CTS 2024

CLIMATE TECH TODAY

Progress and Roadblocks

The 2024 Benelux Update

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Table of Contents

Introduction

As the founder of Climate Tech Summit (CTS), I am delighted to share Climate Tech Today: Progress and Roadblocks, the 2024 Update.

This report is the product of dedicated work by the AMSA Sustainable Finance group under the insightful leadership of Sara Ługowska.

We wanted to provide valuable, data-driven insights for our CTS community, which includes founders, investors, and change-makers across climate tech. To ensure these insights reflect real-world challenges, we also surveyed members of our community, and their perspectives have been thoughtfully integrated into the findings. Thanks Sara, Mark, Nikitha, Jekaterina, Max and Dorina for your hard work and dedication.

This report not only highlights the progress made but also the roadblocks we need to address together. We aim to continue this work in the years to come, creating a benchmark for comparison, allowing us to track trends and guide our shared mission forward.

A special thanks to Gideon van Kleij for organising the survey part of this report and engaging so many people to participate in CTS2024. I'm truly grateful to the whole team for their hard work and commitment. Together, we are making important progress toward a more sustainable future.

I look forward to discussing these insights with you at CTS2024 and working hand-in-hand to tackle the challenges ahead.

Positive regards,
Leopold van Oosten

Key Findings

Funding Challenges

Funding remains the **biggest concern** for founders in the Benelux in 2024, with nearly half of the innovators impacted. Despite growth in the **combined enterprise value of climate tech** in both Benelux and globally in 2024, the sector is facing a **lack of new** unicorns.

Moreover, global total funding saw a **decrease in 2023** and early 2024, driven largely by a reduction in equity funding: peaking global interest rates are the main cause.

Investor Preferences and Early-Stage Frustrations

A **trend among equity investors** shows a preference for more developed ventures, leaving many early-stage founders feeling frustrated. Venture capitalists (VCs) are increasingly **selective in the climate tech segments** they invest in, with the **energy sector** being the most favored. Other segments, such as **deep tech**, are struggling more to secure capital.

Additionally, founders feel that they do not receive enough support from VCs, who often treat them as purely tech ventures, expecting identical behavior across the board.

Diversification in Funding

Other forms of funding, such as **debt**, are gaining popularity, providing a sense of optimism through the **diversification of available financing**.

However, many founders express concerns over **EU grants and subsidies**, noting that while available, they do not adequately support scaling operations due to high levels of bureaucracy and long processing times. Overall, founders remain optimistic about grants, with **the Netherlands** receiving the most positive sentiment within Benelux.

Incentive Environment and Investor Confidence

The **incentive environment in Benelux** is seen as a significant driver of investor confidence. Local policies, combined with the **long-term goal of carbon neutrality**, support the long-term investment horizon required by climate tech. Investors are particularly optimistic about the **energy and mobility sectors**, followed by **circular economy initiatives**.

Almost **90% of founders** feel that their products are well-positioned for current demand, likely driven by **EU and local objectives.**

Regulatory Sentiments

There is **mixed sentiment** about regulations affecting climate tech. **Short-term delays** caused by bureaucratic mechanisms offset some of the positive expected benefits from **EU regulation**.

While EU regulations are generally viewed more favorably than local ones, many founders and investors agree that more **cohesive and streamlined policies** are needed across the EU. It's noteworthy that **only 10% of founders** view regulation as their biggest challenge.

Political and Geopolitical Uncertainty

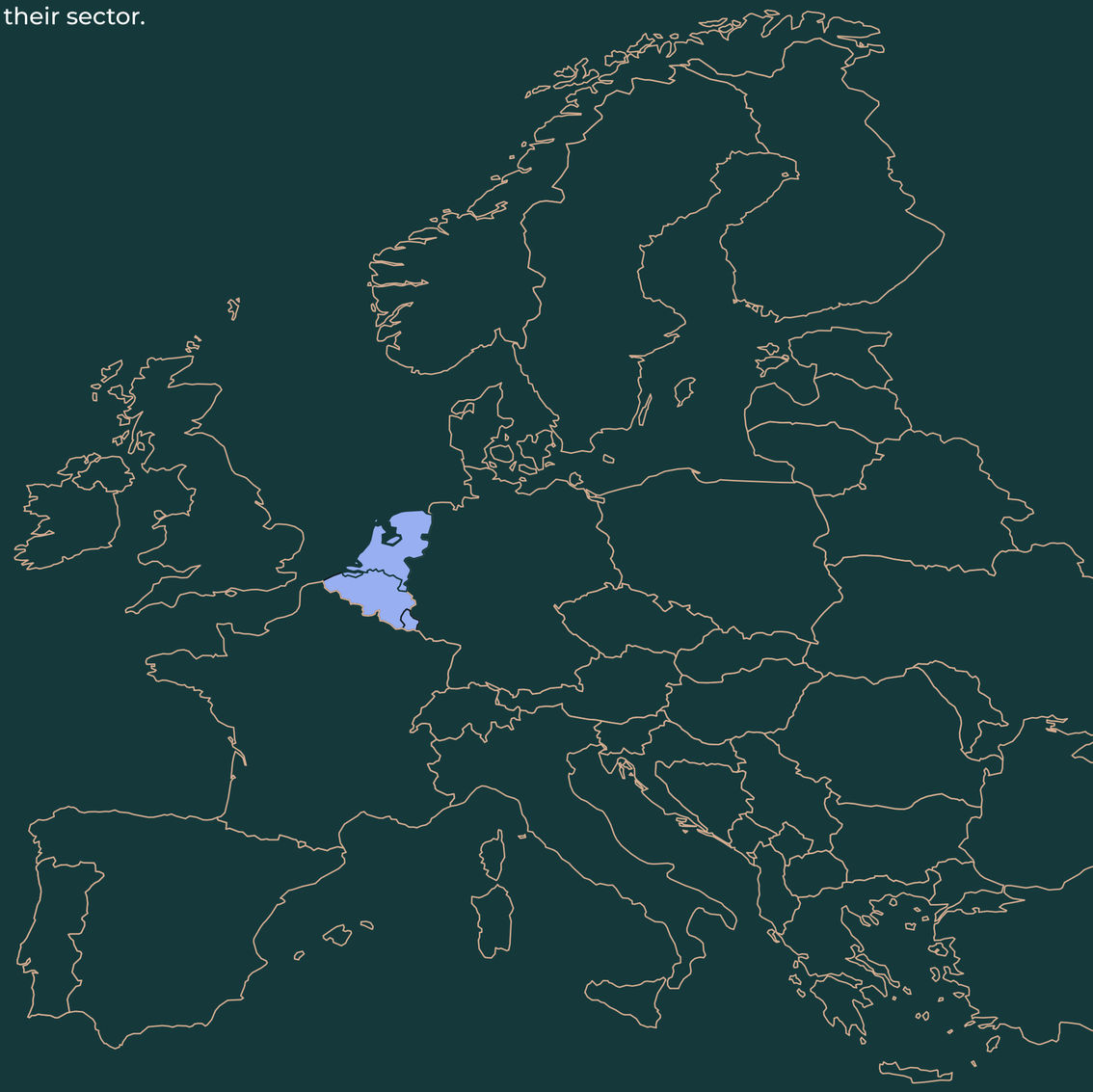
Economic and geopolitical dangers, as well as shifting political policies, weigh heavily on the future expectations for climate tech. The implementation of the Green Deal could become more difficult due to **changing political attitudes** and uncertainty around the **long-term future of EU climate funding programs.**

The **recent rise of right-wing parties** in Benelux has brought forth agendas that aim to scrap planet-warming incentives, leading to questions about the long-term stability of policies. This instability may explain why both investors and founders feel more optimistic about **long-term prospects (5+ years) than short-term ones (1-2 years).**

Alignment with Emission Reduction Needs

There is a **misalignment between investment in climate tech sectors** and the emission reduction needs of those sectors. While some improvements were made in 2023, significant changes in funding patterns are required to correct this imbalance.

Investors express varied confidence in different sectors' abilities to **reduce greenhouse gas (GHG) emissions**, while **96% of founders** believe their ventures have a **moderate to significant impac**t on emission reductions, regardless of their sector.



The Climate Tech Funding Gap

As the world races toward a net-zero future, climate tech is facing some major issues that threaten to stall innovation at the very moment it's needed most. There is a huge gap between what is needed and what is available in the climate tech ecosystem. While funding remains a major obstacle, it is not the only challenge. From regulatory hurdles and political uncertainties to the slow deployment of public sector resources, the road to scaling climate solutions is anything but straightforward.

The usually capital-intensive, risky, and long-term innovations seem to scare off a lot of investors, especially in the current high-interest environment, which often makes capital-intensive projects less attractive.[1] These are some of the reasons behind the immense funding gap in climate tech, which is expected to grow to $6 trillion by 2030, as seen in **Figure 1**.[2] At this time, it is important to keep in mind that the net-zero transition is not at all linear but, simultaneously, it offers a lot of opportunities.

In a world with increasingly inherent climate risk, the technologies that address these risks are likely to thrive out of necessity.[3] Therefore, investors who can look beyond the current drawbacks of climate tech such as its long path to profitability, might be able to access unprecedented opportunities. These could be accompanied by high financial returns as innovations become critical in mitigating climate risks and driving the global transition to sustainability. To possibly ease and shorten the process of realizing benefits, investors need to understand the shortfalls of the prevailing system and discover the most effective ways of supporting innovators on their journeys.

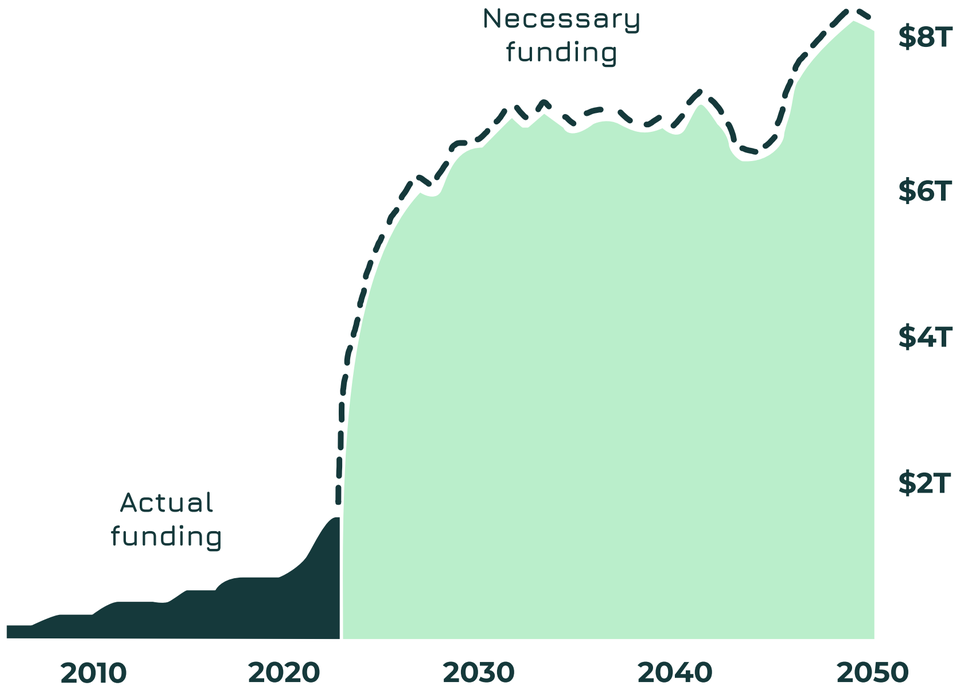


Figure 1 - Climate funding gap: real vs. needed investment in climate tech

With the Netherlands impressively ranking among the top 10 leading countries for climate tech investment in 2023[4], investigating and understanding challenges faced by start-up founders and investors in the Benelux area can bring a lot of guidance into possible accommodations of the innovation process.

Moreover, the focus on the Benelux area and the specific local or European Union effects could shed some light on the extent of influence of regulation and political climate.

This report aims to bridge the gap between the external perception of the climate tech landscape and the actual insights from founders and investors in the Benelux region. The former will be investigated with the available data sources and existing research, while the latter will be gathered through targeted survey responses, answered by attendees (founders and investors) of the Climate Tech Summit Benelux 2024, designed specifically for this research. A thorough exploration of challenges like funding, regulation, and external support, viewed from both perspectives, can enhance collaboration between founders and investors.

Current Trends

Growth & Funding

As of 2024 Year-to-Date (YTD), the global enterprise value of the climate technology sector has reached $2.6 trillion, exceeding the 2023 total by $0.2 trillion by the beginning of 2024 Q4. In the Benelux region, the combined enterprise value has reached $29.8 billion, reflecting a 13.7% in 2024 YTD growth from the previous year. Notably, this growth follows a period of stagnation from 2022 to 2023.

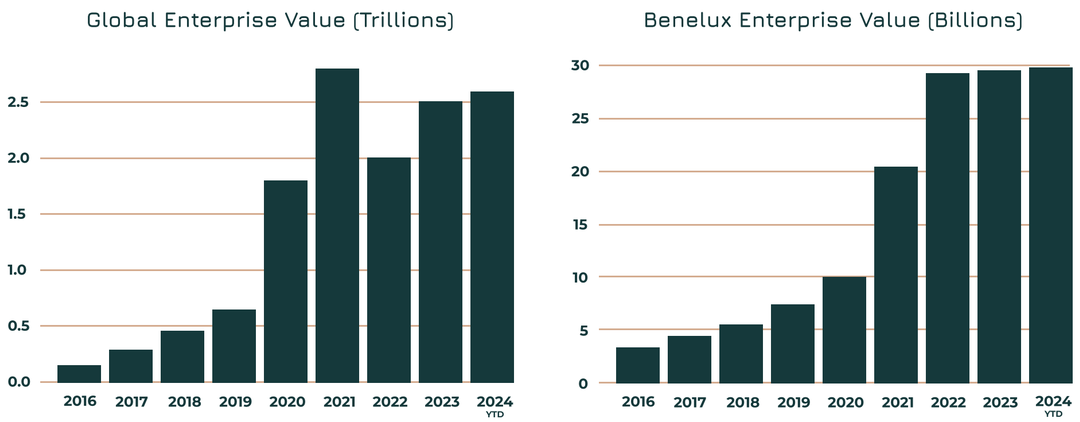


Figure 2 - Climate Tech Enterprise Value [5]

Despite the rise in enterprise value, there has been a marked absence of new unicorns in the global climate tech sector throughout 2024.[6]
By 2023, the climate tech sector gained 10 new unicorns, totalling to 80.[7]
However, there has been a recent slowdown in such growth. The current quarter of 2024 is the fourth consecutive quarter without any new unicorns, possibly driven by the recent contraction in the overall investment into climate tech.
43.5% of climate tech founders have also cited funding as their biggest concern in Benelux.[8]

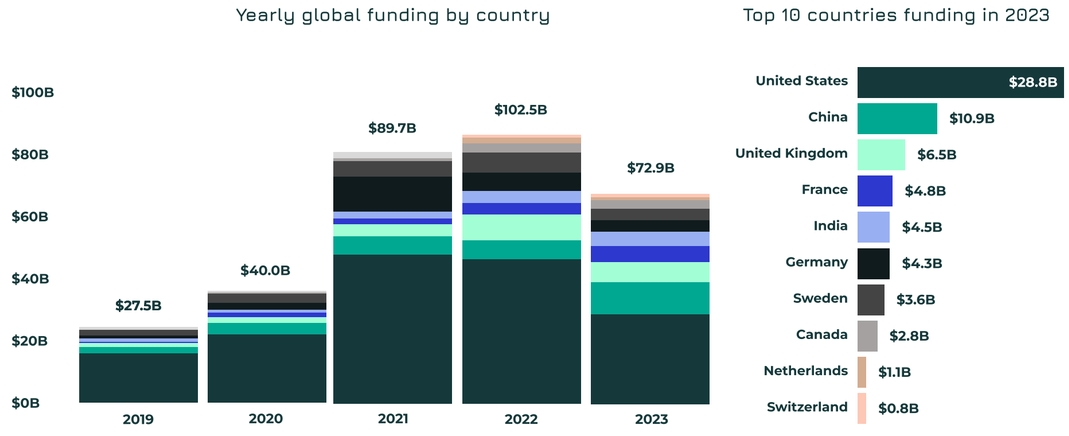


Figure 3 - Yearly Global Funding by Country[9]

Following a rapid period of growth, global funding for climate technology saw a steep decline in 2023, dropping by 30% compared to the previous year. Overall, global climate tech funding fell by 28.9%, with the United States maintaining dominance in the sector despite experiencing the largest downturn in funding. In contrast, countries like China and France saw notable increases in their climate tech funding.

In 2024, the downward trend continues, as the second quarter saw a 20% drop in the value of equity funding for climate tech deals, reaching $4.9 billion, the lowest since Q2 2020.[10]

Late-stage deals have been particularly impacted, with the median deal size decreasing by 16% year-to-date, now averaging $38 million. Additionally, the number of mega funding rounds (those exceeding $100 million) has dropped from 17 in Q1 2024 to just 9 in Q2 2024.

On a positive note, relative to total start-up investments, climate tech has had a steady increase.[11]

Furthermore, within private market equity and grant investment, the investment in climate tech tracked at an annual rate of 10% for till 2023, extending a decade-long upward trajectory. This does shed some positive light on climate tech. It is also worth noting that a rise in non-dilutive funding has been observed, reaching a historic high of 34%.[12] Increased public and collaborative funding between governments and banks has also been noticed.

Scaling challenges and investment trends in Benelux

While the EU has various sources of grants and subsidies for energy sustainability focused ventures, there is a large sentiment that the limited nature of these sources does not support companies in scaling their operations; this is worsened by high levels of bureaucracy and time inefficiency.[13]

Globally, venture capitalists persist as the main type of investor for climate tech start-ups.[14] This is consistent with the demographic of investors in Benelux, with the second most prominent being private equity firms.[15]

A small segment of climate tech founders hold the sentiment that there are limited VCs interested in deep tech, which does not enclose all of climate tech; thus, the majority of founders, predominantly in the energy segment, are largely optimistic about obtaining funding from VCs.[16]

In 2023 Europe surpassed the US for climate tech funding from venture capitalists.[17] With four of the top 10 climate tech city-hubs in the US (Bay Area, Los Angeles, Boston, and New York) and three in Europe (London, Paris and Berlin), this showcases promising growth for Europe.[18] While Benelux does not have a top 10 leading, the region has significant investment. In 2023, Benelux reached a total investment of $1 Billion. The Netherlands led with $748 million, Belgium following with $172 million, and $43.4 million in Luxembourg. Notably, investors also had a more positive outlook regarding the availability of local subsidies and grants in the Netherlands.

Transportation & Energy Dominace

Transportation and energy are the segments with the highest global investment. These segments have remained the most stable for the past years. EV batteries (segment: transportation) have especially picked up momentum by aiding in cost minimization and increased speed at charging stations. Furthermore, investment potential has been observed in EV batteries because of their role in balancing renewables-heavy grids.[20]

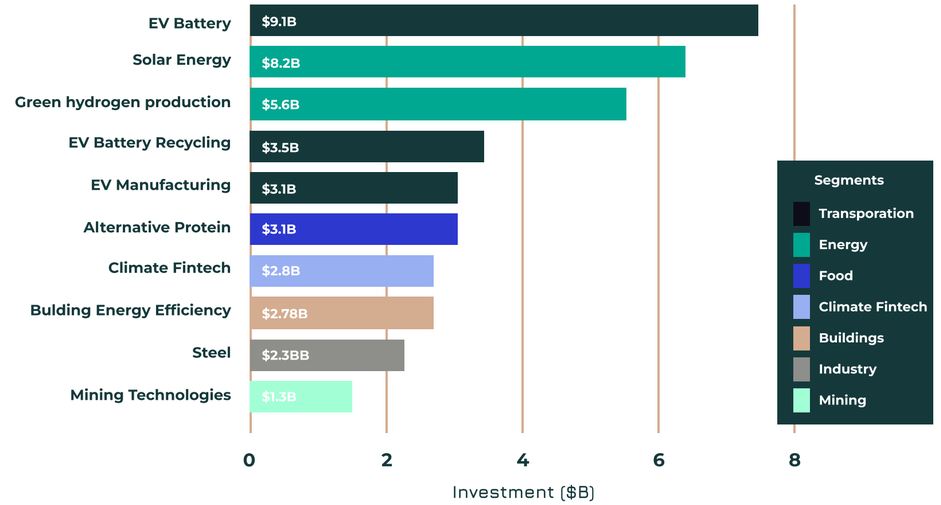


Figure 4 - Top Climate Segments Investments (2023 - 2024).[19]

Collaboration between the climate tech and traditional industries are some of the key aspects of growth in this industry. The energy subsegment in climate tech has been part of many of these collaborations for the purpose of decarbonization. The Drax Group, a power generation business and UK's largest power station, is in activate collaboration with C-Capture to develop and launch a full-scale carbon-capture plant.[21]

A more recent collaboration between the energy subsegment and the automotive industry is Chevrons investment in Carbon Clean with the aim of increasing carbon capture technology in their industrial facilities.[22]

On the flip side, regenerative agriculture (segment: food), steel (segment: industry) and carbon accounting (segment: carbon tech), are some of the fastest growing sub-segments. Water harvesting (segment: water), however, was the sub-segment with the least growth and funding. Founders' sentiment reflects difficulty with this area as well with the key issue being the challenging environment for VCs. This is largely due to concerns regarding high initial investments and infrastructural limitations.

Investor and Founder Incentives

Investors and founders in the Benelux region experience a significantly positive sentiment towards climate tech investments.[26]
The optimistic outlook towards the investment condition in the climate tech field can be attributed to several factors including regulatory support, market demand for impact investing and evolving financial incentives both from the investor and the entrepreneurial side.

The broad regulatory environment set by Benelux countries has proven to be a significant driver of investor confidence. Long-term policies provide stability and predictability, reducing the risks associated with investing in emerging sectors like climate tech.[27]

Regulations ensure sustained demand for climate technologies, giving investors confidence that the transition to low-carbon alternatives will continue over time. The finding of the survey conducted among climate tech investors reinforce this perspective, as the majority of respondents identified themselves as impact investors, with a dual focus on both profitability and environmental impact aligning with the long-term policies in the region, which support sustainable and financially viable green solutions aiming for long-term impact.[28]

Effect of local regulations on investor sentiment

Local regulations, such as renewable energy mandates and carbon pricing, are powerful drivers of investment in climate tech as they are aligned with the long-term goal of carbon neutrality, supporting impact investors' focus on long-term profitability alongside value creation.[29]

Survey respondents highlighted their confidence in the energy sector, driven by the rapid growth of renewable energy sources and energy storage, as well as in mobility, due to the rising demand for electric vehicles and sustainable transport solutions.[30]

Overall, more than 80% of respondents plan to increase investments in mission-driven, climate-focused ventures, recognizing the stability and clear direction provided by the regulatory framework in the Benelux, which reduces risks and ensures substantial long-term returns as industries transition to greener alternatives.[31]

Founder perspective on the Climate Tech market

Similarly to investors, the majority of climate tech founders also have a positive perception regarding the current state of this sector.[29] Climate tech start-ups in the Benelux became even more advantageous due to the financial support in the form of grants and tax benefits provided by local governments like R&D tax incentives which support the early-stage development of technologies with substantial upfront costs.[32]

As a consequence, increasing entrepreneurs' confidence to enter the climate tech sector by significantly lowering the initial financial burden associated with starting a new venture.

Market demand for Climate Tech start-ups

Besides the financial incentives, regulations also directly drive market demand for advancements in climate technology, which makes start-ups operating in this sector vital.[33] For instance, the EU's emissions reduction objectives strongly require sectors to embrace low-carbon solutions, which in turn increases demand for start-ups developing these technologies.[34]

The survey conducted on climate tech founders shows that nearly 90% of the respondents are confident that their products and technologies are well-positioned to meet existing market demand.[35]

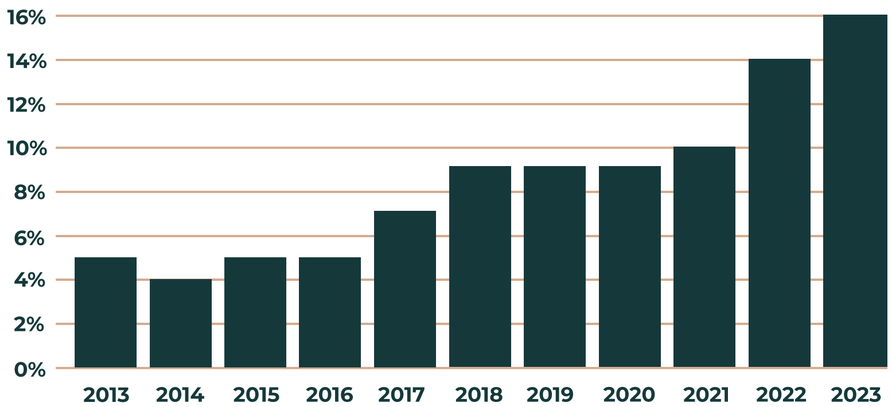


Figure 5 - Proportion of total VC investment going into Climate Tech start-ups

This growing demand for sustainable solutions is reflected in the increasing share of VC investment towards climate tech start-ups.[36] As **Figure 5** shows, the fraction of global VC financing provided to climate technology initiatives has more than tripled in the previous ten years from barely 5% in 2013 to 16% in 2023.

The fluctuation of the market resulted in a drop in total climate tech financing, although between 2021 and 2023, the sector's share of VC funding increased from 14% to 16%. Given that the number of climate tech firms is increasing despite the general market downturn, this upward trend suggests that investors are still prioritising climate innovation.

Policy Dynamics Shaping Climate Tech in the EU and Benelux

Policy, funding, and regulatory frameworks have a direct effect on investors and business owners in the climate tech sector. Benelux's climate tech players are impacted by both domestic and EU policies. By 2050, the European Green Deal seeks to achieve carbon neutrality and accelerate investments in climate technologies through various programs, as the European Innovation Fund.

In addition to participating in EU-wide initiatives, Belgium, the Netherlands and Luxembourg also have national policies and programs that assist climate tech by providing tax breaks, grants and subsidies.

However, founders and investors report mixed experiences with these regulations. While some investors appreciate the regulatory push from frameworks like the Sustainable Finance Disclosure Regulation (SFDR), others believe market necessity is a stronger driver of change. Founders, meanwhile, find EU funding mechanisms overly bureaucratic, highlighting that applying for multiple subsidies often involves browsing uncoordinated timelines with no guaranteed approval.

Expectation among the founders is that the EU regulations in general will be beneficial, but the long delays in the short-term are a great problem. This can delay project timelines and add financial risk, which is a concern for investors as well. Generally, our survey shows that founders feel that EU regulations influence the growth of their company more positively than local regulations.[38]

In 2023, the Green Deal Industrial Plan was launched, which is a continuation of the original Green Deal. It shapes the framework for the EU's net-zero industrial transformation by supporting roll-out of renewables.

This plan is considered as a direct response to similar plans in the US, China and Japan.[39] Yet, founders contrast the EU's regulatory environment with the faster, more substantial support offered by the U.S. Inflation Reduction Act (IRA), according to the founders.

They argue that the U.S. framework provides quicker access to capital, enabling American and Chinese firms to outpace their European counterparts. Some founders and investors express a need for more cohesive and streamlined EU policies that would make it easier to access funding and reduce financial risks.

This plan is working, according to the European Climate Neutrality Observatory, short ECNO. It publishes an annual evaluation of different building blocks on the way to climate neutrality in the EU.

The climate tech sector has shown marginal improvement, transitioning from very slow progress to slow progress from 2023 to 2024. Apart from this, the report also highlights that the deployment of renewables has been accelerated, mainly through the REPowerEU package.[40]

All in all, founders and investors see the regulative environment as an important driver for their mission. However, compared to funding, product development, competition and more product-related categories, regulation plays a relatively small role. Only around 10% of the founders in our survey, selected Regulation as their biggest challenge.[41]

Need & Innovation

Climate tech presents investors with an appealing possibility, but it is not without its challenges. Investors have to find a compromise between their commitment to environmental impact and their expectation of financial returns. The state of climate tech is inherently mission-driven, although according to survey findings, investors are ultimately seeking ventures offering a clear path to profitability, even if the required time is longer compared to other industries.[42]

Due to the rise of ESG practices and investments by the majority of firms and the associated backlashes caused by the possibility of greenwashing, investors desire strong credibility besides profitability.[43] Investors require transparent, data-supported technologies that show a real environmental effect and technological viability. Survey results reinforce this sentiment as 81.8% of the respondents prioritise the credibility of current climate tech ventures.[44]

Moreover, investors prefer innovations that are already market ready as many concentrate on later-stage firms that have developed their technologies and are either close or have already reached revenue generation due to less risk and uncertainty associated.[45]

Figure 7 confirms this trend as the majority of climate tech investments have gone toward bigger funding rounds in the breakout and scale-up stages suggesting that investors are becoming more interested in technologies that are concentrating on market adoption or scaling.

Nevertheless, survey findings indicate that only 13.6% of investors fully agree that these ventures are profitable at present. Investors are increasingly focusing on long-term gains and the broader environmental impact.[46]

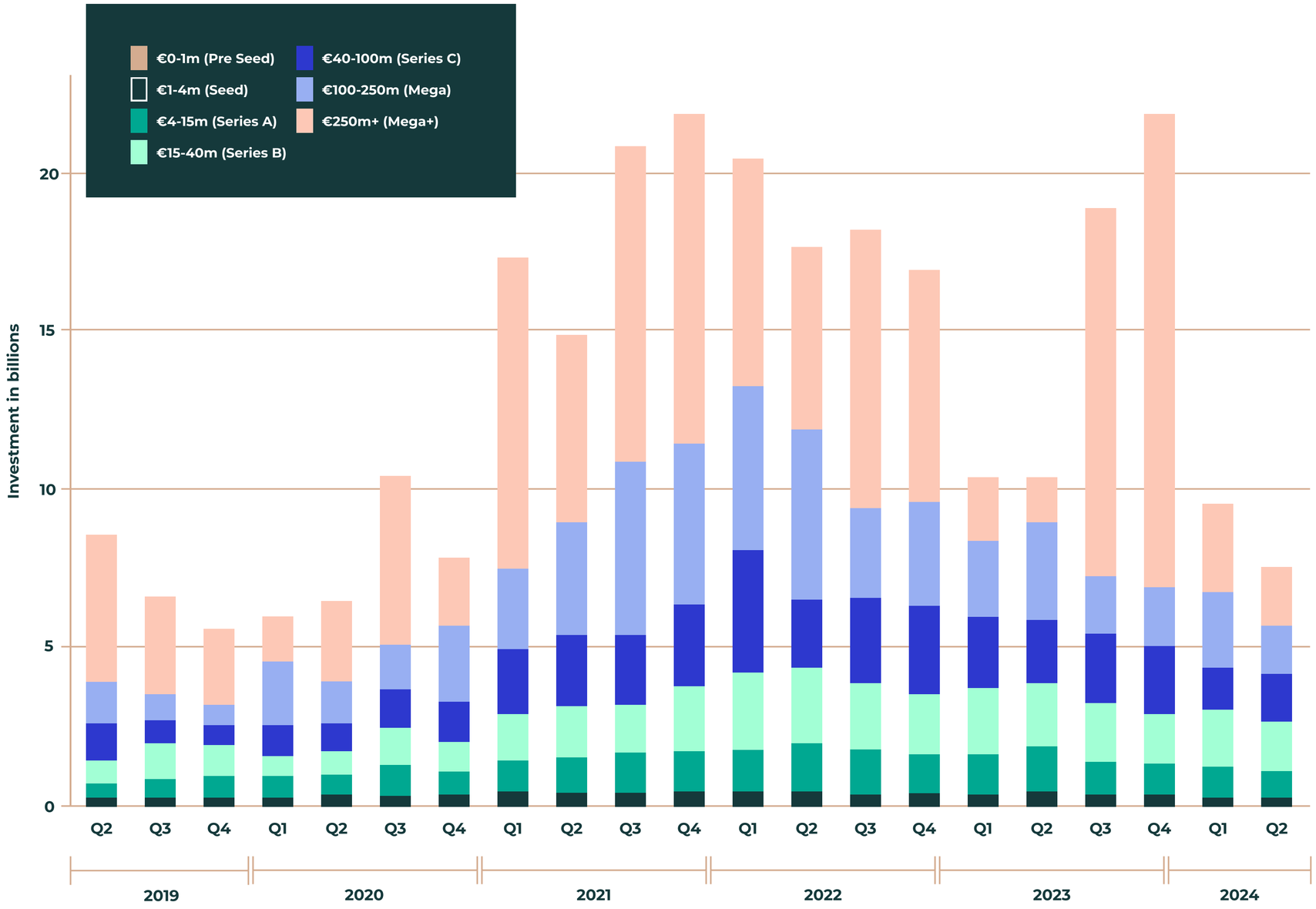


Figure 7 - Climate Tech VC Investment by Stage

From a start-up founder perspective this seems to be violated as their most immediate concern is the need for funds due to the significant required capital for technology development and market expansion.[47] Surveyed climate tech founders showed dissatisfaction with VC and PE funding, expressing concerns over insufficient support, and overemphasis on financial returns rather than real environmental impact.[48]

Additionally, many founders feel that the traditional tech-focused mindset of investors does not effectively address the unique needs of climate and impact-driven ventures, emphasising the necessity for alternative investment sources that better align with the long-term environmental and social goals of climate tech start-ups.

Beyond the capital needs, start-ups are also driven by the need to meet market demand. As industries and governments commit to net-zero goals and stricter environmental regulations, there is a growing market for innovations that facilitate businesses to reduce emissions, improve energy efficiency, and meet ESG requirements.[49]

Climate tech start-ups need to align their innovations with these regulatory and market demands to secure corporate partnerships, which can provide both capital and market access. However, for start-ups to fully capture market demand, they must also innovate with scalability in mind.[50]

Many climate tech innovations require extensive infrastructure or supply chain integration to scale effectively, and start-ups must address these needs early on. The ability to scale is essential not only for profitability but also for attracting investors who are looking for start-ups capable of meeting large-scale industrial or consumer demand in the long term.

Additional Survey Findings

Competition

Founders consistently expressed concerns about the competitive landscape as a significant portion of respondents indicated that they face direct competition from comparable start-ups in the climate tech sector, as well as from traditional practices or products that are well-established in the market.[51]

Many founders feel that, to succeed, they must offer not only superior technological solutions but also more sustainable and cost-effective alternatives in order to expand.

Media Landscape

Survey results reveal mixed perceptions regarding the media's role in promoting climate tech start-ups.[52] While media coverage can provide much-needed visibility and public engagement, some founders feel that the current media landscape is fragmented or lacks a focus on the climate tech space while mostly prioritising only successful cases.

This results in missed opportunities to showcase innovative solutions to a broader audience for early-stage start-ups, which could otherwise drive growth and public support.

Cultural Barriers to Risk-Taking

According to the survey findings, significant difficulty among founders is the risk-averse culture that characterises the Benelux region.[53]

This cultural hesitancy towards risk-taking impacts not only the founders' willingness to pursue innovative strategies but also their ability to attract investments. As a result, many start-ups find it challenging to secure the resources necessary to experiment with cutting-edge technologies with potentially strong environmental impact, therefore, limiting their opportunity to scale and thrive.

Future Expectations

Regulations at EU and local level

The 2024 European Parliament Elections, short EE24, presented a significant rise of the right-wing parties, which are generally more sceptical of ambitious climate policies.

Global cooperation is essential to the 2019 Green Deal's success and intended results, but it is in jeopardy due to growing economic and geopolitical dangers, such as the ongoing conflict in Ukraine and the tensions in the Middle East. As such, it is important to view the EE24 results in a broader context and avoid becoming overly alarmed.

Green policies will become harder to legislate as parties as the Greens lost 18 seats in EE24 and global macroeconomic trends make it tough to execute the Green Deal. Investors express concern that shifting political attitudes may undermine long-term stability, which they view as essential for de-risking investments. Because of all of this, the EIC's funding beyond 2027 is unclear.[54]

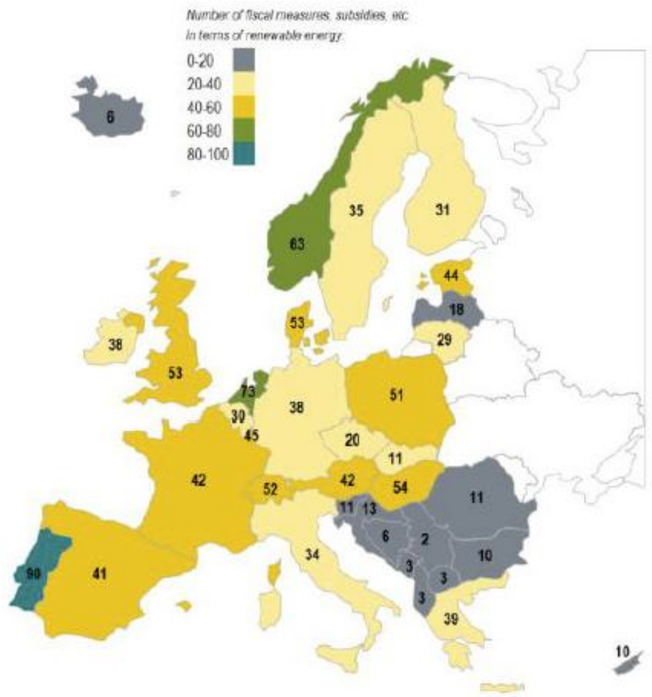


Figure 8: Number of Subsidy schemes across Europe
https://www.abnamro.com/research/en/our-research/esg-economist-are-dutch-climate-targets-consistent-with-1-5-c

The Dutch climate target is a commitment to a minimum 55% reduction in Greenhouse Gas Emissions (GHG) by 2030 and net-zero in 2050, which was formulated in the Climate Act in July 2023.[55]

The Netherlands offer tax relief for climate tech start-ups through subsidies like the SDE++ scheme, which incentivises renewable energy projects. Start-ups in offshore wind, hydrogen and energy storage benefit greatly from these incentives.[56]

These incentives are beneficial, but founders emphasise that public funding processes can be lengthy, taking up to 18 months for approvals, which complicates both strategic planning and private fundraising.
Despite this, the Dutch regulatory environment is still seen as relatively favourable compared to other EU regions, which programs like ISDE receiving praise for clarity and impact.

The results of an ABN AMRO investigation of the Dutch SDE scheme are displayed in **Figure 8**. It is evident that the countries with the most European subsidy systems are Norway, Portugal, and the Netherlands. For investors and innovators, this makes the Netherlands and the Benelux region attractive.

With a particular focus on the west and central Netherlands, the SDE scheme is now funding renewable projects around the country. Since 2008, the total amount of green energy produced has likewise increased; but, since 2022, it has been stagnant at roughly 55 TWh. It is anticipated that the subsidised projects will produce more until 2027, at which point it will begin to gradually decline once more, which is portrayed in **Figure 9**.

Many unfinished projects that were just granted access to the subsidy scheme still need to be initiated. Since the projects have a maximum 15-year implementation period, approximately 28 TWh of annual generated capacity will remain in the pipeline until 2038.

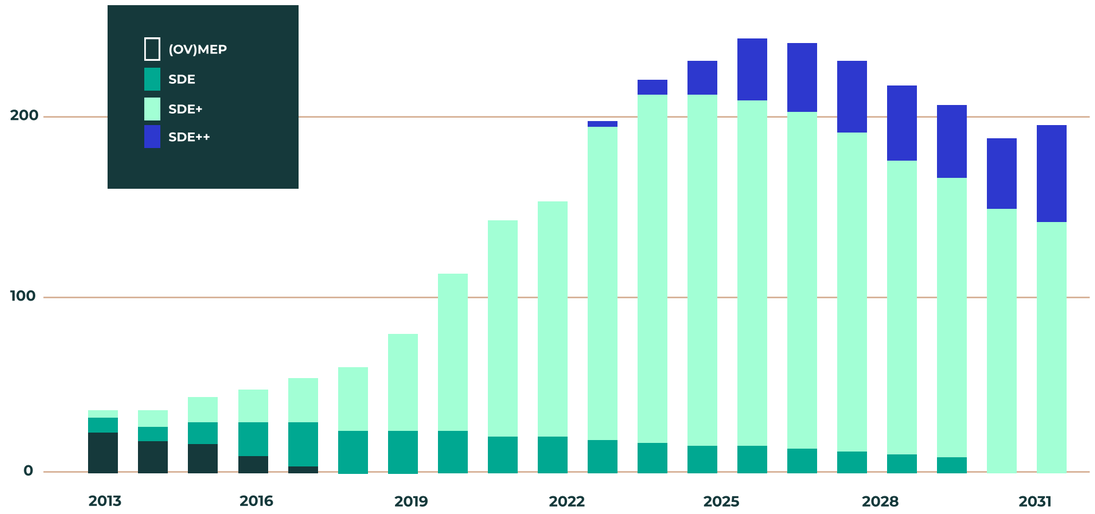


Figure 9: Expected production of the subsidized projects, in petajoule (PJ)
https://www.abnamro.com/research/en/our-research/esg-economist-are-dutch-climate-targets-consistent-with-1-5-c

Belgium's climate goal is to reduce GHG by 47% by 2030 and get to the net-zero in 2050, which is in line with EU policy. One main pillar of climate policy is the expansion of offshore wind energy in the North Sea.[57]

For this goal, grants and subsidies are provided for offshore wind and energy efficiency through the National Energy and Climate Plan (NECP), directly influencing start-ups developing solutions in renewable energy, carbon capture and sustainable transport.[58]

Luxembourg joins the Netherlands and Belgium in sticking to EU climate policy. It invests in green finance and sustainable funds, providing a favourable ecosystem for climate tech founders. The Luxembourg Sustainable Finance Strategy (LSFI) offers green bonds and investment vehicles aimed at start-ups and The Luxembourg Ministry of the Economy offers financial support to companies investing in eco-technology or environmentally friendly processes.

Challenges: The rising right-wing and geopolitical conflicts

Following an evaluation of legislative support and grants for climate tech businesses in the EU, especially in Benelux, the focus shifts to current challenges: geopolitical conflicts and the rise of right-wing parties.

In November 2023, the Dutch elections led to the far-right PVV gaining 25% of the votes. Their agenda includes leaving the Paris climate accord and dismantling green legislation.[60]

Despite this, the Netherlands operates under a coalition system, meaning major policy changes depend on broader agreements. While the PVV could slow down climate legislation, they are unlikely to fully dismantle it. Policies like the commitment to a 55% reduction in GHG emissions by 2030 and net-zero by 2050 remain, though there may be adjustments, such as to renewable energy subsidies.

Many elements of the Dutch climate agenda are embedded in EU regulations, and the Netherlands maintains a €35 billion Climate Fund to support green initiatives.

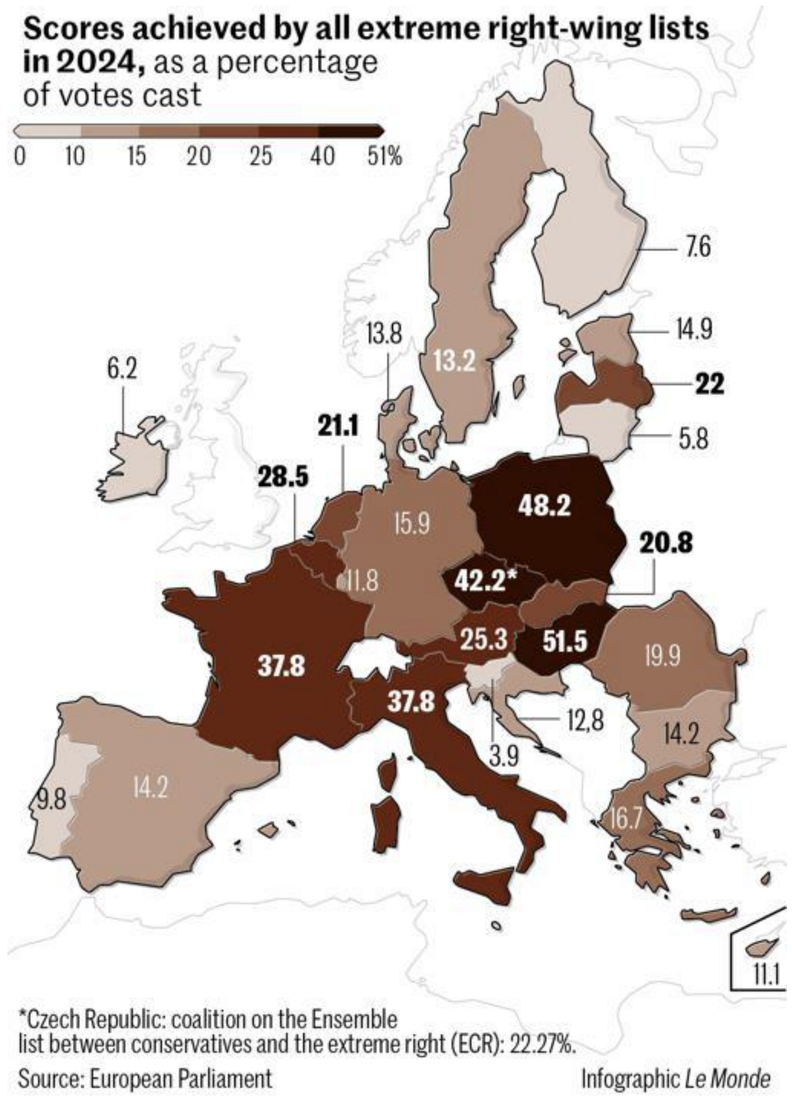


Figure 10: Scores by extreme right-wing lists in 2024

It's important to note that climate was not a key election issue for voters, who focused more on migration, healthcare, and law enforcement. This aligns with the broader European trend, as **Figure 10** presents, as right-wing parties gain ground, raising concerns about the future of green subsidies.

Russia

After Russia's invasion of Ukraine in 2022, many European countries turned its back on Russian oil and gas. This measure had an enormous impact on the energy mix for many countries all around the world. The World Economic Forum (WEF) predicts that this will accelerate Europe's energy transition to renewable energy sources.

A case study from the Netherlands illustrates the difficulty of reducing reliance on Russian energy. The Dutch government's efforts to halt gas imports were complicated by a long-term contract with Yamal LNG and TotalEnergies, accounting for 10% of the country's LNG imports. The contract, valid until 2032, shows how bureaucracy can hinder even strong green energy commitments.

Geographical and Segment Trends in Climate Tech

Europe leads in sustainability regulations and is the top destination for climate tech VC investments, attracting $21B in 2023 compared to $14B in the U.S. However, this trend may shift as political attitudes become more unstable. While Asia, particularly China, is embracing the climate tech trend, Europe and the U.S. face potential conservative policies that could affect sustainability funding. European companies remain optimistic, with 56% of directors seeing ESG as an opportunity.[61]

In 2023, ESG was a top priority for about two-thirds of companies, with many setting ambitious emission reduction targets.[62] This optimism is reflected in the survey, where 94% of founders and 91% of investors expressed confidence in their ventures' long-term prospects. However, only 77% were optimistic about short-term success due to economic and political fluctuations.

In the climate tech sector, energy and transportation continue to dominate, but shifts are occurring. Electric vehicles are losing traction, while EV-related functions like charging and battery reuse are rising.[63]

Solar energy remains strong, but more focus is now on the energy grid's resilience.[64] Nuclear fusion is attracting funding but remains controversial in countries like Germany.[65]

Climate fintech is proving more resilient to VC slowdowns, with startups in carbon accounting, offsetting, and ESG reporting gaining traction, supported by Europe's stronger regulatory framework.

Finally, an issue that needs to be addressed and tracked further into the future is the carbon funding gap, or the mismatch between investment into climate tech sectors and the need for emission reductions in these sectors.

A report by PwC[66] exemplifies this problem very well, showing that in the time period from 2013 to 2022, manufacturing and industrials were by far the largest GHG emitters, accounting for 34% of GHG emissions. Yet, climate tech solutions related to industrials only received 8% of all climate tech funding over that period. Some rebalancing has occurred in 2023, with more funding flowing into emission-heavy sectors, but still more funding is required to correct the mismatch.

Somewhat alarmingly, the results of our survey show that only 31% of respondents among investors feel highly optimistic about climate tech solutions in the industry sector and only 5% feel optimistic about ventures in the GHG capture segment, which indicates that there are barriers to the carbon funding gap correction. On the founder side, a vast majority of the respondents (96% over all segments) feel that their venture creates moderate to significant GHG reduction impact.

Footnotes

1. The Future of Climate Tech 2024 | Silicon Valley Bank. (n.d.) https://www.svb.com/trends-insights/reports/future-of-climate-tech/

2. Climate Tech Guide | Dealroom. (n.d.) https://dealroom.co/guides/climate-tech

3. The Future of Climate Tech 2024 | Silicon Valley Bank. (n.d.) https://www.svb.com/trends-insights/reports/future-of-climate-tech/

4. Guide | Dealroom. (n.d.) https://dealroom.co/guides/climate-tech

5. Climate Tech Overview | Deal Room Data (2024)

6. 'Unicorn Drought' | CB Insights https://app.cbinsights.com/research/report/climate-tech-trends-q2-2024/

7. 'Climate Tech Unicorns' | Statista (2024) https://www.statista.com/statistics/1409949/climatetech-unicorns-worldwide/

8. 'Founders Mood' Survey

9. State of Climate Tech 2023. (2023). In Net Zero Insights https://netzeroinsights.com/wp-content/uploads/2024/01/State-of-Climate-Tech-2023-Net-Zero-Insights.pdf

10. 'Unicorn Drought', CB Insights https://app.cbinsights.com/research/report/climate-tech-trends-q2-2024/

11. 'State of Climate Tech 2023', PwC (October 2023) https://www.pwc.com/gx/en/issues/esg/state-of-climate-tech-2023-investment.html

12. Adler & Co | (18.01.2024) https://www.alderagency.com/2024/01/climate-tech-report-shows-hard-stop-to-funding-boom-reasons-for-optimism/

13. 'Founders Mood' Survey

14. Climate Tech Overview | Deal Room Data (2024) https://app.dealroom.co/sector/tag/Climate%20Tech/overview

15. 'Investors Mood' Survey

16. 'Founders Mood' Survey

17. 'Climate tech VCs already raised more in 2024 than whole of last year' | The Next Web https://thenextweb.com/news/climate-vc-funding-2024-compared-2023

18. Climate Tech Overview | Deal Room Data (2024) https://app.dealroom.co/sector/tag/Climate%20Tech/overview

19. Climate Tech Overview | Deal Room Data (2024) https://app.dealroom.co/sector/tag/Climate%20Tech/overview

20. Batteries Are the 'Next Solar' for Investors, Says KKR', Bloomberg (August, 2024) https://about.bnef.com/blog/batteries-are-the-next-solar-for-investors-says-kkr/

21. C- Capture https://c-capture.co.uk/our-story/

22. Carbon Clean https://www.carbonclean.com/en/press-releases/chevron-announces-new-investment

23. 'Regenerative agriculture sparks venture capital interest', Financial Times (January, 2024) https://www.ft.com/content/89a1cba2-e0ee-4dca-b7c6-f77e583c716e

24. 'Founders Mood' Survey

25. 'Global Rainwater Harvesting Systems Market Size And Forecast' | Market Research Intellect (Oct, 2024) https://www.marketresearchintellect.com/product/global-rainwater-harvesting-systems-market-size-and-forecast/

26. State of Climate Tech 2023. (2023). In Net Zero Insights https://netzeroinsights.com/wp-content/uploads/2024/01/State-of-Climate-Tech-2023-Net-Zero-Insights.pdf

27. Environment and climate change - EUR-Lex. (n.d.) https://eur-lex.europa.eu/summary/chapter/environment.html?root_default=SUM_1_CODED=20&locale=en

28. 'Investors Mood' Survey

29. Climate Tech Guide, Dealroom. (n.d.) https://dealroom.co/guides/climate-tech

30. 'Investors Mood' Survey

31. Barbieri, N., Consoli, D., Napolitano, L., Perruchas, F., Pugliese, E., & Sbardella, A. (2022). Regional technological capabilities and green opportunities in Europe. The Journal of Technology Transfer, 48(2), 749–778 https://doi.org/10.1007/s10961-022-09952-y

32. Ruiz, A. Z., Martín, J. M. M., & Prados-Castillo, J. F. (2022). The European Union facing climate change: a window of opportunity for technological development and entrepreneurship. Sustainable Technology and Entrepreneurship, 2(2), 100035 https://doi.org/10.1016/j.stae.2022.100035

33. Net Zero Insigths. (2023). State of Climate Tech 2023. In Net Zero

34. Li, Z., Khurshid, A., Rauf, A., Qayyum, S., Calin, A. C., Iancu, L. A., & Wang, X. (2022). Climate change and the UN-2030 agenda: Do mitigation technologies represent a driving factor? New evidence from OECD economies. Clean Technologies and Environmental Policy, 25(1), 195–209 https://doi.org/10.1007/s10098-022-02396-w

35. 'Founders Mood' Survey

36. Climate Tech Guide, Dealroom. (n.d.) https://dealroom.co/guides/climate-tech

37. 'Investors Mood' Survey

38. Founders Mood' Survey

Footnotes

39. PricewaterhouseCoopers. (n.d.). The new Green Deal Industrial Plan. PwC https://www.pwc.nl/en/insights-and-publications/tax-news/other/the-new-green-deal-industrial-plan.html

40. ECNO. (2024). ECNO Flagship Report 2024 – Summary for Policy-Makers. https://climateobservatory.eu/sites/default/files/2024-06/ECNO_Summary%20for%20Policy-Makers_2024.pdf#

41. 'Founders Mood' Survey

42. Net Zero Insights. (2023). State of Climate Tech 2023. In Net Zero

43. Morkunas, M., & Volkov, A. (2023). The Progress of the Development of a Climate-smart Agriculture in Europe: Is there Cohesion in the European Union? Environmental Management, 71(6), 1111–1127 https://doi.org/10.1007/s00267-022-01782-w

44. 'Investors Mood' Survey

45. PwC. (n.d.). State of Climate Tech 2023: Investment analysis https://www.pwc.com/gx/en/issues/esg/state-of-climate-tech-2023-investment.html

46. 'Investors Mood' Survey

47. Climate Tech Guide | Dealroom. (n.d.) https://dealroom.co/guides/climate-tech

48. 'Founders Mood' Survey

49. Boston Consulting Group. (2023). Why Some Companies Are Ahead in the Race to Net Zero. In BCG https://www.bcg.com/publications/2023/why-some-companies-are-ahead-in-the-race-to-net-zero-and-reducing-emssions

50. Morkunas, M., & Volkov, A. (2023). The Progress of the Development of a Climate-smart Agriculture in Europe: Is there Cohesion in the European Union? Environmental Management, 71(6), 1111–1127 https://doi.org/10.1007/s00267-022-01782-w

51. 'Founders Mood' Survey

52. 'Founders Mood' Survey

53. 'Founders Mood' Survey

54. Gülenç, I. (2024, July 3). How do the results of the EU Elections affect the European Green Deal? Beyond the Horizon ISSG https://behorizon.org/how-do-the-results-of-eu-election-affect-the-european-green-deal/

55. ABN AMRO Bank. (n.d.). ESG Economist - Are Dutch climate targets consistent with 1.5 °C? https://www.abnamro.com/research/en/our-research/esg-economist-are-dutch-climate-targets-consistent-with-1-5-c

56. SDE++ features. (n.d.). RVO.nl. https://english.rvo.nl/subsidies-financing/sde/features

57. Philip Schmitz. (2023, December 8). Belgium – Climate performance ranking 2024 | Climate Change Performance Index. Climate Change Performance Index | the Climate Change Performance Index (CCPI) Is a Scoring System Designed to Enhance Transparency in International Climate Politics. https://ccpi.org/country/bel/

58. Homepage - National Energy and Climate Plan. (n.d.). National Energy and Climate Plan https://www.nationalenergyclimateplan.be/en

59. Luxembourg Sustainable Finance Initiative. (2024, October 4). Home - LSFI. LSFI https://lsfi.lu/

60. NEDERLANDERS WEER OP 11. (2022). In PVV Verkiezingsprogramma https://www.pvv.nl/images/2023/PVV-Verkiezingsprogramma-2023.pdf

61. https://www.diligentinstitute.com/report/sustainability-in-the-spotlight-2023/

62. https://www.insightpartners.com/ideas/the-state-of-climatetech-2024-and-beyond/

63. https://dealroom.co/guides/climate-tech

64. https://www.insightpartners.com/ideas/the-state-of-climatetech-2024-and-beyond/

65. https://world-nuclear.org/information-library/country-profiles/countries-g-n/germany

66. https://www.pwc.com/gx/en/issues/esg/state-of-climate-tech-2023-investment.html

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