

THE UK'S 150-YEAR MOMENT

Seven Factual Reasons to Be Cheerful

Purpose

This note sets out seven factual reasons why, despite understandably low sentiment, the UK's innovation economy is in far better structural shape than it feels.

It draws on evidence since 2010, Council for Science & Technology letters, venture capital data, research funding evidence, and long-run economic analysis. Annexes A–D contain the full supporting data and references.

Executive Summary

Sentiment is currently extremely subdued — geopolitics, AI anxiety, slow productivity growth. But structurally, the UK is in its **strongest innovation position since 1851–1914**, the last period when we combined:

- world-leading science,
- deep pools of capital,
- functioning institutions,
- dense industrial clusters, and
- real global connectedness.

We are now back in a configuration that looks surprisingly similar.

This is not optimism. **It's simply what the data shows.**

And with 2026 being a remarkable year of anniversaries—the **75th Anniversary of the Festival of Britain, 200th of UCL, 175th of the Great Exhibition, 90th of the Wellcome Trust, 75th of the Ferranti Mark 1, and 50th of the Royal Academy of Engineering**—we have a moment to articulate this publicly and confidently.

1. The UK is now the world's 3rd largest innovation economy

Despite being only the 6th-largest GDP economy, the UK ranks **#3 in the world for innovation output**, and **#1 across Europe & Israel** in several frontier-tech categories.

We now have:

- **more colts, thoroughbreds, unicorns and VC** than France + Germany + Sweden + the Netherlands *combined*
- **800+ colts & thoroughbreds** (there were fewer than 10 in 2002)
- well over **100,000 high-value jobs** created across the UK by these companies
- **50 deep-tech champions** already at global outlier scale (~2% of companies ever reach this)
- deep tech now **31% of all UK ventures** – triple the 2015 share

Structural conclusion: alongside the US and China, the UK is one of only three economies with this level of breadth and depth.

2. The UK's inputs are exceptionally strong – and inputs predict the next 25 years

Outputs move around. Inputs don't. And the UK's inputs are now world-class.

Global Universities & research

- **4 of the world's top 10 universities**
- **5 of Europe's top 10 spinout universities**

Specialist clusters spread across the UK

- Quantum & semiconductors – *Bristol, Swansea*
- Photonics – *Southampton*
- Advanced materials – *Manchester*
- Chemistry – *Glasgow*
- Robotics – *Sheffield*
- Interdisciplinary science – *Edinburgh, Birmingham*
- Defence & security – *King's*
- Public policy & economics – *LSE, UCL*

Structural conclusion: a UK-wide geography of scientific strength like this simply did not exist 20 years ago. You'd have to go back to the late Victorian/Edwardian R&D boom to find anything similar.

3. Innovation leadership is cyclical – and the next cycles align with UK strengths

We don't have to lead or win every wave. Most world-leading companies and countries don't.

Companies that missed cycles – then came back stronger

- **Microsoft** missed the internet *and* mobile → then dominated cloud → now leading AI
- **Apple** missed cloud → then defined mobile, wearables, on-device compute
- **Adobe & Oracle** built for on-prem → reinvented via cloud
- **Intel** dominated semis → but this cycle belongs to Nvidia, TSMC, ASML

Whole sectors rotate too

- **PCs** – IBM/Compaq → Apple/Microsoft/Dell
- **Internet** – AOL/Netscape → Google/Netflix/Spotify/Cloudflare
- **Mobile** – Nokia → Apple/Samsung/Huawei

Cycles rotate. What matters is alignment with the *next* cycle – not the last one.

The next global cycles (all still open):

- AI & robotics
- Engineering biology
- Advanced materials
- Optical semiconductors
- Photonics
- Future networks
- Space
- Quantum

Structural conclusion: critical future growth areas map unusually well onto the UK's scientific strengths.

4. The “plumbing” is finally in place – capital, regulation, institutions, alliances

For the first time in more than 25 years, the UK has the underlying infrastructure to scale and retain significant operations for frontier companies.

Capital architecture

HM Treasury has lined up £100bn+ of potential domestic capital in the life of this Parliament through: Spending Review → British Business Bank → National Wealth Fund → National Strategic Science Infrastructure Fund → Sovereign Science → Mansion House reforms.

Pensions - consolidation is finally moving, which is the beginning of genuine place-based capital formation.

- **Leeds** now has more colts & thoroughbreds than Oxford
- **Manchester** more than Cambridge
- Both now ahead of Milan, Madrid, Munich

Regulation

With HMT signalling and RIO in place, regulators can now move towards:

- safe-to-fail experimentation
- Testbeds
- adaptive regulatory pathways
- predictable, pro-growth decisions

Trade & alliances

Long-standing UK ties across the US, Europe, MENA, Africa and Asia matter even more as global supply chains move from single-supplier to resilience.

Structural conclusion: The UK now has the pipes. The next challenge is flow and orchestration.

5. The UK knows it must modernise – and momentum is real

Across government, business and institutions, there is unusual alignment that key systems must change:

- A. **Energy** (cost, reliability, sustainability)
- B. **Planning and regulation** (speed, certainty)
- C. **Contracts** (public + FTSE procurement)
- D. **Capital formation** (growth equity, real assets, credit, public markets)
- E. **International posture** (reconnecting with Europe and the Commonwealth)
- F. **Orchestration** (our weakest outside of crisis capability, and the one we now most need)

Structural conclusion: We have not had this degree of cross-system consensus since 1880–1910, which preceded the UK’s last major surge in scientific and industrial capability. People are looking for national renewal and reform, they are looking for growth in the homes and neighborhoods

6. The UK is well-placed to build a distinctive model – science-led, mission-driven, inclusive

The next 20 years globally will be driven by:

- Science
- Purpose
- Missions
- Neighborhoods
- Place-based capability

The UK is naturally suited to this.

Examples emerging now

- Somers Town – inclusive innovation district
- New Square Mile – finance + tech + science + creativity
- New Palo Alto – London ↔ Paris (FR) ↔ Brussels (BE) ↔ Aachen (DE) ↔ Amsterdam (NL) ↔ Oxford ↔ Cambridge ↔ Edinburgh (all within 5 hours)

Structural conclusion: We don’t need to build “the next Silicon Valley”. We can build a values-driven model rooted in science, creativity and place which can be a credible and necessary alternative to the Silicon Valley mindset

7. A new generation of leadership is emerging across government, civil society, business and culture

This is one of the UK's least-recognised strengths domestically but admired internationally

Officials

A battle-tested generation of leaders — tired but extremely capable — who steered the UK through Brexit, COVID and Ukraine.

Arms-Length Bodies

Strong leadership including British Business Bank • Edinburgh Futures Institute • Manchester Museum • Natural History Museum • UK Research and Innovation • V&A • UCL

Founders & investors

DeepMind, Revolut, Phoenix Court, Entrepreneur First from previous decades— plus new incredible new leaders in social enterprise, AI, bio, compute, energy, fintech, materials and VC

Culture & soft power

Heatherwick and our creative industries, our musicians and fashion houses, and — in sport — people like Saka.

Even in winter, the world still chooses to come here. The 2026 year of anniversaries—from the Festival of Britain to the Great Exhibition to the founding of UCL—can be a moment to say this clearly.

Structural conclusion: Britain's got talent 😊

Overall Conclusion

The UK is in its strongest structural innovation position in 150 years.

The challenge is no longer generating innovation—it is organising the system so the UK captures the value it creates.

This requires:

- Evidence-based confidence
- Coordinated action
- Long-term institutional commitment

We don't need hype or vibes. We just need to see the system as it really is—and act accordingly.

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Annex A – Evidence Base

A1 – Writing (2010–2025)

1. Europe Has No Excuses (2010) – Brussels presentation https://docs.google.com/presentation/d/1Tkh0bB7FF8kkgvSvW_inBNWakCCRONYf9kKv-ul2ts/edit
2. GDS Is the Best Startup in Europe (2013) <https://www.theguardian.com/technology/2013/nov/15/government-digital-service-best-startup-europe-invest>
3. 12 Reasons to Be Excited About London (2016) <https://medium.com/localglobe-notes/12-reasons-to-be-excited-about-london-62060110eb84>
4. Stay Calm and Make Lemonade (2016) <https://medium.com/localglobe-notes/stay-calm-and-make-lemonade-f3104e2493f5>
5. Europe Is the New Palo Alto (2020) <https://www.wired.com/story/europe-is-the-new-palo-alto/>

A2 – CST Letters & Advice (2021–2024)

1. CST → PM (Sept 2021) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1015338/20210923_CS_T_letter_-_Encouraging_scale-up_investment_in_innovative_S_T_companies.pdf
2. CST Annex (2021) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1015340/20210923_CS_T_annex_-_Encouraging_scale-up_investment_in_innovative_S_T_companies.pdf
3. CST → PM (Oct 2022) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1023206/20221007_CS_T_letter_-_Increasing_the_availability_of_scale-up_investment.pdf
4. CST → Chancellor (July 2024) https://assets.publishing.service.gov.uk/media/66903e33fa3b1d0108f20909/CST_Letter_to_Chancellor_July_2024.pdf

A3 – Datasets & Evidence

1. Dealroom UK & EU startup/scale-up data (2024) <https://app.dealroom.co/>
2. Spinouts UK / UKRI (2023–2025) <https://www.spinoutsuk.co.uk/>
3. BBB & BPC (2023–2025) <https://www.british-business-bank.co.uk/>
4. REF 2021 cluster data (University department-level excellence)
5. Maddison Project Database (long-run GDP) <https://www.rug.nl/ggdc/historicaldevelopment/maddison/>
6. World Bank WDI <https://data.worldbank.org/>

A4 – Academic & Economic Evidence

1. Frontier Economics (2014) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/333006/bis-14-990-rates-of-return.pdf
2. OECD (2019) <https://doi.org/10.1787/729bf864-en>
3. EIB Deep-Tech Report (2018) <https://www.eib.org/en/publications/study-on-financing-the-deep-tech-revolution>
4. Bessembinder (2020) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3710251

A5 – Institutional & Regulatory Architecture

1. Mansion House reforms (2023–2025) <https://www.gov.uk/government/news/chancellor-reveals-mansion-house-reforms>
2. Regulatory Innovation Office <https://www.gov.uk/government/organisations/regulatory-innovation-office>
3. CMA/FCA Innovation pathways <https://www.fca.org.uk/innovation>
4. GOTT (public-sector IP) <https://www.gov.uk/guidance/government-office-for-technology-transfer-gott>

A6 – Cluster Work & Ecosystem Concepts

1. New Palo Alto (2020, WIRED) <https://www.wired.com/story/europe-is-the-new-palo-alto/>
2. New Square Mile (2023–2025) (*Internal*)
3. Somers Town / Camden innovation work (*Internal*)

Annex B – Key Datasets & Figures

Startup & Scale-Up Metrics

- Dealroom startup, unicorn, deep-tech and scale-up data <https://app.dealroom.co/>

Science & Research

- QS rankings <https://www.topuniversities.com/university-rankings>
- Spinouts UK <https://www.spinoutsuk.co.uk>

Macro Data

- Maddison long-run GDP <https://www.rug.nl/ggdc/historicaldevelopment/maddison/>
- World Bank R&D + productivity <https://data.worldbank.org/>

Capital Formation

- BBB, BPC, NWF, NSSIF <https://www.british-business-bank.co.uk/>

Regulatory Data

- RIO <https://www.gov.uk/government/organisations/regulatory-innovation-office>
- FCA Innovation <https://www.fca.org.uk/innovation>

Annex C – Glossary

- **ALB (Arms-Length Body)** – A government-funded organisation that operates independently from direct ministerial control, such as the British Business Bank or UK Research and Innovation.
- **BBB (British Business Bank)** – The UK's national economic development bank, which provides financing and investment to small and medium-sized enterprises.
- **BPC (British Patient Capital)** – The commercial growth capital arm of the British Business Bank, investing in high-growth companies.
- **Breakout stage** – The critical \$15–100m funding round where a company's trajectory becomes global rather than regional.
- **Colt** – A VC backed company generating \$25–100m in revenue. The term borrows from horse racing to indicate a young, fast-growing company.
- **CST (Council for Science & Technology)** – The Prime Minister's Council for Science & Technology, which provides independent expert advice on strategic policies and frameworks for science and technology.
- **Deep tech** – Science-based technology companies building on fundamental scientific advances, including quantum computing, photonics, advanced materials, biotechnology, semiconductors, and space technology. These can often require longer development cycles and more capital than software companies.
- **EFI (Edinburgh Futures Institute)** – An interdisciplinary research institute at the University of Edinburgh focused on data-driven innovation and complex, multi-dimensional challenges.
- **Ferranti Mark 1** – The world's first commercially available general-purpose computer, delivered to the University of Manchester in 1951, marking a pivotal moment in the UK's computing heritage.
- **FTSE** – The Financial Times Stock Exchange, commonly referring to major UK publicly-listed companies.
- **GDS (Government Digital Service)** – The UK government unit responsible for digital transformation of government services.
- **GOTT (Government Office for Technology Transfer)** – The government office responsible for commercialising intellectual property from public sector research.
- **Great Exhibition (1851)** – The Great Exhibition of the Works of Industry of All Nations, held in Hyde Park's Crystal Palace, was a landmark showcase of Victorian innovation and British industrial leadership that helped establish Britain's reputation as a global centre of scientific and technological advancement.
- **HM Treasury (HMT)** – The UK government's economic and finance ministry, responsible for developing and executing economic and financial policy.
- **Inclusive innovation** – An approach to innovation that combines scientific advancement with community benefit and broad participation (e.g., Somers Town initiative).
- **MENA** – Middle East and North Africa region.
- **New Palo Alto** – A conceptual super-cluster connecting London–Paris–Brussels–Amsterdam–Oxford–Cambridge–Edinburgh, all within 5 hours travel time, creating a European equivalent to Silicon Valley.
- **New Square Mile** – An emerging innovation district combining finance, technology, science, and creative industries in London.
- **NWF (National Wealth Fund)** – A planned UK investment fund to channel public and private capital into strategic national priorities.
- **NSSIF (National Strategic Science Infrastructure Fund)** – Government fund for strategic investments in scientific infrastructure.

- **Photonics** – The science and technology of generating, controlling, and detecting light particles (photons), with applications in telecommunications, manufacturing, medicine, and computing.
- **Quantum** – Short for quantum computing and quantum technologies, which exploit quantum mechanical phenomena to perform calculations and sensing far beyond classical computers' capabilities.
- **REF (Research Excellence Framework)** – The UK's system for assessing the quality of research in higher education institutions, conducted every several years.
- **RIO (Regulatory Innovation Office)** – A UK government office designed to enable innovative regulation and help new technologies navigate regulatory frameworks.
- **Royal Academy of Engineering (RAEng)** – The UK's national academy for engineering, founded in 1976, which promotes excellence in engineering and provides policy advice to the government on engineering matters.
- **Scale-up capital** – The £100m–£500m+ in financing needed to help companies grow from mid-sized to global scale while keeping them based in the UK.
- **Sovereign Science** – Public investment strategy focused on maintaining UK leadership in strategic scientific domains (AI, quantum, biotechnology).
- **SR (Spending Review)** – The UK government's periodic comprehensive review of public spending priorities.
- **Thoroughbred** – A rapidly-growing VC backed company generating more than \$100m in revenue. Only a small percentage of companies reach thoroughbred status.
- **UCL (University College London)** – Founded in 1826, UCL was England's first university to admit students regardless of religion and the first to admit women on equal terms with men, establishing itself as a pioneering institution in British higher education.
- **Unicorn** – A privately-held startup company valued at over \$1 billion.
- **UKRI (UK Research and Innovation)** – The national funding agency that directs research and innovation funding, incorporating seven research councils and Innovate UK.
- **VC (Venture Capital)** – Investment funding provided to early-stage, high-potential companies in exchange for equity.
- **Wellcome Trust** – One of the world's largest charitable foundations supporting scientific research, founded in 1936 from the estate of pharmaceutical magnate Sir Henry Wellcome, with a particular focus on biomedical research and global health.