Road to Next

Deloitte.

Data provided by PitchBook

Executive summary

ESG adoption and dealmaking remain robust and resilient

Themes & key findings for this issue:

2021 saw record-breaking tallies, and dealmaking in 2022 has been quite strong. At $15.7 billion in 2022 to date, investment spanning the three primary ESG-related sectors remains robust.

While ESG frameworks and policies are proliferating, translation into impact, especially quantifiable changes, remains a hurdle. Disparate datasets across many areas of ESG require daunting legwork for accurate findings that can help inform corporate strategies—not to mention those that can aid investment plans.

Cleantech innovations are multiplying quickly, beyond better-known tech spanning mobility and well-known energy generation tech such as solar and wind. However, as newer-generation tech helps revolutionize desalination, fuel cells, hydrogen implementation, and more, major businesses could rev up within these new categories.

Deloitte and PitchBook have collaborated to produce a unique methodology for the *Road to Next* series, in order to better analyze a new segment of companies that emerged in the 2010s. Dubbing this segment the "expansion stage," the methodology uses investment data restricted to late-stage VC, PE growth, and private corporate financing. In addition, companies must still be privately held by the aforementioned investment firms.

"Amid current market turmoil, proper governance and social standards help companies better navigate risk, leading to improved outcomes. As for environmental concerns, the ripple effects of many processes can spread far and lead to unanticipated costs, especially as regulations tighten; addressing these costs upfront helps build toward longer-term sustainability."

Heather Gates
Audit & Assurance Private Growth Leader

Heather Gates
Audit & Assurance Private Growth Leader
Deloitte & Touche, LLP

With more than 30 years of financial services experience, Heather serves as the national Private Growth Leader, with oversight of the Deloitte Private, Emerging Growth Company, and Private Equity businesses within Audit & Assurance.

Amy Parker
Audit & Assurance Partner & West Region Energy Tech Audit Leader
Deloitte & Touche, LLP

Amy is an Audit & Assurance Partner and the West Energy Tech Audit Leader in the San Francisco office of Deloitte and has almost 20 years of audit experience. She serves primarily in the energy industry serving large public power, utility & renewable (PU&R) clients, which include regulated utilities and merchant generation operations of SEC entities, including Fortune 500 companies, as well as renewable entities.

Jean-Denis Ncho Oguie
Audit & Assurance Partner
US Technology Sector Leader
Deloitte & Touche, LLP

Based in the San Francisco office, Jean-Denis is an Audit & Assurance Partner with Deloitte & Touche LLP, leading growth in technology, media, and telecommunications (TMT), energy resources, and industrials.

Sherrie Wu Shagong
Strategic Initiatives Leader
Private Equity, Audit & Assurance
Deloitte & Touche, LLP

Based in San Francisco, Sherrie brings over 20 years of experience working with clients across various industry sectors and a unique perspective on shaping strategic growth initiatives at private equity and venture-backed companies.

Market trends

Supported by a broad swath of participants, ESG dealmaking is undaunted

The key arenas most tied to ESG are seeing healthy levels of dealmaking

In many ways, ESG can be considered nearly all-encompassing, as most sectors have a stake in some aspect of advancing and incorporating ESG-related policies. However, three key arenas align directly with the bulk of ESG-related products and services, as tracked by PitchBook: cleantech, climate tech, and impact investing. These three sectors span nearly all of the hardware and software products, tools, and services, plus business and investment models, that are being developed to implement many ESG policies and initiatives. Accordingly, assessing expansion-stage dealmaking within these three arenas—combined and separately—provides a lens into whether significant investment is flowing into the ESG realm that could yield meaningful results in the future.

Such levels of expansion-stage dealmaking have taken place in YTD 2022. Even after a record-breaking year for the ESG space, the pace of investment is hardly slowing despite many volatility-inducing factors. Building on the momentum of rising dealmaking in 2020 and 2021, 2022's 330 completed transactions for a cumulative $15.7 billion in deal value suggest that players in multiple sectors are doubling down on developing viable products and services to implement not just the usual facets of the "green economy," but even broader shifts spanning the social and governance sides of ESG. Especially as the mindset toward much of ESG has grown to view social and governance aspects as key components to advanced risk management, given growth in understanding of the full breadth of ripple effects from various business activities, a wider array of market niches are opening for entrepreneurs and already-established expansion-stage companies to explore.

"Being able to guide a portfolio company through adoption and then implementation of ESG frameworks and policies is a competitive advantage for investors."

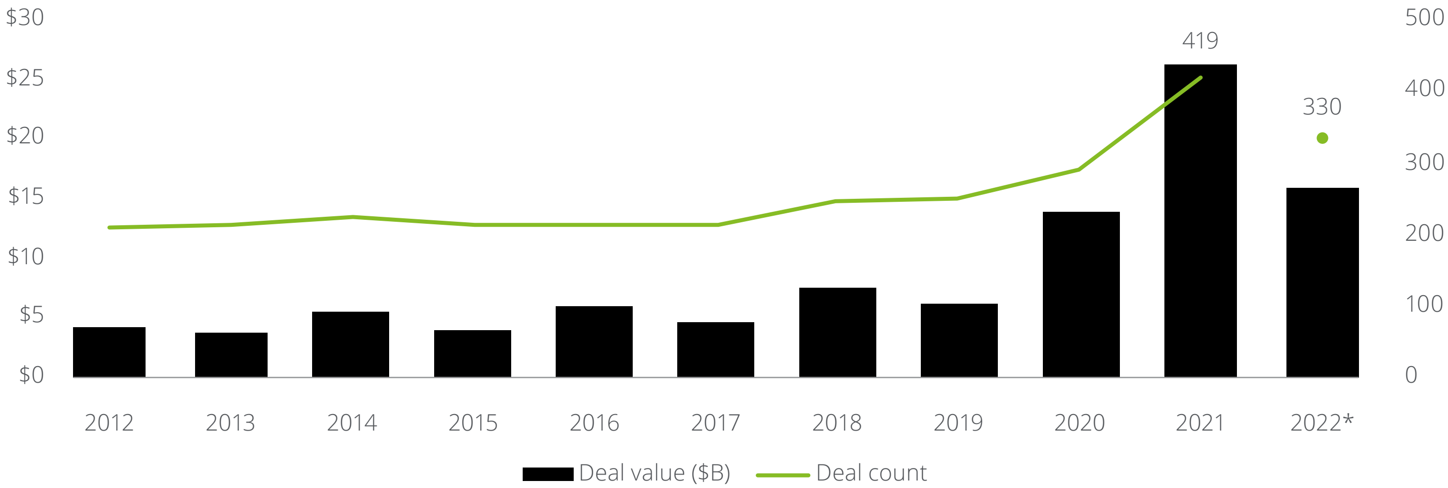
Sherrie Wu Shagong
Strategic Initiatives Leader
Deloitte & Touche, LLP

For example, for impact investing, more sophisticated tools for collecting data that tracks the ripple effects of decisions made by corporate executives and their knock-on social effects, accompanied by improved analytic capabilities of the usually vast amounts of such data that are generated during the course of doing business. Cleantech is seeing some of the most technically complex innovations, as discussed in greater depth in a spotlight section below in this report. Climate tech, meanwhile, is seeing a proliferation in the array of market-clearing brokers that can offset emissions generated by critical industries such as manufacturing and energy production; from an environmental standpoint, such offsets may seem incremental but they could continue to expand into an ever-increasingly important method of removing greenhouse gases from the atmosphere.

"Businesses with scalable technologies that can enable predictability in processes that span sectors are seeing more rapid adoption as they cater across industries to a wider array of clients. In addition, there has been growth from the demand side as companies across multiple sectors are willing to invest in either offsetting emissions or implementing more energy-efficient technologies such as solar as part of their grander, ESG-related, carbon reduction strategies."

Jean-Denis Ncho-Oguie
Audit & Assurance Partner
Deloitte & Touche, LLP

ESG expansion-stage deal activity

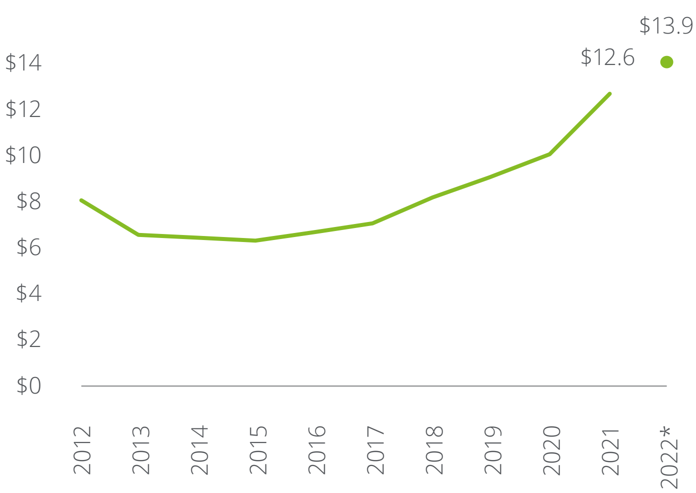


Source: PitchBook | Geography: US | *As of September 30, 2022

Financing metrics have steadily grown in recent years after a sustained dip

In the past few years, the upper quartile of pre-money valuations has ratcheted up significantly. The median has grown considerably as well, though by not as much. Such growth rates in both the median and average imply a steady growth in valuations across much of the population, as well as the emergence of a mature cohort of larger enterprises that have continued to quickly garner richer valuations. Due in part to the growth of venture and growth-stage funding throughout the past few years, the increasing viability and realization of many cleantech and climate tech business models has also driven this surge in market activity and financing metrics. Technical innovations also are achieving commercial scale in many venues.

Median ESG expansion-stage corporate/late-stage VC deal value ($M)



Source: PitchBook | Geography: US | *As of September 30, 2022

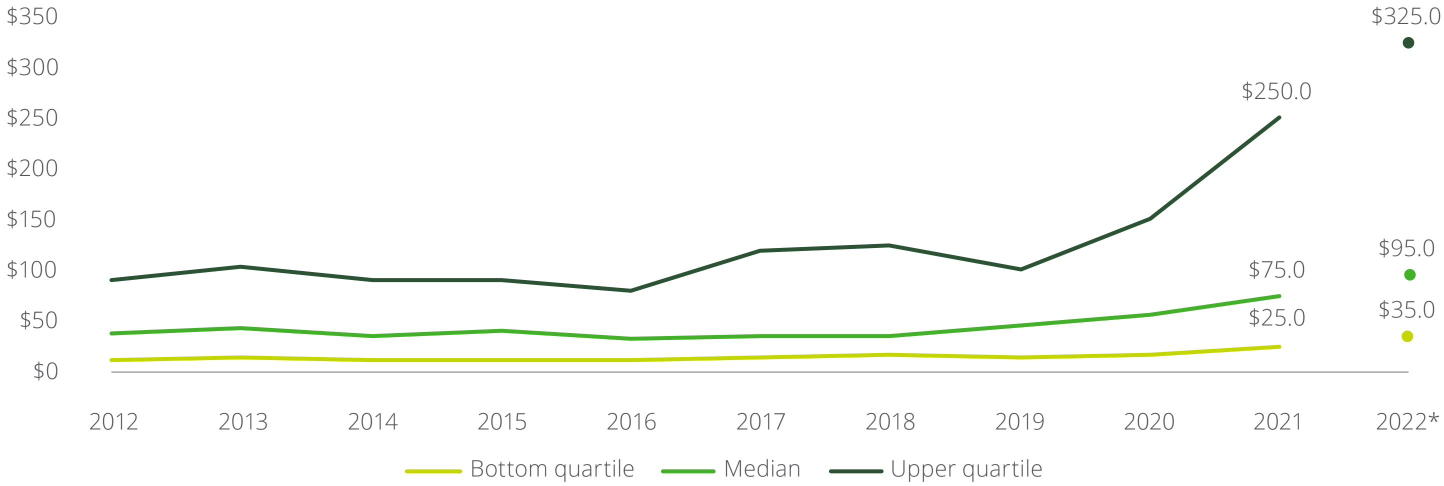
The confluence of cleantech and climate tech is occurring alongside sophistication in impact investing

The proliferation of unicorns within ESG also reinforces that business viability is increasingly being realized. While ESG can encapsulate a host of approaches and datasets, these three arenas are related most strongly to all of the current investment occurring within the space that is translating to direct environmental and governance impact. This is why even impact investing, with advances in financial technology (fintech) companies' portfolio monitoring and reporting tools, is seeing greater

"ESG is nuanced and should not be treated as a blanket strategic statement that can simply be applied and work for every company. The next 12 to 18 months will likely see meaningful evolution and customization of what principles work across all aspects of ESG, not just singular facets of environmental factors."

Sherrie Wu Shagong
Strategic Initiatives Leader
Deloitte & Touche, LLP

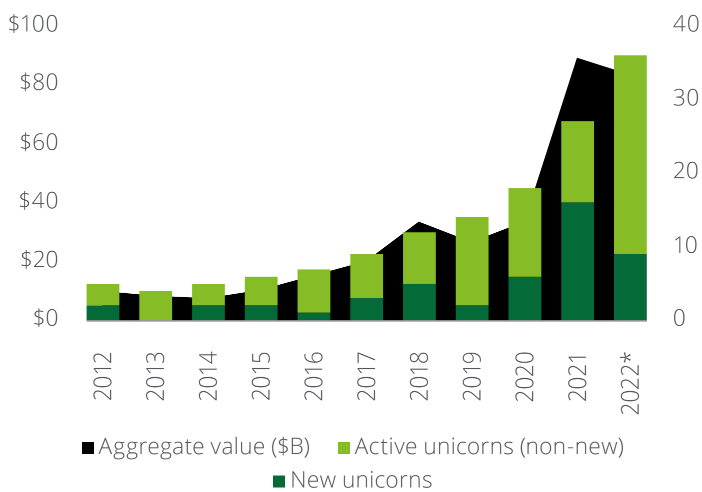
ESG expansion-stage pre-money valuation ($M) by quartile



Source: PitchBook | Geography: US | *As of September 30, 2022

capabilities being brought to market. Given broader market trends, the lack of slowdown in unicorn formation in this domain is also striking, with 36 total active unicorns as of the end of September, including nine new ones that were minted this year, resulting in an aggregate valuation of well over $83 billion. The bulk of this valuation remains concentrated in cleantech companies, but there is a growing proportion of contributing valuations by climate-tech- and nascent impact-investing-related enterprise software tools.

Active and new ESG unicorn count and aggregate ESG unicorn value



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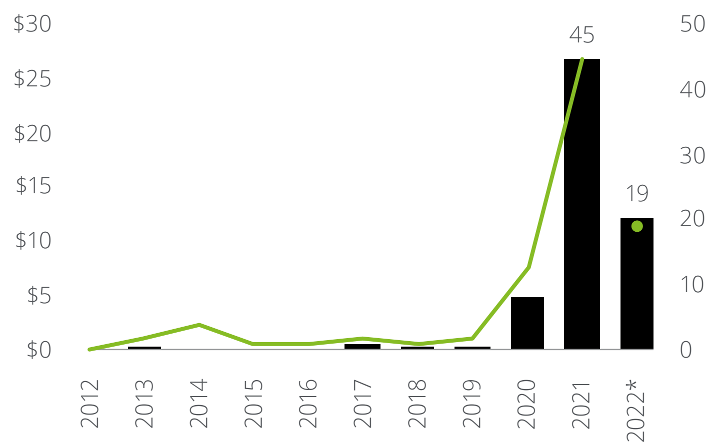
ESG SPAC deal activity



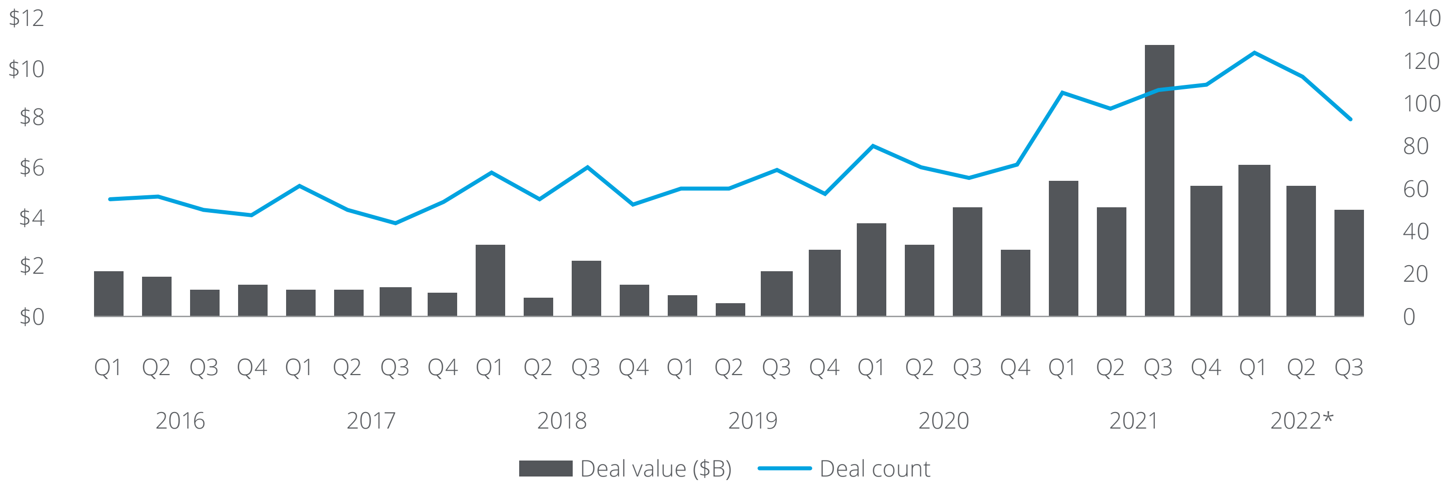
Source: PitchBook | Geography: US | *As of September 30, 2022

"Regarding cleantech companies, what can be missed with regard to ESG prioritization is that recent cleantech success stories are excellent case studies for proving out many aspects of ESG adoption. The proof already exists for viability and importance of ESG implementation."

Sherrie Wu Shagong
Strategic Initiatives Leader
Deloitte & Touche, LLP

Key trends defining ESG dealmaking

ESG expansion-stage deal activity by quarter



Source: PitchBook | Geography: US | *As of September 30, 2022

The surge of attention, dealmaking, initiatives, and investments across the many facets of ESG continues to mount. Although long heralded as the vanguard of progress in the business, economic, and financial worlds, significant change regarding ESG has taken some time to actualize. Now, however, ESG-related dealmaking is proceeding quickly across the expansion-stage ecosystem and is concentrated in business tools and general tech—especially climate tech, cleantech, and impact investing. The volatility that has characterized most of 2022 to date has not yet significantly impacted activity within this space, bolstered as it has been by massive government support and investment worldwide, as well as initiatives undertaken by asset managers controlling trillions of dollars. Thus, as the ESG-related space remains dynamic and seemingly insulated from broader market conditions, it is likely that private market players may remain active within this space.

"Smaller companies still may think ESG concerns are a public company problem. However, investors are going to increasingly demand evidence of ESG progress and accountability, so it is leading practice to begin preparing now, regardless of the business' current growth stage."

Amy Parker
Audit & Assurance Partner
Deloitte & Touche, LLP

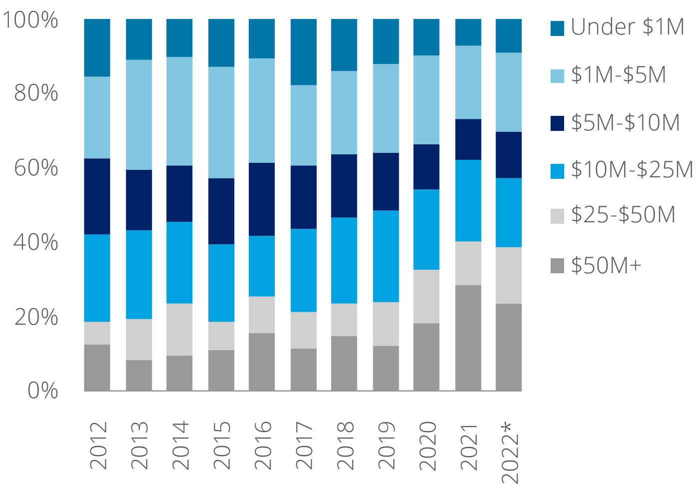
419 deals
ESG-related dealmaking soared in 2021 in the expansion-stage ecosystem, hitting an all-time high.

$15.7B
Despite market jitters in 2022 to date, aggregate ESG deal value remains high.

9
More unicorns have been created in 2022 than in any other year, barring 2021.

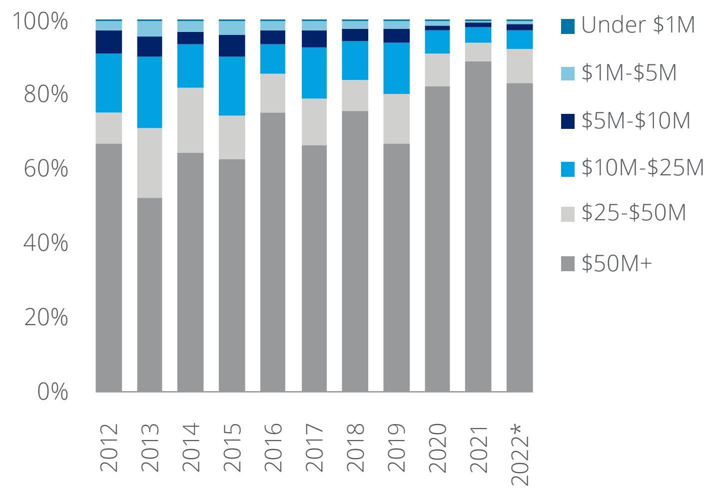
All callouts | Source: PitchBook | Geography: US

Share of ESG expansion-stage deal count by size



Source: PitchBook | Geography: US | *As of September 30, 2022

Share of ESG expansion-stage deal value by size

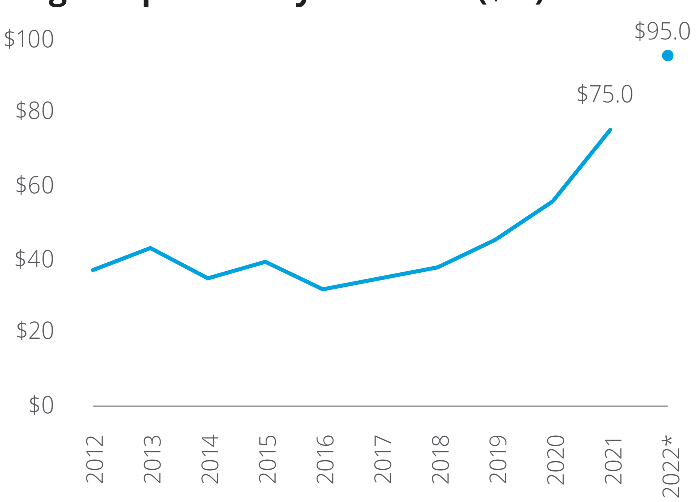


Source: PitchBook | Geography: US | *As of September 30, 2022

"It won't be easy at first, but eventually, once reporting is established, it can ease the path toward necessary strategy and implementation plans. Those last two phases are often overlooked by companies, especially if they are still very much in fast-growth mode."

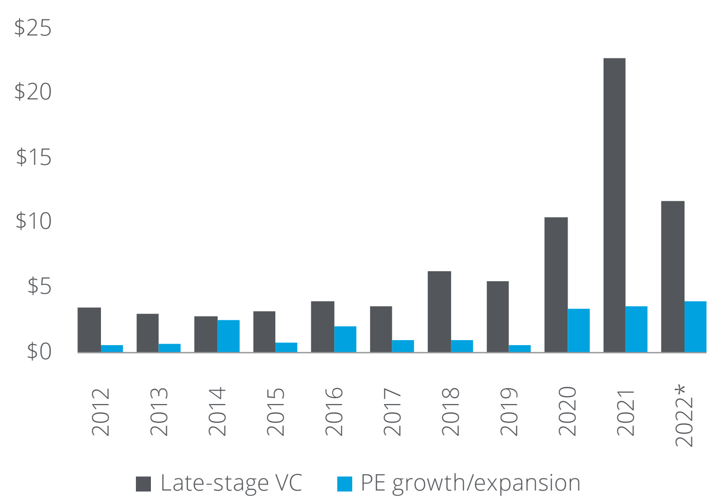
Jean-Denis Ncho-Oguie
Audit & Assurance Partner
Deloitte & Touche, LLP

Median ESG expansion-stage corporate/late-stage VC pre-money valuation ($M)



Source: PitchBook | Geography: US | *As of September 30, 2022

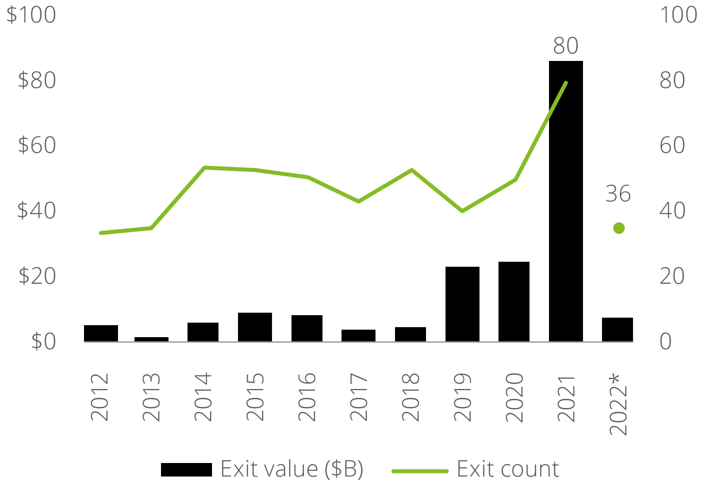
ESG expansion-stage deal value ($M) by type



Source: PitchBook | Geography: US | *As of September 30, 2022

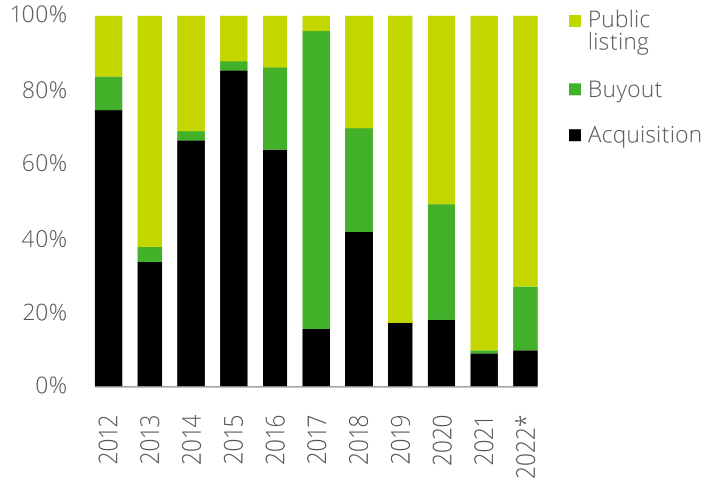
Market trends

ESG expansion-stage exit activity



Source: PitchBook | Geography: US | *As of September 30, 2022

Share of ESG expansion-stage exit value by type



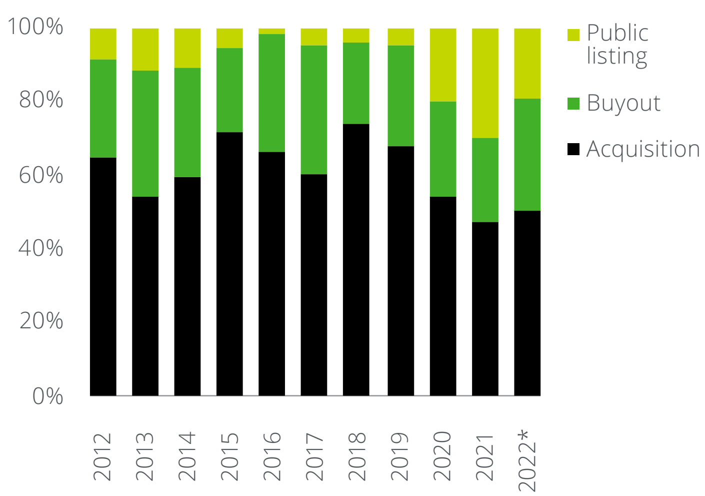
Source: PitchBook | Geography: US | *As of September 30, 2022

In 2021, 80 exits combined for a massive $86.8 billion, funneling plenty of capital back to investors.

2021's liquidity boom is unlikely to be replicated in 2022, but with good returns, investors can remain active within the space

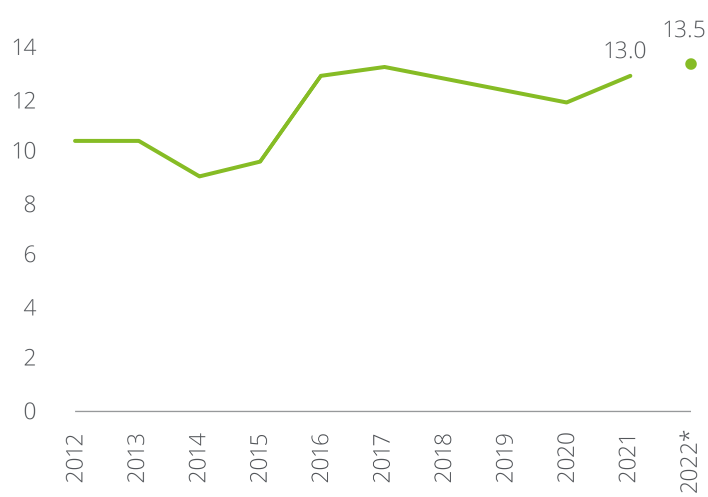
Liquidity in private markets is inherently more difficult to come by than in public markets, so 2021's bull market in equities and healthy mergers & acquisitions environment contributed to a massive combined exit value across many exits. Public listings drove the bulk of exit value, thanks to the boom in equities that encouraged many ESG-related companies to go public. However, historically, acquirers both financial and strategic have driven most exit volume overall. Given current market volatility and uncertainty, exits may likely remain depressed as few companies wish to go public

Share of ESG expansion-stage exit count by type



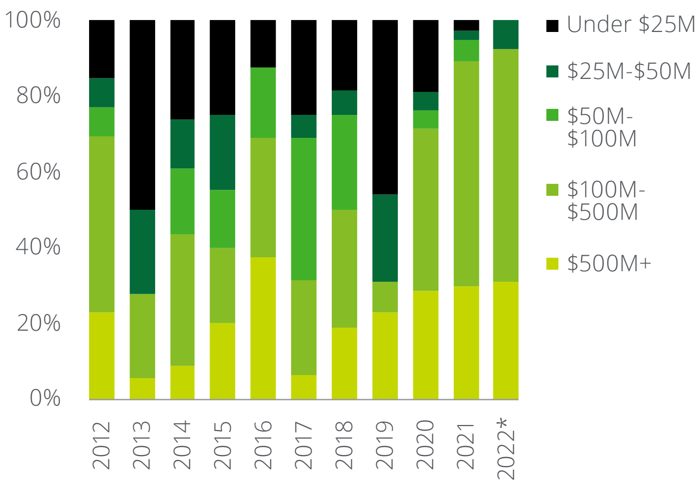
Source: PitchBook | Geography: US | *As of September 30, 2022

Median time (years) from founding to exit at expansion stage in ESG



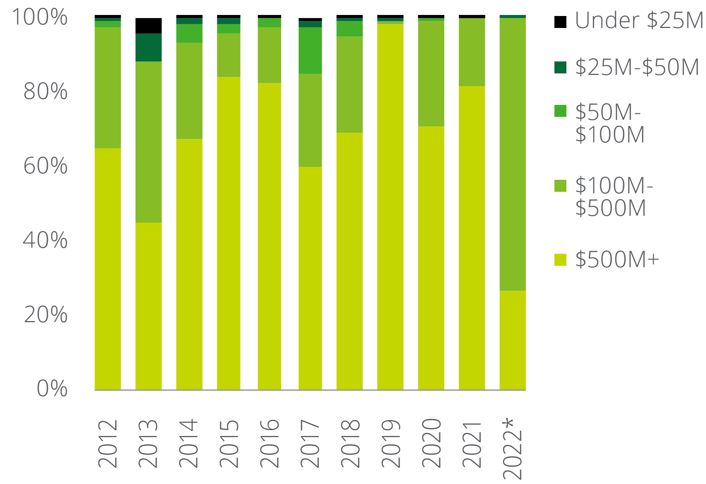
Source: PitchBook | Geography: US | *As of September 30, 2022

Share of ESG expansion-stage exit count by size



Source: PitchBook | Geography: US | *As of September 30, 2022

Share of ESG expansion-stage exit value by size



Source: PitchBook | Geography: US | *As of September 30, 2022

in such an environment. That said, if declines in valuations with new fundraises become more frequent, in the longer term, acquirers could grow more active as they perceive enterprises to be priced at relative bargains. In addition, the resilience of SPAC activity in the year to date may also be driven by the SPAC's more certain market pricing and deal closure, depending on the sponsor community.

Will ESG's intensification worldwide encourage exits to resume?

A useful metric to gauge whether a slump in exits is driven more by temporary market conditions versus more serious, systemic factors is to analyze the maturity of companies that are exiting. For some time now, the overall time between founding and exit has held roughly steady at above 12 years. As that time frame covers a relatively volatile period in terms of both economic and market trends, it suggests a longer-running trend of these ESG-related companies taking approximately a decade-plus to achieve a liquidity event. That may imply that the current slump is not related to only 2022's widespread volatility thus far, but also to an ongoing refilling of the pipeline of market-ready companies—especially given that the bulk of them exited in 2021, owing to the year's surge in volume. This finding is only reinforced by the growing proportion of exits in the $100 million+ range in the past few years. Thus, exits could experience an uptick once a broader crop of ESG enterprises matures enough to prepare for an exit or draw the interest of prospective buyers.

"What's interesting about the SPACs of many energy tech companies is that instead of looking at traditional metrics such as annual contract value (ACV) or annual recurring revenues (ARR) similar to other enterprise tech companies or metrics suited for similar industries, many of them are being valued more based on the potential market penetration of a future market. For example, hydrogen tech valuations are based on a hydrogen market that doesn't exist today."

Jean-Denis Ncho-Oguie
Audit & Assurance Partner
Deloitte & Touche, LLP

Regional trends

Dealmaking still resides primarily on the coasts, with significant variation in deal value

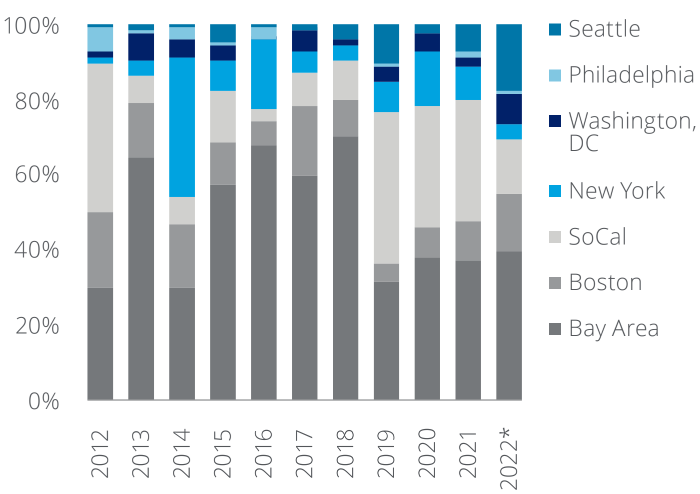
"With the current state of the IPO market, it's no secret that VC investors are laser-focused on steady profitable growth versus hyper-growth. Based on this shift, it's more important than ever to have your house in order regarding accounting policies and controls, as well as a mature financial back office in place. I don't think we are far off from seeing this same emphasis on a growth company's ESG policies. The ability to prove accountability may impact valuations, ability to raise growth capital, and eventually the timeline to IPO or another transaction."

Adam Rochman
Market Development Leader
Emerging Growth Company Practice
Deloitte Services, LP

Throughout the past decade-plus, financing count at the expansion stage among ESG-related companies has been concentrated on the coasts, with the Bay Area still retaining a plurality of deal count. Between 2021 and this year, Seattle and Washington, DC, have seen some gains in proportions of deal value overall. Such volatile skews are due primarily to the space's youth. Blockbuster-sized transactions can still distort yearly deal value totals, as has occurred with clean energy infrastructure players in Seattle in particular this year. It's difficult to foresee a rapid shift in these trends occurring in the coming years, given the concentration of network effects and proximity to client bases. However, should government-backed domestic reshoring efforts occur at scale, as well as traditional energy and manufacturing hubs shifting toward more sustainable production and creation of alternative energy equipment, some budding nexuses of growth-stage companies could eventually come into being in regions that, until now, have not seen high rates of expansion-stage company formation.

US coastal hubs remain predominant in ESG deal volume, but growth in other areas could come in the future.

Share of ESG expansion-stage deal value by top CSAs



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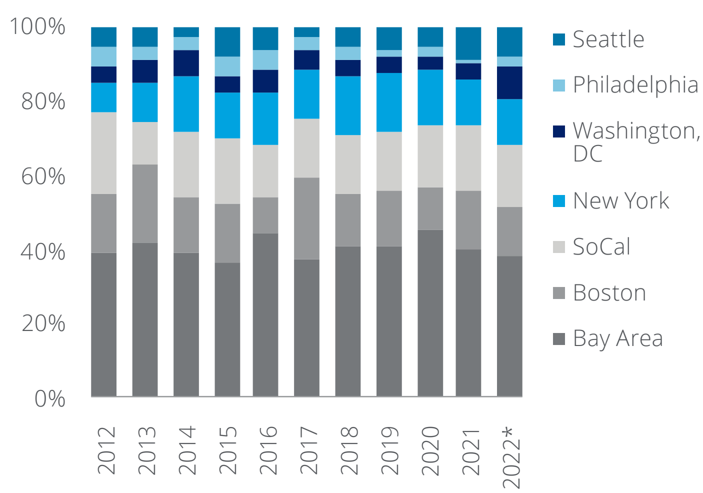
Share of ESG expansion-stage deal count by top CSAs



Source: PitchBook | Geography: US | *As of September 30, 2022

Spotlight: The quickening frontier of cleantech innovation

Cleantech continues banner run

In the past few years, cleantech expansion-stage dealmaking has been on a tear. Since 2020's start, close to $50 billion has been invested across over 900 transactions, with 2022 hardly seeing a slowdown despite the volatility-inducing factors that currently roil global economies and markets. Much of this surge can be attributed to the frontier of technical innovation pushing forward to the point that adoption is growing across multiple sectors, even if at a slow pace in some arenas. For example, aerospace and related parts manufacturers are working on modernizing traffic management to optimize flight patterns and curb emissions, while research & development is proceeding quickly in new propulsion technologies, according to Deloitte.[1] Additionally, the chemical industry could experience both a surge in demand for decarbonization tech as more companies adopt mandates to hit net-zero emissions by 2050 and decreases in emissions if newer manufacturing processes are implemented.[2] Such intensifying demand and growing adoption for improved filtration systems, carbon scrubbers, robust sensing and tracking systems, fuel efficiency adapters, and other cleantech products may continue to bolster investment at the expansion stage, as total potential addressable markets both expand and become more realizable.

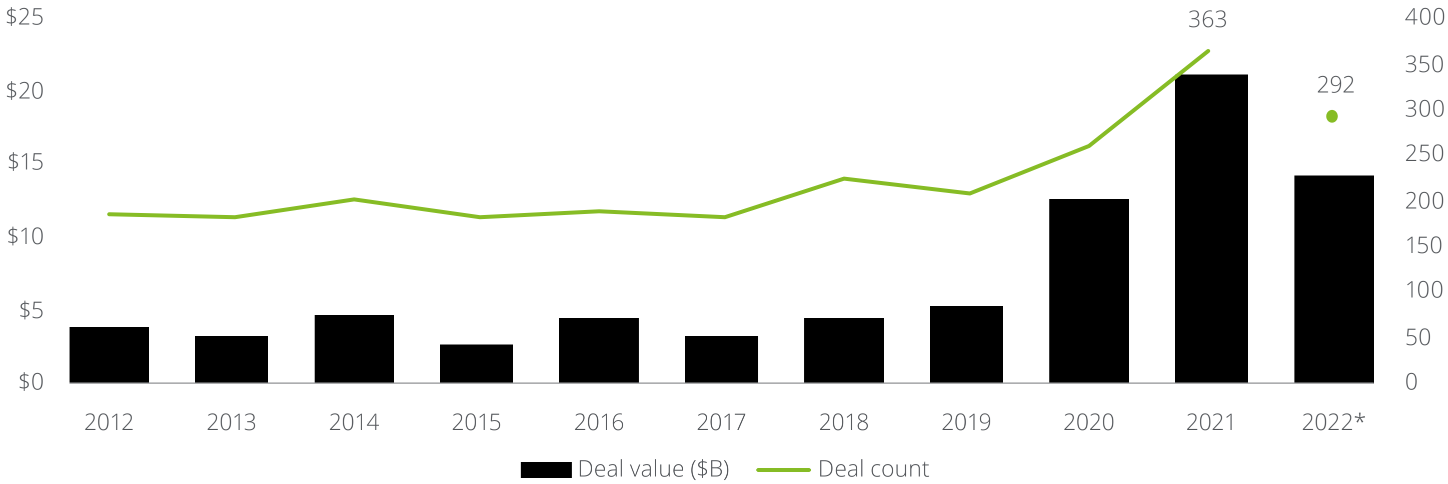
"There has been an explosion and proliferation of cleantech innovations, spanning multiple categories. Fuel cells, hydrogen, improved cloud-based energy monitoring across all sectors, from enterprise to consumer levels, desalination, live and virtual power agreements, lighting, and more are seeing rapid growth."

Jean-Denis Ncho-Oguie
Audit & Assurance Partner
Deloitte & Touche, LLP

1: "Decarbonizing Aerospace," Deloitte, John Coykendall, Steve Shepley, and Aijaz Hussain, October 7, 2021.

2: "Reducing Carbon, Fueling Growth: Lowering Emissions in the Chemical Industry," Deloitte, David Yankovitz, Robert Kumpf, and Aijaz Hussain, June 2, 2022.

Cleantech expansion-stage deal activity

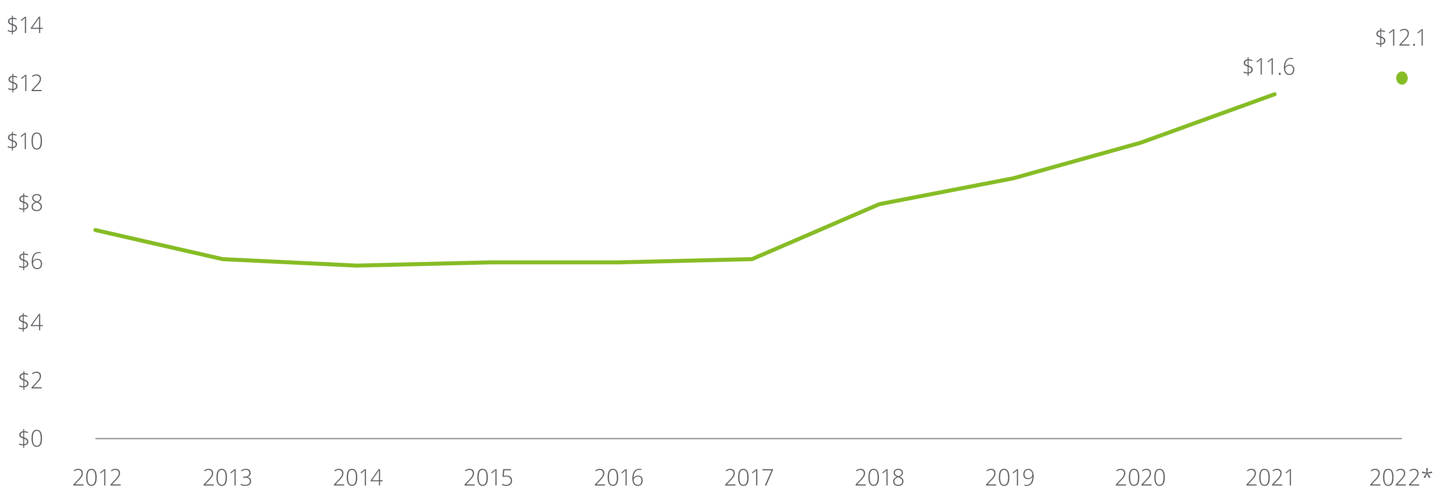


Source: PitchBook | Geography: US | *As of September 30, 2022

"An excellent example of less-discussed cleantech is desalination. That issue transcends politics, due to its criticality. It takes a tremendous amount of energy to desalinate sea water, which has led companies to invest in technologies that reduce energy consumption to reduce their carbon footprint through novel methods of desalination. Other interesting areas that go unremarked are treatment of industrial wastewater and carbon emitting manufacturing products, which could be an economic empowerment factor for less-developed markets."

Jean-Denis Ncho-Oguie
Audit & Assurance Partner
Deloitte & Touche, LLP

Median cleantech expansion-stage corporate/late-stage VC deal value ($M)



Source: PitchBook | Geography: US | *As of September 30, 2022

Looking forward

How will the wave of ESG initiatives translate to more concrete gains?

"Given the variability between frameworks and the needs of different companies, not to mention the massive amounts of data that can be applicable in informing strategies, it is critical to be realistic about the challenges that companies face. As a result, ensuring consistency across data inputs, collections, and process is not only important but imperative to ensure future success in the ESG space."

Amy Parker
Audit & Assurance Partner
Deloitte & Touche, LLP

A key challenge facing the ESG initiatives and programs that have been developed in recent decades is the lack of consistent, reliable, and universal frameworks and metrics that can be as usefully ubiquitous as accounting principles or enterprise valuation techniques. At this stage of development, for example, the most relevant sectors in the PitchBook Platform for ESG-related dealmaking statistics are cleantech, climate tech, and impact investing, given their rapidly growing prominence. Yet although these arenas pertain directly to many aspects of ESG, standard approaches to quantify the impact of many ESG-related initiatives across traditional sectors don't yet exist, even though companies are keen to implement ways to improve governance, reduce emissions, contribute positively to their situations, and more. However, solutions could emerge soon. With the vast expenditure of effort and pledged capital to improve ESG aspects of investment portfolios and business operations and the slowly pervading adoption of pledges or mandates to reduce or offset emissions, significant financial incentives are coming into play for companies that can help achieve those objectives. As a result, the labor of offering products, tools, and services that can more concretely translate macroeconomic-level initiatives into quantifiable outcomes could continue to open up market opportunities. Especially as some still look toward achieving significant liquidity events sooner rather than later, even in a tumultuous market, building a measurable track record may be critical.

Such work will likely be challenging. Not every expansion-stage company possesses sufficient resources to embark on these wide-ranging efforts. It may be necessary to define a few key initiatives or implementations in order to establish more feasible, clearer priorities. Balancing such prioritization with the numerous challenges that expansion-stage companies already face may seem difficult, but prior investment in ESG issues likely results in more robust safeguards against sources of risk in the future, as well as begins building the organizational habits that encourage more sustainable, recurring revenues and consistent financial performance.

"Governance has to be fully baked into all operating procedures, leading practices, and mission statements. It can't be neglected relative to environmental or social issues at the executive level."

Sherrie Wu Shagong
Strategic Initiatives Leader
Deloitte & Touche, LLP

Planning for SPAC: ESG considerations

ESG disclosures allow you to communicate certain strategic goals with investors, highlighting your values, your progress toward meeting those goals, and how it fits into your operational strategy. Learn more about ESG considerations from Deloitte experts, including Will Braeutigam featured in Q2 Road to Next, as you consider a special purpose acquisition company (SPAC) merger.

Methodology

Geographical region: United States

The **expansion stage** is defined from a transactional perspective as including late-stage venture or growth financings as defined by PitchBook. **ESG** in this report was defined utilizing the PitchBook verticals of cleantech, climate tech, and impact investing.

Active investors: The number of active investors is calculated by including either investors that have raised a venture or growth fund in the trailing five years or those that have made four or more VC or PE growth investments in the past three years. There is no exclusion on investor type, apart from angel investors. All investment data is restricted to late-stage VC, PE growth, or corporate financing types, as defined by PitchBook.

Nontraditional investors are defined as hedge, mutual, or sovereign wealth funds.

All **exits** are defined by PitchBook's primary exit types: buyouts, acquisitions, or public listings, which include direct listings, traditional public listings, and SPACs. The underlying companies are those that have, at minimum, achieved any of the investment data under restrictions.

Company inventory is calculated by tallying the number of companies that achieve either late-stage VC, PE growth, or corporate financing by year and have not recorded an exit event as of the year in question.

Unless otherwise noted, all exits were made by companies that fall under the aforementioned criteria for expansion-stage companies. The number of sellers was based on the count of investors classified as PE by PitchBook within the IPO event.

This report was written in mid-October 2022. All data is as of September 30, 2022.

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