

STATE OF CLIMATE TECH Q2 2024

A Net Zero Insights' quarterly analysis on global funding and deal activity in the private market venture space.





Q2 2024
IN REVIEW

**2024 TOTAL FUNDING
ON TRACK TO SURPASS 2023**

Funding for 2024 is expected to slightly exceed 2023 levels, driven by large debt-structured giga-rounds and strong investor optimism in market ready solutions.

**EQUITY DEAL ACTIVITY
CONTINUES TO FREEFALL**

The sustained decrease in equity deal activity, signals a cautious market sentiment, amid economic uncertainties and speculated regulatory changes.

**PHYSICAL SOLUTIONS
CONTINUE TO TAKE PRIORITY**

Coupled with a focus on adoption, this highlights a growing commitment to supporting innovations with the greatest potential of environmental short-term impact.

KEY
TAKEAWAYS



Q2 2024
IN REVIEW

**EUROPE SOLIDIFIES
LEADERSHIP IN Q2 2024**

Europe's Q2 2024 leadership in funding, deals, and investor numbers highlights its pivotal role in global climate tech innovation, despite lower Q1 2024 debt volumes.

**INVESTORS CONTINUE TO
PLAY A WAIT AND SEE GAME**

Equity investors persist in a cautious "wait and see" stance, navigating uncertainties in regulatory landscapes and economic conditions.

**M&A ACTIVITY MAINTAINS
2023'S RHYTHMS**

M&A activity for 2024 so far echoes 2023's pace, led by corporations, reflecting ongoing strategic consolidation in climate tech amid uncertain market conditions.

**KEY
TAKEAWAYS**

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○ INVESTORS' VOICE

Overview

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○ METHODOLOGY & SCOPE

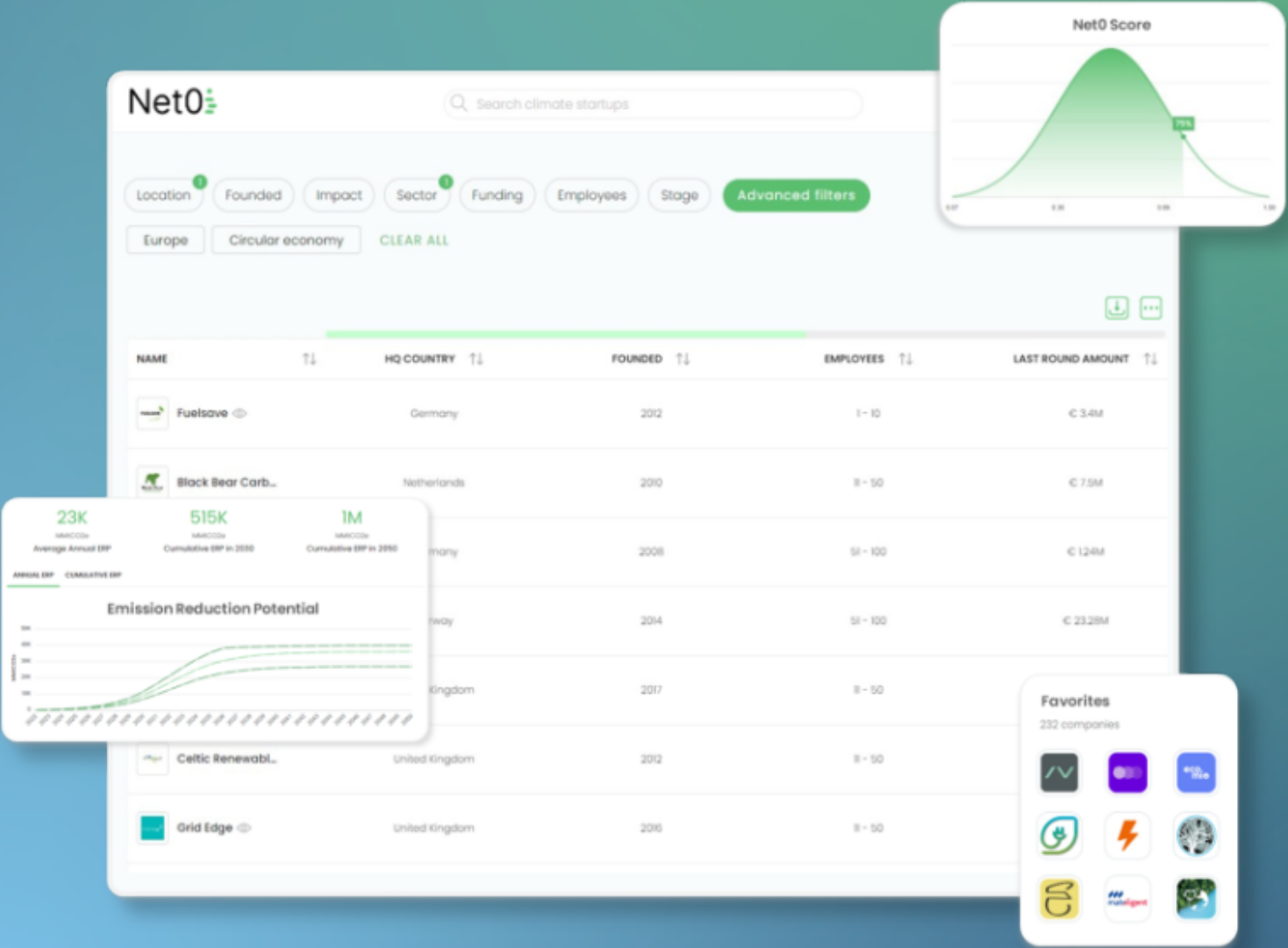
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MARKET INTELLIGENCE FOR CLIMATE TECH

Net Zero Insights is the leading data and research platform for Climate Tech.

The Net0 Platform provides access to thousands of startups/SMEs, deals, and investors, allowing users to spot new innovations, trends, and deals in the rapidly evolving world of climate technology.

Investors, corporates, researchers and business developers use our platform to identify new startups and keep track of emerging trends and opportunities.



Talk to sales

WHAT IS INCLUDED IN THE STATE OF CLIMATE TECH QUARTERLY EDITION?

Net Zero Insight's quarterly reports offer comprehensive updates on the climate tech space, providing a thorough analysis of current performance compared to historical data.

The report provides three essential breakdowns for data analysis and insight interpretation:

- Product-Innovation Framework: This approach enhances the analysis of the climate tech investment landscape, providing valuable insights for specific investors and organizations to make informed decisions.
- Venture Stage Breakdown: Aligned with the product-innovation framework, this breakdown offers innovators and investors the most relevant information tailored to their profiles and needs.
- Capital Stack Breakdown: Encompassing equity, debt, and grants, this analysis offers a comprehensive understanding of the capital structure in the climate tech sector.



SCOPE HIGHLIGHTS

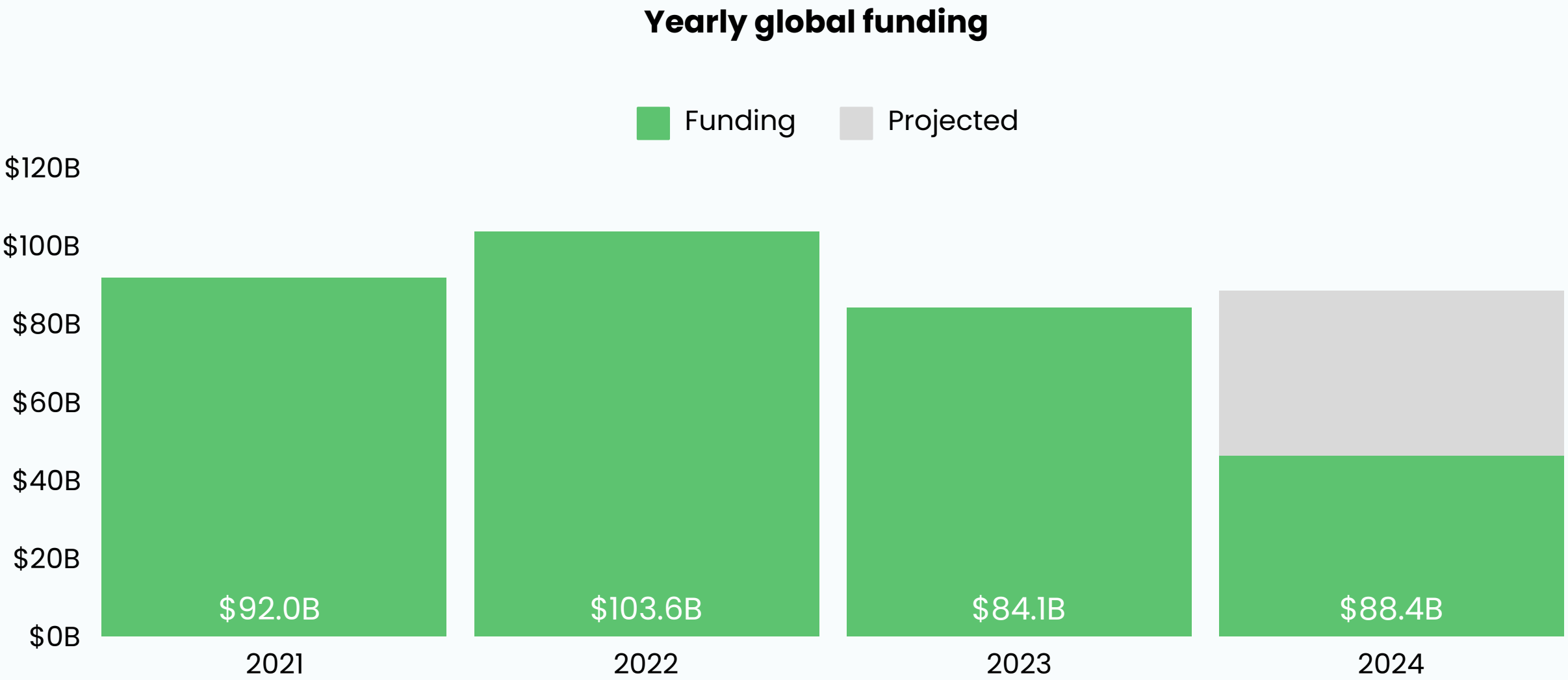
- Climate Tech deal and funding
- Venture and exit activity
- Challenge areas
- Innovation stakeholders

For further details and definitions regarding the scope of the report, please consult the methodology section.

PART 1

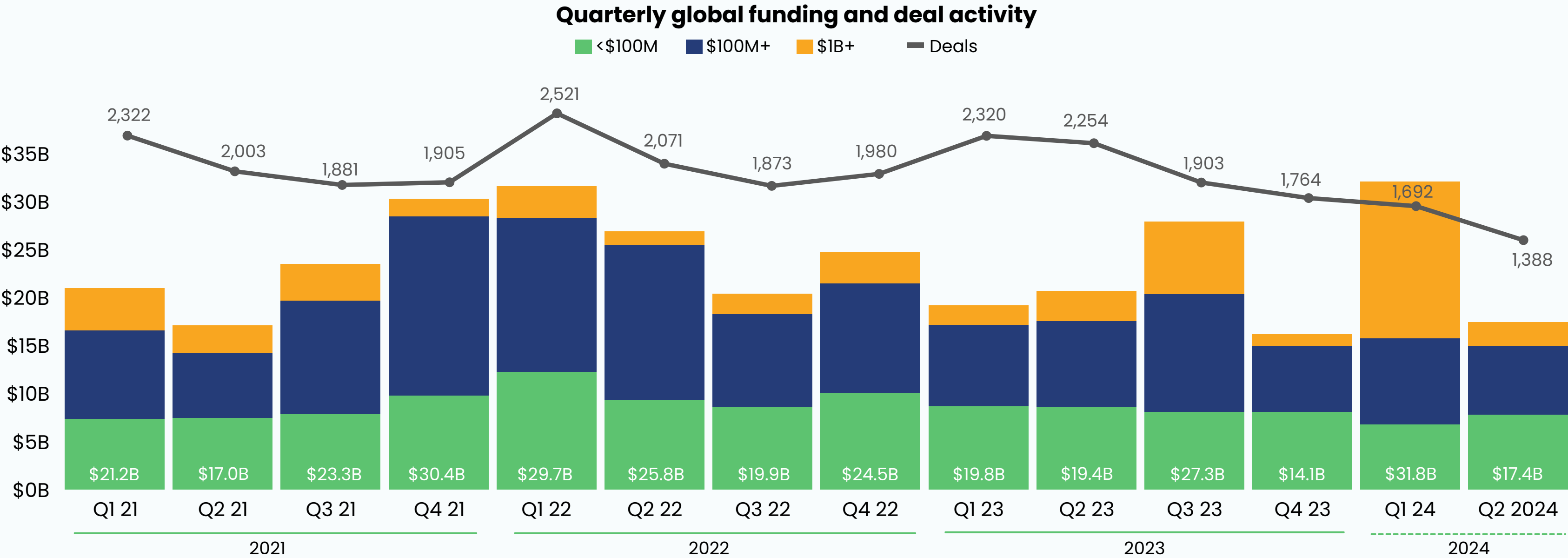
OVERVIEW

2024 IS ON TRACK TO SURPASSING 2023 IN FUNDING ACTIVITY, DRIVEN BY LARGE FUNDING ROUNDS.



Source: Net Zero Insights

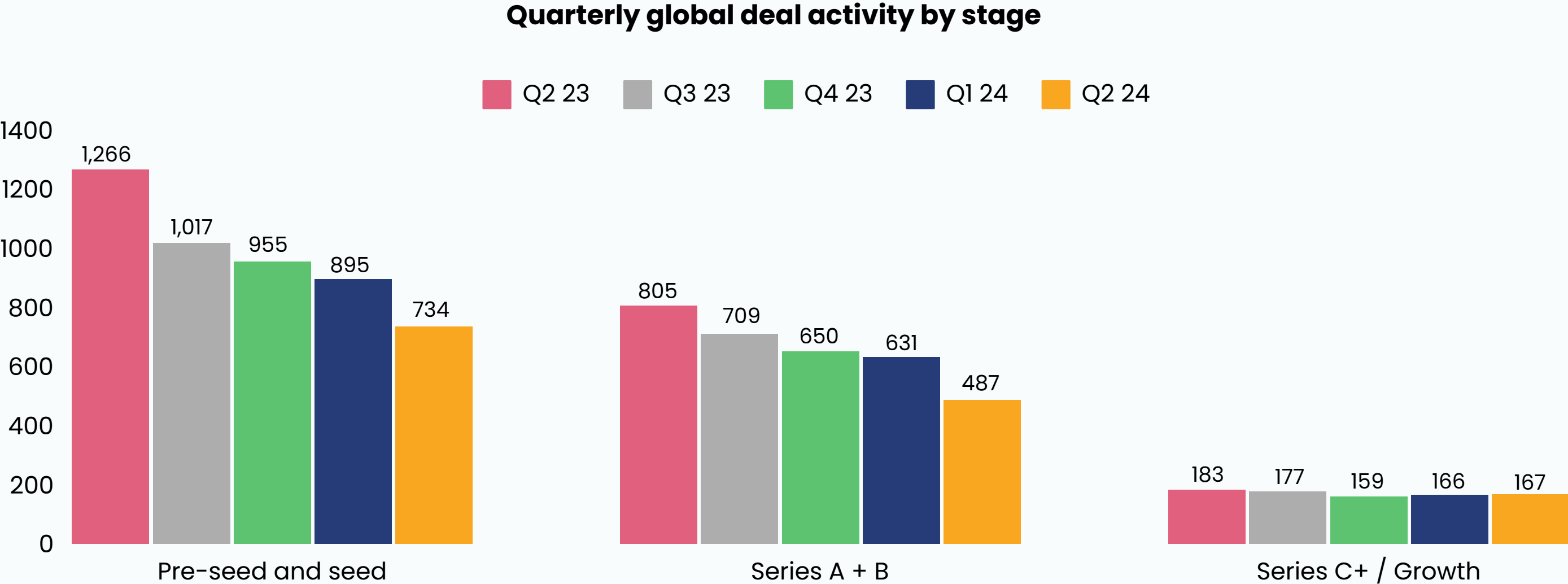
GIGA-ROUND ACTIVITY NORMALIZES IN Q2 2024, WHILE OTHER FUNDING ROUNDS HOLD STEADY.



Source: Net Zero Insights

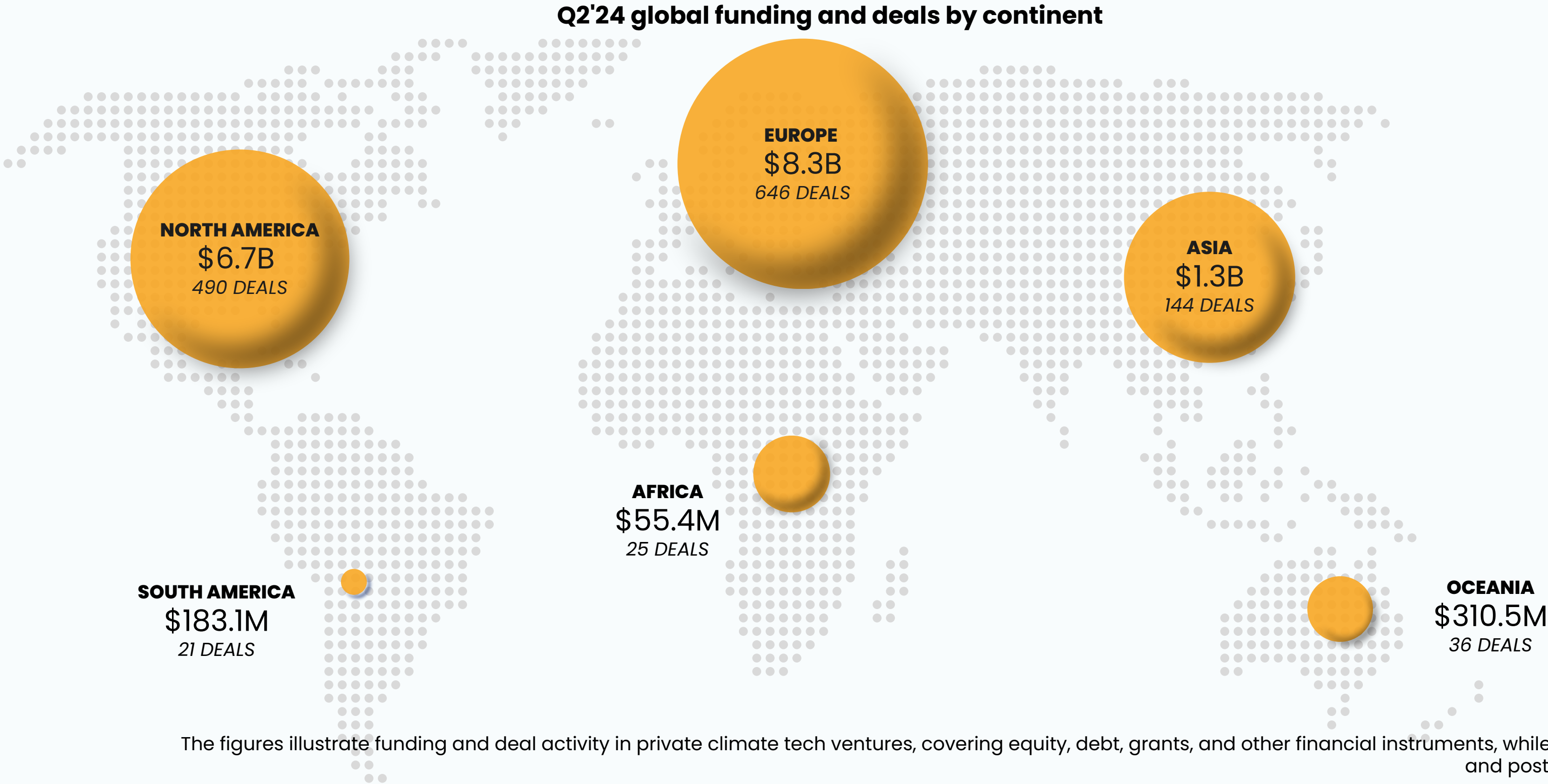
The figures illustrate funding and deal activity in private climate tech ventures, covering equity, debt, grants, and other financial instruments, while excluding exits and post-exit financing.

CONTINUED DECLINE IN DEAL COUNTS ACROSS ALL STAGES IN CLIMATE TECH, WITH SERIES A & B SEEING THE STEEPEST DECLINE.

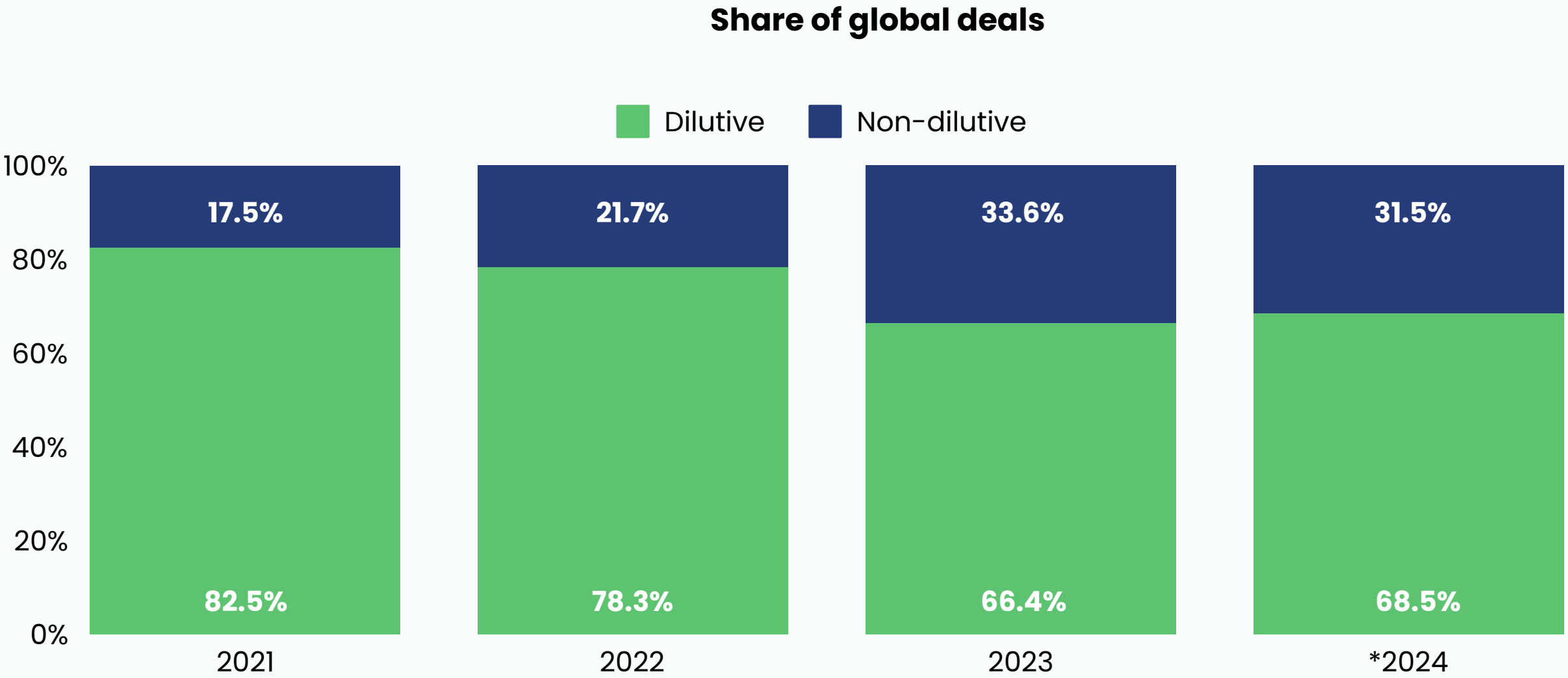


Source: Net Zero Insights

DESPITE A QUIETER Q2, EUROPE CONTINUES TO LEAD VENTURE FUNDING, MAINTAINING ITS STELLAR MOMENTUM FROM Q1 2024.



THE SHARE OF DILUTIVE AND NON-DILUTIVE FUNDING CONTINUES TO BE ON PAR WITH HISTORIC LEVELS.

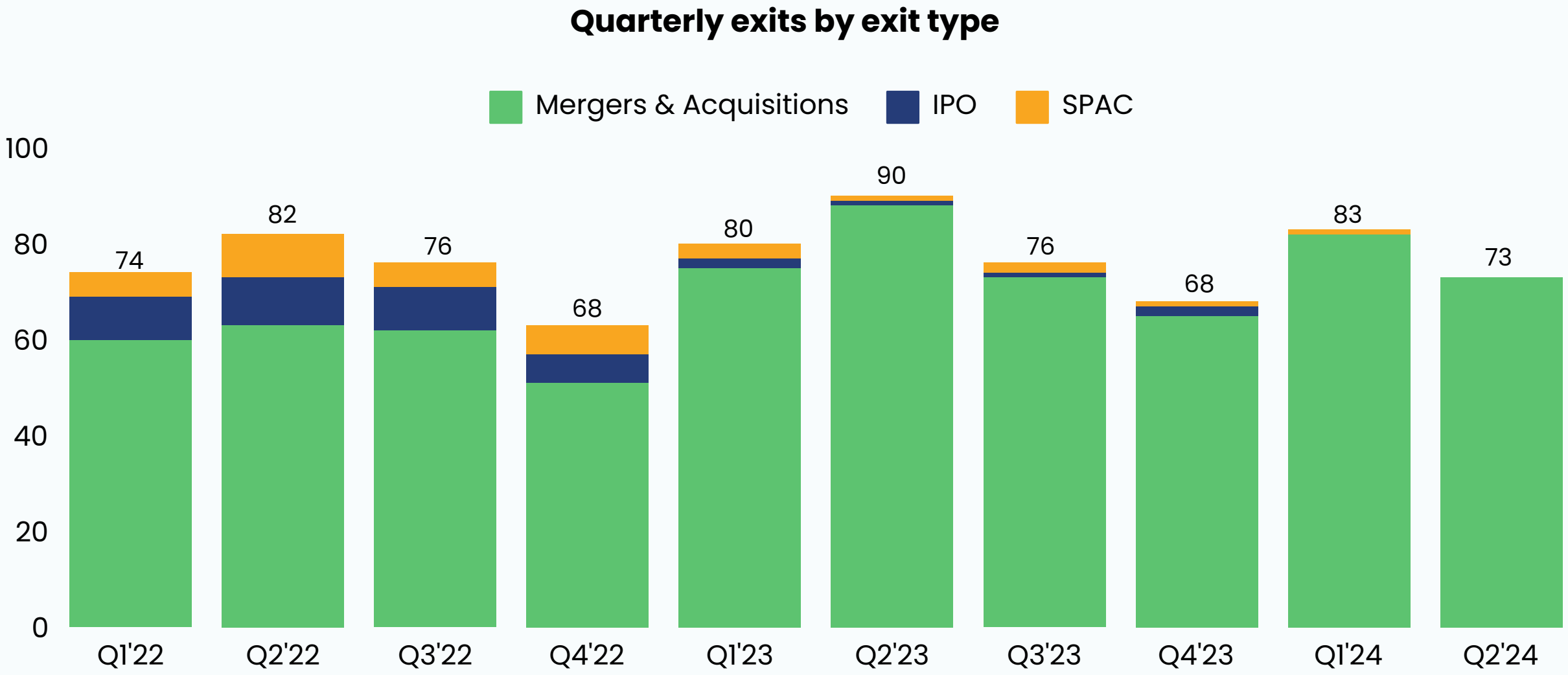


Source: Net Zero Insights

The figures illustrate funding and deal activity in private climate tech ventures, covering equity, debt, grants, and other financial instruments, while excluding exits and post-exit financing. Numbers include end of year projections

- * 2024 data includes year-end projections..

2024 EMBRACES CONTINUITY WITH A LONG-TERM FOCUS ON M&A AMID A PERSISTENTLY CLOSED IPO WINDOW.

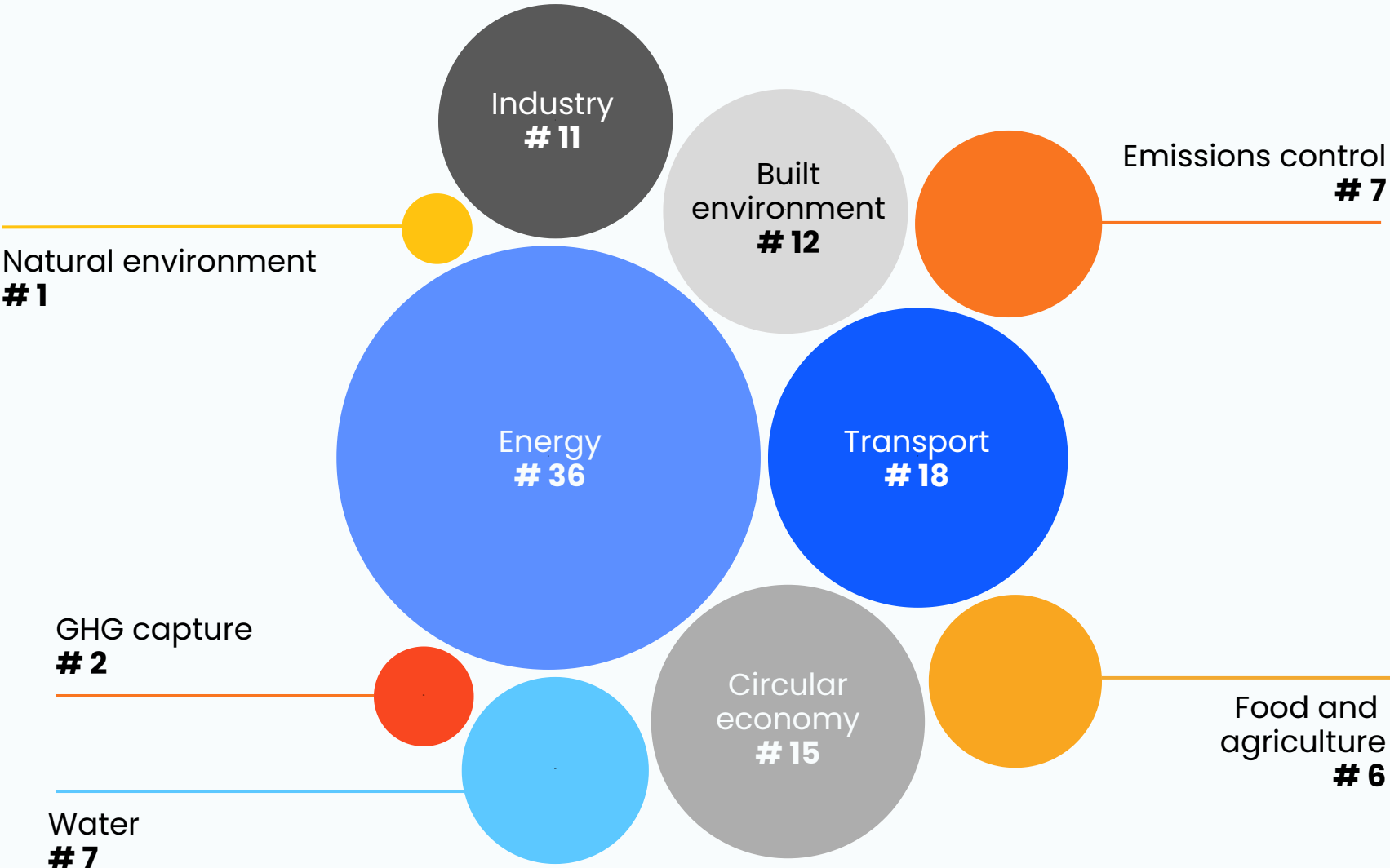


Source: Net Zero Insights

The figures illustrate exit activity including IPOs, SPACs, mergers and acquisitions of private climate tech ventures, while excluding venture and post-exit financing.

ENERGY, TRANSPORT, AND CIRCULAR ECONOMY WERE THE TOP 3 EXIT AREAS IN Q2 2024.

Q2'24 global exits by climate change challenge area



Word clouds for buzzwords in Q2'24 exit deals



Source: Net Zero Insights

The figures illustrate exit activity including IPOs, SPACs, mergers and acquisitions of private climate tech ventures, while excluding venture and post-exit financing. An organisation can fall into multiple categories, potentially being counted more than once. For more details about the climate change challenge areas, please refer to the methodology section.

CORPORATE DOMINANCE IN CLIMATE TECH EXITS REMAINS STRONG, CONSISTENTLY ABOVE 70% OVER THE LAST 5 YEARS.

This emphasizes the strategic importance large companies place on acquiring innovative technologies and solutions and highlights the increasing role of corporate acquisition as a critical pathway for climate tech startups to scale and integrate their innovations into broader market applications.

As corporations seek to enhance their sustainability portfolios and meet regulatory and consumer demands for greener practices, their significant presence in the exit landscape demonstrates a commitment to driving forward the transition to a low-carbon economy. Meanwhile, the relatively smaller yet persistent participation of other acquirers suggests a diverse interest in climate tech, albeit less dominant compared to corporate players.

TOP CORPORATE ACQUIRERS IN Q2 '24



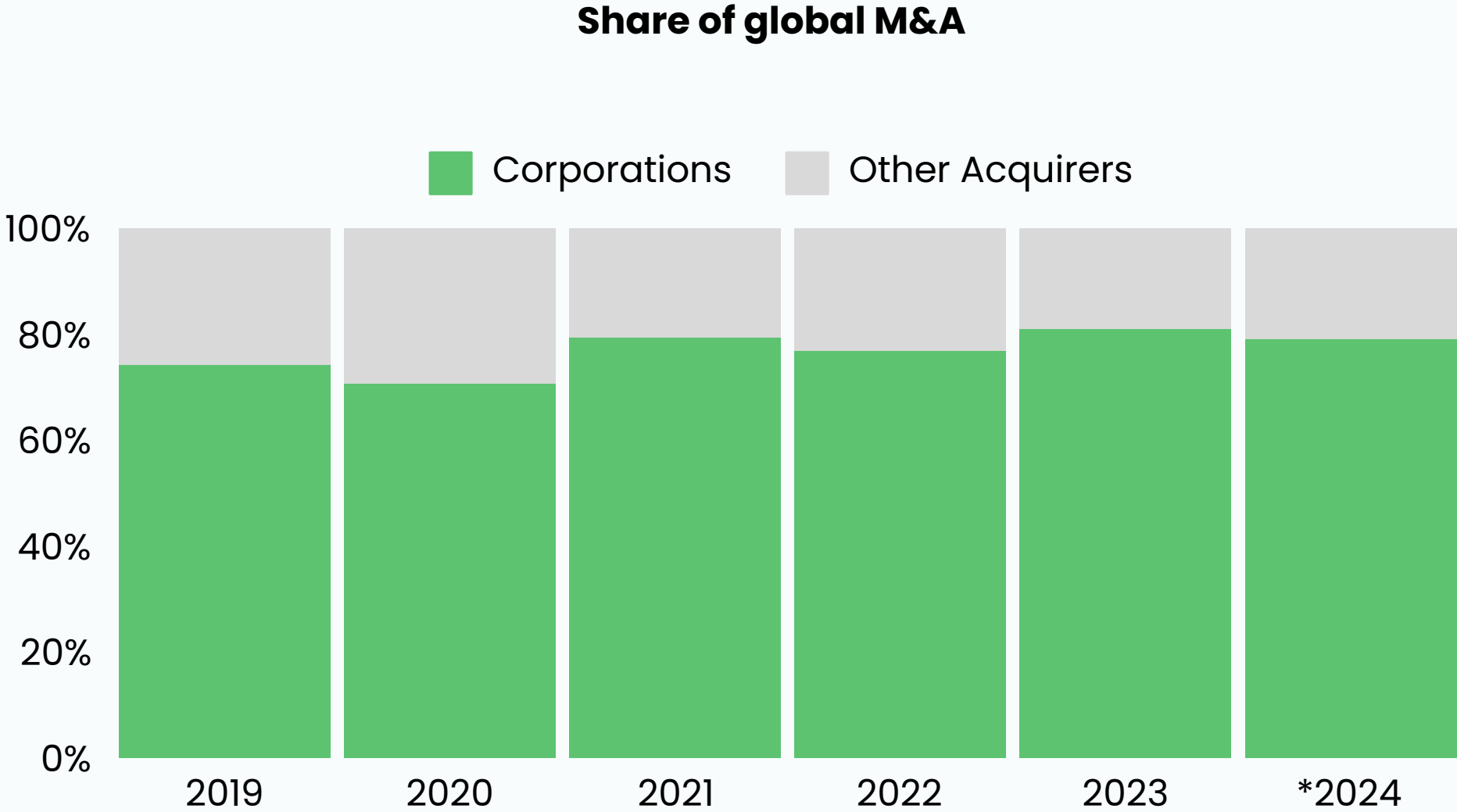
Uvcell Solar
| 2 deals
UNITED STATES



DOW
| 1 deal
UNITED STATES



McCain Foods
| 1 deal
CANADA



Source: Net Zero Insights

The figures illustrate exit activity including mergers and acquisitions of private climate tech ventures, while excluding venture and post-exit financing.

NOTABLE Q2' 24 EXIT DEALS

Notable examples						
Acquired Company	Keyword	HQ Country	Acquirer Corporation	Acquirer Sector - Industry	HQ Country	Read More
	HYDROGEN	FRANCE		ENERGY	FRANCE	Link
	CIRCULAR ECONOMY	UNITED STATES		CHEMICALS	UNITED STATES	Link
	ENERGY	MALAYSIA		ENERGY	UNITED STATES	Link
	EMISSIONS TRACKING	UNITED STATES		IT	UNITED STATES	Link
	GREEN HYDROGEN	FINLAND		UTILITIES	SWITZERLAND	Link
	PLANT-BASED FOODS	IRELAND		CONSUMER STAPLES	CANADA	Link

Source: Net Zero Insights

PART 2

INNOVATORS' VOICE

The Innovators' Voice section features the profiles of this quarter's most notable innovators, providing insights through the following questions:

- **FACE:** Who are these innovators?
- **PLACE:** Where are the innovators coming from?
- **FOCUS:** What type of innovations are they developing?
- **PATH:** Why and how are they driving innovation?

This structured approach offers a comprehensive view of the diverse backgrounds, motivations, methods, and innovations shaping the climate tech landscape.



INNOVATORS' VOICE

KEY TAKEAWAYS

FACE: WHO ARE THE INNOVATORS?

This quarter, the most notable innovators capturing investors' attention are primarily focused on hydrogen, solar and nuclear energy, as well as energy storage and batteries.

PLACE: WHERE ARE THE INNOVATORS COMING FROM?

This quarter, London emerges as the leading hub for innovators and their organizations, excelling in both the number of deals and the total funding attracted.

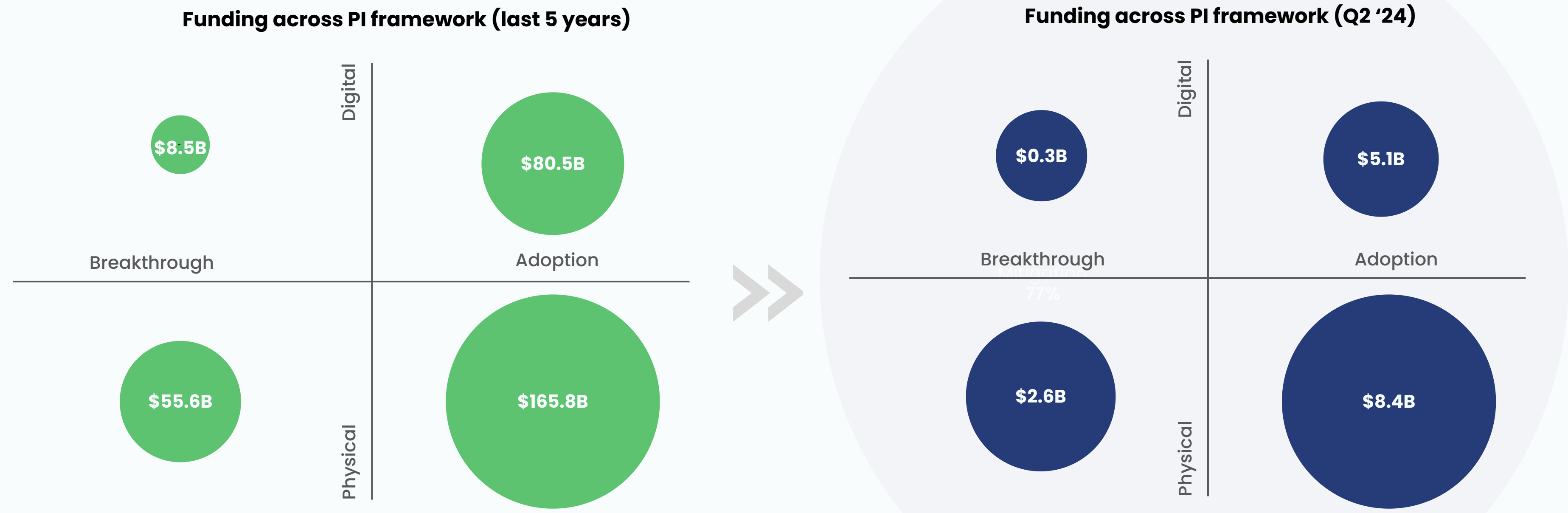
FOCUS: WHAT TYPE OF INNOVATIONS?

Innovators remain focused on advancing TRL and overcoming challenges to adopt physical solutions, capturing the least risky profile of current investors.

PATH: WHY AND HOW ARE THEY DRIVING INNOVATION?

The story of a startup that raised the most in pre-seed and seed funding this quarter highlights challenges and offers advice on navigating climate tech fundraising.

MORE THAN 50% OF CAPITAL ALLOCATION REMAINS FOCUSED ON THE ADOPTION OF PHYSICAL SOLUTIONS IN Q2 2024.



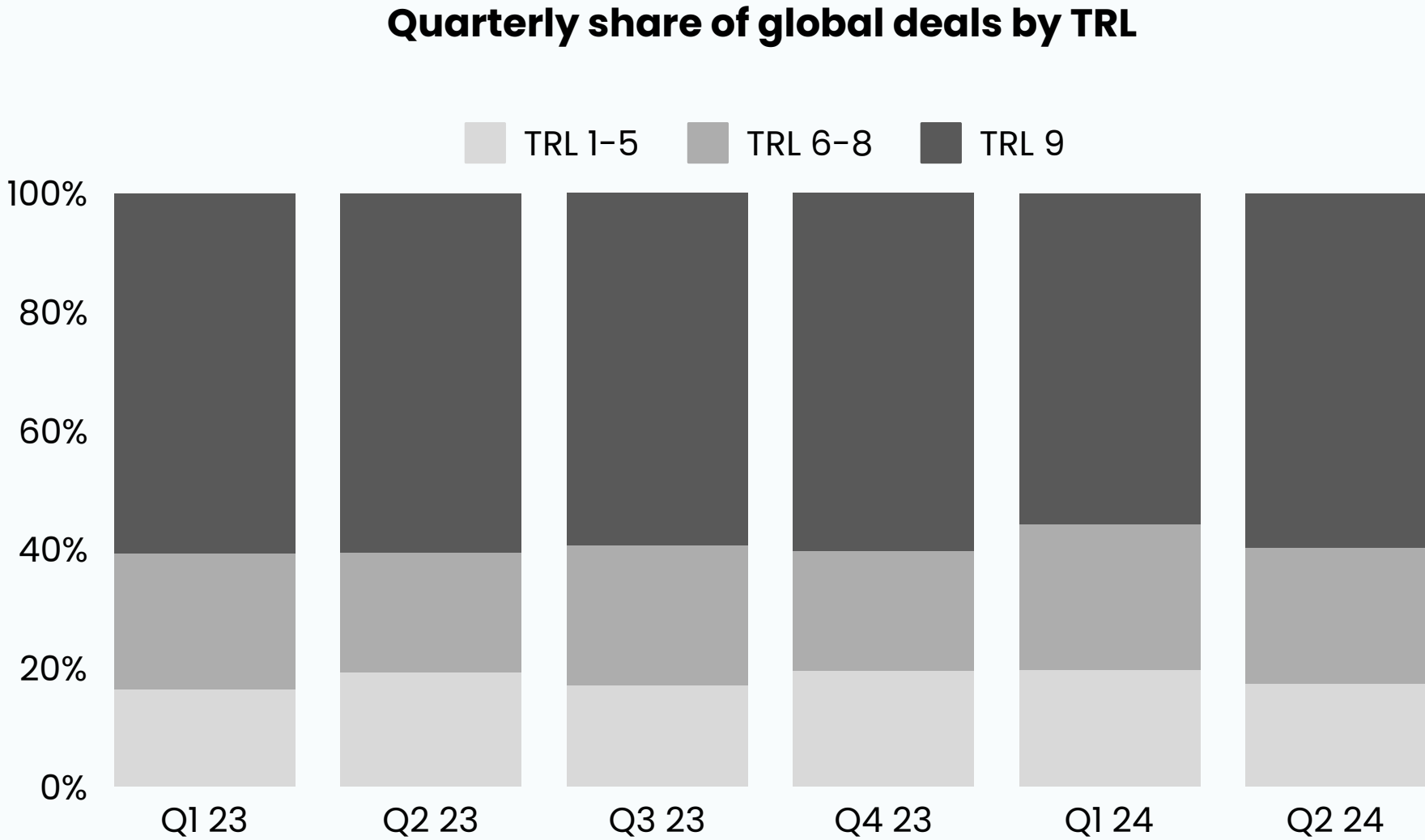
Source: Net Zero Insights

The figures illustrate funding and deal activity in private climate tech ventures, covering equity, debt, grants, and other financial instruments, while excluding exits and post-exit financing. For more details about the product-innovation framework, please refer to the methodology section.

MATURE TECHNOLOGIES (TRL 9) DOMINATE DEAL ACTIVITY, MAINTAINING A MAJORITY SHARE ACROSS ALL QUARTERS.

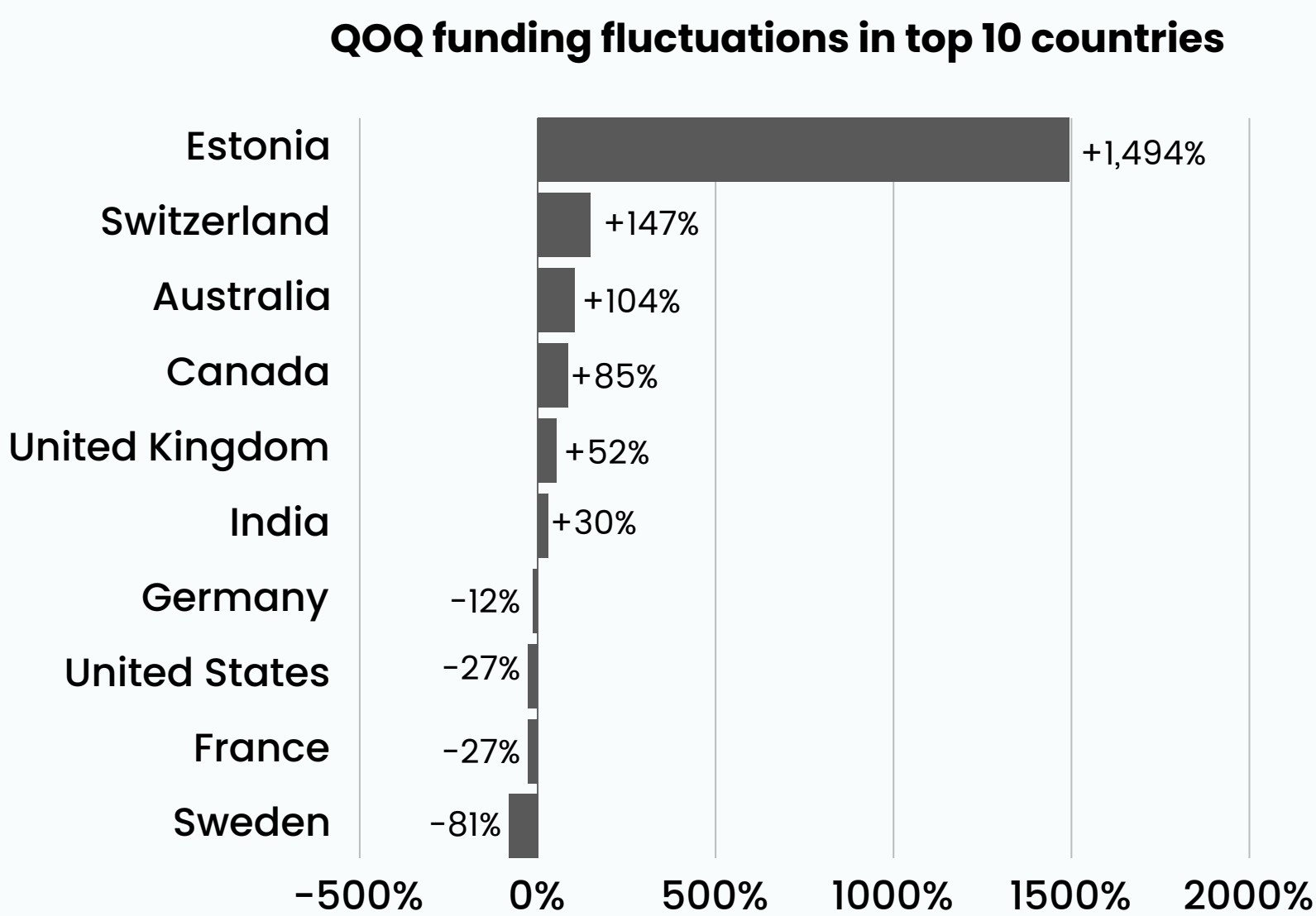
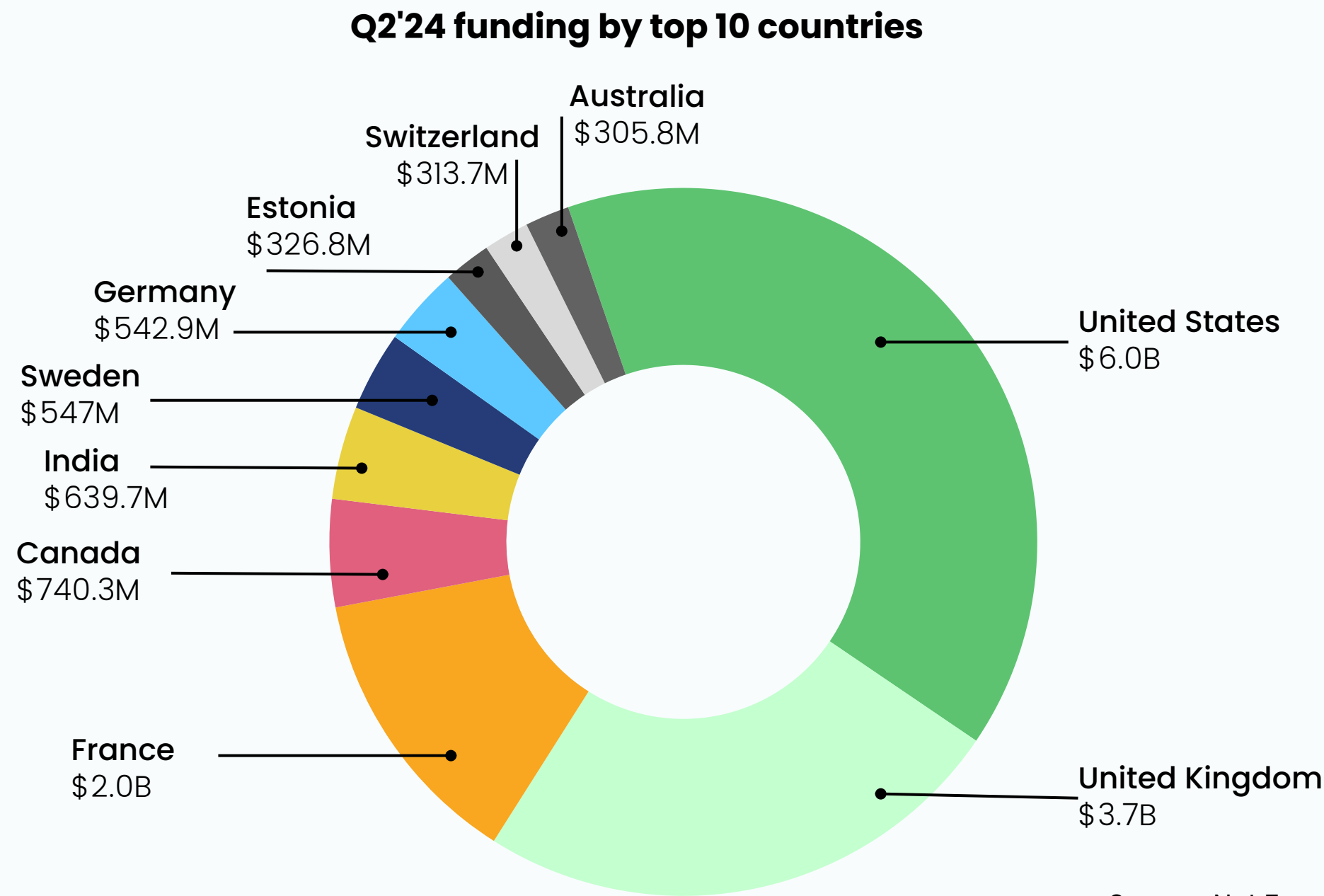
Deal activity data over the last six quarters consistently shows a strong preference for mature technologies, which have maintained a majority share, consistently hovering around 60%.

This reinforces investor conviction within well-established, commercially viable solutions that offer immediate impact and lower risk. While early-stage technologies (TRL 1-5) and mid-stage innovations (TRL 6-8) have seen some fluctuations, their shares remain significantly lower. The slight increase in mid-stage technology deals in Q1 2024 may indicate growing interest in technologies nearing commercialization, though the dominant focus continues to be on mature, deployable solutions that can address urgent climate challenges.



Source: Net Zero Insights

THE US, THE UK AND FRANCE RECEIVE 70% OF TOTAL QUARTERLY FUNDING.



Source: Net Zero Insights

The figures illustrate funding and deal activity in private climate tech ventures, covering equity, debt, grants, and other financial instruments, while excluding exits and post-exit financing.

THIS QUARTER, LONDON SOLIDIFIES ITS STATUS AS A TOP CLIMATE TECH HUB, LEADING IN BOTH FUNDING AND DEALS.

Top 10 cities in Q2'24 by funding and deal activity

ORGANISATION HQ CITY		FUNDING		DEALS	
	LONDON		\$3.3B		76
	GRENOBLE		\$1.4B		3
	STOCKHOLM		\$506.6M		18
	HOUSTON		\$451.6M		16
	PARIS		\$368.1M		30
	OAKLAND		\$340.7M		11
	SAN FRANCISCO		\$337.0M		25
	AACHEN		\$333.3M		5
	TALINN		\$326.8M		10
	CALGARY		\$317.6M		5

Source: Net Zero Insights

INNOVATOR

SPOTLIGHT

Q: Congratulations on your recent \$45M funding round! Given the increasing fundraising difficulty for climate tech startups, especially within pre-seed and seed stages, what strategies did you employ in your fundraising efforts and how could this help founders looking to raise?

A: Raising funds in today's competitive environment requires a unique value proposition, particularly for startups in the climate tech sector. At Stargate, our success is rooted in our technology. We have pioneered a new class of materials through fundamental material science, which significantly reduce production cost of green hydrogen and doesn't rely on rare precious metals. Our technology differentiates us in the market and therefore has a high potential of bringing solid returns to our investors. For other founders, it's essential to highlight what makes your technology transformative and show investors how your innovation can change market dynamics and address existing inefficiencies. Providing clear, tangible benefits and a strong business case can make a compelling argument for investment.

Q: Given the increasing emphasis on green hydrogen in decarbonization efforts, how does Stargate Hydrogen plan to allocate its funds to scale Stargate Hydrogen's operations, especially within existing industrial processes?

A: To scale our operations effectively, we are focusing on expanding both our organizational capacity and production facilities. Currently, we operate a 300 m² pilot production plant, but by Q3 of this year, we will transition to a significantly larger 2500 m² facility. This move will not only increase our production capabilities but also enhance our efficiency and output. Additionally, we are investing in extensive in-house testing capabilities.



Marko Virkebau
CEO and Co-Founder

Marko Virkebau has extensive experience in cleantech investment and innovation. Under his leadership, Stargate has attracted over 40 MEUR in investments. Marko's efforts have positioned Stargate as a key player in sustainable energy, with strategic partnerships across Europe.

Stargate Hydrogen is a privately owned company developing turnkey solutions for green hydrogen deployment. The central innovation of the company is focused on the development of next-generation alkaline electrolyzers that are free from precious metals.

INNOVATOR

SPOTLIGHT

These advancements are critical for optimizing our technology, ensuring quality, and maintaining a competitive edge. Our technology's cost benefits come from the innovative materials we develop, which reduce the cost of producing green hydrogen compared to traditional methods. In short, we aim to address common operational and technical challenges head-on, to streamline our processes and scale our operations to meet growing market demand.

Q: The climate tech landscape is rapidly evolving. What trends or innovations in the hydrogen sector are you most excited about, and how is Stargate Hydrogen positioning itself to lead or adapt to these changes – both within Europe and globally?

A: The climate tech landscape is fast-paced, trends come and go, that is why we are careful when raising expectations with each new trend. But one notable fact is the recognition that electrification alone is insufficient to combat climate change. There is a growing consensus on the need for energy storage and carrier molecules, such as hydrogen, to complement electricity. At Stargate Hydrogen, we are excited about this shift as it aligns with our core mission. We are positioning ourselves at the forefront of this transition by continually innovating and improving our hydrogen production technologies. Combined with the supportive policy and regulatory frameworks in Europe and other regions, which are increasingly favoring clean energy sources, we foresee a bright future for green hydrogen.

2

INNOVATORS' VOICE



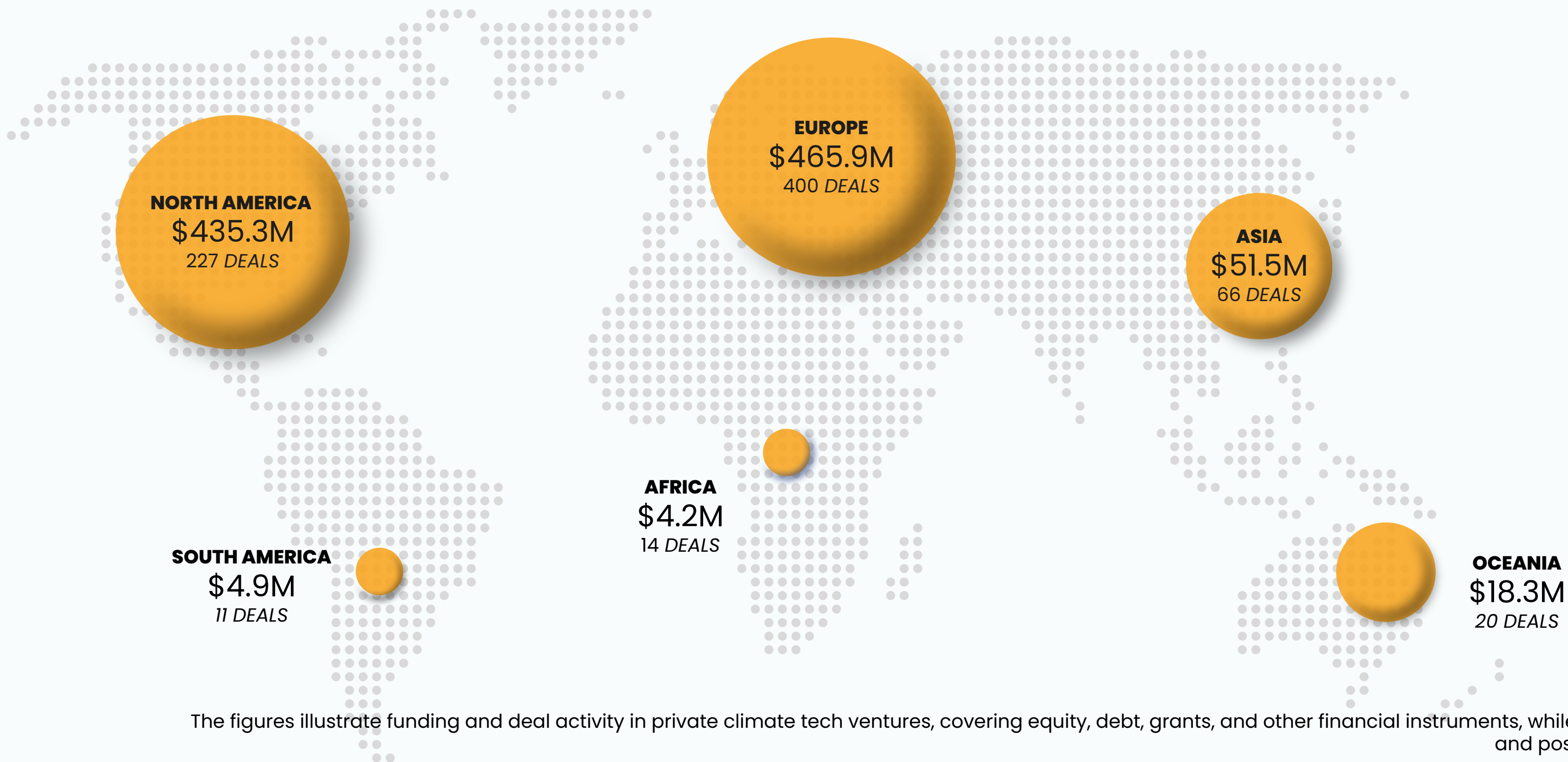
pre-seed and seed

early stage

later stage

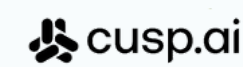
EUROPE EDGES OVER NORTH AMERICA TO TAKE THE LEAD FOR PRE-SEED AND SEED FUNDING AND DEAL ACTIVITY IN Q2 2024.

Q2'24 pre-seed and seed funding and deal activity by continent



The figures illustrate funding and deal activity in private climate tech ventures, covering equity, debt, grants, and other financial instruments, while excluding exits and post-exit financing.

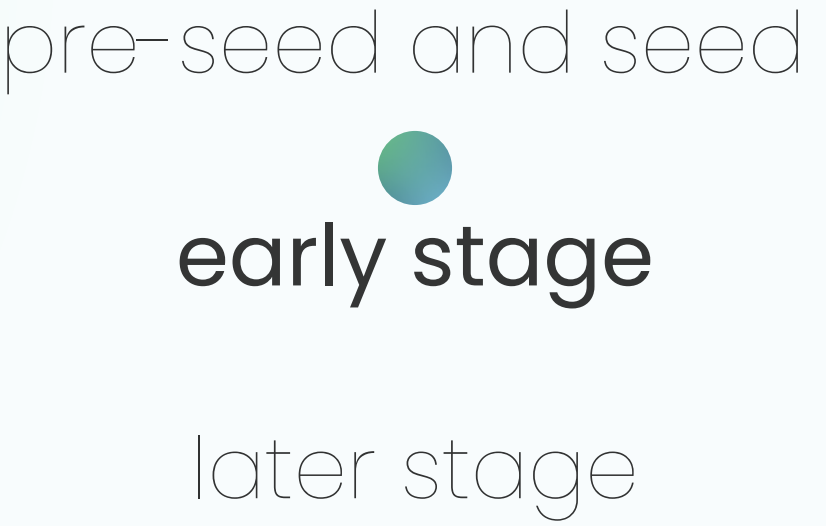
TOP PRE-SEED AND SEED DEALS IN Q2 2024

Company	Amount	HQ Country	Tags	Read More
 stargate hydroaen	\$45.4M	ESTONIA	# Green hydrogen	Link
 cusp.ai	\$30M	UNITED KINGDOM	#Materials #CCUS	Link
 Proxima Fusion	\$21.5M	GERMANY	#Fusion power plants	Link
 EXOWATT	\$20M	UNITED STATES	#Thermal energy storage	Link
 ElectronX	\$15M	UNITED STATES	#Financial marketplace #electricity	Link
 FOUND energy	\$12M	UNITED STATES	#Hydrogen technology	Link
 SiTration	\$11.8M	UNITED STATES	#Lithium-Ion battery recycling	Link
 trawa.	\$10.8M	GERMANY	#Energy management #AI	Link
 R E ENERGY	\$10.8M	NETHERLANDS	#Energy storage	Link
 Halcyon	\$10.8M	UNITED STATES	#Energy data #AI	Link

Source: Net Zero Insights

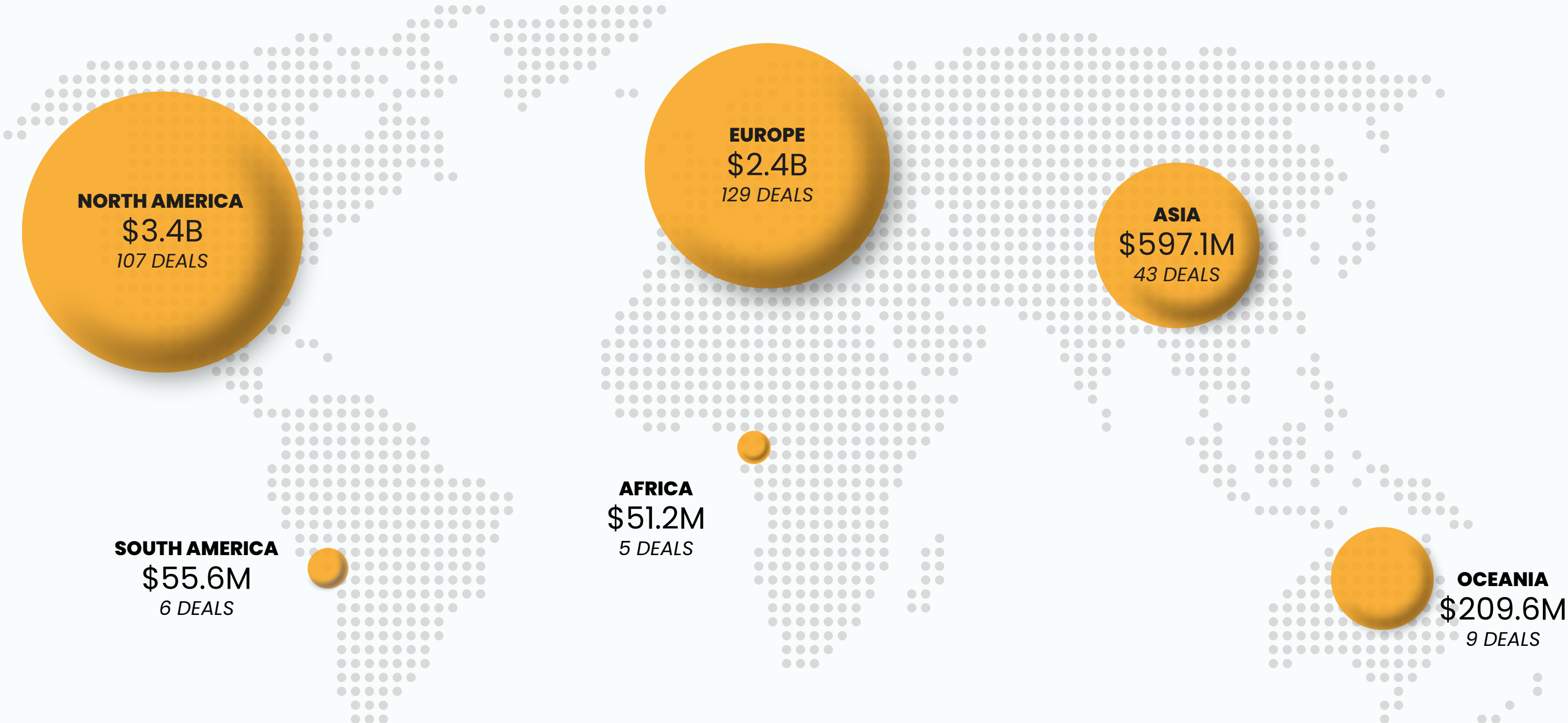
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INNOVATORS' VOICE



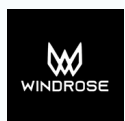
NORTH AMERICA TAKES A SIZABLE LEAD IN EARLY-STAGE FUNDING, WHILE EUROPE REMAINS THE DEAL HUB.

Q2'24 early stage funding and deal activity by continent



The figures illustrate funding and deal activity in private climate tech ventures, covering equity, debt, grants, and other financial instruments, while excluding exits and post-exit financing.

TOP EARLY STAGE DEALS IN Q2 2024

Company	Amount	HQ Country	Tags	Read More
	\$308M	UNITED STATES	#Energy Storage	Link
	\$164M	UNITED STATES	#E-fuels	Link
	\$114M	AUSTRALIA	#Green Hydrogen	Link
	\$110M	CHINA	#Electric Mobility	Link
	\$100M	UNITED STATES	#Nuclear Energy	Link
	\$100M	UNITED KINGDOM	#Distributed energy resources	Link
	\$100M	SWEDEN	#Circular Economy	Link
	\$100M	UNITED STATES	#Residential Energy Management	Link
	\$94.1M	UNITED KINGDOM	#Nuclear Energy	Link
	\$74M	ISRAEL	#Metal Alloys	Link

Source: Net Zero Insights

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INNOVATORS' VOICE

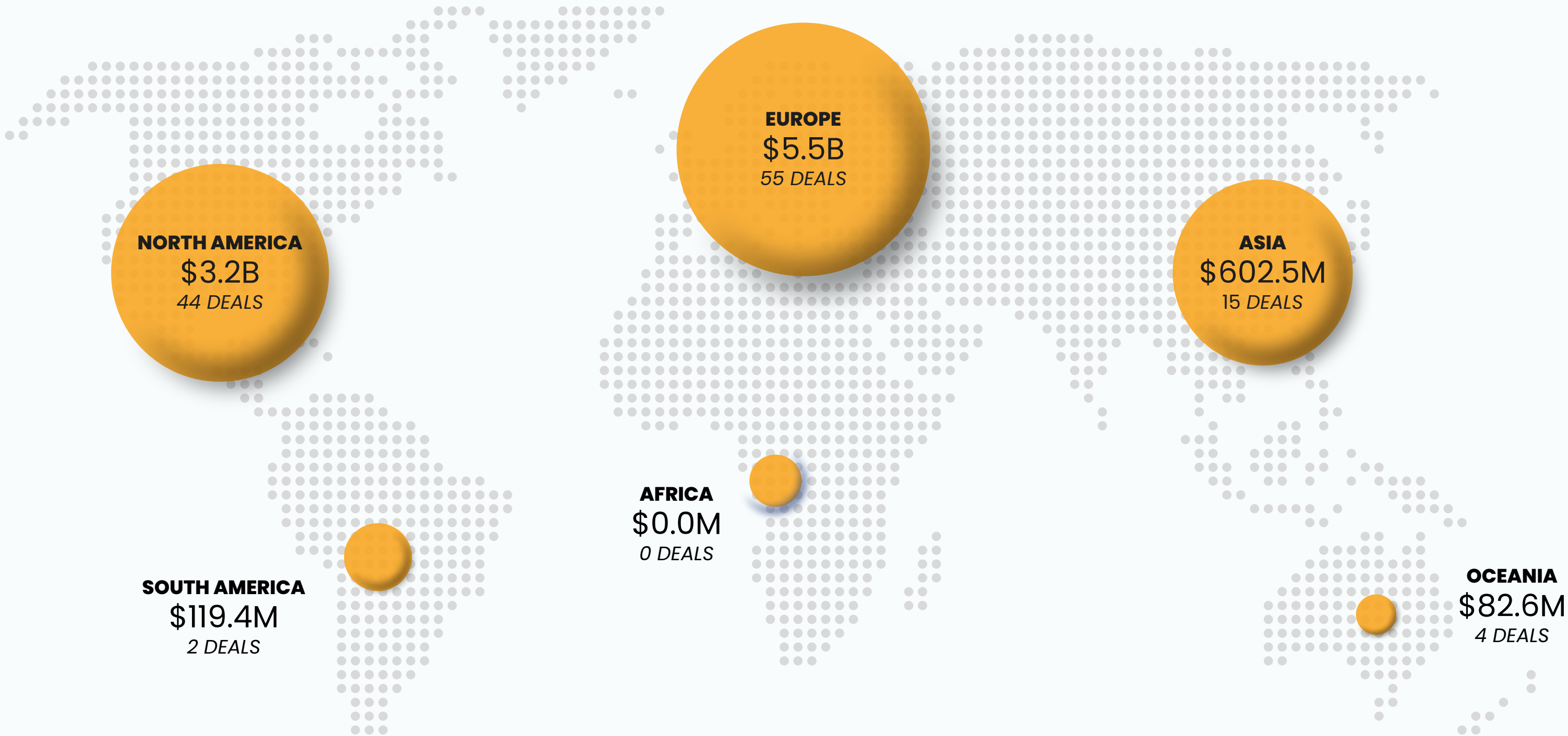
pre-seed and seed

early stage

later stage

EUROPE TAKES THE LEAD IN LATER STAGE FUNDING THIS QUARTER, OUTPACING OTHER REGIONS.

Q2'24 later stage funding and deal activity by continent



The figures illustrate funding and deal activity in private climate tech ventures, covering equity, debt, grants, and other financial instruments, while excluding exits and post-exit financing.

TOP LATER STAGE DEALS IN Q2 2024

Company	Amount	HQ Country	Tags	Read More
	\$1.41B	FRANCE	<i>#Battery Energy Storage</i>	
	\$1.05B	UNITED KINGDOM	<i>#Autonomous Driving Technology #AI</i>	
	\$517M	UNITED KINGDOM	<i>#Battery Storage Systems</i>	
	\$381M	UNITED KINGDOM	<i>#Long Duration Energy Storage</i>	
	\$375M	UNITED STATES	<i>#Lithium-ion batteries</i>	
	\$337M	CANADA	<i>#Hydrogen production and Distribution</i>	
	\$318M	UNITED KINGDOM	<i>#Energy Efficiency Equipment</i>	
	\$215M	SWEDEN	<i>#Heating Systems</i>	
	\$166M	UNITED STATES	<i>#Battery energy storage systems</i>	
	\$150M	UNITED STATES	<i>#Green Hydrogen #Electric natural gas</i>	

Source: Net Zero Insights

PART 3

INVESTORS' VOICE

The Investors' Voice section highlights the profiles of this quarter's most active investors, offering insights through the following questions:

- **FACE:** Who are the prominent investors of the quarter?
- **PLACE:** Where are these investors based?
- **FOCUS:** What are the predominant investment strategies employed?
- **PATH:** Why and how do they invest, and what informs their decision-making?

This structured presentation provides a comprehensive view of the investors' backgrounds, methodologies, and strategic approaches influencing current investment trends.



INVESTORS' VOICE

KEY TAKEAWAYS

FACE: WHO ARE THE INVESTORS OF THE QUARTER?

Venture investors remain cautious in their activities, while corporations and banks pursue a more aggressive approach in both the number and amount of deals.

PLACE: WHERE ARE THE INVESTORS BASED?

North America and Europe continue to host most climate tech investors, but this quarter, North America's investor activity notably declined.

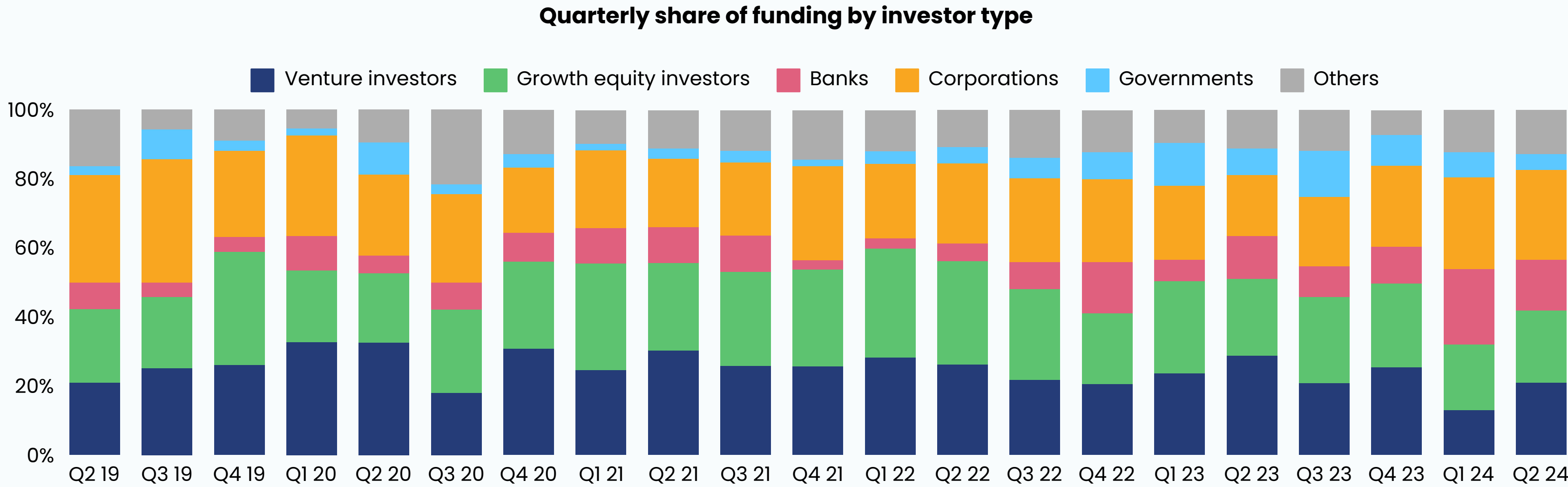
FOCUS: WHAT ARE THEIR INVESTMENT STRATEGIES?

Despite a decline observed this quarter, debt financing is rising, driven by outlier rounds amid declining venture investment.

PATH: HOW ARE THEY INVESTING?

An insightful interview with E44 Ventures discusses their investment strategies, challenges, opportunities, and perspectives on the future of climate tech.

CORPORATIONS AND BANKS ARE UPPING THEIR FUNDING SHARE AS VENTURE INVESTORS' DOMINANCE FLUCTUATES.

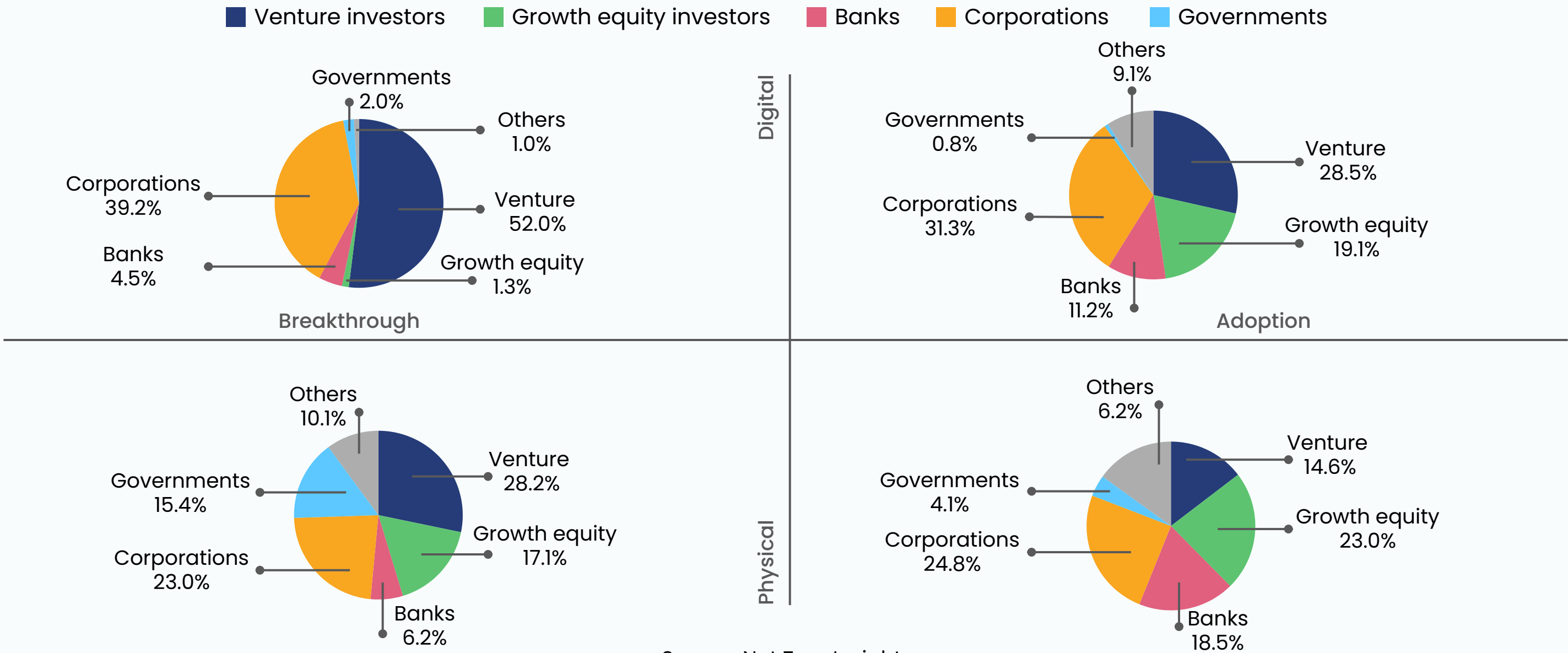


Source: Net Zero Insights

A deal can be participated by multiple investors, potentially being counted more than once. The figures illustrate funding activity in private climate tech ventures, covering equity, debt, grants, and other financial instruments, while excluding exits and post-exit financing. For more details about the investor types categories, please refer to the methodology section.

IN PARTICULAR, CORPORATIONS ARE PLAYING IMPORTANT ROLES ACROSS ALL QUADRANTS OF THE P-I FRAMEWORK.

Q2'24 global funding by investor type across PI framework



Source: Net Zero Insights

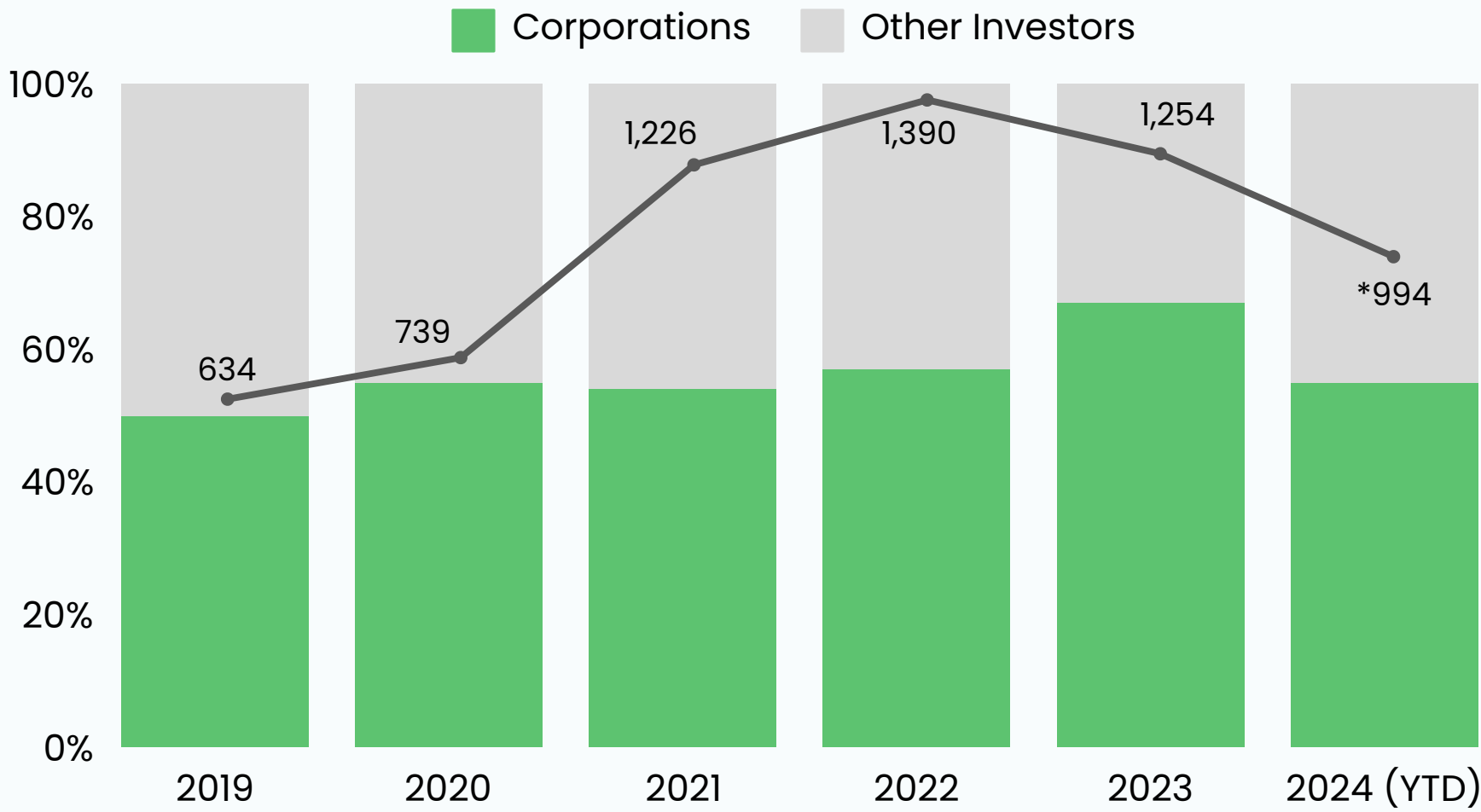
A deal can be participated by multiple investors, potentially being counted more than once. The figures illustrate funding activity in private climate tech ventures, covering equity, debt, grants, and other financial instruments, while excluding exits and post-exit financing. For more details about the investor types categories, and the product-innovation framework, please refer to the methodology section.

CORPORATIONS INCREASINGLY DOMINATE CLIMATE TECH FUNDING, OUTPACING OTHER INVESTORS.

Corporations have steadily increased their share of climate tech funding, rising from an equal 50% with other investors in 2019 authoritative majority shares in 2023 and 2024. Deal activity, in line with observations, continue to dip and have dipped for the second consecutive year.

Although their share has dipped slightly from 64% in 2023 to 55% in 2024, corporations continue to play a crucial role in driving investment in sustainable technologies. This possibly supports the growing influence and commitment of corporations in addressing climate challenges, even as other investors remain significant contributors to the sector.

Yearly global funding and deals participated by corporations



Source: Net Zero Insights

CORPORATIONS CONSISTENTLY VEER AWAY FROM FOOD AND AGRICULTURE, AND REMAIN CAUTIOUS ABOUT TRANSPORT.

Corporations are showing a clear preference in their climate tech investments, consistently avoiding the food and agriculture sectors and exercising caution in transport. In contrast, energy, industry, greenhouse gas capture, and water technologies are performing relatively well, attracting strong corporate interest and investment.

This could possibly signal a strategic focus on areas perceived as having higher immediate impact and potential for scalable solutions, indicating where corporations see the most promise in addressing climate challenges effectively in the short- to mid- term.

Share of deals participated by corporations by challenge area

	2020	2021	2022	2023	*2024 (YTD)
 energy	19.4%	21.9%	22.8%	23.5%	31.4%
 industry	9.5%	7.8%	10.2%	12.7%	13.1%
 transport	16.1%	16.0%	13.7%	13.1%	18.2%
 food and agriculture	20.9%	18.4%	15.5%	14.2%	7.8%
 circular economy	11.6%	11.4%	12.1%	11.6%	13.9%
 built environment	5.0%	5.2%	4.4%	5.6%	4.9%
 natural environment	2.4%	2.5%	3.1%	4.2%	3.2%
 emissions control	2.6%	3.7%	4.2%	4.8%	3.7%
 GHG Capture, removal and storage	2.2%	2.4%	2.9%	4.0%	0%
 Water	1.5%	2.2%	1.2%	2.7%	3.9%

Source: Net Zero Insights

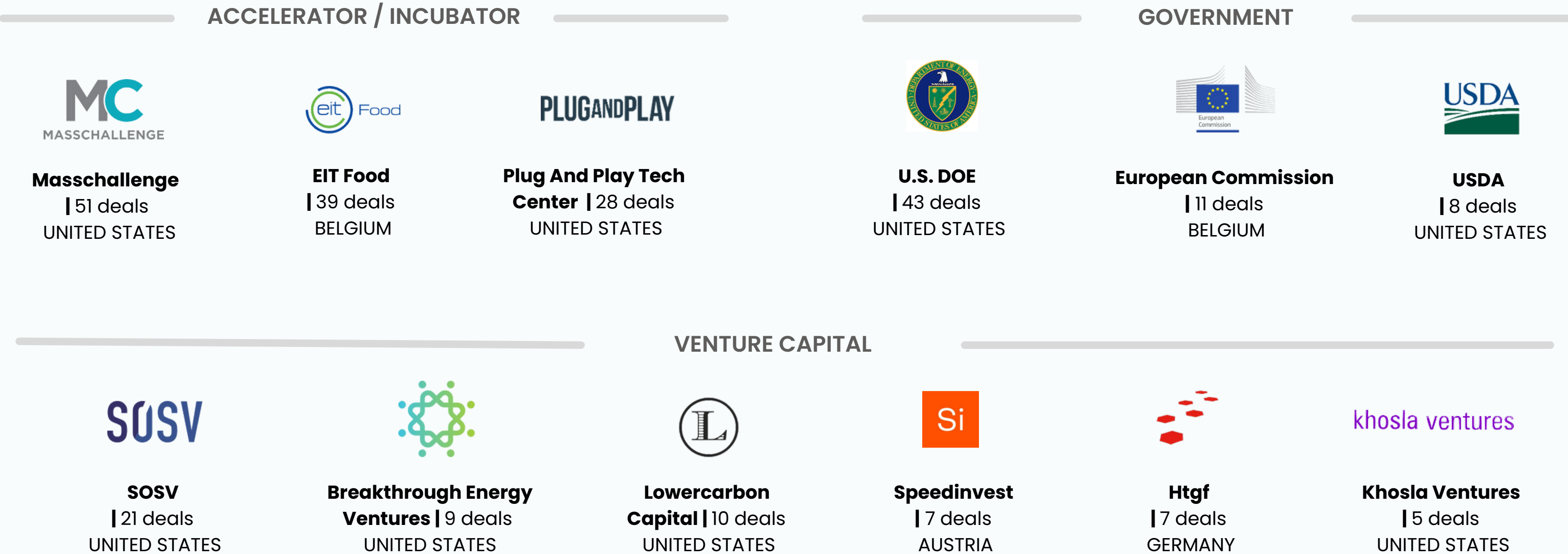
AMERICAN INVESTORS' ACTIVITIES DROPPED BY -32% QOQ,
COMPARED TO -9.4% IN EUROPE.

Q2'24 deals and number of investors by investor HQ continent



The figures illustrate funding and deal activity in private climate tech ventures, covering equity, debt, grants, and other financial instruments, while excluding exits and post-exit financing.

MOST ACTIVE INVESTORS AND ECOSYSTEM PLAYERS IN Q2 2024



Source: Net Zero Insights

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MOST ACTIVE INVESTORS AND ECOSYSTEM PLAYERS IN Q2 2024

GROWTH EQUITY



**Axa Investment
Managers** | 3 deals
FRANCE



Blackrock
| 2 deals
UNITED STATES



Eurazeo
| 2 deals
FRANCE



Lightrock
| 2 deals
UNITED KINGDOM



Mirova
| 2 deals
FRANCE



**Closed loop
partners** | 2 deals
UNITED STATES

CORPORATIONS / CVC



Sqm Ventures
| 3 deals
CHILE



Suzano Ventures
| 2 deals
BRAZIL



Stephen Industries
| 2 deals
FINLAND



Bnp Paribas
| 6 deals
FRANCE



BPI France
| 2 deals
FRANCE

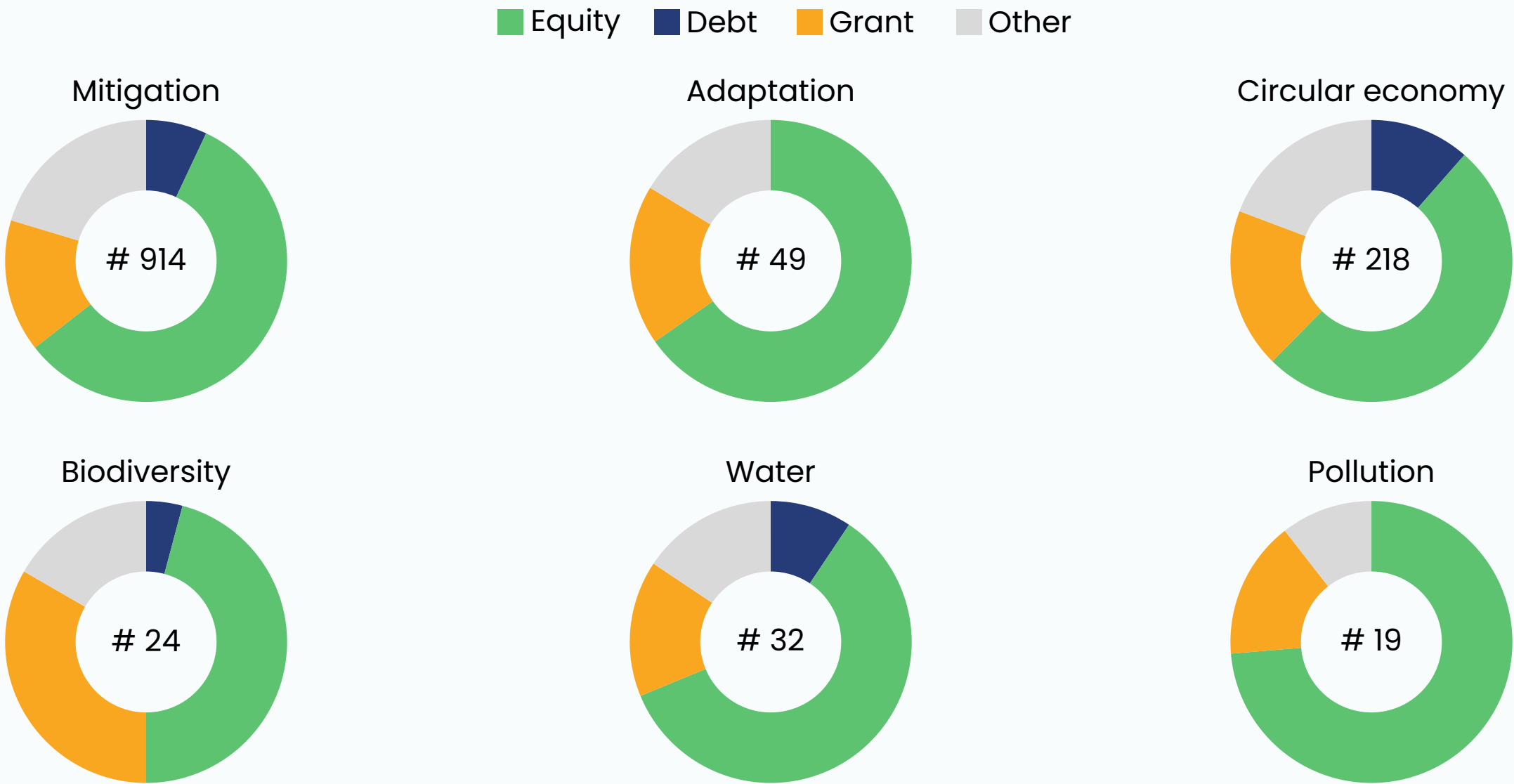


Barclays
| 1 deal
UNITED KINGDOM

Source: Net Zero Insights

EQUITY AND GRANTS ARE POWERING OVERLOOKED ENVIRONMENTAL OBJECTIVES.

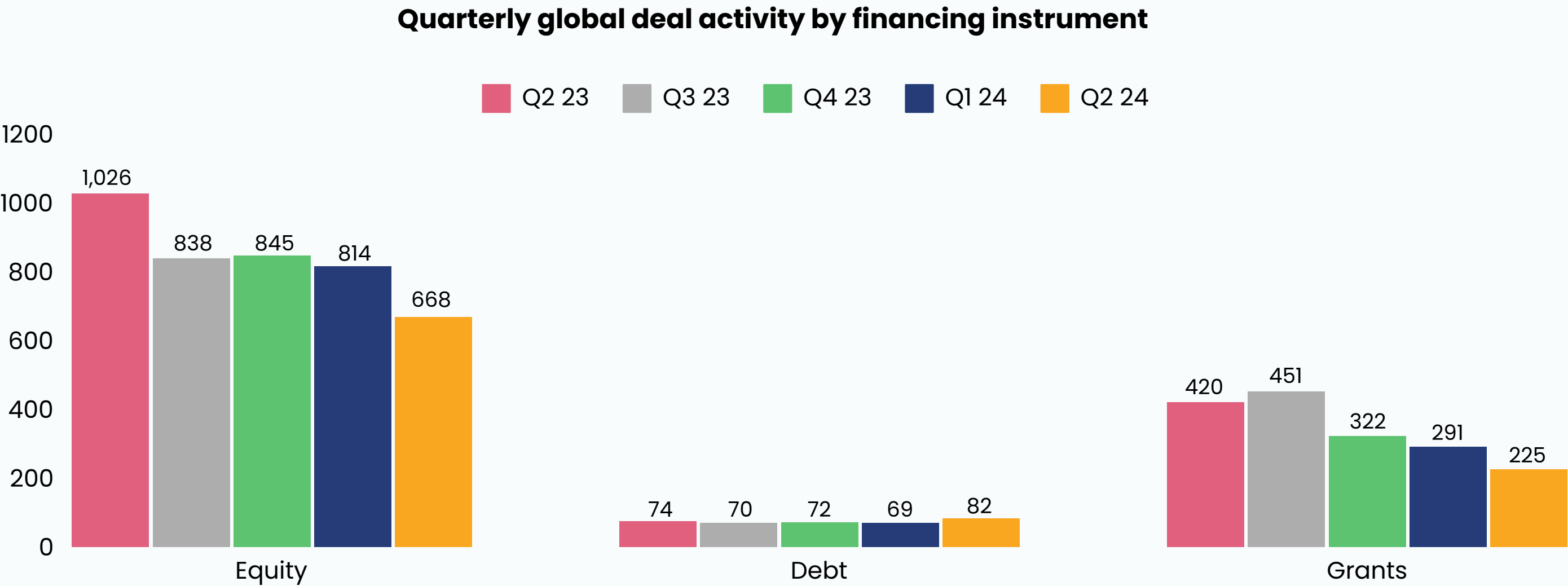
Q2'24 share of deals by financing instrument



Source: Net Zero Insights

The figures illustrate funding and deal activity in private climate tech ventures, covering equity, debt, grants, and other financial instruments, while excluding exits and post-exit financing. An organisation can fall into multiple categories, potentially being counted more than once. For more details about the environmental objectives, please refer to the methodology section.

EQUITY AND GRANTS SHARPLY DECLINED OVER THE PAST YEAR, CONTRASTING WITH RESILIENT DEBT DEAL ACTIVITY.



Source: Net Zero Insights

The figures illustrate funding and deal activity in private climate tech ventures, covering equity, debt, grants, and other financial instruments, while excluding exits and post-exit financing.

THOUGHT LEADER

SPOTLIGHT

Q: E44 Ventures focuses on energy and agriculture within climate tech. Can you share a success story where your venture studio significantly accelerated a company's journey from idea to commercial success in these sectors? What is your general market sentiment about these two sectors, and what do you see as the main challenges and opportunities?

A: E44 Ventures has incubated Agripass and supported it from idea to proof-of-concept (POC) in the field, with multiple signed LOIs (Letters of Intent) from the US and UK in just one year.

Agripass is on a mission to support the transition to sustainable agriculture with its innovative robotic, AI-driven "See & Weed" solution. Weeds pose a major challenge to vegetable growers, particularly in soil-preserving, organic, and regenerative production systems. Given the shortage of human labor to complement current methods, there is a critical need for an effective and precise weeding solution. Our technology mimics manual work without disrupting the soil, minimizing environmental impact, and promoting efficiency, soil health, and fertility.

E44's role as an investment founder has expedited the path to team building, concept prototyping, and rapid lab and field POC in less than a year. Furthermore, the company was able to secure matching funding from European investors.



Adi Vagman

Managing Partner, E44 ventures

Adi Vagman is a seasoned venture capitalist and serial entrepreneur with over a decade building startups and leading in large corporations. Adi is an expert investment strategist who has founded and built successful agri tech and food tech startups.

As an active board member, she leverages her mastery of fundraising and teambuilding to drive her investments from inception to commercialization.

She continues to nurture the next generation as a senior mentor in the prestigious Sam Zell Entrepreneurship Program.

THOUGHT LEADER

SPOTLIGHT

Market Sentiment

E44 Ventures is highly optimistic about the energy, materials, and agriculture sectors within climate tech. We see these sectors as fundamental to addressing climate change challenges while offering significant growth opportunities.

- **Energy:** As we navigate the first generation of the energy transition, new challenges are emerging. Among these are inadequate infrastructure, particularly concerning the grid, and volatile prices. These challenges will drive innovation in storage capabilities and grid distribution.
- **Materials:** Sustainable materials and circular economy approaches are gaining traction and are being reinforced with regulatory incentives. This creates opportunities for companies developing alternative materials, recycling technologies, and resource-efficient processes.
- **Agriculture:** As we have observed with energy companies in the past, food companies will increasingly face stricter regulations, compelling them to re-evaluate their emission strategies. This regulatory pressure will amplify the focus on inseting, particularly concerning Scope 3 emissions. Consequently, we expect accelerated adoption of regenerative agricultural practices and more sustainable food production methods. The industry's supply chain will remain under scrutiny, especially as geopolitical tensions persist.

E44 Ventures is a Climate-Tech venture-studio investing in deep-tech companies that take climate action hands-on. Our approach is to tackle earth's emerging challenges and accelerate their solutions to stop global warming as soon as possible, one unmet need after another.

Our team is built from entrepreneurs, scientists, engineers, and business professionals working synergistically for one cause – creating a sustainable prosperous future for our planet.

THOUGHT LEADER

SPOTLIGHT

Key Challenges and Opportunities:

- **Key challenge:** Scaling innovative technologies and achieving widespread adoption remain significant challenges. E44 addresses this by providing comprehensive support to startups, from incubation to commercialization.
- **Key opportunities:** Growing consumer and corporate demand for sustainable solutions are creating a vast market for climate tech innovations, leading to a growing appetite for investment in climate tech. This provides opportunities for startups with promising solutions

E44 Ventures is committed to driving innovation and accelerating the growth of companies like AgriPass, which have the potential to transform industries and make a meaningful impact on climate change.

Q: With a mission to tackle the climate challenge, how do you identify and prioritize pre-seed and see companies developing breakthrough innovations? What key difficulties do you face in these types of deals, and why do you believe such investments are strategically important?

A: We prioritize deep-tech technologies rooted in scientific and engineering principles, with transformative potential for scalable impact and commercial viability. We seek teams with multidisciplinary expertise, a clear path to market, and a strong understanding of their technology's key development risks. This investment approach is crucial, as it strikes a balance between promising immediate greenhouse gas (GHG) reductions and addressing long-term climate goals, ultimately ensuring a sustainable future.

E44 Ventures is a Climate-Tech venture-studio investing in deep-tech companies that take climate action hands-on. Our approach is to tackle earth's emerging challenges and accelerate their solutions to stop global warming as soon as possible, one unmet need after another.

Our team is built from entrepreneurs, scientists, engineers, and business professionals working synergistically for one cause – creating a sustainable prosperous future for our planet.

THOUGHT LEADER

SPOTLIGHT

Key Difficulties in Pre-Seed and Seed-Stage Deals:

- **Technological Risk:** Early-stage technologies often face significant technical risks, including scalability challenges, unforeseen technical hurdles, and the need for further development and validation.
- **Market Uncertainty:** The market for climate-tech solutions is still evolving, and there is often uncertainty about customer adoption, regulatory frameworks, and competitive dynamics.
- **Funding Gaps:** Early-stage companies often have limited financial resources, which can hinder their ability to scale and commercialize their innovations.

Despite these challenges, we believe that investing in pre-seed and seed-stage companies is strategically important due to their potential to disrupt existing industries and create entirely new markets with innovative solutions that can address climate change at scale, as an evolution of existing solutions or through revolutions achieved with academic breakthroughs.

Moreover, early-stage investments can generate major financial returns, attracting additional capital and talent to the climate-tech sector.

THOUGHT LEADER

SPOTLIGHT

Q: With your recent investments, how do you balance between supporting high-risk, high-reward innovations and more incremental, safer advancements in climate tech? Can you provide concrete examples that illustrate your approach and the impact of your investments?

A: We understand that balancing high-risk, high-reward innovations with more incremental, safer advancements is crucial for achieving meaningful climate action. By strategically balancing our investments between evolutionary advancements and revolutionary breakthroughs, we create a diversified portfolio that not only drives immediate progress but also fuels the development of game-changing technologies with the potential to transform industries.

Examples:

- Evolutionary Advancements: We invest in companies like phelas, which focuses on scaling proven technologies to address immediate needs in the energy sector. Phelas' long-duration energy storage systems seamlessly integrate with existing renewable infrastructure, providing a scalable solution that accelerates the transition toward a sustainable energy grid. This approach ensures steady progress toward decarbonization while minimizing risk.

THOUGHT LEADER

SPOTLIGHT

- **Revolutionary Breakthroughs:** Simultaneously, we support groundbreaking innovations like Gigablue, which is pioneering ocean-based carbon dioxide removal (CDR). While this technology carries higher risks due to its nascent stage and complex nature, it also holds the potential for massive impact in reversing climate change. Gigablue's proprietary solution mimics natural processes to sequester carbon for millennia, offering a scalable and verifiable way to achieve negative emissions on a planetary scale.

Q: As entrepreneurs yourselves, what unique insights or strategies do you offer to the innovators you support? Additionally, how do you perceive the future of climate tech, and how will E44 Ventures position itself in this evolving landscape?

A: As entrepreneurs ourselves, hailing from pharma, agritech, and materials, we bring a unique blend of hands-on deep-tech experience and industry knowledge to the innovators we support. We view our role as investors as far more than just providing capital; we act as mentors and strategic partners, leveraging our network and expertise to propel our companies forward. We believe in sharing the rewards of success and encourage our innovators to utilize equity to attract top talent, build strong partnerships, and reduce overall risk.

THOUGHT LEADER

SPOTLIGHT

The Future of Climate Tech & E44

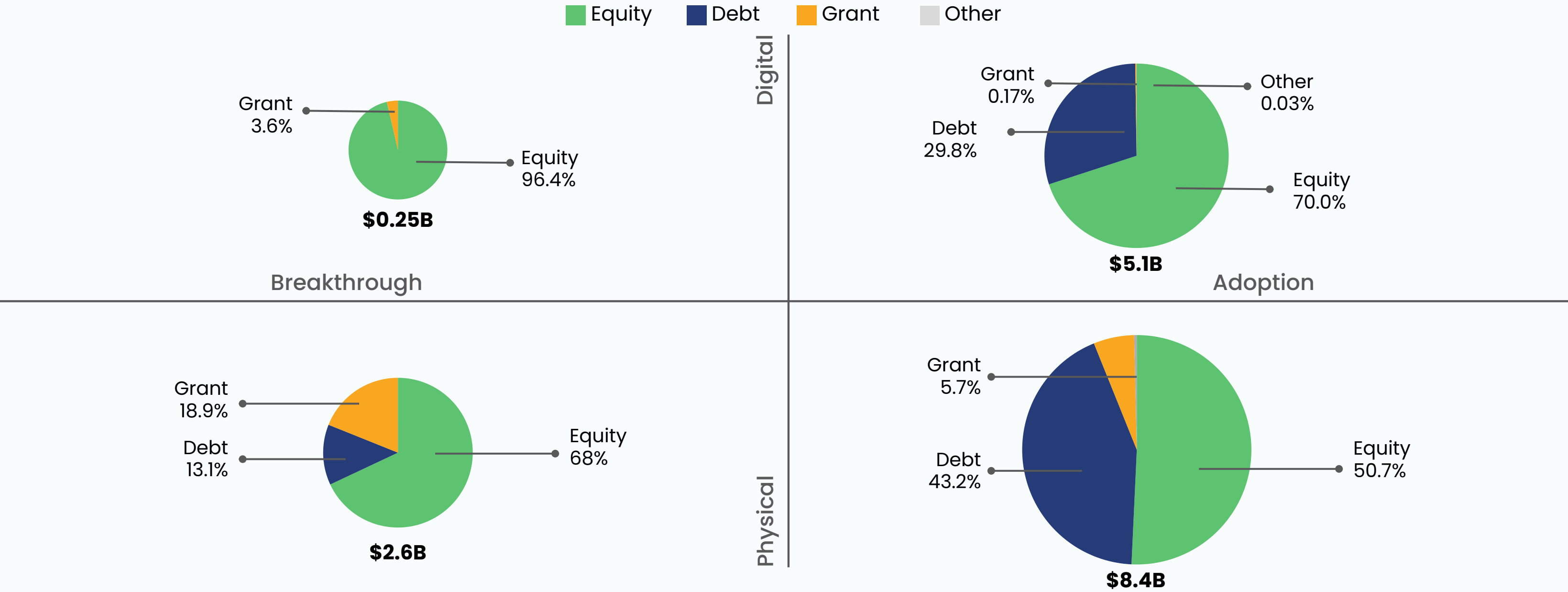
We see the future of climate tech as a period of immense opportunity and accelerated growth. Rising temperatures and sea levels emphasize that we are already facing the consequences of climate change, underscoring the urgency to decarbonize and adapt with innovative technologies that play a pivotal role in saving lives. E44 Ventures identifies emerging sectors affected by climate change that can also be part of the solutions in this evolving landscape. We will continue to seek out and support bold innovators developing breakthrough technologies that support human prosperity and fight climate change.

As for the future of climate technologies, we anticipate a continued surge in innovation driven by advancements in AI, big data, and renewable energy solutions. E44 Ventures is committed to being at the forefront of this evolution, consistently identifying and nurturing high-potential startups that align with our vision of a sustainable future.

By maintaining our hands-on approach and leveraging our resources, we aim to lead the charge in bringing transformative climate tech solutions to market.

EQUITY REGAINS ITS POSITION AS THE PRIMARY FUNDING TYPE THIS QUARTER ACROSS ALL INNOVATION LEVELS.

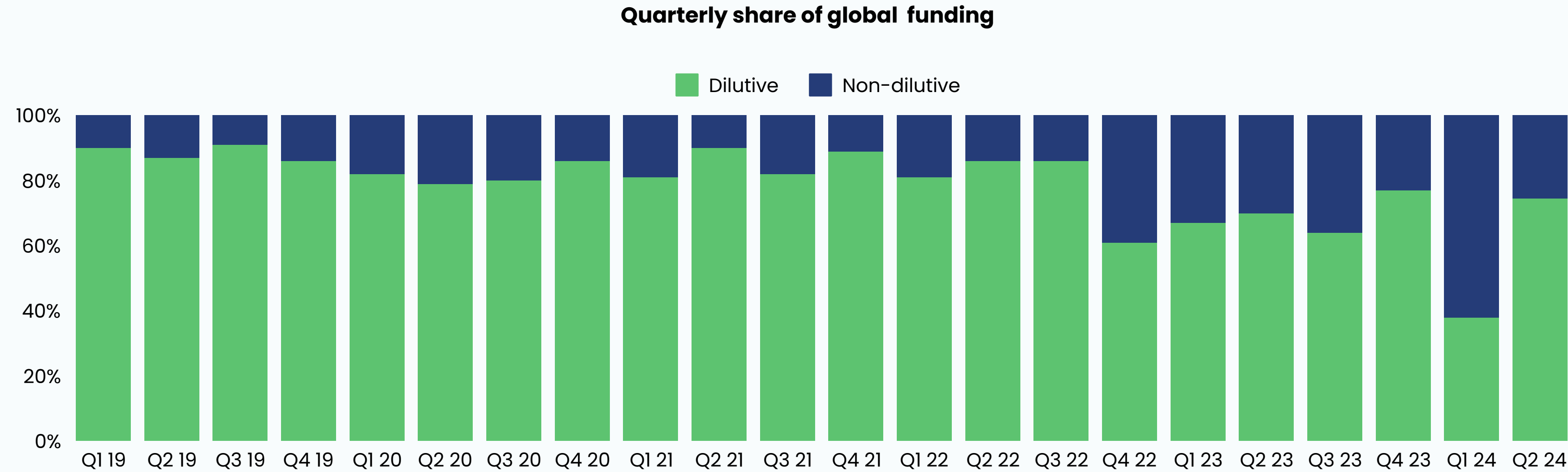
Share of Q2'24 funding by financing instrument across PI framework



Source: Net Zero Insights

The figures illustrate funding and deal activity in private climate tech ventures, covering equity, debt, grants, and other financial instruments, while excluding exits and post-exit financing. For more details about the product-innovation framework, please refer to the methodology section.

DILUTIVE DEALS CONTINUE TO CHARACTERIZE CLIMATE TECH IN Q2 2024, MARKING A CONSISTENT TREND SINCE 2023.



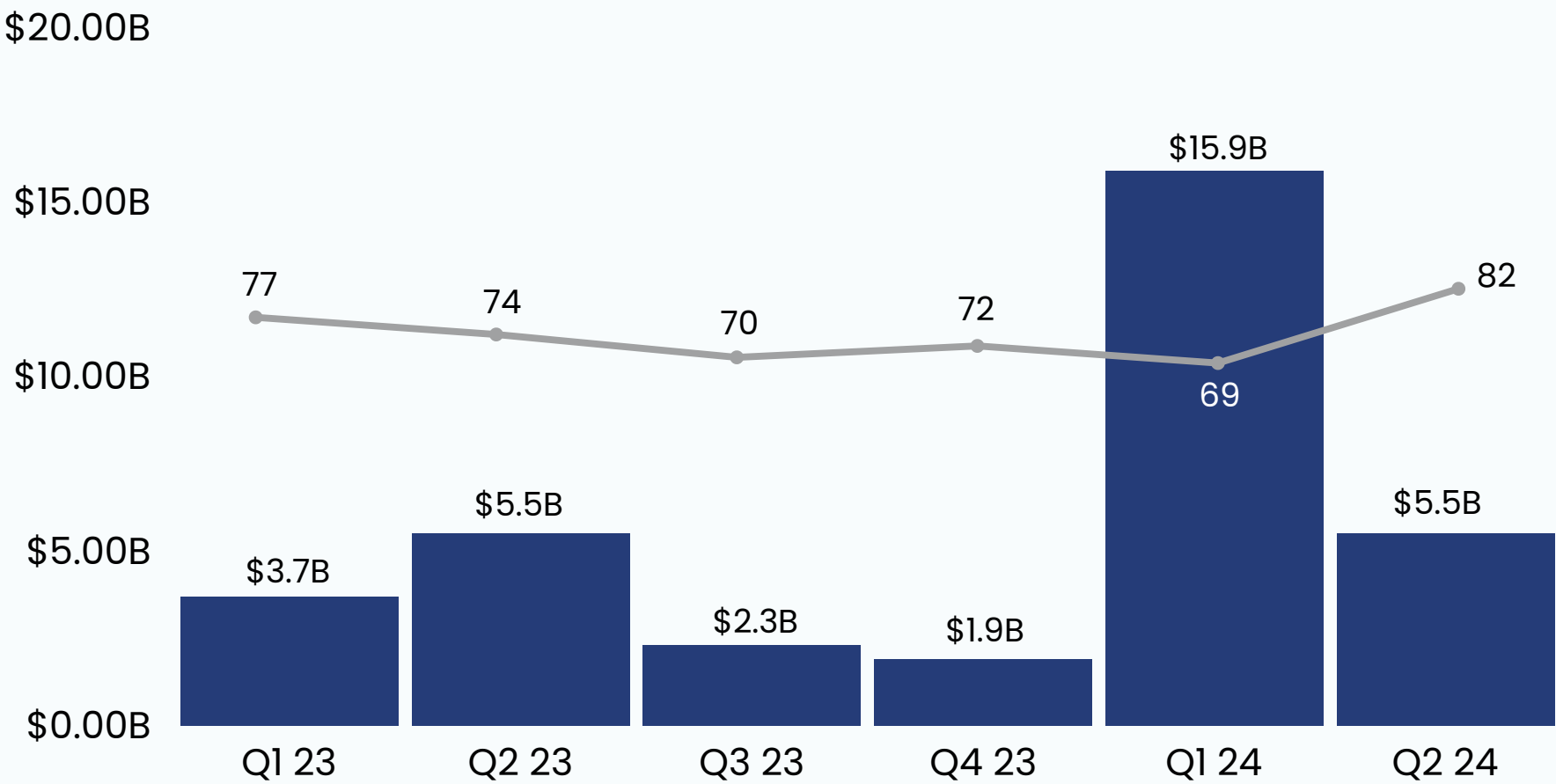
Source: Net Zero Insights

DEBT FUNDING SOARED TO \$15.9B IN Q1 '24, AND CONTINUES TO LEAVE AN IMPRESSIVE MARK IN Q2 '24.

Climate tech debt funding experienced significant volatility over the past year. In the first half of 2023, the total funding amounted to \$9.2B, driven by strong activity in Q2 with \$5.5B. However, the second half of 2023 saw a marked decline, with total funding falling to \$4.2B, indicating a cautious market sentiment.

This trend dramatically reversed in the first half of 2024, where funding skyrocketed to \$21.4B, primarily due to a massive \$15.9B influx in the first quarter from companies like Northvolt, H2 Green Steel, and ACC, reflecting sustained investor confidence and a robust pipeline of climate tech projects.

Quarterly debt funding and deal activity



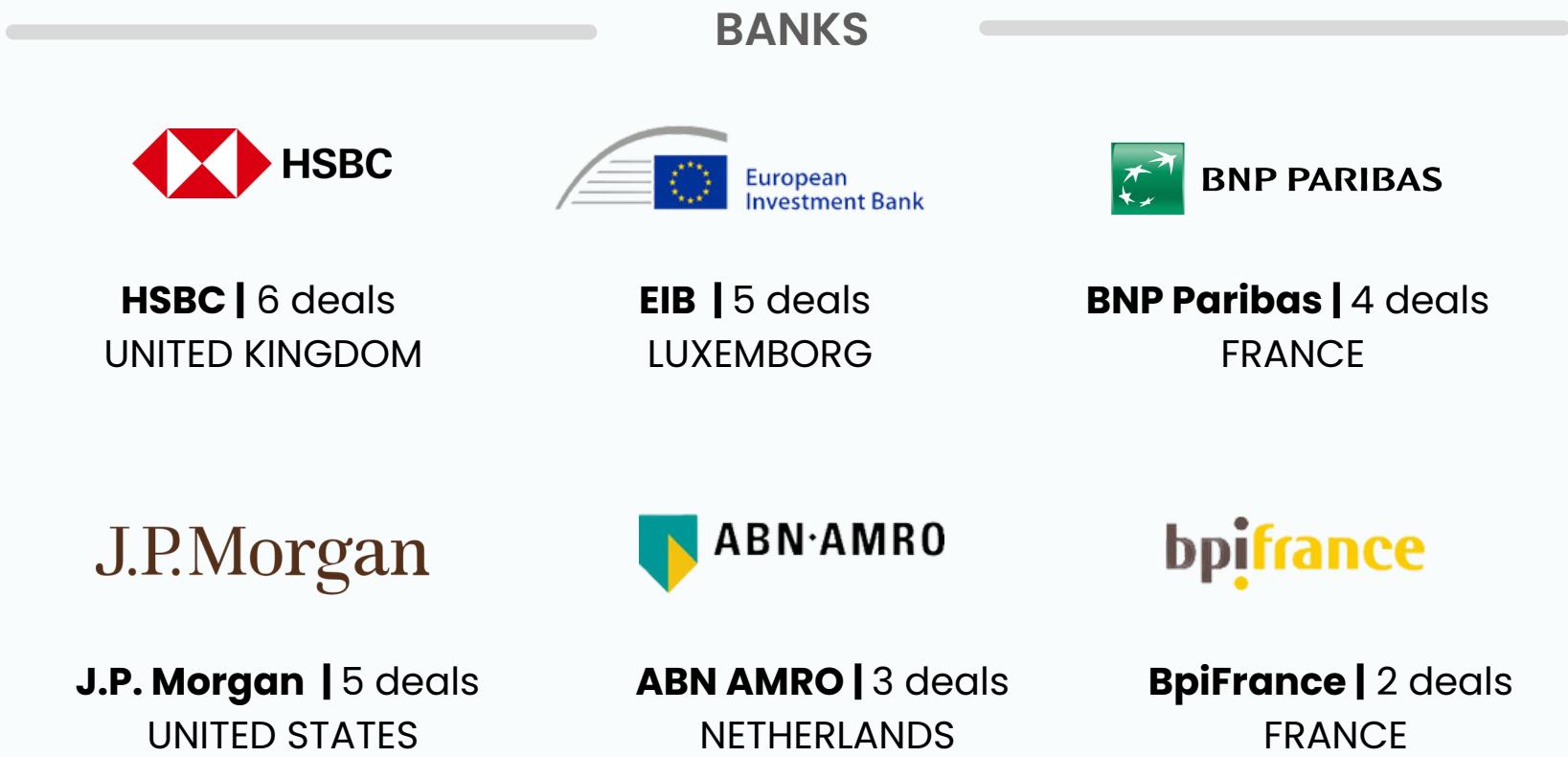
Source: Net Zero Insights

DEBT PROVIDERS: NOTABLE EXAMPLES IN Q2 2024

In 2024, banks continue to play pivotal roles as primary debt providers for private companies within climate tech. With a growing focus on sustainability and ESG criteria, these institutions are slowly but surely aligning their financing strategies with the global transition towards cleaner technologies.

Banks are continuing to offer specialized green bonds, sustainability-linked loans, as well as swaths of project finance for energy and battery companies, while corporates are engaging in direct investment and partnerships to foster innovation in climate solutions.

The continued involvement of these stakeholders is a crucial leading indicator of the value that climate tech ventures hold to deliver the low-carbon impact that alternative technologies promise, and a necessary step in supporting the competitive expansion and development of these ventures.



Source: Net Zero Insights

FROM ENERGY STORAGE TO BIO MATERIAL SOLUTIONS, HERE ARE THE TOP DEBT DEALS IN Q2 2024.

Company	Amount	HQ Country	Tags	Read More
 VERKOR	———— \$1.4B ————	FRANCE	————— <i>#Battery manufacturing</i> —————	
 Equipment Share	———— \$600M ————	UNITED STATES	————— <i>#Built environment #Software</i> —————	
 ZENOBE	———— \$517M ————	UNITED KINGDOM	————— <i>#Battery Energy storage</i> —————	
 Highview Power	———— \$381M ————	UNITED KINGDOM	————— <i>#Energy storage</i> —————	
 HTEC	———— \$337M ————	CANADA	————— <i>#Hydrogen production & distribution</i> —————	
 Hometree	———— \$318M ————	UNITED KINGDOM	————— <i>#Built environment</i> —————	
 Bolt	———— \$238M ————	ESTONIA	————— <i>#Micro mobility #Ridesharing</i> —————	
 AIRA	———— \$215M ————	SWEDEN	————— <i>#Heat pumps</i> —————	
 Solugen	———— \$214M ————	UNITED STATES	————— <i>#Bio technology</i> —————	
 AYMIUM	———— \$210M ————	UNITED STATES	————— <i>#Bio materials</i> —————	

Source: Net Zero Insights

3

INVESTORS' VOICE

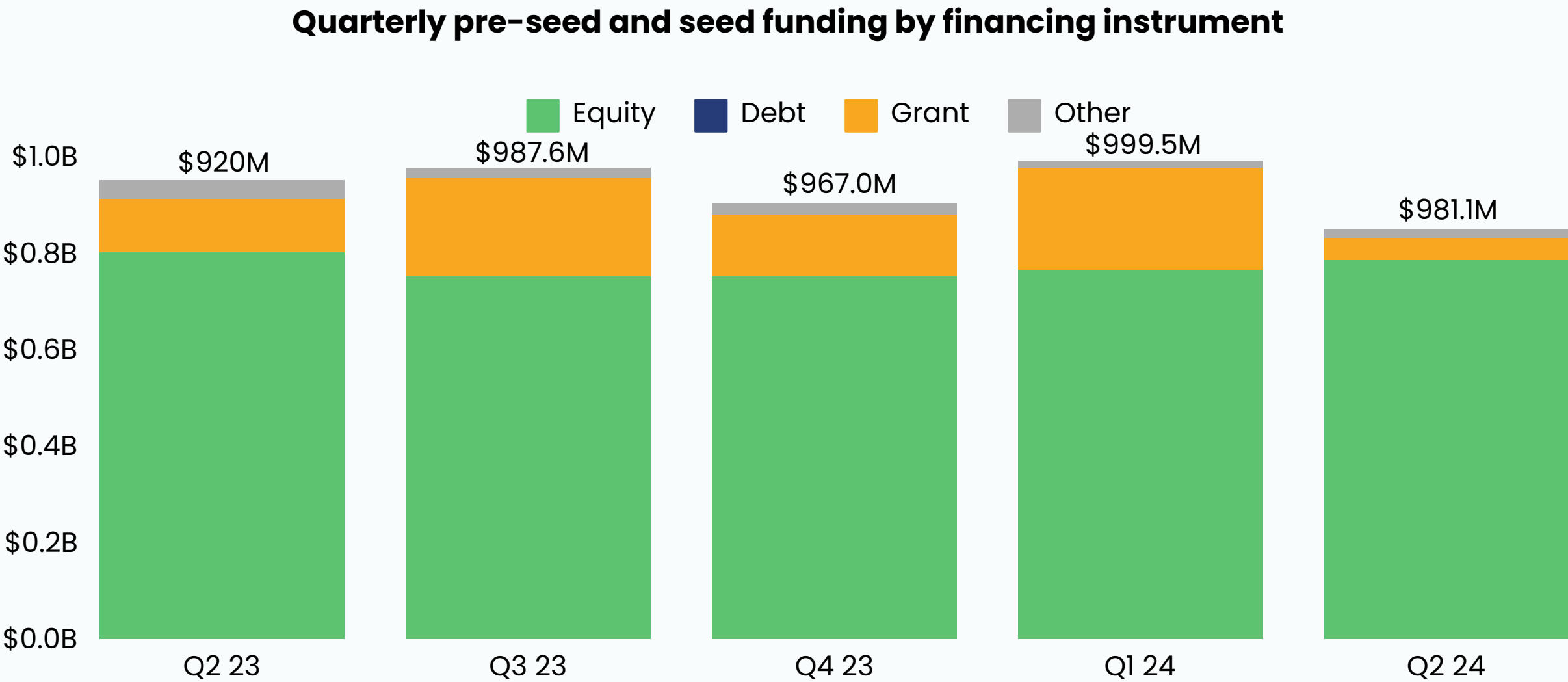


pre-seed and seed

early stage

later stage

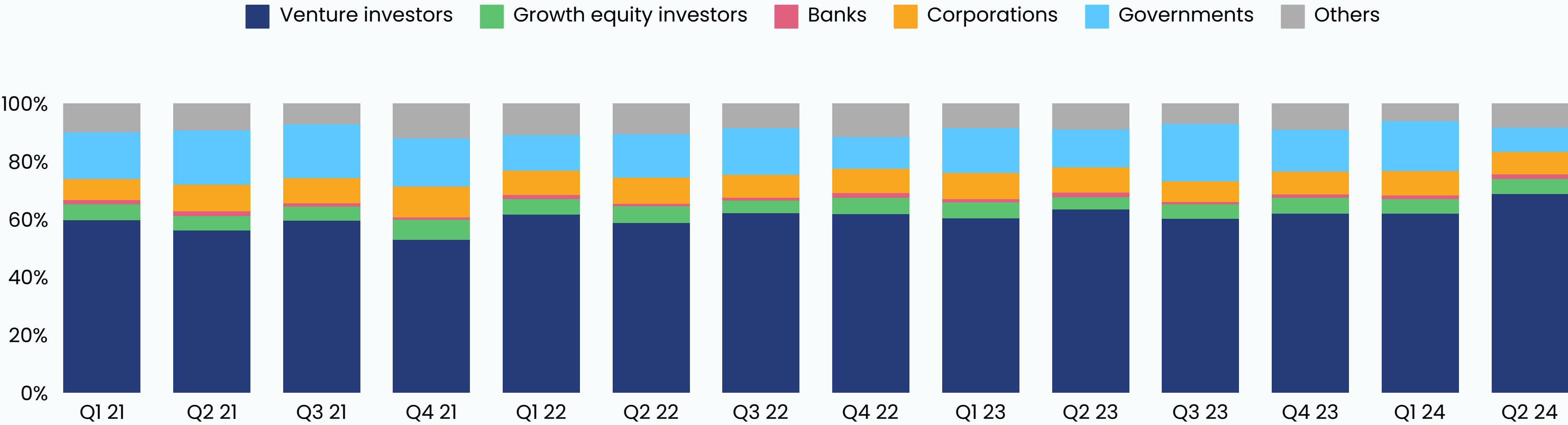
THIS QUARTER SAW A SLIGHT DECREASE IN PRE-SEED AND SEED FUNDING, WITH A NOTABLE DROP IN GRANT ACTIVITY.



Source: Net Zero Insights

GOVERNMENTS AND ACCELERATORS / INCUBATORS ARE RESPONSIBLE FOR FUELLING PRE-SEED AND SEED DEALS.

Quarterly share of investors participating in pre-seed and seed deals by investor type



Source: Net Zero Insights

3

INVESTORS' VOICE

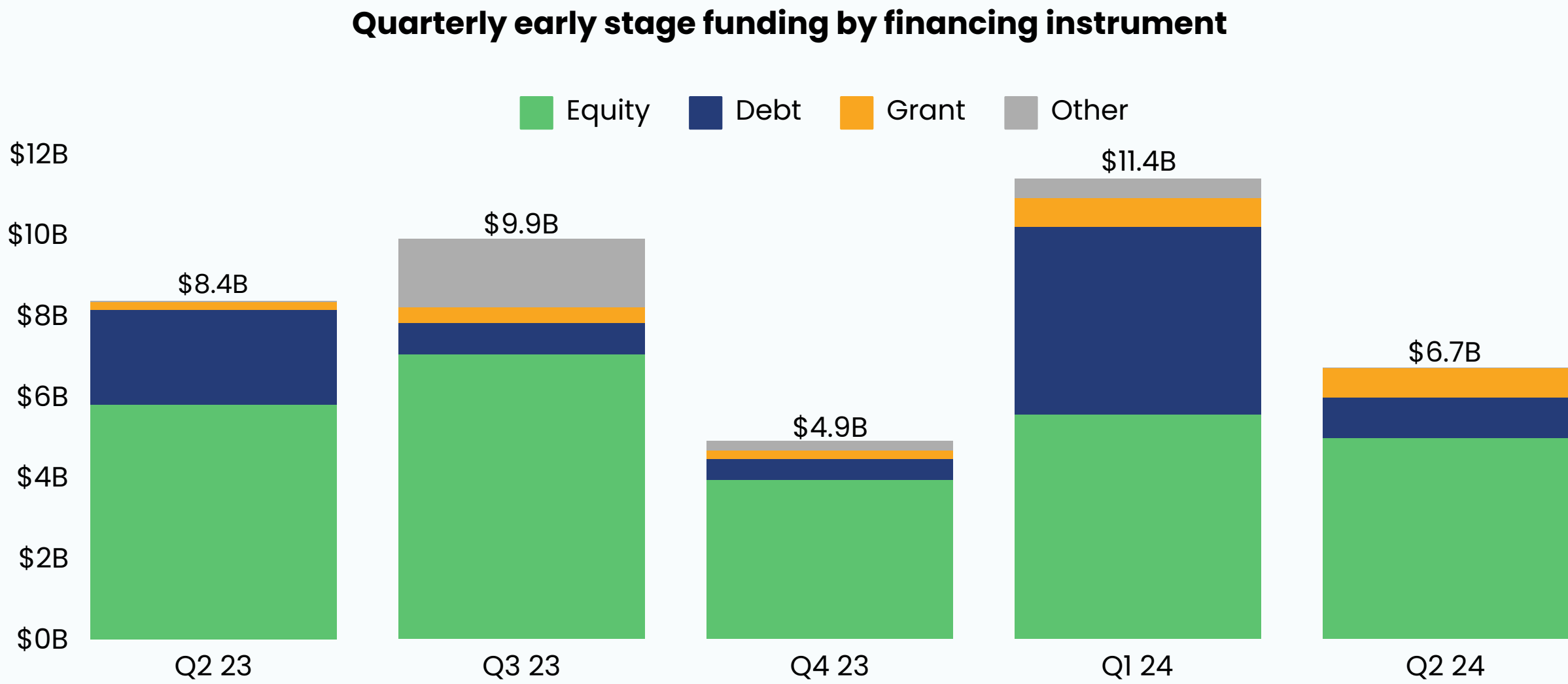
pre-seed and seed

●

early stage

later stage

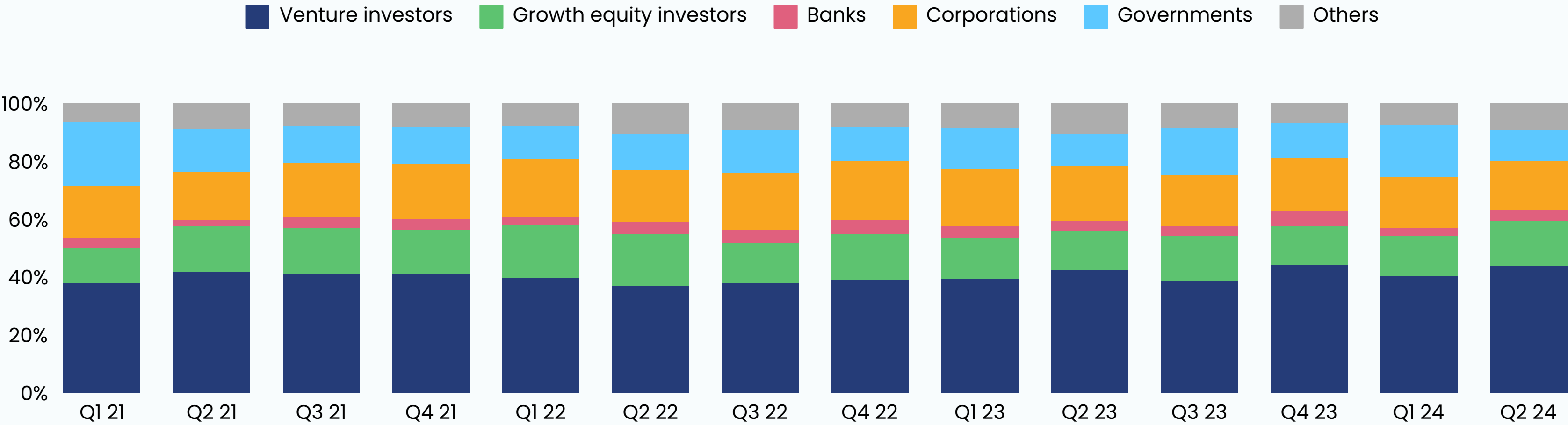
EARLY-STAGE CLIMATE TECH SHOW NOTABLE QUARTER-OVER-QUARTER DECLINES IN ALL FINANCING TYPES EXCEPT GRANTS.



Source: Net Zero Insights

A DIVERSE ARRAY OF INVESTORS CONSISTENTLY ENGAGES IN EARLY-STAGE DEALS.

Quarterly share of investors participating in early stage deals by investor type



Source: Net Zero Insights

3

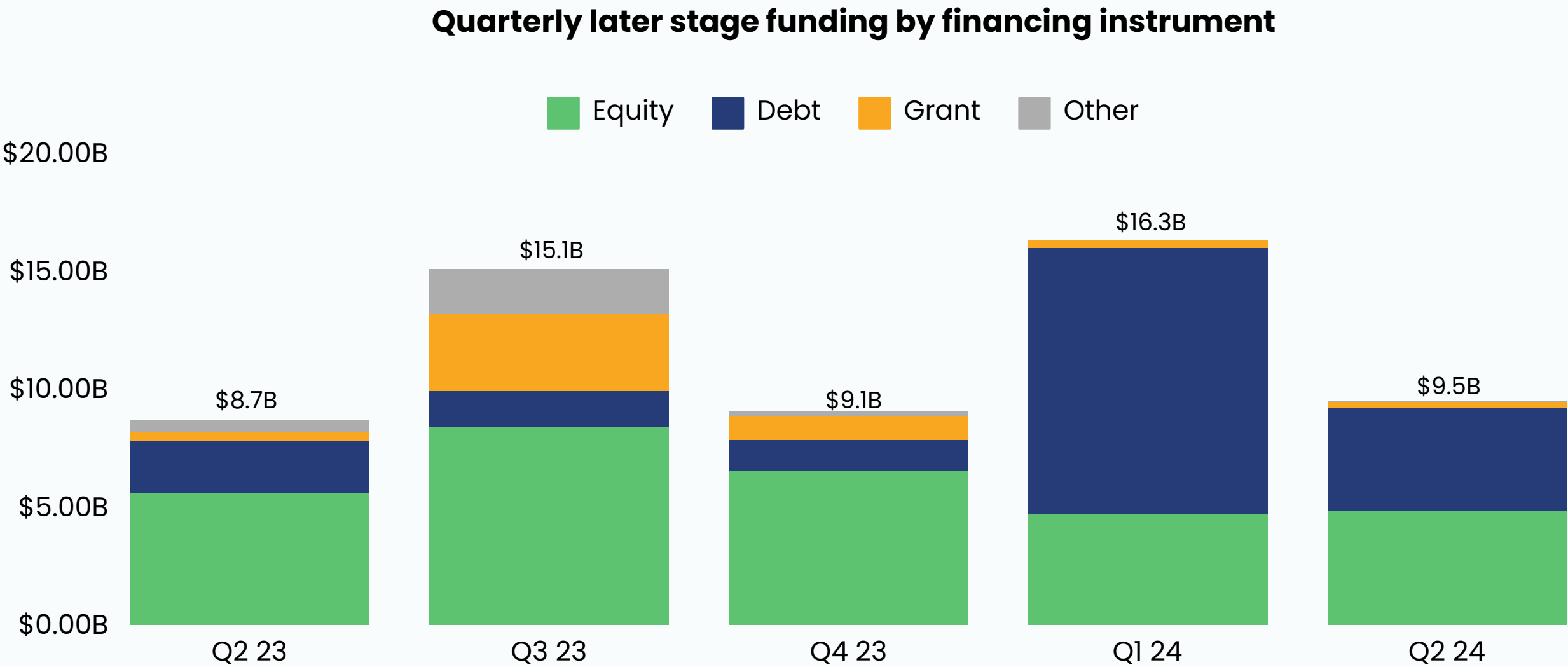
INVESTORS' VOICE

pre-seed and seed

early stage

later stage

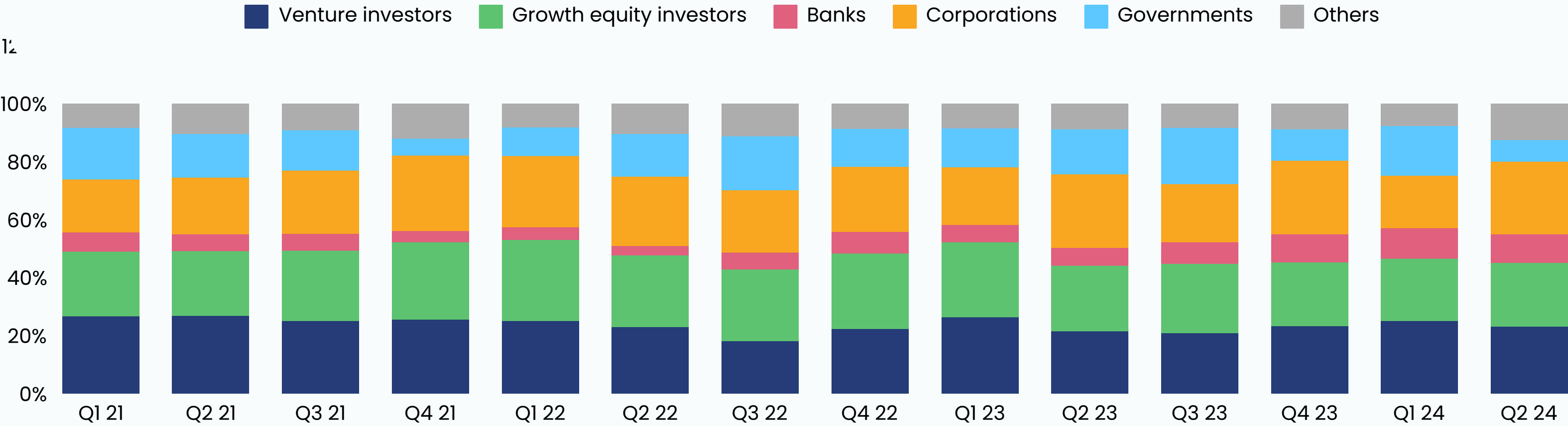
EQUITY FUNDING FOR LATE-STAGE CLIMATE TECH VENTURES HAS DECLINED FROM A PEAK OF \$8.4B IN Q3 '23 TO \$4.8B IN Q2 '24.



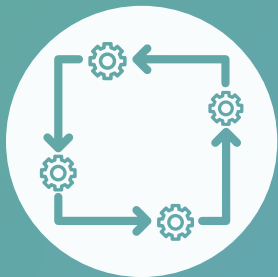
Source: Net Zero Insights

CORPORATIONS REPRESENT A VERY IMPORTANT PLAYER IN LATER STAGE DEALS.

Quarterly share of investors participating in later stage deals by investor type



Source: Net Zero Insights



METHODOLOGY & SCOPE

This report leverages data from the Net0 Platform to analyze global funding and deal activity for climate tech startups, scale-ups, and SMEs. The analysis covers equity, debt, grants, and other forms of investments. Exits are classified as acquisitions, mergers, IPOs, and SPACs, with post-exit financing rounds being excluded from the analysis.

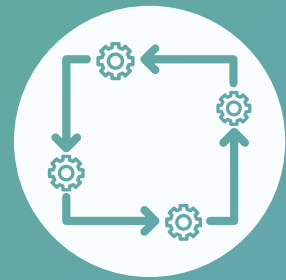
Given the continuous expansion of the Net0 Platform’s scope and the enrichment of its data, this quarterly analysis offers broader coverage, particularly in later-stage funding rounds and emerging markets. Due to these methodological enhancements, the data in this report is not directly comparable to that of previous reports. Consequently, new historical series data has been calculated to analyze market insights effectively.

Our data is meticulously sourced from a variety of channels, including public announcements, our extensive network of partner accelerators and investors, conferences and self-reported data. This information undergoes rigorous daily curation on the Net0 Platform by our dedicated analysts, ensuring accuracy and consistency of the data in alignment with the scope and definitions outlined in this report.

DATA

GLOSSARY

- **Data coverage and definitions**
- **Data accuracy and validity**
- **Data sources**
- **Principles of Data Analysis**

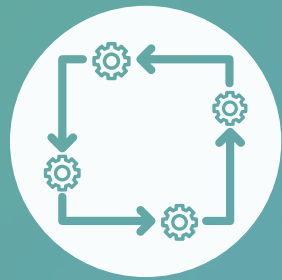


METHODOLOGY & SCOPE

When simultaneously comparing funding amounts and deal counts, the deal count refers to the total number of deals with disclosed round amounts. This distinction is crucial for maintaining clarity and precision in our analysis.

The data referenced in the present report is accurate as of 03/07/2024. It is essential to acknowledge that typical reporting delays may lead to potentially incomplete information. Nevertheless, this analysis offers valuable insights into the funding landscape of the climate technology sector, offering stakeholders a reliable overview of current trends and activities.

By leveraging comprehensive and rigorously curated data, this report aims to deliver an in-depth understanding of the evolving dynamics within the climate tech investment landscape.



METHODOLOGY & SCOPE

Conceptually aligned with the framework of the EU taxonomy for sustainable activities, Net Zero Insights refers to “Climate Tech” as encompassing any technology or innovation contributing to at least one of the six specified environmental objectives.

Our analysts classify each organisation based on their alignment with these environmental objectives, encompassing climate change **adaptation**, climate change **mitigation**, sustainable use and protection of **water** and marine resources, protection and restoration of **biodiversity** & ecosystem; **pollution** prevention and control; and the transition to a **circular economy**.

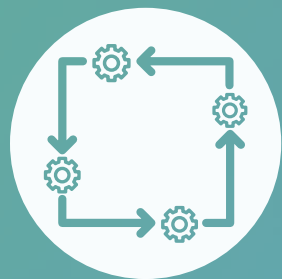
Centred on identifying the most pressing thematic trends in climate tech, Net Zero Insights developed a high-level framework to classify each innovation according to the main climate change challenge areas its technology or innovation aims to address. The **10 challenge areas** encompass a comprehensive range from energy and food and agriculture to industry and transports.

It's important to note that a single organisation may be categorised under multiple environmental objectives and also make significant contributions to more than one challenge area.

CLIMATE TECH

LEXICON

- Environmental objectives
- Challenge areas



METHODOLOGY & SCOPE

For a thorough analysis, Net Zero Insights uses a unique framework to discern whether a company provides breakthrough or adoption innovation and categorize the solution type as digital or physical. For consistency in the analysis, our analysts manually categorised all deals exceeding \$70 million announced in the past five years.

Breakthrough innovation entails extensive research and development, characterized by long-term efforts and innovations in the proof-of-concept phase. Conversely, **adoption** concentrates on implementing and deploying established solutions, with a focus on improving metrics like cost or efficiency.

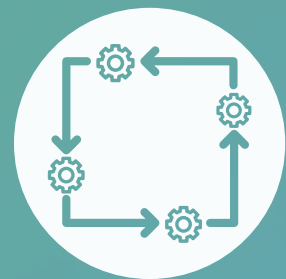
The differentiation between the **physical** and **digital** aspects of an innovation aims to determine if a business' core offering predominantly revolves around a digital or physical solution.

To compare investor types and better understand their investment activity in Climate Tech, we have created six groups that cluster investors based on their profile and funding activity.

DATA

CATEGORIZATION

- **Product – Innovation (PI) framework**
- **Investor types and categorization**



METHODOLOGY & SCOPE

- Venture investors: include venture capital firms, accelerators and incubators, angels, angel groups and family offices
- Growth equity investors: include private equity firms, asset managers and investment companies
- Banks: include investment banks, commercial banks and merchant banks
- Corporations: include corporations, corporate venture capital, insurance companies and holding companies
- Governments: include governments and sovereign wealth funds
- Others: all other types not included in other investor groups

In order to allow a more comprehensive understanding of the profile of corporations that are involved in funding and exit activities in the Climate Tech space, we use the GICS framework.

GICS, standing for Global Industry Classification Standard, is an industry classification methodology offered by S&P Dow Jones Indices and MSCI. To align with market changes, this alternative classification system introduced a market-oriented perspective while remaining still rooted in the microstructure of industries (1).

Considering the specificities of the climate tech market and the profile of corporations investing in it, a minor adaptation to GICS was made. Under the energy sector (2), a sub-industry for renewable energy equipment & services was added. This addition complements existing sub-industries related to Oil and gas present in the framework.

ABOUT NET ZERO INSIGHTS

Net Zero Insights is the leading data and research platform for climate tech.

Our comprehensive **Net0 Platform** offers climate innovation professionals worldwide access to thousands of startups and innovative SMEs, deals, and investors, enabling you to uncover new innovations, trends, and deals in the ever-evolving world of climate technology.

Investors, corporations, researchers and policy-makers use our platform to keep track of climate innovation and understand technology and financial trends.

Let us show you how to take advantage of data to find the right climate solutions.

[Book a demo.](#)

Follow us on LinkedIn for daily updates from the world of climate tech!



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RESEARCH ANALYST

Chigozie applies himself as a Research Analyst; leveraging his engineering background to guide his thinking and using data as a tool to understand investment patterns within mature and emerging markets. His ultimate goal is to enable global decarbonization by focusing on projects, business models, and financial innovations delivering quantifiable climate impact at an infrastructure level.



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HEAD OF MARKET INSIGHTS

Sofia combines a background in science and engineering with nearly 15 years of experience in innovation and technology transfer, at academia and industry. In her role as the Head of Market Insights at Net Zero Insights, she is focused on enhancing the impact created by climate tech innovation stakeholders.

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