Opinion **Technology**

Save the planet – and make money too

Venture capital investors are increasingly seeking opportunities in climate tech

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Smoke billows from a steel plant in Inner Mongolia. Early stage funding for climate tech companies has climbed from $418m in 2013 to $16.1bn last year © Kevin Frayer/Getty

John Thornhill OCTOBER 4 2020

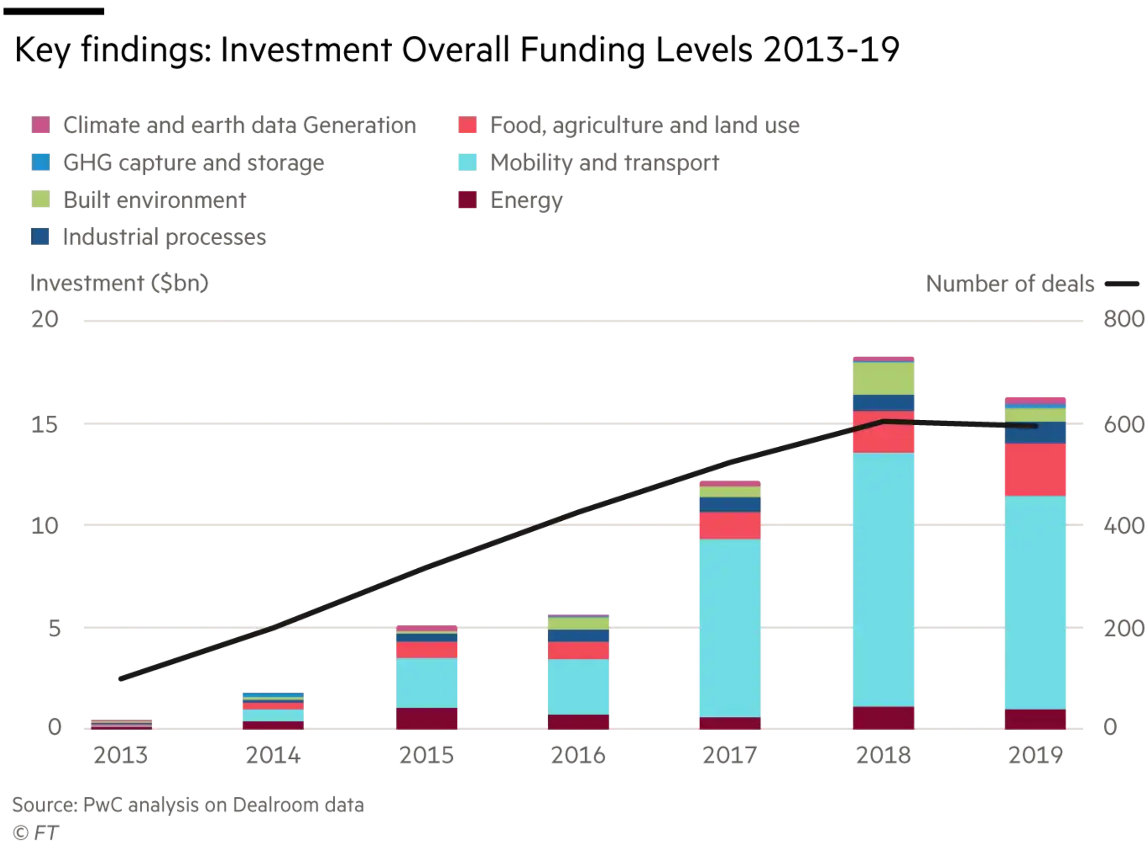
Saving the planet from catastrophic climate change is humanity's biggest challenge. It may also represent the most spectacular investment opportunity of our lifetimes.

Solving the world's hardest problems can often produce the highest rewards and venture capital investors are increasingly sniffing out opportunities in climate tech.

According to a recent report from PwC, early stage funding for climate tech companies has climbed from $418m in 2013 to $16.1bn last year, a faster rate of growth than investment into the faddish artificial intelligence sector.

In total, VC funds have invested $60bn into more than 1,200 climate tech start-ups over that time. The US accounts for $29bn of that sum, mostly in San Francisco and Boston, while China amounts to $20bn. In Europe the figure is $7bn, with Berlin emerging as the biggest investment hub.

Investors have backed all manner of green start-ups from battery storage to vertical farms to sharing economy platforms to biochar production to reducing methane emissions from cows' backsides.



The big question is whether any of these ideas, no matter how inspired, can significantly move the dial when it comes to a challenge as colossal as climate change.

Nat Keohane, senior vice-president at the DC-based Environmental Defense Fund, argues that climate tech is a "key part of the puzzle" but only if the rest of the environmental economy slots into place. The mass adoption of existing technologies, such as renewable energy and electric vehicles, can achieve up to 70 per cent of what needs to be done to reduce carbon emissions, he says. "But to get all the way to net zero we are going to need additional innovation in hard industries, like manufacturing, construction, energy, agriculture and transport."

"We are not going to solve climate change at the pace we need and the scale we need if we do not have improvements in tech," he says.

Venture capitalists remember that the industry has been here before in the 2000s, when there was similar enthusiasm for so-called clean tech. But the failure of the US Congress to pass the necessary enabling environmental legislation left many of them nursing big losses and a wariness of ever again making policy bets. Climate tech only accounts for about 6 per cent of VCs' investment portfolios today.

But the global policy framework has clarified following the Paris climate agreement of 2015. Last month, China pledged to cut its carbon dioxide emissions to almost zero by 2060, while the EU and the UK have targeted net zero carbon emissions by 2050. Even though President Donald Trump has decided the US must exit the Paris agreement, many US cities and states have adopted tough environmental policies regardless — and Mr Trump may yet exit the White House.

Celine Herweijer, innovation partner at PwC and co-author of the report, says governmental commitments on the environment have been matched by many investment institutions and global corporations, such as Microsoft, Ikea and BP. That provides additional demand for start-up innovation, further encouraging the rapid increase in VC investment. "We expect that kind of exponential growth to continue. It needs to," Ms Herweijer says.

Many, if not most, of the climate tech start-ups popping up around the world are certain to crash. But venture capitalists are in the business of modelling such risks. The bigger challenge may be for them to extend their investment horizons to the 10 to 12 years needed for some of these ideas to pay off. "There is a duration problem that we need to tackle," says Azeem Azhar, co-author of the report and founder of the Exponential View newsletter.

One of the ironies of capitalism is that we will need more patient capital to deal with the most urgent of problems.