Climate Tech as the Backbone of Resilient Growth

Resilience or Climate Tech? *Today, we must choose both.*

Rethinking Resilience: Why it matters now more than ever.

Europe stands at a turning point. Global trade tensions, tariff-induced supply chain fragility, and deepening geopolitical fragmentation are colliding with escalating climate risks – bringing the importance of resilience into sharper focus within Europe's policymaking. Yet despite its growing presence in public discourse, the concept of resilience remains frequently distorted, propelling the question: **what does resilience actually mean?**

For some, it implies military readiness. For others, it's about the security of supply chains, the availability of critical knowledge and resources, or the stability of infrastructure in a destabilized world. However, no matter from what standpoint you look at it, resilience encompasses all of this and should not be misinterpreted as a deviation from climate ambition. In times of overlapping crises, **resilience and climate action are increasingly intertwined**. Thus, climate tech should now be seen for what it truly is: **the backbone of modern resilience**, with a strong focus on security, resilience, and long-term flexibility *(IEA, 2024)*.

Climate Tech is Not Dead.

Despite recent market contractions, **climate tech** is not dead but instead **remains foundational**. Renewable technologies, like solar and wind power, are the cheapest and fastest sources of new power generation and have strategic advantages that go beyond cost. By decentralizing energy systems and prioritizing more local energy production, countries can reduce exposure to global supply shocks and create greater systemic resilience. In 2024, **over 90%** of new power generation capacity came from renewables. Global clean energy momentum is strong enough to bring a peak in fossil fuel demand by 2030 - without sacrificing growth. Even as energy demand rises, particularly in emerging and developing economies, these transitions allow the global economy to grow **without increasing fossil fuel consumption** (IEA, 2024). Emerging technologies are redefining what resilient energy systems look like. **Long-duration energy storage** is balancing the variability of renewables; artificial intelligence is optimizing **grid performance**; and innovations like advanced **geothermal drilling** and **power-to-x technologies** are enabling firm, zero-emissions baseload power.

Yet, **the funding landscape has shifted**. In 2024, climate tech companies raised $50.7 billion - a 40% drop from the year before (BNEF, 2025). However, part of the decline reflects a broader reallocation of capital, particularly toward artificial intelligence startups. Thus, it is not a signal for misdirection, but **re-direction**. It highlights the need for clearer policy signals, stronger public-private financing tools, and de-risking mechanisms like **FOAK guarantees** and **PPA-backed contracts** to keep capital flowing into capital-intensive

climate sectors. Climate technologies are not just a strategic opportunity - they are an urgent necessity for building resilience. Resilience demands clean technologies to reduce our reliance on fossil fuels, which otherwise leave economies vulnerable to economic extortion, price shocks, and political pressure.

The Opportunity Ahead.

Investing in secure infrastructure and renewable energies should not be seen as a cost – it is the foundation for long-term economic resilience and industrial competitiveness. According to a study, presented by McKinsey, a net-zero transition will require $275 trillion in physical assets by 2050 with strong economic returns. Growth is expected in underserved and strategic sectors such as **agri-tech, industrial decarbonization, materials innovation,** and **resilience infrastructure** *(McKinsey, 2022).* Investments in climate tech are not just about emissions reduction - they reduce vulnerability to shocks, stabilize supply chains, and secure critical infrastructure. In 2024, technologies aimed at **adaptation and resilience** featured in 28% of climate tech deals, underlining their rising strategic and commercial value (PwC, 2024). The return is clear: **less exposure to disruption, more business continuity.**

Reaching net zero is not just about emissions cuts, but about a **full transformation of the global economy**, requiring shifts in demand, capital allocation, production systems, and labor markets. It is important to understand though that this transformation won't unfold on its own. It demands a **coherent investment environment.** The momentum is visible: global investment in the energy transition surpassed $2 trillion in 2024, more than doubling since 2020 *(BNEF, 2025).* Investors are increasingly recognizing that climate technologies aren't just ethical, but strategic. Their value lies not only in decarbonization, but also in their ability to strengthen infrastructure, reduce exposure to shocks, and create future-proof industries – making them the backbone of a resilient growth strategy.

While record-low technology costs and surging demand are powerful signals, financial markets still need confidence and clarity. While geopolitical uncertainties remain, our view on the energy transition is grounded in first principles: **technology innovation and market-driven solutions**. This is the next chapter in the energy transition – one where resilience and climate action are no longer separate goals. They are mutually reinforcing strategies for competitiveness, security, and growth. The technologies that stabilize our systems — from storage and clean grids to modular generation and digital optimization — are the same ones that enable us to both mitigate and adapt to climate impacts. The path forward lies in investing in solutions that do it all: clean, secure, cost-effective, and built to last. Now is the time to shift the narrative. ***It's no longer a question of whether we should choose climate action or resilience. Today, we must choose both.***

> *"Global markets depend on European Technology more than ever – this is the time to create value in New Industry technologies including Climate Tech!"*

Dr. Tobias Lechtenfeld
Executive Director, Tech for Net Zero

TECH FOR NET ZERO

Tech for Net Zero is a network of over 50 leading climate tech startups, scaleups and investors in Germany and the DACH region. The alliance focuses on expanding climate tech finance, stimulating market demand, and adopting an enabling regulatory environment to accelerate the scaleup of breakthrough climate technologies.

Given the abundance of technical solutions, talent, and financial resources, we believe achieving the climate targets is a matter of speed, focus, and execution. We need all hands on deck to move faster and turn Europe into a climate tech powerhouse. As a climate tech competence center, Tech for Net Zero is a reliable partner for policymakers, investors, and founders.

References

BloombergNEF. (2025). *Energy Transition Investment Trends 2025*. Retrieved from https://about.bnef.com/energy-transition-investment/

International Energy Agency (IEA). (2024). *World Energy Outlook 2024*. Retrieved from https://www.iea.org/reports/world-energy-outlook-2024

International Renewable Energy Agency (IRENA). (2024). *Renewable Power Generation Costs in 2024*. Retrieved from https://www.irena.org/Publications/2024/Jul/Renewable-energy-statistics-2024

McKinsey & Company. (2023). *The Net-Zero Transition: What It Would Cost, What It Could Bring*. Retrieved from https://www.mckinsey.com/capabilities/sustainability/our-insights/the-net-zero-transition-what-it-would-cost-what-it-could-bring

PwC (2024, December 3). State of Climate Tech 2024. PwC. https://www.pwc.com/gx/en/issues/esg/climate-tech-investment-adaptation-ai.html

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