2020), IEA (2023), IPCC (2023), IAEA (2023), Rosenow (2024), angepasst durch KONTEXT





Gebäudetypen im Vergleich



Nutzenergiebedarf Raumwärme und Warmwasser, in Terawattstunden (TWh)





Für politischen Weitblick.



Nicht-Handeln ist teuer für unseren Standort.

Die gesellschaftlichen und wirtschaftlichen Kosten steigen mit jedem Tag, an dem wir keine klaren Handlungen für Klimaschutz setzen.

Politik und Teile der Wirtschaft handeln nicht entschlossen genug.

Bestehende Rahmenbedingungen reichen nicht, um Österreich und Europa klimaneutral zu machen und eine lebenswerte Zukunft zu sichern.

Der Diskurs wird zunehmend unübersichtlich.

Desinformationen & Scheinlösungen erobern die Bühne. Die Diskussion wird oft von Interessen einzelner Akteur:innen dominiert.

KONTEXT
INSTITUT FÜR KLIMAFRAGEN



Vielen Dank!


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