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Gneiss Energy
SPE Net Zero programme
Can innovation get us to Net Zero?

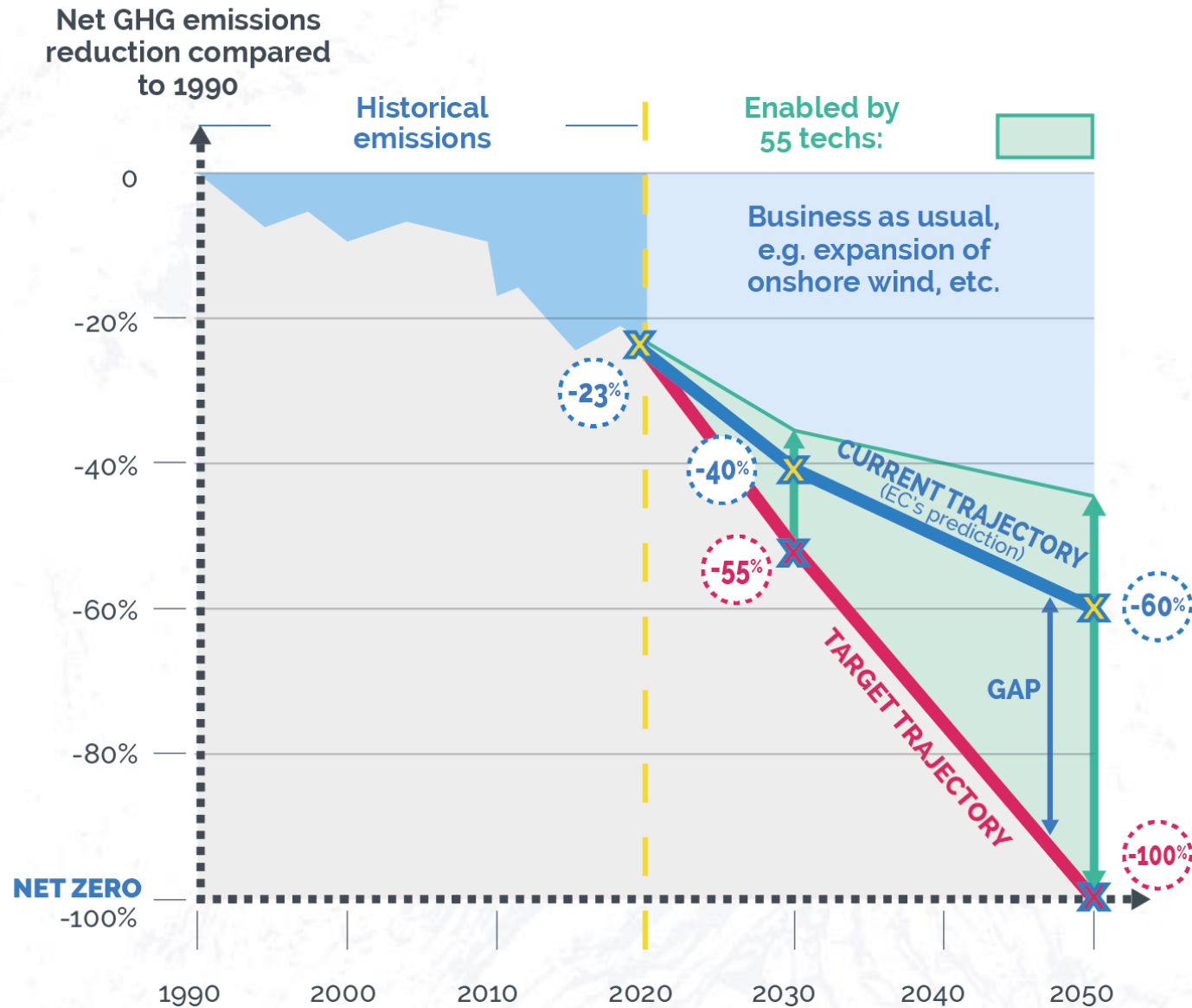
April 2021

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SPE: "Can innovation get us to Net Zero?"

Innovation required to close the gap

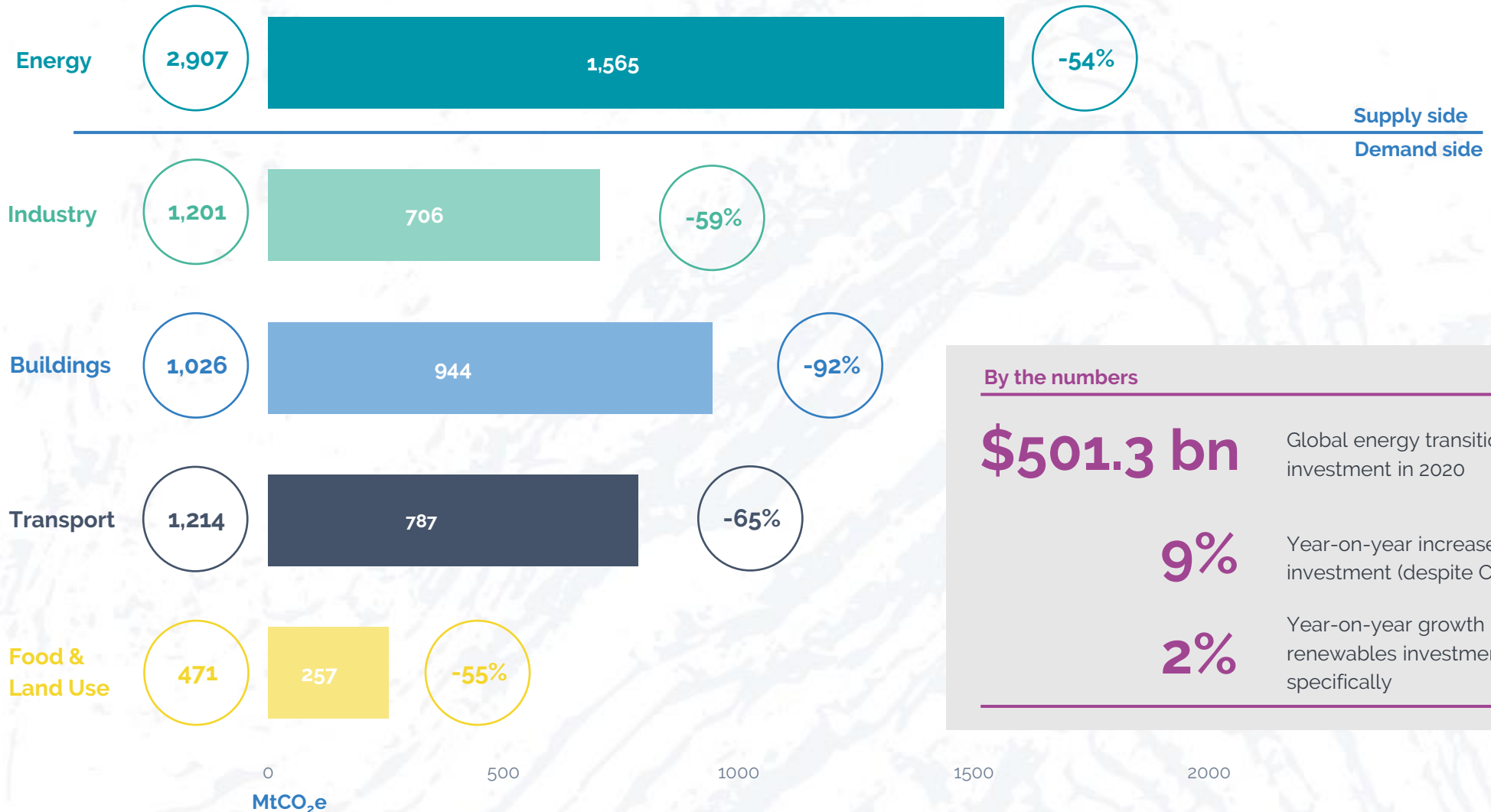
Emissions reduction by 2050 per economic area, compared to the current emissions



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Scaling the challenge

Emissions reduction by 2050 per economic area, compared to the current emissions

Required emissions reductions**By the numbers****\$501.3 bn**

Global energy transition investment in 2020

9%

Year-on-year increase in investment (despite COVID-19)

2%

Year-on-year growth in renewables investment, specifically

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Innovations needed to reach net zero

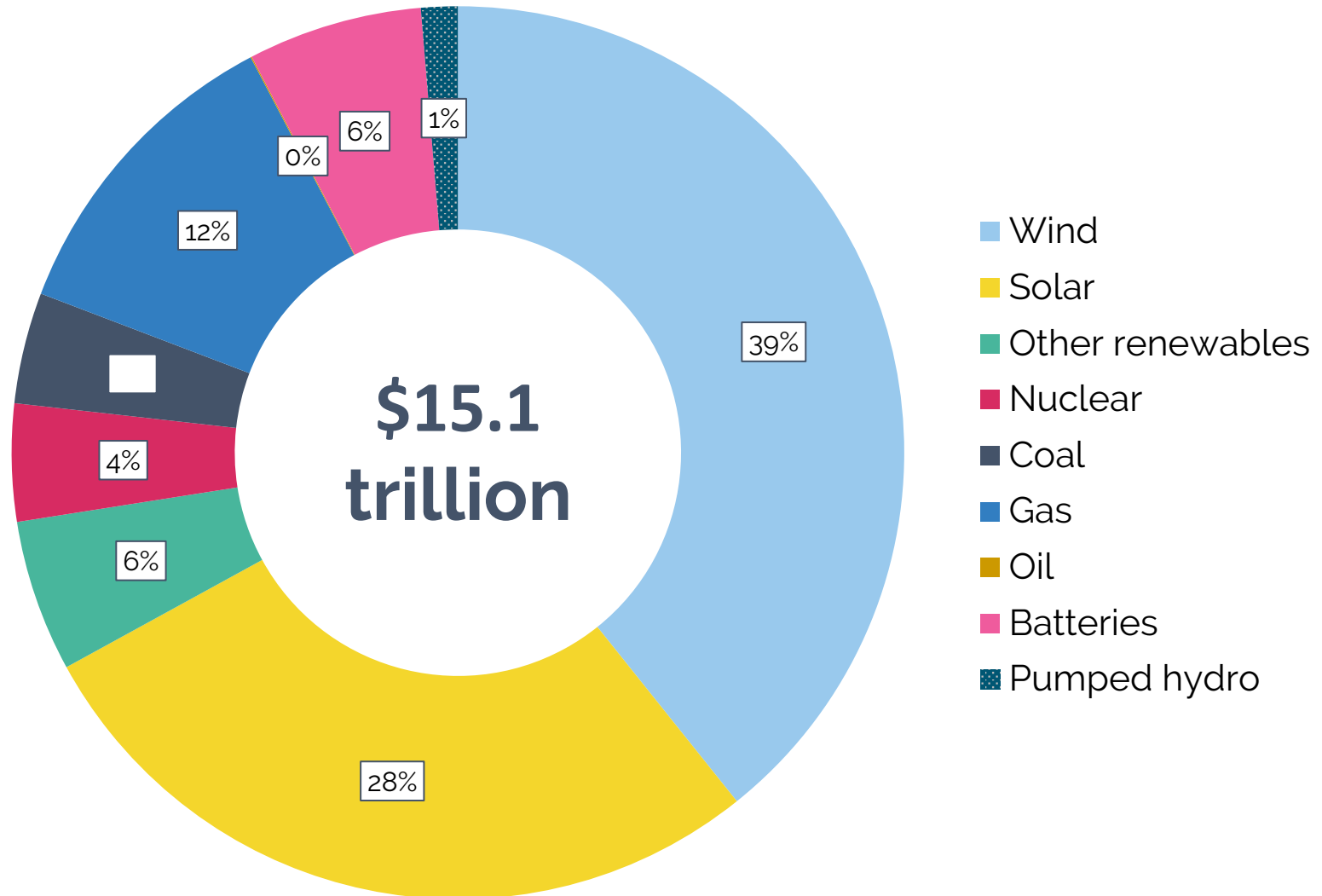
Technology quests, broken up by sector, non exhaustive



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Scaling the challenge

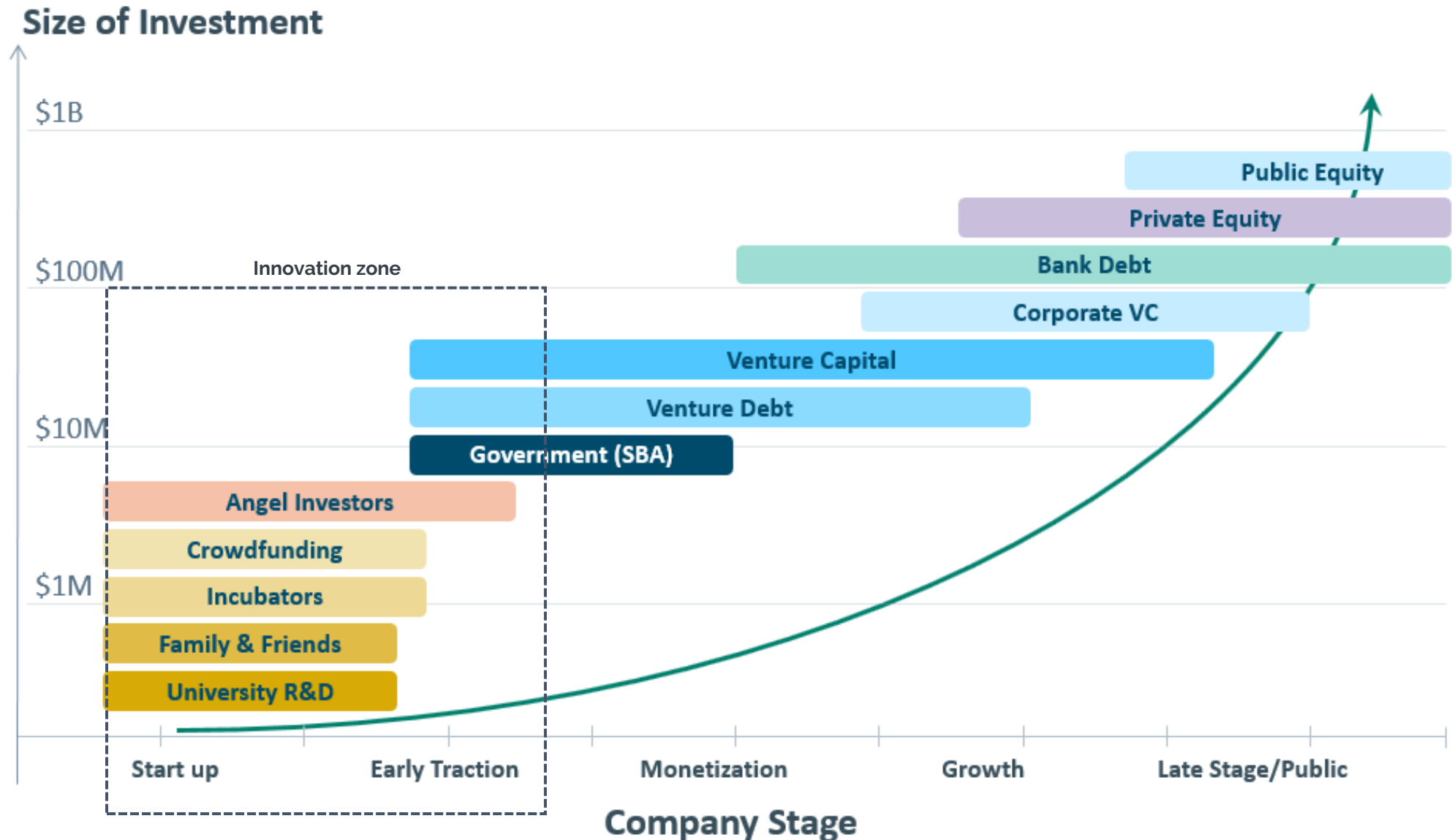
Global investment in new capacity by technology, 2020-2050



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Funding the technology lifecycle

Risk and scale constraints for funding innovation



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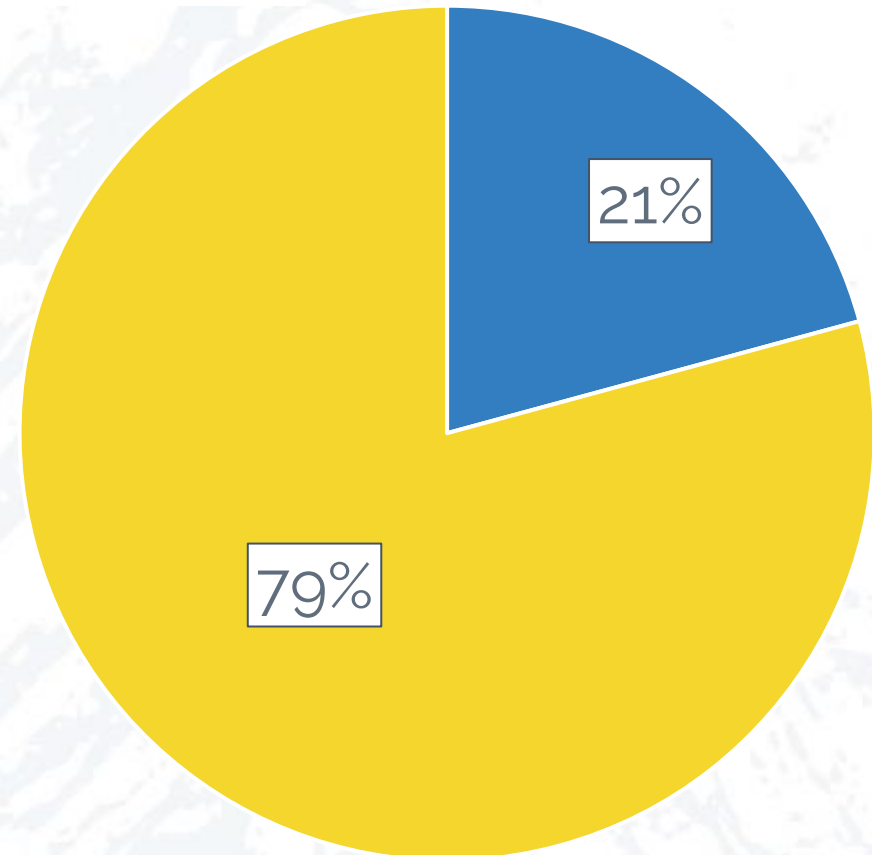
Challenges for funding

- Early-stage climate tech can be too risky for mainstream VCs
- Charitable giving can provide risk-tolerant capital
- Most charitable donors, scientific innovation is very low on their priority list – not even in the top five most popular categories in the US

Example fund composition – investors by type (%)



Prime
Impact Fund



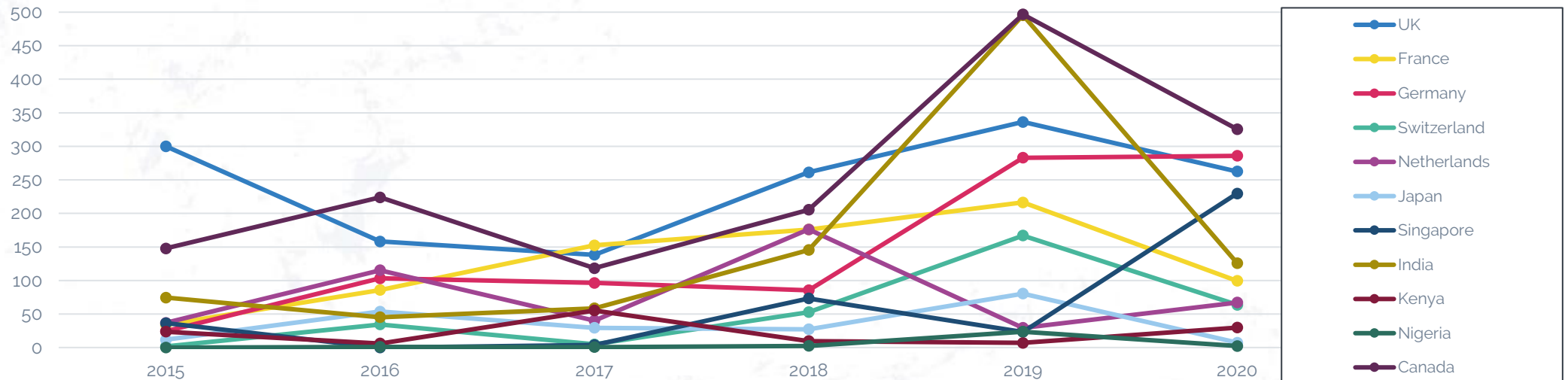
■ Equity ■ Charitable giving

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Dominance of China and US in the space

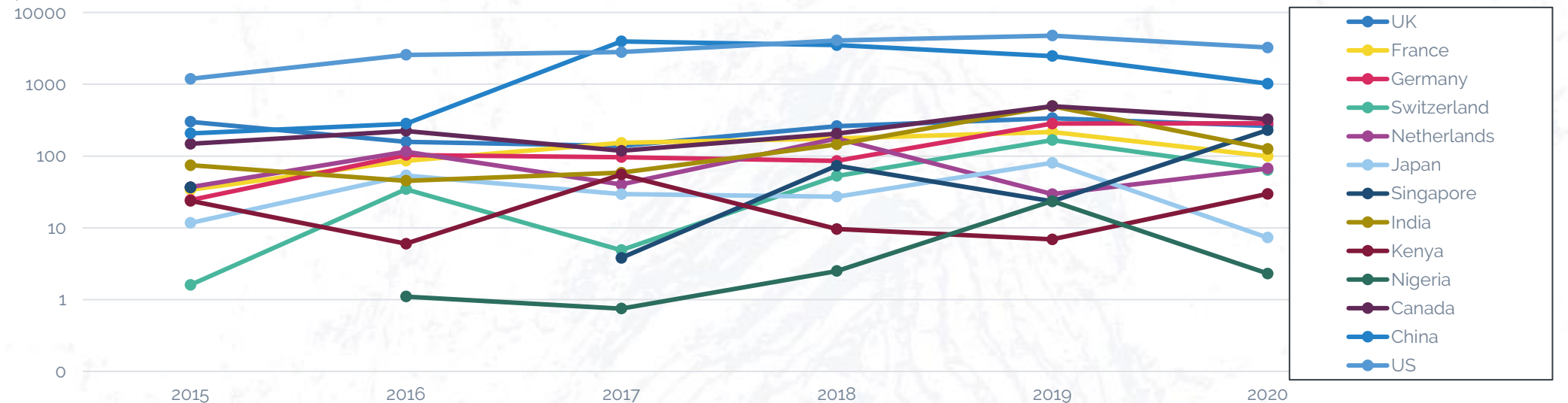
Net Zero VC investment by country, ex. China & US

US\$ million



Net Zero VC investment by country, incl. China & US (logarithmic scale)

US\$ million



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Investors

Broad range of investors in the

Venture Capital Firms



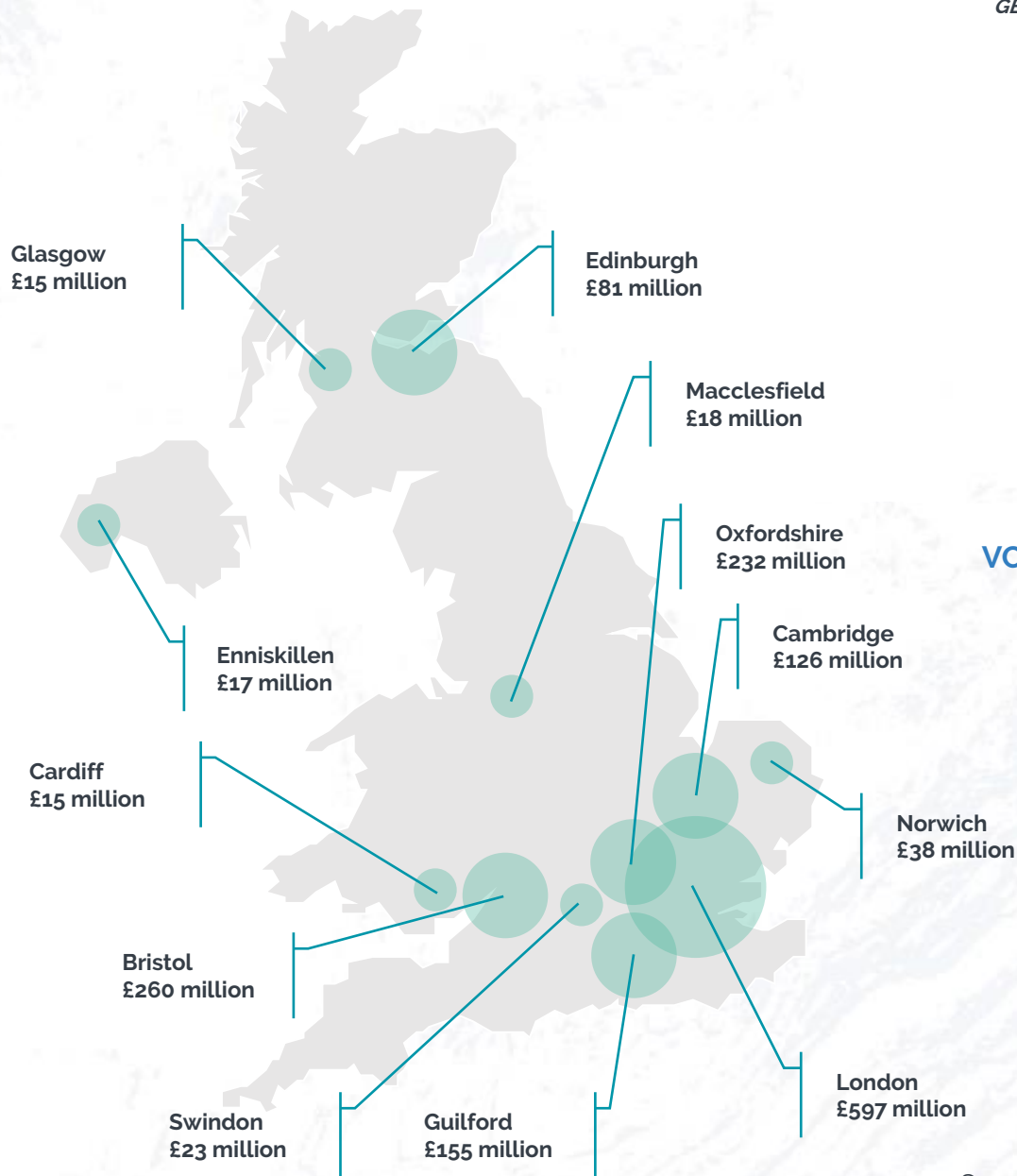
Corporate Venture Capital



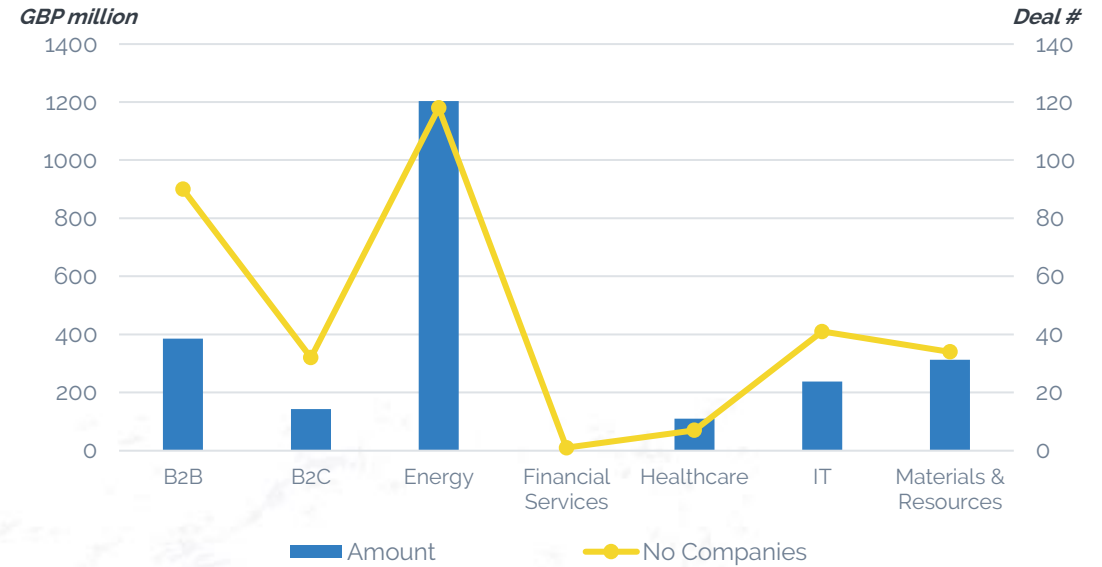
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UK investment space

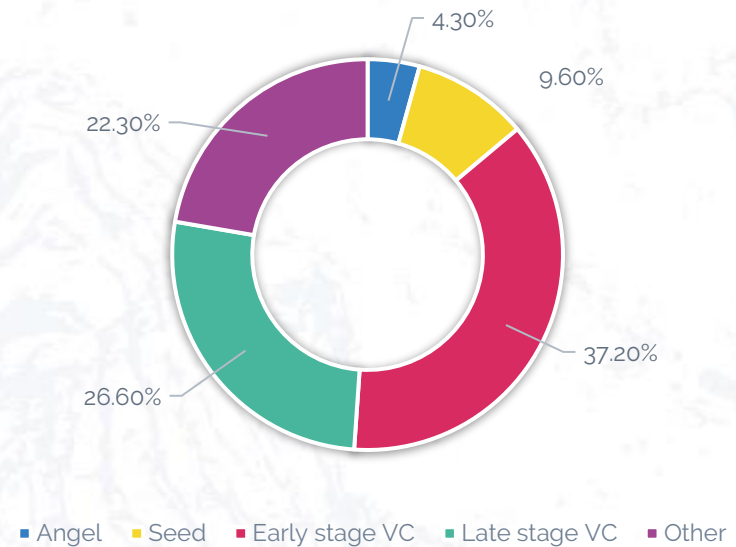
VC NetZero investment UK clusters



VC NetZero investment UK by sector



VC NetZero investment by investor type



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Equity capital as a barometer

WilderHill New Energy Index 2020



Commentary

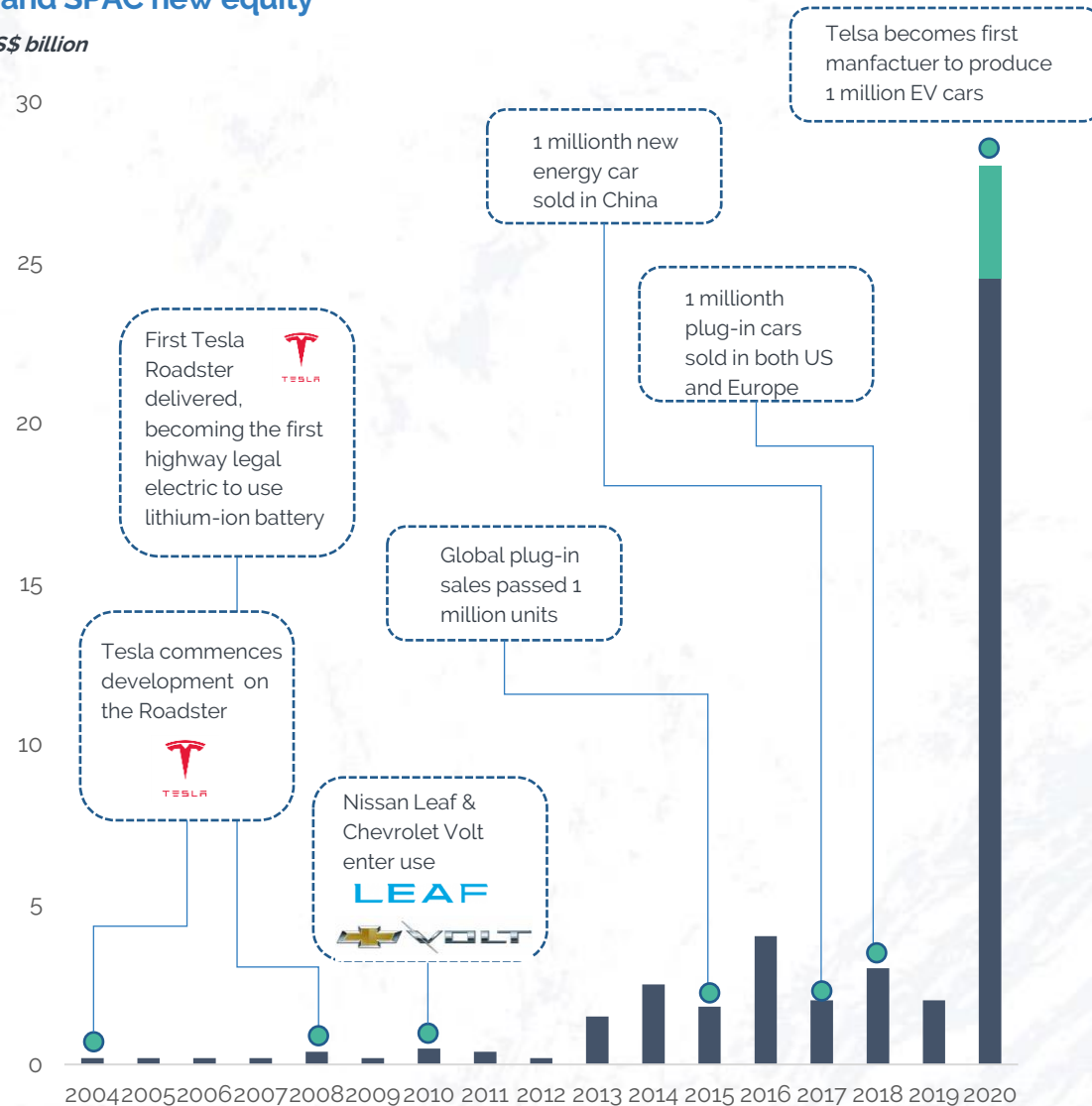
- Venture capital and private equity investment in renewables and storage increased 51% to \$5.9 billion last year
- Both this, and investment via the public markets, took place against the backdrop of buoyant share prices
- WilderHill New Energy Global Innovation Index, or NEX, which tracks about 100 clean energy stocks worldwide, **rose 142% in 2020 to record level**

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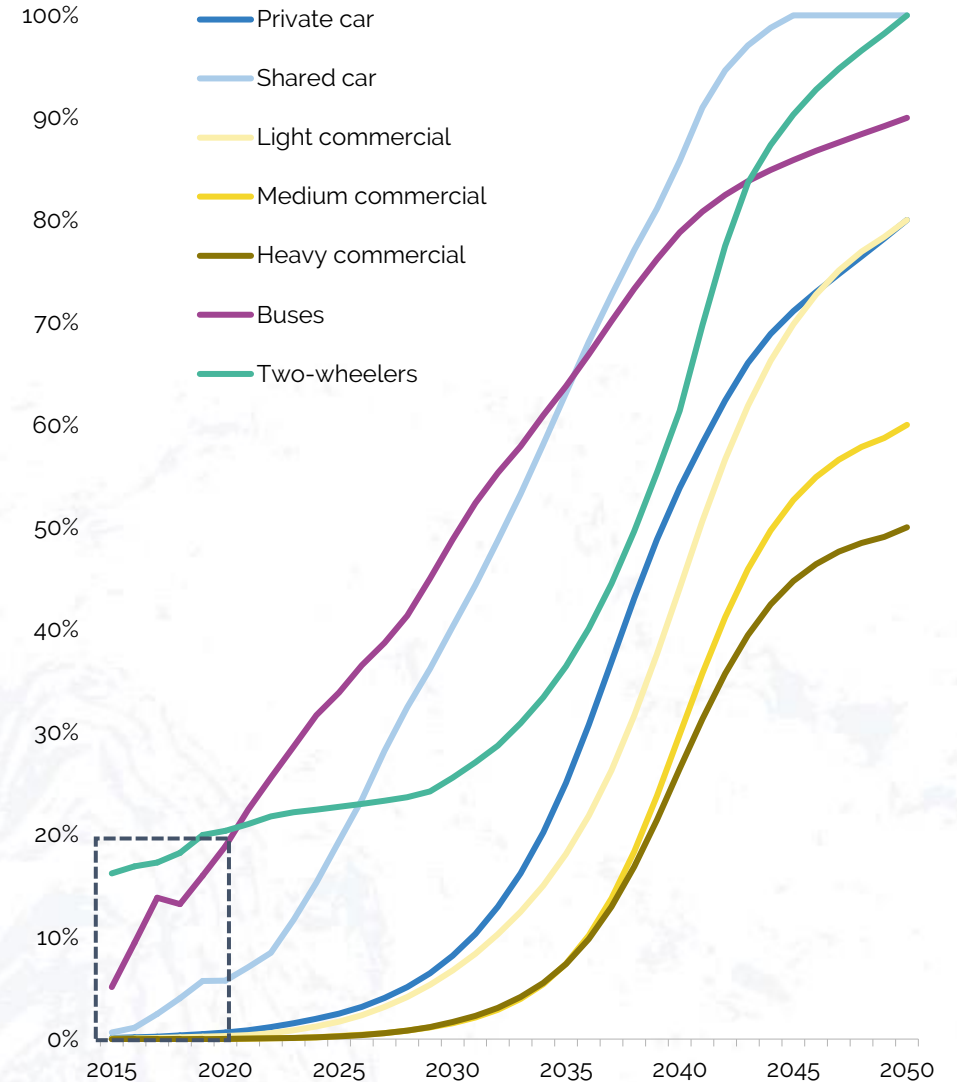
Case study – EV funding

EV company proceeds raised from IPOs, secondary share issues and SPAC new equity

US\$ billion



EV share of fleet by vehicle type



Source: BloombergNEF. In addition, many SPAC transactions announced in 2020 have yet to complete. (2020)

Costing net zero

Concluding remarks

1. Significant technological and energy system innovation is required to move the needle
2. Doing “*more of the same*” or even scaling up what we are currently doing does not achieve NetZero
3. Funding innovation remains a difficult and complex process where the ability to secure funding at scale, and at pace, is limited
4. How investor risk / returns will be thought of in the Climate Tech innovation space is playing a critical role in the dynamic of achieving NetZero

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