Marketing material

Inspiring innovation: private equity's role in environmental solutions

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Pioneering, not protesting

The number of companies that have set science-based targets for emission reductions aligned with limiting global warming to 1.5°C almost doubled between just 2021 and 2022, and now stands above 4,000.[1] Moreover, 92% of global GDP is now covered by a net-zero target.[2]

Such developments are welcome, but what gives us confidence they will amount to meaningful progress? In short, the answer is that this collective will to act is matched by an accelerating ability to act. These commitments are only likely to be met through the deployment of existing technologies and scaling up innovation; they cannot be expected to come from behavioural change alone.

Indeed, the IEA estimates that the majority of the technologies needed to achieve the world's net-zero commitments by 2030 are already market-ready; innovation in new technologies becomes more material for the net-zero path towards 2050 (Figure 1). The penetration rate of such environmental technologies is admittedly still low, but is expected to – and needs to – grow exponentially. The market size for environmental technologies is forecast to more than double from $4.9 trillion in 2020 to $12.1 trillion by 2030.[3]

However, these technologies require significant investment to reach their full potential. The Climate Policy Initiative calculates that, at a minimum, climate financing must increase by 590% to meet the world's declared climate objectives by 2030.[4]

In our view, there are five key areas where this investment can have the greatest effect:

1. Greenhouse gas reduction, including batteries and storage, energy efficiency, low/no carbon and carbon removal technologies, as well as renewable energy technologies and services;

2. Sustainable consumption, including agri-tech, food safety, supply-chain optimisation and food tech;

3. Pollution control, including water quality, air quality, soil preservation and waste treatment;

4. The circular economy, including the sharing economy, recycling, resource efficiency, and bio-based materials; and

5. Enabling technologies, including sensors and data capture, the semiconductor value chain, design and engineering software and green chemistry.

The investment perspective

These solutions are already attracting interest from investors, and we believe the opportunity is particularly compelling in private markets, where private companies are at the cutting edge of these technologies. Globally, the cumulative number of private environmental companies with a valuation above $1 billion, known as unicorns, has increased 14-fold since 2017. This compares with an increase of only four times in the number of total unicorns over the same period.[5]

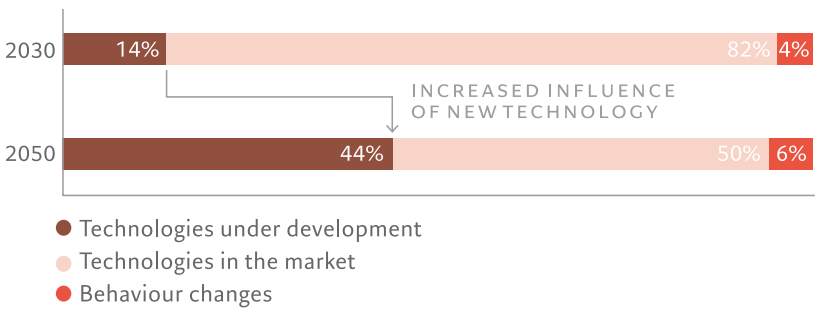
Private companies are leading on the innovation that supports these valuations too. For example, the efficiency record for a commercial-size solar panel was set in May by a private European company.[6] Private companies also include some of the largest players in the electric-vehicle value chain, as well as leaders in recycling lithium-ion batteries.

Conclusion

40 years ago, one of the planet's foremost environmental concerns was the hole growing in the ozone layer. Activism led to the 1989 Montreal Protocol on phasing out ozone-depleting substances, such as chlorofluorocarbons (CFCs), and then the wider Kyoto Protocol in 1997. Today, stratospheric ozone levels are one of the few Planetary Boundaries – a framework establishing numerical limits for the nine most damaging environmental phenomena, from climate change and freshwater use to biodiversity loss and land use – not in breach.[7]

This reminds us that when the political will exists, as it does today on a host of environmental issues, technology advances and collective action by private and public institutions can avert crisis. This is why we are confident today that the combination of political inspiration and technological innovation, supported by private finance, can help restore the planet.

Figure 1: Expected contributing factors to annual CO2 emissions savings in the net zero pathway by 2050 (relative to 2020)



Source: International Energy Agency, as of 31 December 2021. For illustration purposes only.

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FOOTNOTES:

1 Source: SBTi Monitoring Report, as of 1 August 2023
2 Source: Net Zero Tracker, as of 20 October 2023
3 Source: Roland Berger GreenTech Atlas, as of 16 March 2023
4 Ibid
5 Source: HolonIQ , as of 2 January 2023
6 Source: The Guardian, "'Revolutionary' solar power cell innovations break key energy threshold", 6 July 2023
7 For more detail on the status of these boundaries, see: Katherine Richardson et al., "Earth beyond six of nine planetary boundaries". Science Advances 9 (2023). https://www.science.org/doi/10.1126/sciadv.adh2458

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