10 Victoria Street
London SW1H 0NB

Chancellor of the Exchequer
11 Downing Street
London SW1A 2AA
Sent by email only

7 October 2024

Dear Chancellor,

DRIVING ECONOMIC GROWTH BY UNLOCKING INVESTMENT AT SCALE FOR INNOVATIVE SCIENCE AND TECHNOLOGY COMPANIES

Over the last 20 years, the UK has emerged as one of the top three places in the world to invest in innovation. Relative to our European neighbours, the UK has a leading position, with over 750 venture backed companies across the UK who have each scaled to generate more than $25 million in revenue[1]. This growing pipeline of innovative scale up companies has been built on the foundations of our broad and deep research and development (R&D) system; world-class scientific, engineering and technical talent; and an increasingly mature and successful venture capital sector.

Although the UK innovation economy has started to emerge from its startup phase, further action is needed to unlock the UK's £4.6 trillion private and public insurance and pension fund assets across private and public market asset classes[2]. This is critical to help address some of the scale up challenges that our innovative companies continue to face in becoming global champions.

Unlocking investment at scale in both private and public markets would also make a significant contribution towards the government's growth mission, accelerate the UK's ambition to be a clean energy superpower, and support a meaningful digital transformation of critical public services.

The significant dividends that this presents for better aligning interests and outcomes for UK savers with long-term sustainable economic growth has been a focus for the Council for Science and Technology (CST) since 2021. Our advice to the government on how to unlock domestic capital, procurement and skills at this critical scale up stage influenced the Long-term Investment for Technology and Science (LIFTS) scheme, the Science and Technology Venture Capital Fellowship, and government engagement with corporate investors.

[1] Dealroom – Council for Science and Technology Evidence Pack. 2024.
[2] New Financial. Unlocking the capital in capital markets. 2023. https://www.newfinancial.org/reports/unlocking-the-capital-in-capital-markets

To assess and better understand how the challenges and opportunities have evolved since our previous advice, CST recently convened stakeholders from across the UK's institutional investor landscape. While we welcome the progress made, challenges remain and significant opportunities still exist to be ambitious in how we maintain and build on the UK's position to meaningfully unlock capital, skills and a culture of innovation at scale.
In this letter we provide updated evidence, examples of promising developments, and five further recommendations to achieve scale:

> **Recommendation 1: HM Treasury, the Department for Business and Trade and the Department for Science, Innovation and Technology should accelerate efforts to support pension fund reforms** to create more immediate options for scale up capital.
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> **Recommendation 2: HM Treasury should improve the connection between private and public markets** to increase access to capital for innovative businesses and raise greater awareness of the diversity of options available to both investors and entrepreneurs across private market asset classes.
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> **Recommendation 3: The Department for Science, Innovation and Technology should work with the Department for Business and Trade, Department for Education, Home Office and HM Treasury to continue to create the conditions to develop specialist skills required by domestic talent and to attract world-class international talent** in capital allocation, procurement, operational management and policy making.
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> **Recommendation 4: The Department for Science, Innovation and Technology and Cabinet Office should leverage their mandates to create the critical national infrastructure needed to support the digital transformation of public services with the intelligent use of data and AI.** This should include developing the specialist skills required across the public sector to procure relevant products and services to support innovation.
>
> **Recommendation 5: Government should use its convening power to build awareness of investment opportunities and help unlock institutional finance**, particularly in areas of strategic importance.

We will continue to engage with government to advise on how the UK's success as an innovation economy can contribute towards national growth and a new Industrial Strategy. We would be delighted to discuss this work in more detail with you or with your Ministerial colleagues.

We are grateful to Council member Saul Klein (Co-founder and Managing Partner, Phoenix Court) for leading the development of this advice. We also thank the following individuals who engaged with the Council and secretariat to inform recommendations:

- Sir Nicholas Lyons, Phoenix Group
- James Mitchell, Phoenix Group
- Sir Nigel Wilson, Canary Wharf Group (formerly Legal & General)
- Ross Morrison, Adams Street Partners
- Alex Seddon, M&G
- Dominic Maier, AVP

- Thomas Fitzherbert-Brockholes, StepStone Group
- Himanshu Chaturvedi, Cambridge Associates
- Erin Platts, HSBC Innovation Banking UK
- Mark Machin, Intrepid Growth Partners (formerly Canada Pension Plan Investment Board)
- Michelle Ashworth (formerly Top Tier Capital Partners and Church Commissioners for England)
- Stephen Welton, British Business Bank
- Andrew Telfer, Baillie Gifford & Co.

This letter is copied to the Prime Minister; the Secretary of State for Science, Innovation and Technology; the Secretary of State for Business and Trade; the Chancellor of the Duchy of Lancaster; the Secretary of State for Education; the Home Secretary; the Minister of State for Science, Research and Innovation; the Minister of State for Trade Policy and Economic Security; the Economic Secretary to the Treasury; the Parliamentary Under-Secretary of State for Services, Small Businesses and Exports; the Parliamentary Under-Secretary of State for Pensions; the Parliamentary Secretary for the Cabinet Office; the Cabinet Secretary; the Chief Secretary to the Treasury; and the Permanent Secretaries of HM Treasury, the Department for Science, Innovation and Technology, the Department for Business and Trade, Home Office and the Department for Education.

Yours sincerely,

Dame Angela McLean
Co-chair

Lord Browne of Madingley
Co-Chair

ADVICE ON DRIVING ECONOMIC GROWTH BY UNLOCKING INVESTMENT AT SCALE FOR INNOVATIVE SCIENCE AND TECHNOLOGY COMPANIES

Encourage the integrated allocation of private and public sector capital at scale across private and public markets, and all key asset classes.

1. Evidence shows the strength of the UK innovation economy[1] on both a regional and global scale. This awareness is producing an increasingly aligned and shared conviction among key stakeholders, including those that represent £4.6 trillion in assets managed on behalf of UK savers by insurers and pension funds[2]. A new, ambitious and integrated approach is needed to deploy integrated private and public capital across asset classes at scale.

2. We welcome Sir Nigel Wilson's recent Capital Markets of Tomorrow report[3], which highlights the need for an additional £1 trillion of investment over the next decade to support a 3% increase in growth. The report outlines that it is not just the scale of capital that is important, but critically a more integrated approach to thinking about capital markets that recognises the interdependence of asset classes and the inescapable links between the private markets and successful public markets.

3. Given the UK's growing pipeline of over 750 venture backed scale up companies, 176 unicorns and 287 future unicorns, it is surprising that there is still a $30 billion gap between the UK and Silicon Valley for funding rounds of over $100 million[1]. This evidence base should enable the government to be confident in supporting positive private and public sector trends to bring in more and larger pools of domestic private and public capital at the scale up stage.

Recommendation 1: HM Treasury (HMT), the Department for Business and Trade (DBT) and the Department for Science, Innovation and Technology (DSIT) should accelerate efforts to support pension fund reforms to create more immediate options for scale up capital.

4. We note the significant progress following our advice in 2021[4] and 2022[5], including:

    a. **Public Sector** – where there were few or limited specialist scale up sovereign programmes, there are now several underway:

        i. The British Business Bank (BBB) has extended its activity at the scale up stage through British Patient Capital (BPC) and has made steps to crowd-in domestic scale up capital through the Long-term Investment for Technology and Science (LIFTS) scheme. **The BBB's financial scale should now be increased to help drive the government's growth mission and the proposed Growth Fund of Funds should be launched as soon as**

[3] Capital Markets Industry Taskforce. Capital Markets of Tomorrow. 2024. Direct download at: https://capitalmarketsindustrytaskforce.com/wp-content/uploads/2024/09/Capital-Markets-Of-Tomorrow-report.pdf
[4] Council for Science and Technology. Advice on encouraging scale up investment in innovative science and technology companies. 2021. https://www.gov.uk/government/publications/letter-to-the-prime-minister-on-investment-in-innovative-science-and-technology-companies/letter-to-the-prime-minister-on-investment-in-innovative-science-and-technology-companies-html.
[5] Council for Science and Technology. Increasing the availability of scale-up investment for domestic innovative science and technology companies. 2022.

possible as the first in a series of vehicles to address the scale up gap[6]. Greater accountability is needed to ensure the BBB and BPC support the growth of deep tech companies, especially beyond life sciences firms.

ii. The UK Investment Bank (UKIB) has also recognised the critical role infrastructure plays in supporting the scale up of critical technologies, and advanced manufacturing opportunities across the UK economy. We welcome UKIB's co-investment with BPC and the private sector[7]. However, we note UKIB requirements on lead investors for a minimum investment does not challenge and address the risk adversity of the UK investment sector.

b. **Private Sector** – while there were few or limited specialist UK institutional scale up programmes in 2021, there are now several activities underway. Furthermore, sophisticated international investors continue to recognise the UK as a critical market to invest in innovation, behind only Silicon Valley and New York[1].

i. The Mansion House Compact has helped stimulate UK institutional investor commitment towards greater allocation in private market asset classes such as infrastructure, real estate, and venture capital. Several signatories have made steps to allocate capital to private markets at scale, including M&G's already active £5 billion Catalyst fund[8]; the recently announced programmes from Phoenix and Schroders with their £2.5 billion joint private markets investment manager[9]; and L&G's Private Markets Access Fund[10].

ii. Access to venture capital for UK startups has increased tenfold in the last decade, and a strong domestic early-stage investment capability has been developed. Together, these have produced one of the strongest global pipelines of innovative companies to invest in, in both unicorns (valued at over $1 billion) and thoroughbreds (with greater than $100 million in revenues). However, a lack of scale up capital has starved both UK companies and venture capital, and while we are close to Silicon Valley in rounds up to $15 million (early stage) we are still significantly behind in rounds of $15-100 million (breakout) and over $100 million (scale up)[1].

iii. The opportunity to step into these funding gaps has not been lost on some of the world's most sophisticated venture investors. This includes Andreessen Horowitz, BVP, General Catalyst, Lightspeed, Iconiq, Sequoia, Stepstone and Top Tier, all of whom have established local operations in recent years, joining existing firms such as Adams Street, Accel and Index Ventures. This continues a trend we have seen in other private market asset classes such as private equity (PE), real estate, and infrastructure, where institutional and sovereign investors from Australia, Canada, the Middle East, Japan, Singapore and the US have previously capitalised on the attractiveness of UK

[6] British Business Bank. British Business Bank responds to the Chancellor's latest Mansion House Reforms announcement. 2023.
[7] UK Infrastructure Bank. Bank announces £60 million direct equity investment to boost UK supply chain of semiconductors in the North-East. 2023.
[8] M&G. M&G to invest £5 billion in sustainable private assets through innovative new fund. 2021.
[9] Schroders. Phoenix Group and Schroders to launch new private markets investment manager with £1bn initial commitment; up to £2.5bn over three years. 2024.
[10] L&G. L&G unlocks private markets access for 5.2 million DC members through launch of Private Markets Access Fund. 2024.

assets ahead of domestic capital allocators.

c. **Pension fund reform –** while larger scale pension fund consolidation has not happened, we welcome the government's consolidation measures under active review. Examples of success in the UK include:

   i. **Borders2Coast** created in 2018, which pools 11 local government pension schemes (LGPS) to support 1.1 million members and holds £52 billion in assets. This scale has started to enable better value for money and increased access to alternative investment opportunities.

   ii. **London CIV** created in 2015 to pool 32 London LGPS, supporting 711,000 members and £46 billion in assets. The company has pooled their infrastructure investing teams to achieve deeper specialist expertise.

5. HMT, DBT and DSIT should now create greater scale by driving stronger integration in public pools of capital, to make options more accessible and visible to both investors and entrepreneurs and deliver better long-term value for savers. We recommend this is achieved through:

   a. **Positioning the new National Wealth Fund (NWF) as a clear 'front door' for co-investors and entrepreneurs to engage with an integrated public investment lens across private markets.** The announcement of the NWF has been very much welcomed by stakeholders.

   b. **DSIT, HMT and DBT working together to review and remove barriers to innovative firms accessing late-stage finance and continuing to scale**. This should include simplifying and joining up the landscape of government financial support, unlocking financing of critical infrastructure for emerging technologies, providing greater regulatory certainty in rapidly evolving areas, and using public procurement to effectively pull through new products to market.

   c. Building on our previous advice[4,5], **supporting and engaging with institutional investors to develop Canadian-style pension funds for the UK** (for example, the Canada Pension Plan Investment Board, Caisse de dépôt et placement du Québec and Ontaria Teachers' Pension Plan). Canada has several large funds with deep resources who learn from each other and constructively compete. In the UK, these super funds should form the basis of a platform to further crowd-in LGPS, and support highly specialised private markets teams in investing at scale in domestic and global innovation economy real estate, sustainable and digital infrastructure, and science and technology assets. These funds should be run by those with the right experience and expertise, potentially recruited internationally.

Recommendation 2: HM Treasury should improve the connection between private and public markets to increase access to capital for innovative businesses and raise greater awareness of the diversity of options available to both investors and entrepreneurs across private market asset classes.

6. Government should consider:

a. **Private Markets** – UK insurance companies and pension funds manage over £4.6 trillion, and since 1997 have reduced their allocation to equities from 73% to 27%, with their allocation to UK listed equities falling from 39% to 4% in 2024[11]. Their allocation to UK private companies is currently less than 1%, and with global private markets set to increase from $25 trillion in 2023 to $60 trillion by 2033[12], it is crucial that we recognise the interconnections between private and public markets and the opportunity presented by this new pool of $40 trillion to support UK innovation at scale. Further lessons could be learnt from the Tibi Initiative, which brings institutional investors together with accredited VC firms and encourages them to allocate a portion of their funds to tech and VC. €3.5 billion has been raised directly from Tibi investors, and a total of more than €18 billion including non-Tibi participants[13].

b. **Public Markets** – we welcome the Financial Conduct Authority's (FCA) recent listings reforms[14], designed to remove frictions to growth while placing an emphasis on disclosure. We also welcome the continued development of the London Stock Exchange's (LSE) Private Intermittent Securities and Capital Exchange System (PISCES)[15] programme, to allow growth companies to trade their securities in a controlled environment to better support employee and investor liquidity, supporting a pipeline for future initial public offerings (IPOs). There remains continued scepticism amongst scale ups and their investors that London is a good place to list, with Arm being a recent high-profile example and Raspberry Pi's[16] LSE listing a rare but welcome exception.

c. **Secondary Markets** – we recognise the pipeline of mature and growing venture backed businesses that continue to remain private for an increasingly long period of time and create a significant amount of value whilst private, independent businesses. This extended duration has meant that their early backers, founders, and employees are increasingly looking to the secondary market for partial or full liquidity along that journey, and ahead of an ultimate exit for the business. To meet this demand, there has been a meaningful development of specialist VC secondary funds to offer liquidity solutions to scale up companies and their backers, with this trend most recently demonstrated by StepStone Group's record $3.3bn VC secondaries fund[17]. This not only presents an opportunity for liquidity outside of the typical avenues (for example mergers and acquisitions or IPO) which is then often re-invested back into the ecosystem, but also a route for the deployment of institutional capital into mature UK innovative companies by UK and international institutional investors.

d. **Commercial Banking** – we note the highly constructive role the Bank of England, HMT and the FCA played in supporting the UK innovation economy in March 2023 during the Silicon Valley Bank banking crisis[18]. We also recognise how significant it is for the long-term health of the innovation economy that two of the world's largest banks (JP Morgan and HSBC[19]) are now leading the way in offering specialised

[11] New Financial. Comparing the asset allocation of global pension systems. 2024.
[12] Bain & Company. Avoiding Wipeout: How to Ride the Wave of Private Markets. 2024.
[13] Ministère De L'Économie des Finances et de la Souveraineté Industrielle et Numérique. Financing the Fourth Industrial Revolution: an initial assessment of the Tibi Initiative after 18 months. 2021.
[14] Financial Conduct Authority. PS24/6: Primary Markets Effectiveness Review. 2024.
[15] HM Government. Private Intermittent Securities and Capital Exchange System (PISCES): Consultation. 2024.
[16] University of Cambridge Judge Business School. Why Raspberry Pi's stock market listing is a watershed moment. 2024.
[17] StepStone. StepStone Closes Largest-Ever Venture Capital Secondaries Fund. 2024.
[18] Bank of England. Statement on Silicon Valley Bank. 2023.
[19] HSBC. HSBC acquires Silicon Valley Bank UK Limited. 2023.

commercial banking solutions tailored to the innovation economy, moving beyond deposit solutions to startups and investment banking services and to scale ups.

e. **Private Credit and Debt Markets** – there continues to be significant innovation in how investors are creating access to capital and liquidity beyond real assets (infrastructure, real estate, etc.) moving into financing intangible assets and intellectual property (including music royalties)[20], and financing scale up growth through novel forms of non-dilutive lending[21].

Increase and sustain focus on developing the specialist skills required domestically to scale up the innovation economy.

Recommendation 3: The Department for Science, Innovation and Technology should work with the Department for Business and Trade, Department for Education, Home Office and HM Treasury to continue to create the conditions to develop specialist skills required by domestic talent and to attract world-class international talent in capital allocation, procurement, operational management and policy making.

7. **Domestic skills** – the UK has developed some of the world's best private early-stage venture investors in EMEA[22] and like in Silicon Valley, many of these investors are now investing in the UK's scale up pipeline. However, it should be noted that at both scale up stage and amongst the FTSE100, domestic investing as a percentage of total investment remains below 20%, indicating a profound lack of skills[23,24]. While programmes like the London Business School's Newton Venture Program and the Science and Technology Venture Capital Fellowship cater to improving diversity and deep tech investing skills, (including among recently exited entrepreneurs transitioning to VC) there is an absence of programmes focused on addressing the talent gap in the UK fund industry (including experience of raising and structuring funds) and attracting experienced operators who have scaled multiple companies. The increasing investment opportunities in the UK should make it more attractive for those British investors who have gone abroad to invest more time and capital back into the UK. Global champions based in the UK could support local champions to develop, as has been observed with the Canadian super funds and is being observed with the Tibi Initiative. There is also a significant growth opportunity for the UK to incentivise scale-up investment from corporates, including global R&D businesses based in the UK, to invest directly or as limited partners (LPs) in venture capital (VC) funds.

8. **International skills** – the strength and potential of the UK's innovation economy has already attracted some of the best international multi-stage venture funds, who are now opening offices in London. We welcome government's support in achieving this. This not only brings capital at scale, as noted above, but importantly these firms train and develop domestic talent and create role models from which our domestic investors can learn.

Recommendation 4: The Department for Science, Innovation and Technology and

[20] Blackstone. Blackstone and Hipgnosis Song Management launch $1 billion partnership to invest in songs, recorded music, music IP and royalties. 2021.
[21] General Catalyst. The Unbundling of "Growth" Equity. 2023.
[22] Dealroom. Dealroom Power Law Ranking. 2024.
[23] GCV Analytics only 28 of FTSE have a CVC program and only 14% UK CVC investments are from domestic sources. Global Corporate venturing. UK corporates fail to invest in the startup ecosystem. 2024.
[24] The Institute of Chartered Accountants in England and Wales. Venture scouts explore the UK. 2022.

Cabinet Office should leverage their remits to create the critical national infrastructure needed to support the digital transformation of public services with the intelligent use of data and AI. This should include developing the specialist skills required across the public sector to procure relevant products and services to support innovation.

9. **Procurement** – DSIT's ambition for the digital transformation of public services and Cabinet Office's procurement reforms should be aligned to support the government's ability to build the required infrastructure (data, energy and compute) and capabilities (digital and AI delivery) to achieve this goal successfully. CST has previously offered advice on public procurement[25] and continues to believe that developing specialised procurement skills will be essential for successful implementation.

Change the narrative to renew a shared pride in the UK's culture of innovation

10. Government has a key role to play in ensuring a cultural shift within the investment and policy community, to better understand and support the importance of investing time and money into innovation.

Recommendation 5: Government should use its convening power to build awareness of investment opportunities and help unlock institutional finance, particularly in areas of strategic importance. This could be achieved through:

11. **Building and sharing evidence across government and industry** – innovation cycles can take decades to come to market, become established, scale and mature[26], but there is clear evidence that demonstrates the UK's success as a modern innovation economy[27]. There is also now a growing body of literature[28], longitudinal performance data[29] and academic research on both private and public markets, which provide profound insights on how to think about capital allocation and innovation in private and public markets.

12. **Improve literacy** – we need to develop investment literacy around aligning long-term interests of savers with long-term investing, as well as behaviours[30] involved when investing time and money into innovation. The UK could learn from Australia, Canada, and Norway, where everyday citizens are beginning to understand the link between savings, pensions, publicly invested funds and their long-term financial wellbeing, as well as economic growth.

13. **Sustained and coordinated convening –** while great progress has been made convening stakeholders by government departments such as HMT, DSIT, DBT, and No.10, as well as numerous private sector forums such as Mansion House, Capital Markets Industry Taskforce, and British Private Equity & Venture Capital Association, institutional investors report a lack of consistency and clarity. With the development of the Industrial Strategy and the Growth Mission Board, government departments should be aligned around one growth goal. This provides an opportunity for one government

[25] Council for Science and Technology. Advice on delivering national priorities through public procurement. 2022. https://www.gov.uk/government/publications/advice-on-delivering-national-priorities-through-public-procurement/letter-to-the-prime-minister-on-delivering-national-priorities-through-public-procurement-html
[26] Perez, Carlota. Technological Revolutions and Financial Capital. 2003.
[27] Dealroom – Council for Science and Technology Evidence Pack. 2024.
[28] Mallaby, Sebastian. The Power Law: Venture Capital and the Art of Disruption. 2022.
[29] Bessembiner et al,. "Long-Term Shareholder Returns: Evidence from 64,000 Global Stocks". 2020.
[30] Strebulaev and Dang. The Venture Mindset: How to make smarts bets and achieve extraordinary growth. 2024

department to lead the coordination of a sustained and consistent convening programme, that includes not just key stakeholders in the regions and devolved administrations, but also citizens and savers. Camden Council has started to explore this model in the co-design of their Community Wealth Fund[31]. Through this forum government should provide clear direction, targets, and certainty to focus investments in areas where the UK has current strengths, areas of future strategic advantage, and investment into newer asset classes.

[31] The Camden Community Wealth Fund. About us. 2024. https://camdencommunitywealthfund.co.uk/about