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What Does Following the Money Tell Us?



...A review of Sightline Climate's *Climate
Tech Investment Trends 2024* report



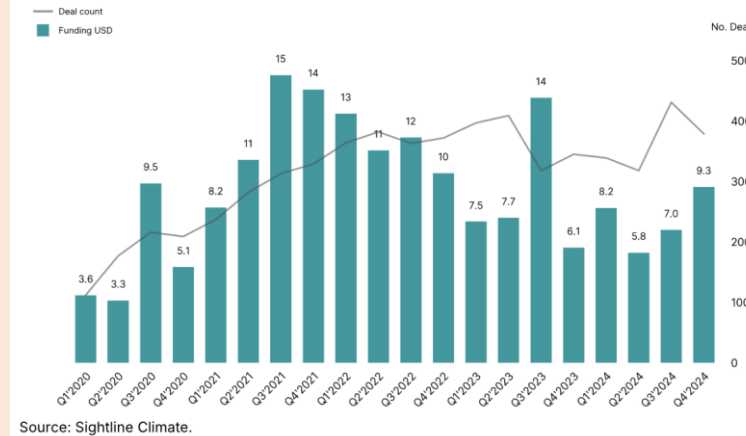
A good way to gain insight into any industry is to follow the flow of money.

That's particularly true with emerging markets, as investment capital and growth are typically highly correlated.

Today, the Sightline Climate 2024 Climate Tech Investment Trends report hit my mailbox and I immediately thought it worth sharing.

Going in the wrong direction

Quarterly climate investment, 2020-2024 (\$bn)



Venture capital and growth investment declined 14% in 2024 to \$30.3 billion. It also declined 23% in 2023, and 5% in 2022.

Report Authors Analysis

- The report authors noted a continuation of the “wait and see” attitude of 2023 and cited high interest rates, delayed IRA funding, and political uncertainty.

My Take

- Political uncertainty does appear to be a significant factor. The report has only been published for four year so there's no data for 2019 or earlier.
- However, 2020 – another politically uncertain time - saw total investments of \$21.5 billion. After the Biden win, 2021 investments exploded, increasing 124%. Following the election euphoria and the IRA, they've been declining steadily.
- With a Trump presidency looming, a more cautious attitude toward cleantech is natural. Still, with so many nascent sectors, the decline in investment capital is a bit of a red flag.

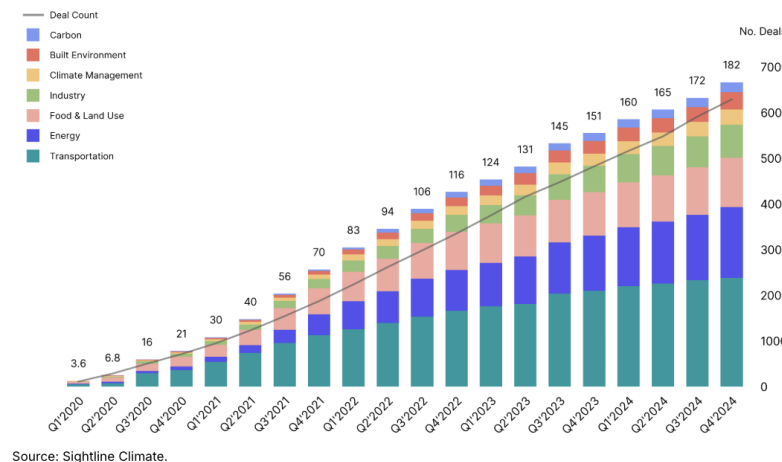


The report only captures publicly announced venture capital and growth equity deals so the snapshot isn't of the entire investment landscape.

With that said, it does capture a significant segment of total investments and as such is a good indicator of overall trends.

Too young to flatline

Cumulative climate investment by vertical, 2020-2024 (\$bn)



Cumulatively, since 2020, 3900 cleantech companies have raised \$182+ billion in 6,200 deals.

Report Authors Analysis

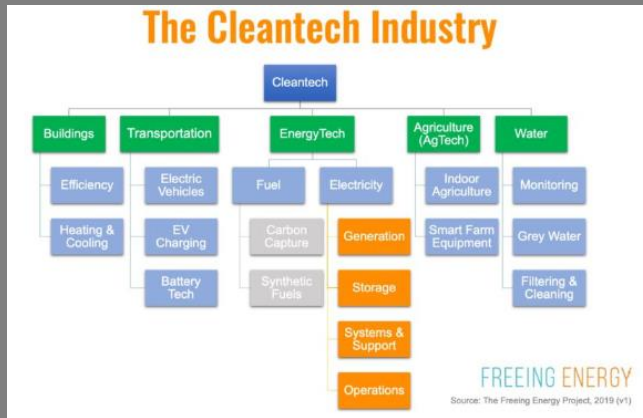
- Cumulative investment more than tripled from 2020 to 2021. However, yearly totals are now flat or declining. In 2020 growth was exponential, but has become decidedly linear: The CAGR for 2020-2022 was 135%. For 2022-2024 it was 25%

My Take

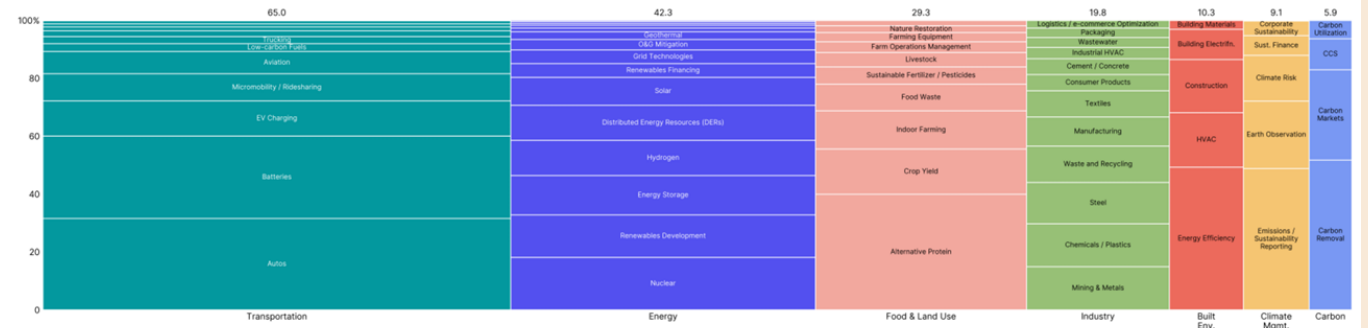
- Here again the post Biden euphoria at least partially explains the change in compound annual growth rates (CAGR). However, flatlining investments so early in the industry's maturation is somewhat alarming.
- In an industry with a multitude of submarkets, looking at the individual sector data can be more insightful.

See Next Slide

Profits generally align with climate goals



Climate investment breakdown by vertical and sector, 2020-2024 (\$bn)



Source: Sightline Climate // Note: Sightline clients can view this data [here](#).

Percentage of Total Investment by Sector:

Transportation	36%	Industry	11%	Climate Management	5%
Energy	23%	Built Environment	6%	Carbon	3%
Food & Land Use	16%				

Report Authors Analysis

- In Transportation: autos was relatively constant (2% decline) while investment in battery technology plummeted 79%. Investments in aviation skyrocketed 369%.
- In Energy: nuclear and energy storage made up 46% of the total in 2021. By 2023 it had fallen to 19%. But in 2024 nuclear was up 85% and energy storage increased 184%. Together they made up 38% of total energy investments.

My Take

- The sector investment breakdown is mostly encouraging. The rise in nuclear is critical and the massive increase in energy storage is paramount for long-duration storage to become a reality. That's critical to the continued proliferation of solar and wind.
- Less positive is transportation. It doesn't bode well for advancing EV technology, and it appears that investors are ceding the battery segment to China.
- The carbon removal and capture segments remain woefully underfunded.

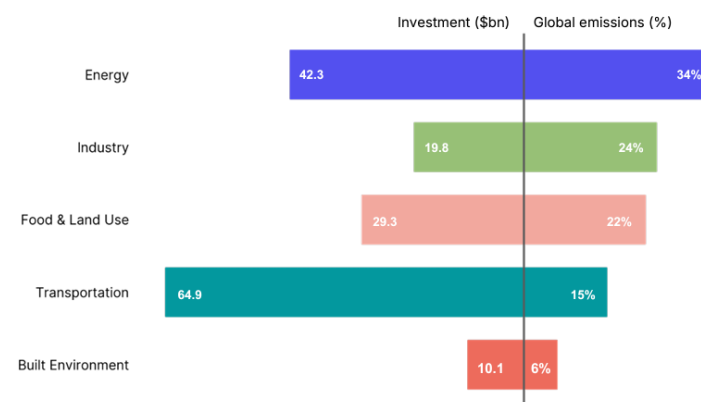
This chart is difficult to read, but the entire report is available to download if you want to dig into the details.

The importance of this data is that it shows what technologies investors are funding and whether the profit motive is aligning with the environmental objectives.



An “over” investment may be required

Climate investment by vertical vs emissions, 2020-2024



Source: Sightline Climate, IPCC 2019 // Note: Emissions dropped during the Covid-19 pandemic, but have now returned to pre-2020 levels, making 2019 emissions data still a reasonable comparison.

Report Authors Analysis

- A disproportionate amount of investment is still going to Transportation (41% of investment vs. 15% of emissions)
- Investment in Energy is doing its job, but industry is still under-funded.
- Investing for emissions reduction is going to get harder as most of the low-hanging fruit has been picked.

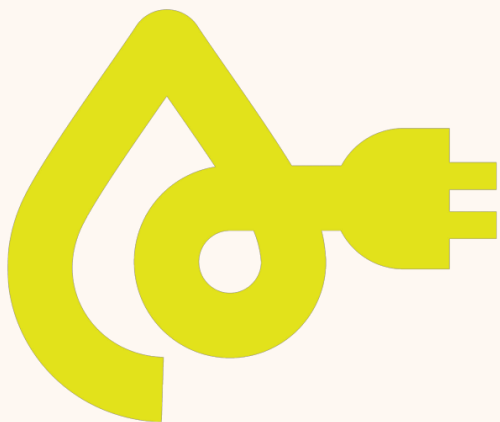
The report’s authors are looking at this incorrectly. Investment percentages should not necessarily align with global emission percentages.

I would argue that those sectors with the highest emissions should receive a disproportionate level of investment.

My Take

- For me, a great deal more should be invested in hard to abate industries like cement and steel. These are solvable problems with proper funding.
- The same argument holds true for the energy sector, particularly for the investment required in grid infrastructure.
- Food and land use is problematic. Unless people stop eating beef or figure out how to mitigate the environmental impact of wetlands, money isn’t going to put much of a dent in this sector.

These are extremely challenging problems. To achieve the goals requires an “over” investment.



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Unbiased and Unfiltered

- An honest assessment of the climate change effort.
- I cover what's working – but more important - the issues/roadblocks that the industry would prefer to ignore.
- A must-read for anyone with a desire to understand what's really going on with renewable energy and climate change.



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