

Chillventa Specialist Forums 2024

Chillventa Fachforen 2024

**CONNECTING
EXPERTS.**



ENGINEERING
TOMORROW



Navigating the future of heating & cooling: Discover trends and drivers impacting the HVAC&R industry

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Wishful thinking or reality?

Last week at Brussels Airport:

- Safeguard Europe's competitiveness
- Implement the EU Green Deal
- Keep high quality jobs for European workers in Europe

The future of prosperity must be made in Europe

Hmmm....



Let's take a step back

2019: **This is Europe's Man on the Moon Moment**



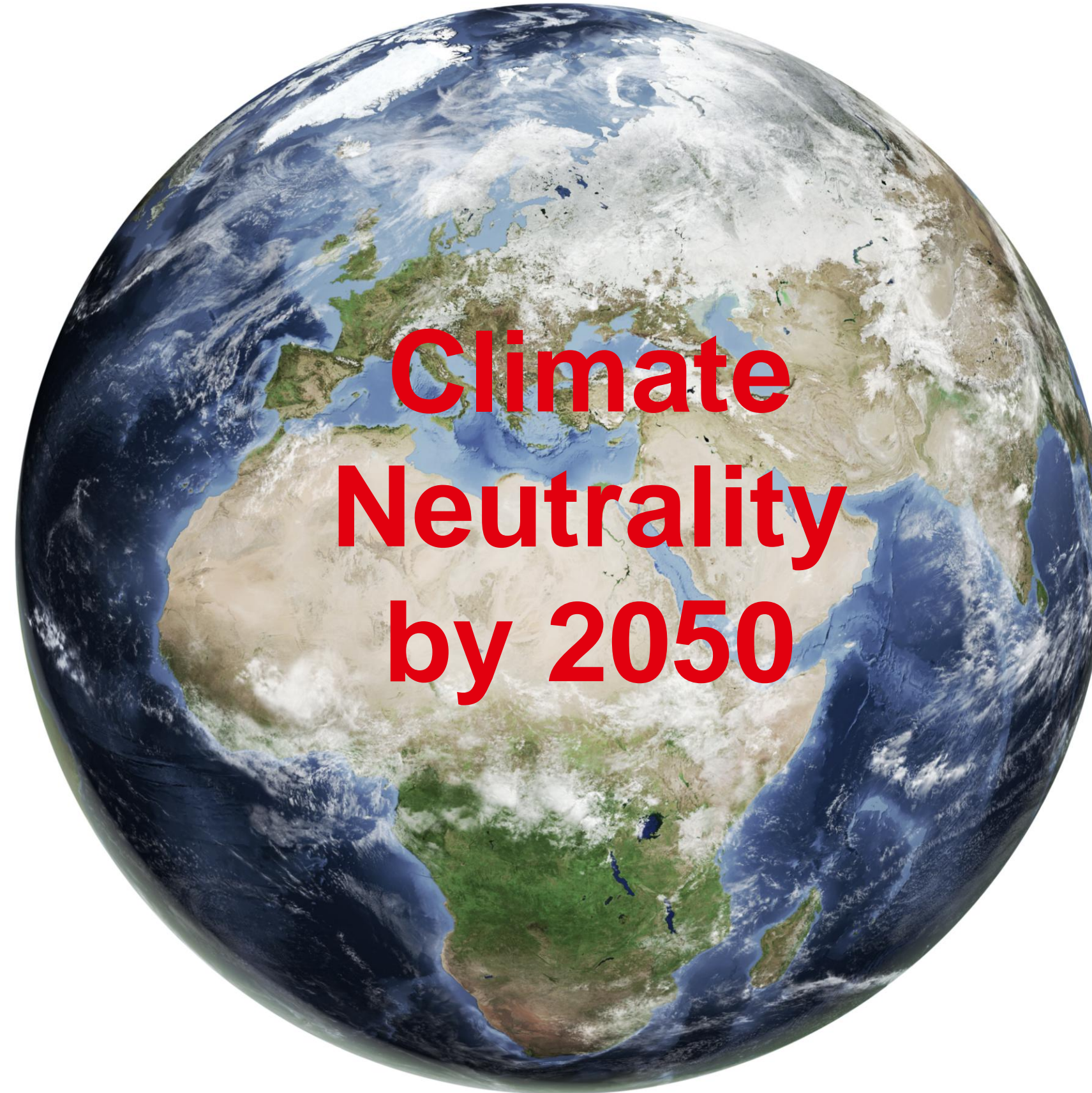
2019 – 2024: A tsunami of regulations to drive sustainability

Products & Applications

- REACH (such as PFAS)
- Ecodesign for Sustainable Products Regulation (ESPR)
- Critical Raw Materials Act...

Energy & Emissions

- Energy Performance of Buildings Directive (EPBD)
- Energy Efficiency Directive (EED)
- Renewable Energies Directive (RED)
- Emission Trading Scheme 2
- Carbon Border Adjustment Mechanism
- F-Gas Regulation ...

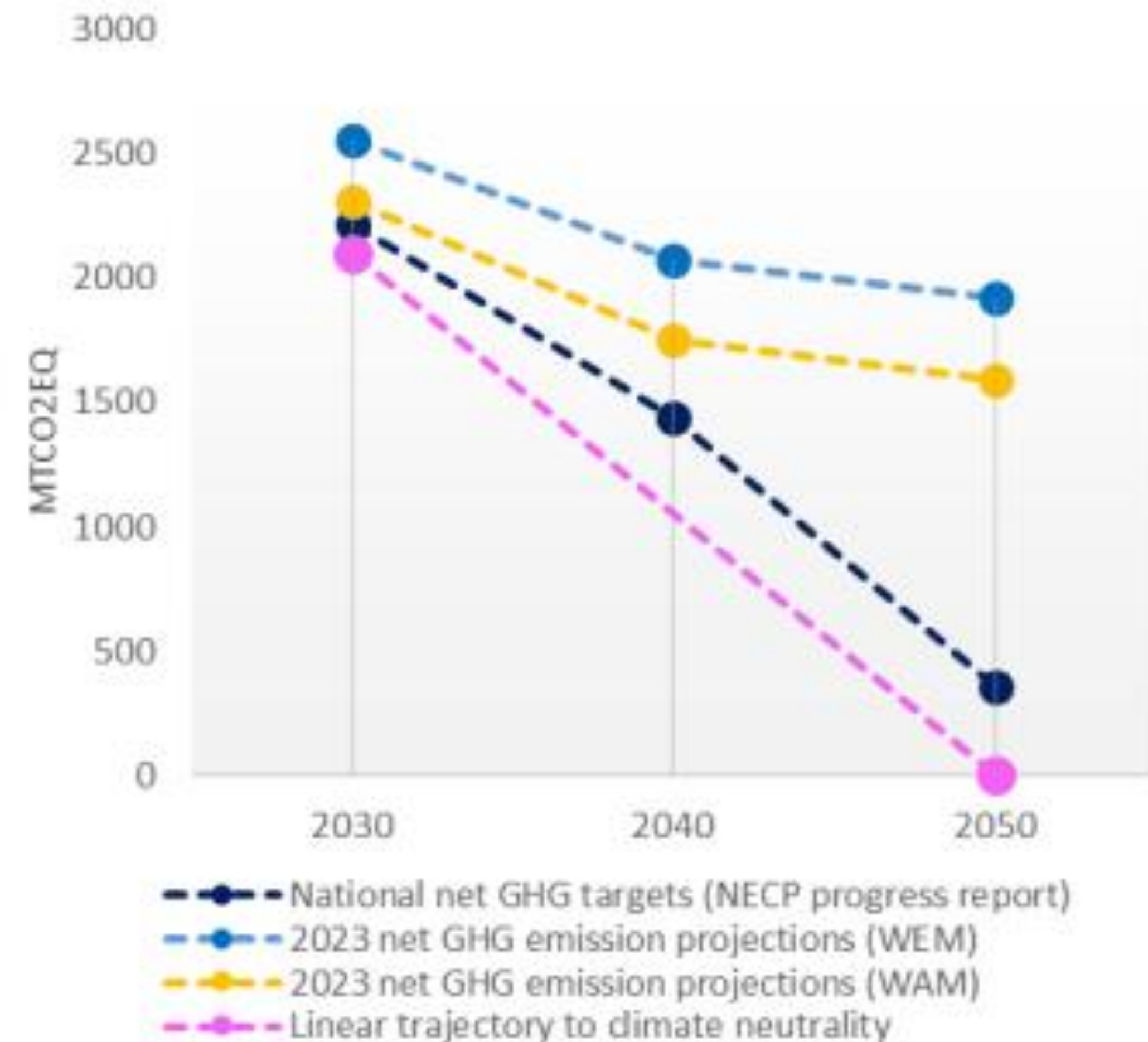
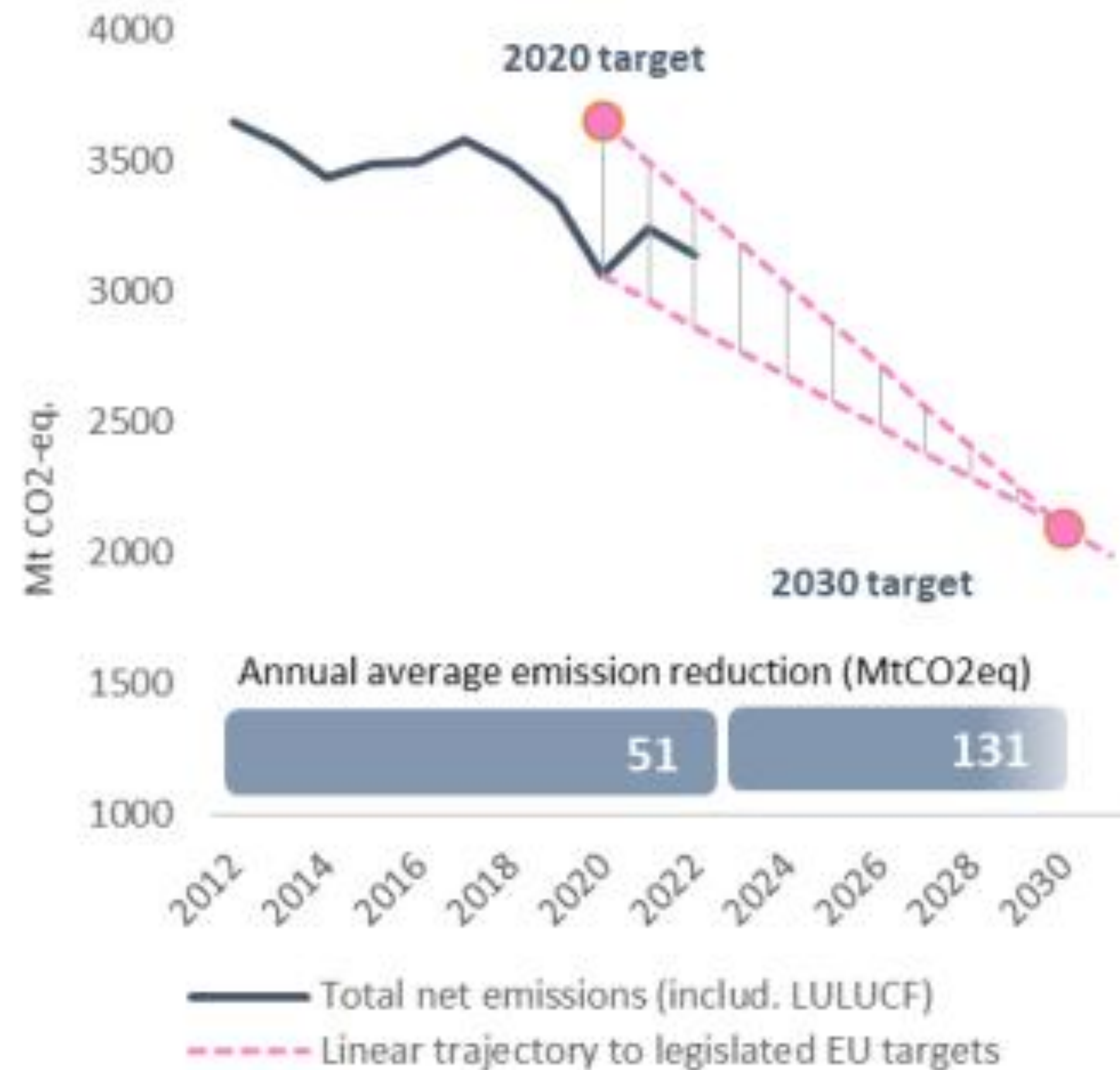


Disclosure & Finance

- EU Taxonomy
- Corporate Sustainability Reporting Directive (CSRD)
- Corporate Sustainability Due Diligence Directive (CSDDD)
- Sustainable Finance Disclosure Regulation (SFDR)
- ESG Green Claims Directive
- Green Bonds Regulation ...

Does it work? To certain extent, but ...

2030 targets are likely already out of reach



Source: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52023DC0653>

The political climate in Europe is changing: From a Green Deal to a Clean Industrial Deal

Climate

- 90% emission reduction target for 2040
- Clean tech manufacturing, industrial decarbonization
- Single market for CO2, carbon removals
- **Scale down and phase out fossil fuel subsidies**
- Energy taxation

Energy

- **Energy system integration, decarbonize heating & cooling, increase energy efficiency**
- Electrification action plan, end russian energy imports
- Action Plans for affordable energy prices and for affordable housing

Industry

- Clean industrial deal with industrial decarbonization accelerator act: development, production, diffusion of clean tech
- **Chemical industries package to simplify REACH**
- Horizontal single markets strategy
- Competitiveness fund

People

- Anti-poverty strategy, link to affordable housing
- European social fund for a fair transition
- European strategy for vocational education and training, STEM...
- **Large scale partnerships to upskill and reskill workers in key industrial ecosystems**

Finance will likely become an even stronger driver



Mandatory
Disclosure

Reputational
Risk

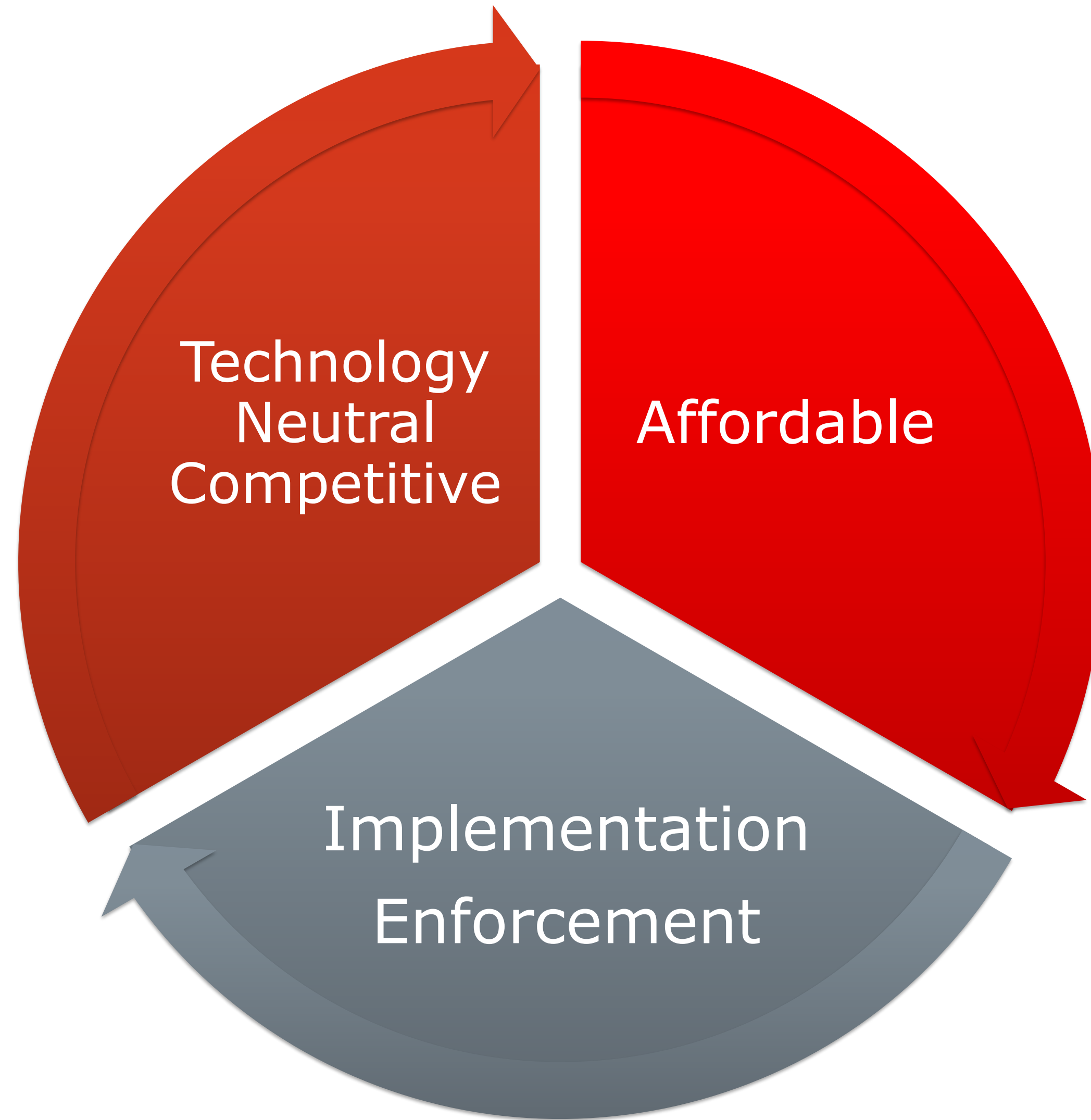
Environmental
risk mitigation
and resilience

Competitive-
ness,
Innovation and
Growth

Regulatory
Pressure and
Consumer
Demand

So what?

- *Less dogmatic, more flexible, less bureaucratic*
- *Carbon as main denominator rather than specific technologies or energies*
- *Renewables, Nuclear, Hydrogen*
- *Electrification (heat pumps, EVs), Carbon Capture Usage and Storage*



- *Mainstream climate neutrality target with better explanation and dedicated finance*
- *Stronger focus on affordability of technologies*
- *Stronger support for vulnerable households*

- *Building on the acquis rather than introducing new initiatives*
- *Shift from Brussels to Member State Level*

Some foreseeable major trends:

Impact on refrigeration, a/c and refrigeration

Waste heat recovery

System integration

(Reversible) Heat Pumps

Residential, commercial, industrial, district energy

BACS

Optimization of energy use with artificial intelligence and digital solutions

Refrigerants

Low GWP, low charge sizes, low leakage, circularity

Flexibility & storage

Smartness, thermal and electrical storage

Efficiency

Resource & Energy efficiency, material & design, motor efficiency

Will it work? Let's see...

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To learn more and find out about latest technologies, come visit our booth: Hall 7 - 251





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