Sustainability Sector Review

2023

Polestar's Sustainability Subsectors

Sustainability is an emerging space, in which Polestar currently tracks six key subsectors:

Food & Agriculture — Provision of sustainable foods, agricultural services, scientific research, or development of technology for agriculture.

Clean Tech — Low carbon construction, technology to reduce the impact of human activities and decrease use of natural resources.

Climate Tech — Software and technology to alleviate or adapt to the effects of climate change, for example by mitigating emissions through decarbonisation tech/processes.

ESG & Sustainability Services — Sustainability consulting or engineering services, provision of ESG measurement and related software.

Green Energy — Provision and development of low-carbon energy sources or services, certification and transport consulting.

Wellbeing — Software and services supporting HR, employee management, reward and recignition, training, and career development.

Example Types and Companies

Agriculture equipment and supplies, biosciences, sustainable farming/crop production, etc.

EDEN THE NATURAL SOLUTION, OCEAN HARVEST TECHNOLOGY, HYDROFARM, Anpario

Water management, waste management, recycling, sustainable transportation, etc.

NUVVE, CleanHarbors, WATTS, casella

Electric vehicle companies, lithium battery solutions, hydrogen technology, etc.

SolidPower, TESLA, dragonfly, ADVENT

Consulting, financial services, assessment, strategy, and development, etc.

IBM, MSCI, Verisk, WILLDAN

Energy resources, manufacturing, distribution, storage, etc.

AFC Energy, ceres, SIMEC ATLANTIS ENERGY, POWERHOUSE ENERGY GROUP

Employee benefits, compensation, engagement, training, etc.

Asure, Paycor, trinet, MindGym

Market Overview

UK Macroeconomic Overview

Monetary policy tightening has recently dominated the economic narrative and has been drag on valuations across all sectors. Whilst there are signs of recovery on the horizon, we are not out of the woods yet.

Q3 data is showing a less inflationary path, with CPI inflation more than halving from its peak of 11.1% in October 2022 to 4.6% in October 2023, an improvement, but still of course above the BoE's 2% target. The BoE expects inflation to hit 4.5% in 2024 Q1 and 3.75% in 2024 Q2, fed by lower energy, core goods and food price inflation and, beyond January, also by some fall in services inflation. In the MPC's latest projection, CPI inflation returns to the 2% target by the end of 2025.

Having raised rates 14 consecutive times to 5.25%, the sharpest rate tightening cycle since the 1980's, the BoE's decision in November to keep interest rates on hold and falling inflation means all eyes are on when rate reductions. Central bankers have been pouring cold water on the idea that this may happen in the next six months. Once the reductions start the benefits will take time to feed through to increase economic activity.

This extended period of high interest rates and inflation has placed significant downward pressure on GDP and has staled economic recovery. Consumers and businesses have limited spending when faced with more volatile markets and hostile borrowing conditions. UK GDP showed no growth in Q3 following an increase of 0.2% in the previous quarter. Some business surveys are pointing to a slight contraction of output in Q4, but others are less pessimistic. GDP is expected to grow by 0.1% in Q4, slightly weaker than projected previously.

BoE Forecast Summary Table

Shown in (%)	2024 Q4	2025 Q4	2026 Q4
GDP	0 (0.1)*	0.4 (0.5)*	1.1
Modal CPI inflation	3.1 (2.5)*	1.9 (1.6)*	1.5
Mean CPI inflation	3.4 (2.8)*	2.2 (1.9)*	1.9
Unemployment rate	4.7 (4.5)*	5 (4.8)*	5.1
Excess supply/Excess demand	-¾ (-¾)*	-1½ (-1½)*	-1½
Bank Rate	5.1 (5.9)*	4.5 (5)*	4.2

**Figures in parentheses show the corresponding projections in the August 2023 Monetary Policy*

Valuation and Deal Making Outlook

Deteriorating macro conditions over the past 12-18 months have resulted in a general decline in both public and private valuations, lower levels of investment across all sectors, and a decline in deal-making. That said, quality deals continue at excellent valuations.

Whilst the macro conditions have affected the Sustainability sector this year, demand for market leading assets remains high and we expect Sustainability to be resilient into 2024 as the market settles into a less inflationary journey.

Over the last decade, investors have flocked to the sustainability sector, so much so that it was the biggest theme driving global M&A in the second quarter of 2023, according to GlobalData. The outlook for deals is promising, underpinned by a growing emphasis on sustainability and governance practices. Despite the current modest share of green deals in M&A, dealmakers' perspectives are starting to recognise their potential for value creation.

The rising number of impact funds, and pressure from Private Equity's investors (LLP's), have elevated appetite for investment in sustainability focused assets. In March 2022, the Impact Investing Institute, in partnership with EY released first estimate of the size of the impact investing market in the UK: £58 billion with a further £53 billion of impact-aligned investments.

VC firms are responsible for the majority of investments, providing capital to the sector needed for developing technology, skills, and capabilities.

As a largely fragmented market starts to scale and consolidate, both PE and trade will be looking to invest so they can expand their technology, skills, and geographic coverage.

Notably, sectors such as energy and utilities are leading this charge, while others show potential for increased engagement. The presence of a significant price premium in green deals inherently acknowledges both growth potential and heightened market competition. Given the global focus on environmental preservation, sustainability deals are poised for sustained expansion, with diversification across various sectors and regions.

Trends Across the Sustainability Industry

Regulatory Environment

- Regulatory drivers, both enacted and envisaged, remain a key factor within the emerging sector. Policies continue to differ across the globe, but the objectives remain the same in making sustainability and ESG standards more transparent and easier to understand.

- The European Union has finalised the Corporate Sustainability Reporting Directive ("CSRD") that will introduce more detailed sustainability reporting requirements for EU companies, non-EU companies meeting certain thresholds for net turnover in the EU, and companies with securities listed on a regulated EU market. The CSRD entered into force on January 5, 2023 and is substantially consistent with the provisional version published in June 2022. The rules will be phased in starting from January 1, 2024 for certain large EU and EU-listed companies, and will apply to all in-scope companies by January 1, 2028.

- Whilst U.S. companies have self-regulated environmental advancement, the widespread adoption of ESG policies prompted the SEC to propose regulations and California's state government to pass a law requiring companies to disclose both direct and indirect emissions and climate-related financial risks. From 2024, public companies will be expected to disclose greenhouse gas emissions and climate risks, and the commission will release additional guidance on environmental impact reporting later this year.

- The International Sustainability Standards Board (ISSB) recently issued the first reporting guidelines for global public companies, private companies and government organizations. The standardised reporting required by the ISSB will help organisations establish trust and share easily comparable data points with these stakeholders who are now showing a marked preference for companies that can clearly illustrate sustainable practices.

ESG Ratings

- ESG ratings are becoming increasingly important as some investors, institutions and customers pay more attention to sustainability factors. ESG ratings are used as a measure of environmental, social and governance practices, and how well a company is preforming under these areas.

- ESG scores (normally out of 100) consider the three aspects of ESG. The environment aspect looks at factors such as carbon emission, water usage, and waste management practices. Social will look at labour practices, D&I policies, and treatment of customers. Governance will look at board structure, executive compensation practices, and shareholder rights. The average of these scores is the company's ESG score. ESG scores (sometimes weighted to the "E") are increasingly being used by investors and green debt providers.

- Leading ESG data rating companies include MSCI, Bloomberg, RepRisk, Sustainalytics and Thomson Reuters.

- Investors can use ESG ratings to invest in companies that align with their fund's principles and initiatives. Segmented by different investment approaches - "Integration", "Value & Screens" and "Impact" - investors can choose from solely climate change and/or low carbon focused benchmarks, social indexes such as for example the Women's Leadership Impact Index or indexes that combine top corporate ESG performers from the MSCI ESG Universal Index.

Net Zero Targets

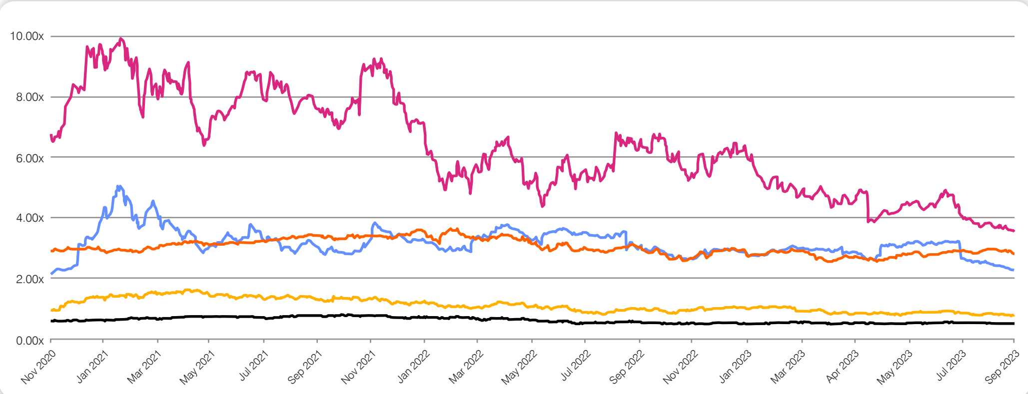
- 91% of global GDP is covered by national governments net-zero targets. The United Nations has dubbed "the greatest challenge humankind has faced". This presents significant opportunities for organisations and companies providing services, software and technology to deliver these targets, who will continue to demand high valuations.

- Reallocation of spending from high-emission to low-emission assets would increase. Of the overall $9.2 trillion needed annually for a net-zero transition over the next 30 years, $6.5 trillion - or 70 percent of total spending - would be on low-emissions assets. Three sector groups - mobility, power, and buildings - would account for approximately 75 percent of the total spending on physical assets in this net-zero scenario.

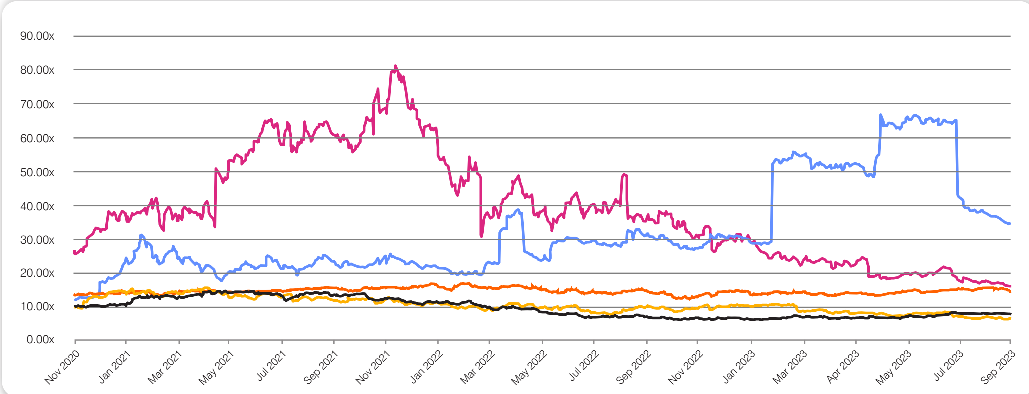
- McKinsey's report "The Net Zero Transition" (January, 2022) states that changes in policies, technologies, and consumer and investor preferences would lead to considerable shifts in demand for various goods and services. By 2050, oil and gas production volumes would be 55% and 70% lower than they are today. Coal production for energy use would nearly end by 2050.

Sustainability Sector Average Listed Multiples

Average Listed Revenue Multiples



Average Listed EBITDA Multiples



Source: S&P CapIQ - Polestar Sustainability Sector Indices

Current Multiples	Green Energy	ESG & Sustainability Services	Climate Tech	Clean Tech	AgTech	Wellbeing
Public Revenue Multiples	3.5x	2.8x	N/A	2.3x	0.8x	0.5x
Private Revenue Multiples	1.5x-8.5x	1.3x-3x	1x-8x	1x-2.25x	3x-6x	2x-3x
Public EBITDA Multiples	16.2x	14.5x	N/A	34.8x	6.5x	7.9x
Private EBITDA Multiples	12x-19x	8x-9x	4x-7x	9x-10x	N/A	9x-10x

- Due to the reduction in the availability of debt and concerns over interest rates, revenue and EBITDA multiples have fallen from 2020 levels across all sectors, as buyers have sought to account for the additional increased financing burden.

- Continued enthusiasm for sustainability assets is bolstered by increasing familiarity in emerging technologies by both consumers and investors.

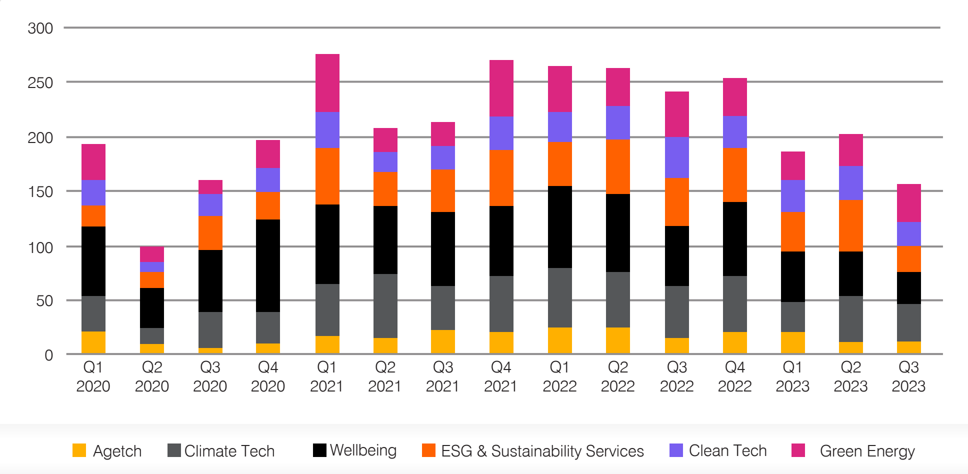
- Recently, the sustainability sector has seen changes in UK policy. Where Green Energy was once at the forefront of political policy, the exceptionally high and volatile energy commodity prices have shifted and resulted in record oil and gas profits globally. Additionally, Sunak's shift away from the 2026 goal of phasing out gas boilers to 2035 has ruffled the feathers of the heat pump lobby as the green replacement to gas reduces in significance, which will ultimately affect the demand for green energy, at least short term.

- ESG services remain firmly at a premium, with valuations at c.15x EBITDA, Polestar has found growing momentum and high levels of interest in this sector from both trade and PE. These services will continue to grow in significance as more such policy is brought into company structuring.

- Although public Climate Tech multiples cannot currently be meaningfully tracked due to the early-stage nature of the industry, we can assume that, much like Green Energy, the sector will have taken a hit from the UK government's decision to delay the ban on petrol and diesel cars from 2030 to 2035. Coupled with the cost-of-living crisis reducing household capacity to afford the premium on green energy and move into electric vehicles, these sectors will take time to regain momentum.
- AgTech has been facing an adoption challenge which has grown since global macroeconomic climates have crumbled. The adoption challenge is reflected in the decline in EBITDA multiples since Q2 of 2021. In 2021, farmers were benefiting from commodity cycles, and on farm income was projected to be the highest level in a decade. However, farmers are facing the challenges of inflation and global warming resulting in more weather monitoring and scrutiny than ever before. One study has shown only 39% of farms globally use farming technology demonstrating the need for AgTech take up over the next decade.
- The Wellness subsector continues to excite. Towards the end of the UK lockdown period, Wellbeing industry multiples were up, as the need to engage with employees working from home rose. Now the Wellbeing subsector has become a foundational pillar in workplace culture, and it continues to be of high interest to investors, despite market volatility, as companies reconsider how best to optimise for flexible working.

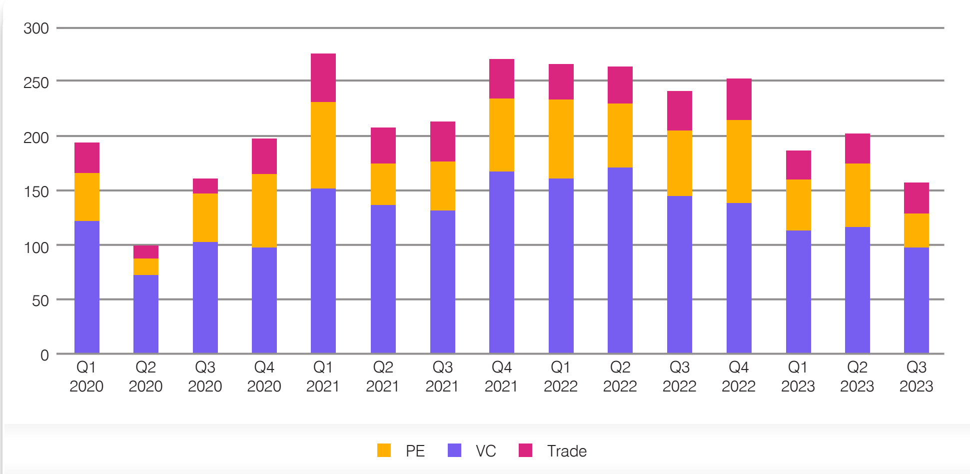
Sustainability M&A

Sustainability Deals - Subsector Breakdown



Source: PitchBook

Sustainability Deals - Trancsation Type



Source: PitchBook

- Deal volume fell by 21% compared to last year, from 645 deals in the first three quarters of 2022 to 530 deals in the same period of 2023.
- The ESG & Sustainability Services subsector has made up the largest portion of deal volume throughout 2023 so far, having seen higher levels of investment from VC firms. Such services continue to be in demand as businesses seek to understand, evidence and plot a path towards sustainability goals.
- Clean Tech, as the most well-established subsector, has seen the most diverse activity this year, although only making up 12.45% of the overall sector deal total this year to date. 35% of the subsector's deals have through trade deals, 33% VC and 32% PE.
- Unsurprisingly, the majority of deals within the sustainability sector remain VC backed deals. This is due to the early-stage nature of the sector remaining more appealing to VC firms.
- Overall, PE activity has reduced; however, a combination of their investment criteria and the lower incidence of mature companies in the Sustainability space. We expect this to become revitalised as macro conditions improve and businesses in the sector start to mature and consolidate.

Active Investors and Buyers

Active Investors

- The rapidly growing focus on climate and social issues is increasingly influencing investment philosophy, prompting an increasing number of PE firms to establish impact funds, alongside the general pressure from LLP's. This has been evidenced in our recent survey "Attitude to Sustainability" in which Private Equity respondents overwhelmingly track sustainability performance in their portfolio companies.
- Sustainability is a relatively immature sector. As a result, several companies founded over the last decade have reached a size where they either need more investment, skills or capabilities. Early-stage companies are looking for cash to fund research and develop technology. This makes investment from venture capital firms highly attractive.
- 67% of the most active investors over the past 12 months have been venture capital firms participating in seed rounds, early or later stage VC.

Active Buyers

- Sitting in what is still a highly fragmented industry, Sustainability founders have the option to expand through acquisition, grow with financial backing or sell. This array of opportunity has and is expected to continue to, buoy M&A activity.
- As the sector consolidates, both PE and trade will be looking to add companies that will add new technology, services, or geographies into their portfolio. For example, Phenna Group acquired Trident Water Solutions, Evolution Water Services, and Sayvol Environmental & Building Services to rapidly develop built environment divisions with specialist complementary services.
- Similarly, Nurture Landscapes Group made its largest acquisition in 5 years with CGM Group, in a deal that will considerably strengthen Nurture Group's presence in the East of England.

Active investors in the past 12 months	Sub-sector	Number of Investments
Scottish Enterprise	AgTech	3
NoBa	Wellbeing	4
Okaley Capital	Clean Tech	4
Energy Impact Partners	Climate Tech	4
SFC Capital	ESG & Sustainability Services	4
SFC Capital	Green Energy	4

Active buyers in the past 12 months	Sub-sector	Number of Investments
GEA Group	AgTech	1
Sterling Talent Solutions	Wellbeing	1
Phenna Group	Clean Tech	3
Drax Group	Climate Tech	1
Nurture Landscapes Group	ESG & Sustainability Services	2
Hargreaves Services	Green Energy	3

Selected Transactions - Private Equity

Deal Date	Sector	Target	Investor	Description	Deal Size (£m)	Revenue Multiple	EBITDA Multiple
Sept 2023	AgTech	FruitCast Ltd.	Ceres Agritech	Ceres Agritech participated in a £2.8m raise for Lincoln-based FruitCast, which uses an innovative yield forecasting system based on AI-enabled data analytics for strawberry yield improvements. This is one of three spin-out companies launched from Ceres, the knowledge exchange partnership designed to revolutionise the creation and uptake of early-stage agtech opportunities.	2.8	N/K	N/K
Sept 2023	Climate Tech	Myenergi Ltd.	Energy Impact Partners	British smart home energy technology manufacturer, Myenergi, has secured an investment of £30m to support significant future growth and internationalisation from Energy Impact Partners (EIP). This follow a £30m debt finance package secured form HSBC earlier in the year to fuel expansion.	1.7	1.08	9.2
Sept 2023	Wellbeing	Trickle Data Insights Ltd.	Energy Impact Partners	Scottish workplace productivity startup Trickle, the developer of an employee engagement and well-being platform designed to voice opinions across large organisations, has secured a £1m investment led by Equity Gap, with NoBa Capital and Scottish Enterprise. The capital will be used to grow its team, increase presence in the private sector, and add features to the platform which enables more inclusive communication across organisations and boosts productivity.	39	N/K	N/K
April 2023	ESG & Sustainability Services	Climate X Ltd.	Commerz Ventures, Proptech	Climate X, a London-based climate risk analytics provider, £4m in funding from CommerzVentures and PropTech, joined by Voyagers Climate Tech Fund, Blue Impact Ventures, Deloitte LLP and angel investors. Climate X will use the new funding to service growing customer demand and expand the product offering.	4	2.42	N/K
Feb 2023	Green Energy	Future Biogas Ltd.	3i Infrastructure	Future Biogas, the largest producer of biomethane in the UK and a highly experienced developer and operator of AD plants, was acquired by 3i Infrastructure. 3i Infrastructure's funding will support Project Carbon Harvest, Future Biogas' venture to design and operate the next generation of AD plants delivering Bioenergy with Carbon Capture and Storage (BECCS) while helping to decarbonise UK farming.	28	1.47	56.13
Jan 2023	Clean Tech	Biffa Plc.	Energy Capital Partners	Energy Capital Partners, an infrastructure investor based in New Jersey, USA, completed a £1.7bn takeover of Biffa. Andrew Gilbert, Partner at ECP, commented "We share the Biffa team's vision to promote a more sustainable, circular economy, and are excited to partner with the Company in its next phase of growth. We are impressed by Biffa's visionary leadership, talented employees and commitment to safety. ECP and Biffa will remain focused on providing the highest levels of service to the Company's customers." With the completion of the transaction, Biffa shares have ceased trading and will no longer be listed on the London Stock Exchange.	1,733	1.1	9.2

Selected Transactions - Corporate

Deal Date	Sector	Target	Investor	Description	Deal Size (£m)	Revenue Multiple	EBITDA Multiple
Sept 2023	Clean Tech	Enval Ltd.	Greenback Recycling Technologies Ltd.	Greenback Recycling Technologies and flexible packaging recycler, Enval, have merged their operations, designed to bolster plastic and aluminium recycling operations. According to Greenback the merger will "offer holistic and integrated technology-based, fully circular solutions for the neutralisation of the currently hard-to-recycle post-consumer plastic packaging waste, and also, provide feedstock for new food-grade packaging with recycled content."	N/K	N/K	N/K
Aug 2023	Climate Tech	BMM Energy Solutions Ltd.	Drax Group Plc.	BMM Energy, a specialist in the installation and maintenance of EV charge points, was acquired by Drax Group, a renewable energy generation company. The acquisition of BMM will strengthen Drax's end-to-end charging proposition to UK businesses and help demonstrate its commitment to supporting them achieve their Net Zero ambitions.	N/K	N/K	N/K
Aug 2023	Wellbeing	Weekly10	LMS365	LMS365, a Danish AI-powered learning platform integrated with Microsoft 365, acquired Weekly10, a dynamic performance and engagement management company based in Wrexham, UK. This strategic move marks a significant milestone in the evolution of LMS365, as it expands its capabilities to empower employees to drive their own success, wherever and however they work. Unlike traditional HR tech solutions that focus solely on people management, LMS365 and Weekly10 prioritise individual growth and success.	5.6	N/K	N/A
April 2023	ESG & Sustainability Services	Ecosphere+ Ltd.	Abatable (backed by Azora Capital)	Abatable, a carbon procurement and market intelligence technology company, completed the strategic acquisition of Ecosphere+, a leading nature-based carbon credits provider. The deal combines Abatable's access to more than 2000 carbon project developers with Ecosphere+'s procurement expertise and extensive corporate buyer relationships to create the largest technology enabled carbon procurement platform. Abatable is backed by Azora Capital.	N/K	N/K	N/K
Feb 2023	Green Energy	Andigestion Ltd.	Severn Trent Plc.	Severn Trent, the water utilities company, acquired Andigestion Limited, which provides energy by converting food waste into green energy and fertilisers. for an undislosed amount. The acquisition will bring an additional 45 GWh of energy generation output every year and will give Severn Trent new reach into Southwest England covering major cities like Bristol, Gloucester and Exeter, in turn helping more businesses to process and recycle their food waste into renewable energy.	28	1.47	56.13
Jan 2023	AgTech	Venture Dairy Services Limited	GEA Group	Venture Dairy Services, a family-owned business located in the Southwest, was acquired by German food corporation GEA group. GEA Group supplies robotic and conventional milking parlours, automatic scrapers and feeders and herd management systems, as well as equipment servicing, hygiene supplies, milk cooling, manure management and milk testing. This deal is aimed at GEA consolidating its presence in the region and improving its offering to dairy producers.	N/K	N/K	N/K

Polestar Recent Sustainability Sector Deals

ESG & Sustainability Services
Exit / MBO / Capital Raise
EVORA

Wellbeing
Exit
COMPANION

Climate Tech
Exit
AASVOGEL
The complete waste management solution

Clean Tech
Debt Advisory
eGreen
Smart Packaging & Tableware.

Wellbeing
Exit / MBO
peoplevalue
the employee engagement company

Climate Tech
Exit
VALLEY TRADING