# An Analysis of the UK Global Talent Fund: Implications for Regional Inequality with a Deep Dive into Yorkshire's Academic Contributions

## Executive Summary

The United Kingdom's Global Talent Fund (GTF), a £54 million initiative designed to attract world-leading researchers, has inadvertently highlighted and potentially exacerbated existing regional inequalities within the UK. While ostensibly aimed at boosting national prosperity, the fund's allocation to twelve institutions reveals a significant geographic concentration, predominantly favoring established research hubs in London and the South East. This distribution contrasts sharply with the government's stated "levelling up" agenda, which seeks to reduce economic disparities across the country.

This report critically examines the GTF's specifics, including its selection criteria, which appear to reward existing research strength rather than fostering new capacity in underserved regions. A detailed analysis of universities in the North of England, particularly within Yorkshire, demonstrates their substantial and often under-recognized economic and academic contributions, including billions in Gross Value Added (GVA) and tens of thousands of jobs. The complete exclusion of Northern institutions from the GTF, despite this proven impact, suggests a misalignment between funding mechanisms and regional development goals. Furthermore, a review of broader public and private investment trends reveals a consistent pattern of disproportionate allocation towards London and the South East, mirroring the GTF's distribution. International comparisons offer alternative models for regional science funding, suggesting that a more decentralized and equitable approach could better serve the UK's ambition for widespread innovation and talent attraction.

The findings indicate that without a deliberate shift in funding philosophy to actively cultivate research ecosystems across all regions, initiatives like the GTF risk perpetuating a "rich get richer" dynamic, undermining the very objective of reducing regional inequalities and hindering the full realization of the UK's diverse academic potential.

# 1. Introduction: The UK Global Talent Fund and Regional Inequality

### Context: The "Levelling Up" Agenda and the Role of Research Funding

The UK government has articulated a clear ambition to "level up" the country, aiming to reduce persistent geographical economic inequalities and foster prosperity across all regions. This policy objective is particularly pertinent given that the UK exhibits some of the most pronounced regional economic disparities among OECD countries, with London's per capita Gross Value

Added (GVA) being 2.5 times that of the North East, the region with the lowest GVA per capita. In this context, government investment in research and development (R&D) and talent attraction schemes, such as the Global Talent Fund (GTF), are critical instruments that could either advance or impede the "levelling up" agenda.

However, a critical examination of the GTF's implementation reveals a potential disconnect between the government's stated policy intent and its practical application. The fund's distribution, which notably excludes any institutions located north of Birmingham, suggests that the mechanisms for allocating high-value research funding may inadvertently reinforce existing concentrations of wealth and talent rather than distributing opportunities more broadly. This raises questions about whether the GTF, despite its national objective of enhancing prosperity, is truly contributing to a more balanced and inclusive economic landscape across the UK. The observed pattern of allocation indicates that the fund's design may be rewarding established research powerhouses, which are predominantly located in the South East, thereby potentially widening, rather than narrowing, regional disparities in research capability and talent attraction.

## Purpose of the Global Talent Fund

The Global Talent Fund (GTF) represents a significant £54 million investment by the UK government, explicitly designed to attract between 60 and 80 top global researchers and their teams to the United Kingdom. The core objective of this initiative is to bolster Britain's future prosperity and economic growth by recruiting exceptional talent into high-priority sectors deemed critical to the UK's Modern Industrial Strategy.

The fund is structured to be highly attractive to international talent, offering comprehensive financial support. It covers 100% of eligible costs associated with relocation, including research expenses and visa fees for both the researchers and their family members. This comprehensive coverage aims to remove significant financial and administrative barriers that might otherwise deter world-leading academics from choosing the UK as their research base. By facilitating the seamless integration of top-tier international researchers, the GTF seeks to enhance the UK's research capacity, drive innovation, and cement its position as a global leader in scientific excellence and collaboration.

## Report Objectives and Scope

This report aims to provide a robust, evidence-based critique of the UK's Global Talent Fund and its implications for regional inequality, with a particular focus on Yorkshire. It will achieve this by meticulously examining the GTF's structure and the criteria used for selecting recipient institutions. The report will quantify the economic and academic impact of universities in the broader North of England, with a separate, detailed analysis of major institutions within Yorkshire. Furthermore, it will compare R&D spending and government funding received by GTF institutions against those in the North and Yorkshire. The analysis will extend to assessing wider regional investment disparities through public infrastructure projects and overall investment trends. Finally, the report will draw comparative insights from international science funding and talent attraction models, offering a comprehensive perspective on the GTF's effectiveness and its alignment with national "levelling up" ambitions.

# 2. Global Talent Fund (GTF) Specifics

## 2.1 Selected Institutions: Overview and Research Focus

The Global Talent Fund has allocated its £54 million investment across twelve selected UK universities and research institutions. A review of these institutions reveals a distinct geographical clustering and a diverse, yet concentrated, set of research specialisms.
The selected institutions are:

- **University of Bath** (Bath, South West England): This institution's research themes include Sustainability, Health & Wellbeing, and Digital technologies. Specifically, the GTF funding is earmarked for attracting researchers in Clean Energy, Digital Technologies, Professional and Business Services, and Life Sciences.
- **Queen's University Belfast** (Belfast, Northern Ireland): Key research areas for Queen's include advanced manufacturing, cybersecurity, and life sciences. Broader strategic themes encompass healthy living, a transformative and sustainable economy, secure connected intelligence (AI and data revolution), human-environment relations, and inclusive communities.
- **University of Birmingham** (Birmingham, West Midlands): Recognized for world-leading and internationally excellent research across a wide array of disciplines, the University of Birmingham addresses global health risks, explores new energy sources, and focuses on adaptation to climate change.
- **University of Cambridge** (Cambridge, East of England): A prominent research hub, Cambridge is strong in AI research, climate and nature research, and cancer research, leveraging its history of Nobel Prizes in Medicine and Chemistry.
- **Cardiff University** (Cardiff, Wales): This Russell Group university is known for academic excellence and cutting-edge research, with 90% of its research considered world-leading or internationally excellent. Its research environment supports innovation, knowledge exchange, and addresses major societal problems.
- **Imperial College London** (London, South East England): Imperial aims for enduring excellence in science, engineering, medicine, and business. Its research culture fosters collaborative, multidisciplinary work to tackle the biggest scientific challenges, with a focus on integrity and societal benefit.
- **John Innes Centre** (Norwich, East of England): A world-leading international center for plant science and microbiology, the John Innes Centre translates its knowledge to benefit industrial biotechnology, agriculture, the environment, human health, and wellbeing. It targets advanced manufacturing, life sciences, and digital technologies with GTF funding.
- **MRC Laboratory of Molecular Biology** (Cambridge, East of England): This institute is dedicated to understanding biological processes at the molecular level, with research divisions in Cell Biology, Neurobiology, Protein and Nucleic Acid Chemistry, and Structural Studies. Its work aims to alleviate human disease, often through fundamental curiosity-driven studies.
- **University of Oxford** (Oxford, South East England): Oxford's research plays a key role in tackling global challenges such as reducing carbon emissions and developing vaccines. Its Department of Psychiatry has an international reputation for excellence, focusing on neurodiversity and mental health.
- **University of Southampton** (Southampton, South East England): The GTF funding for Southampton will attract researchers in Clean Energy Industries, Digital Technologies (including trustworthy AI and digital twins), Life Sciences (translational research and biotech entrepreneurship), Defence, and Advanced Manufacturing (smart factories and

sustainable materials).

- **University of Strathclyde** (Glasgow, Scotland): As a leading international technological university, Strathclyde focuses on interdisciplinary research that impacts society, the economy, and industry. Its themes include Health & Wellbeing, Innovation & Entrepreneurship, Energy, Advanced Manufacturing & Materials, and Measurement, Digital & Enabling Technologies.
- **University of Warwick** (Coventry, West Midlands): Warwick conducts transformative, interdisciplinary research to address global challenges. Its expertise spans Digital Innovation, Finance, the Future of Work (including AI and automation), Healthcare, Strategy, Sustainability, and a specific focus on the Creative Industries for GTF recruitment.

A critical examination of the selected institutions reveals a significant geographical concentration of GTF funding. Six of the twelve institutions are located in London and the South East of England, specifically within the "Golden Triangle" of Oxford, Cambridge, and London (University of Bath, University of Cambridge, Imperial College London, John Innes Centre, MRC Laboratory of Molecular Biology, University of Oxford, University of Southampton). This leaves only Queen's University Belfast, Cardiff University, University of Birmingham, University of Strathclyde, and University of Warwick representing devolved nations or the Midlands. Notably, no institutions from the North of England were selected for this fund. This uneven distribution immediately brings into focus a potential bias in the fund's allocation, directing resources predominantly towards already established and economically advantaged research hubs.

**Table 1: Global Talent Fund Institutions: Location and Key Research Areas**

| Institution Name | City | Region/Nation | Primary Research Focus (GTF-related) |
|---|---|---|---|
| University of Bath | Bath | South West England | Clean Energy, Digital Technologies, Professional & Business Services, Life Sciences |
| Queen's University Belfast | Belfast | Northern Ireland | Advanced Manufacturing, Cybersecurity, Life Sciences |
| University of Birmingham | Birmingham | West Midlands | Global Health Risks, New Energy Sources, Climate Change Adaptation |
| University of Cambridge | Cambridge | East of England | AI, Climate and Nature, Cancer Research |
| Cardiff University | Cardiff | Wales | Academic Excellence, Cutting-edge Research, Innovation, Societal Challenges |
| Imperial College London | London | South East England | Science, Engineering, Medicine, Business, Major Scientific Challenges |

| Institution Name | City | Region/Nation | Primary Research Focus (GTF-related) |
|---|---|---|---|
| John Innes Centre | Norwich | East of England | Plant Science, Microbiology, Industrial Biotechnology, Agriculture, Human Health, Environment, Advanced Manufacturing, Life Sciences, Digital and Technologies |
| MRC Laboratory of Molecular Biology | Cambridge | East of England | Molecular Biology, Human Disease, Cell Biology, Neurobiology, Protein and Nucleic Acid Chemistry, Structural Studies |
| University of Oxford | Oxford | South East England | Global Challenges (e.g., carbon emissions, vaccines), Psychiatry, Neurodiversity, Mental Health |
| University of Southampton | Southampton | South East England | Clean Energy, Digital Technologies, Life Sciences, Defence, Advanced Manufacturing |
| University of Strathclyde | Glasgow | Scotland | Health & Wellbeing, Innovation & Entrepreneurship, Energy, Advanced Manufacturing & Materials, Measurement, Digital & Enabling Technologies |
| University of Warwick | Coventry | West Midlands | Digital Innovation, Finance, Future of Work (AI), Healthcare, Creative Industries |

## 2.2 Analysis of Official Selection Criteria

The allocation of Global Talent Fund (GTF) resources was explicitly based on "quantitative indicators" designed to evaluate research organizations' past performance in attracting and retaining top international R&D talent. The specific metrics employed for this selection process were:

- **Successfully receiving and using competitive international funding:** This was

assessed by the volume of European Research Council (ERC) and Marie Skłodowska-Curie Actions (MSCA) funding secured by UK research organizations.
- **Recruiting and retaining international researchers:** This criterion was measured by the percentage of academic staff categorized as international, according to data from the Higher Education Statistics Agency (HESA).
- **Use of the Global Talent Visa:** This was evaluated by the percentage of UK Research and Innovation (UKRI) endorsed Global Talent Visa (GTV) holders relative to the total academic staff numbers, also based on HESA data.

While these criteria are presented as objective and quantitative measures, their inherent nature creates a structural bias that favors institutions with long-established international reputations, extensive existing networks, and robust infrastructure for attracting global talent and securing competitive international funding. Such institutions are, by historical precedent and current resource distribution, predominantly concentrated in the South East of England, particularly within the "Golden Triangle" of Oxford, Cambridge, and London.

This selection methodology is fundamentally backward-looking, designed to identify and reward *existing* excellence in attracting international talent and funding, rather than to *build* or *distribute* research capacity more equitably across regions. Consequently, areas already rich in research infrastructure and international connections are more likely to qualify for additional funding, thereby perpetuating and potentially exacerbating existing disparities. This approach means that the criteria reward past success, which is geographically concentrated, rather than fostering future potential in less developed or emerging research regions. The consequence is a "rich get richer" dynamic in research funding: competitive grants and talent attraction initiatives tend to flow disproportionately to institutions that already possess the highest existing research capacity, largest teams, and strongest track records. This concentration of investment further enhances the capabilities of already strong institutions, potentially at the expense of cultivating and developing robust research ecosystems in other parts of the UK. While this approach might maximize immediate "return on investment" from established excellence, it fundamentally undermines the broader policy objective of regional rebalancing and the equitable distribution of research opportunities.

## 2.3 Government Response to Parliamentary Inquiry

The distribution of the Global Talent Fund prompted significant parliamentary scrutiny, particularly from Dame Chi Onwurah, Chair of the Science, Innovation and Technology Committee. She expressed clear disappointment that no institution from the North West, North East, Yorkshire and the Humber, or the East Midlands was selected for the GTF. Her inquiry sought detailed clarity on the government's assessment process and questioned why no Northern university met the selection criteria.

In response, the Science Minister, Lord Patrick Vallance, stated that the institutions were chosen through a "quantitative assessment" based on specific indicators, and that this assessment "did not yield" any institutions located in the North of England. The Minister also pointed to a range of other innovation funding opportunities available for the region, implying that the GTF was not the sole mechanism for supporting Northern research.

Dame Chi Onwurah, however, offered a sharp critique of this justification. She characterized the selection process as neither "evidence-based nor geographically based nor even policy-based," but rather a "mishmash based on criteria which... were both arbitrary and inconsistently applied". This parliamentary exchange highlights a significant point of contention regarding the GTF's alignment with broader government objectives.

The government's response, primarily relying on the "quantitative assessment" and referencing "other funding opportunities," can be interpreted as a defensive justification rather than a robust, proactive strategy to address regional research disparities. It avoids directly confronting the fundamental question of why a fund explicitly designed to attract *global talent* failed to identify *any* suitable institutions in a major economic and research region like the North. This suggests either a flaw in the assessment methodology itself, which inherently favors established institutions, or a lack of genuine commitment to fostering distributed research excellence as an integral part of the broader "levelling up" agenda. The implication is that the government's approach prioritizes short-term, perceived efficiency in attracting existing talent to established hubs over a strategic, long-term investment in building diverse and geographically dispersed research capabilities across the UK.

# 3. Economic and Academic Contributions: North vs. Yorkshire Deep Dive

## 3.1 Economic Contributions of Universities in the North of England

Universities across the North of England represent significant economic powerhouses, contributing substantially to regional Gross Domestic Product (GDP), job creation, and innovation. The N8 Research Partnership, comprising eight research-intensive universities in the North, collectively generated a remarkable £18.8 billion in economic impact for the UK in the 2021/22 academic year. Of this total, £8.6 billion (46%) was attributed to their research activities, £1.7 billion (9%) to knowledge exchange and commercialisation, and £8.5 billion (45%) to institutional expenditures. Crucially, a substantial £9 billion (74%) of this geographically attributable economic impact was concentrated within the North of England itself, underscoring their direct regional benefit.
Individual institutions further illustrate this profound impact:

- **The University of Manchester** exerted a total economic impact of £7.3 billion on the UK economy in the 2022/23 academic year. Its operations directly supported 19,050 full-time equivalent (FTE) jobs in Greater Manchester and indirectly supported an additional 31,000 jobs across the North West and the wider UK. The university's research and knowledge exchange activities alone contributed approximately 6,040 FTE jobs in Greater Manchester and generated a total economic impact of £3.0 billion across the UK. As a hub of innovation, it boasts 343 spinout and start-up companies, with 175 headquartered in Greater Manchester. The university is globally recognized, ranked 6th in the UK and 34th worldwide by QS World University Rankings 2025.
- **The University of Liverpool** generated an estimated £1.2 billion and 15,870 jobs within the Liverpool City Region (LCR) in 2022/23, equating to over 3% of the total LCR economy and creating 1 in every 50 jobs. Nationally, its impact reached £2.2 billion and 26,630 jobs. The university's research awards totaled £160.7 million in 2022/23, and its knowledge exchange activities, including intellectual property (IP) licensing and spin-out companies, contributed up to £66 million and 770 jobs across the UK.
- **Newcastle University** annually adds £1.1 billion in Gross Value Added (GVA) to the UK economy, supporting 8,850 FTE jobs in Newcastle both directly and indirectly. It is the 4th largest employer in the North East, accounting for 6% of all jobs in Newcastle. The university attracted £105 million in research awards, which facilitated significant R&D

investment, including the establishment of two National Innovation Centres focused on ageing and data, and a national research centre for subsea and offshore engineering.

The aggregated and individual data unequivocally demonstrate that major Northern universities are substantial economic powerhouses. Their collective and individual contributions to regional GDP, job creation, and innovation are in the billions of pounds and tens of thousands of jobs. The complete exclusion of these institutions from the Global Talent Fund, despite this proven and quantifiable impact, indicates a significant disconnect between the fund's stated goal of "economic growth" and its actual distribution. This suggests that the GTF may be overlooking or undervaluing the existing, substantial contributions and future potential of these regional institutions to the national economy. The failure to leverage these established regional assets through direct GTF investment represents a missed opportunity to amplify their impact and further drive national prosperity in a geographically balanced manner.

## 3.2 Deep Dive: Economic Contributions of Universities in Yorkshire

The higher education sector in Yorkshire is a powerful economic engine, making substantial contributions to the regional and national economies. A recent analysis by London Economics estimated that universities in the Yorkshire and Humber region collectively contributed £8 billion in gross output and £5.3 billion in gross value added (GVA) to the UK economy in 2021-22. This comprehensive figure encompasses economic activity generated by direct employment, procurement through supply chains, and the local spending power of staff and students. The sector supports over 30,000 full-time equivalent (FTE) staff within the universities themselves, with an additional 26,000 jobs sustained in the wider supply chain. Furthermore, these institutions annually generate over £34 million in consultancy contracts and nearly £129 million in contract research. The innovation ecosystem is vibrant, with start-up companies founded by graduates turning over nearly £54 million in 2022-23, and spin-out companies with university ownership generating £121 million.

Individual universities within Yorkshire demonstrate remarkable economic influence:

- **The University of Leeds**, a Russell Group institution, contributes approximately £1.23 billion annually to the local economy, with its students adding a further £211 million through their living costs. In the 2023-24 financial year, its total income reached £1.05 billion, with £190.9 million derived from research grants and contracts. The university is a significant employer in Leeds, with 8,700 staff in 2019-20, ranking as the third largest employer in the city.
- **The University of Sheffield** generated a substantial £4.82 billion for the UK economy in 2022/23. More than half of this impact, specifically £1.24 billion, was concentrated within Yorkshire and the Humber, with over 80% of that directly benefiting South Yorkshire. The university's activities supported a total of 22,990 full-time jobs across the UK. Its research and knowledge exchange activities alone are estimated to have an impact of £1.8 billion. For every £1 of expenditure, the University of Sheffield generates £6.40 of economic impact for the UK economy.
- **The University of York** contributes over £1.78 billion to the local and national economy. Its estimated impact on the economy of York and North Yorkshire alone is £980 million. Key components of its UK-wide economic impact in 2023-24 include £828 million from research and knowledge exchange activities, £794 million from institutional expenditures, and £161 million from international student spending. The university supports 9,795 FTE jobs across the UK.
- **The University of Hull** injects over £900 million into the UK's economy, with a direct

contribution of £370 million to the local Humber region economy. Through its supply chain and business networks, it supports an additional 4,100 jobs across Yorkshire and the Humber, contributing to almost 8,000 UK jobs overall.

- **Sheffield Hallam University** adds more than £400 million to the Sheffield city region economy annually. The university is undertaking a significant £220 million campus masterplan, which will contribute to city center regeneration. International students alone provide a £770 million economic benefit to the city of Sheffield. The university's knowledge transfer partnerships (KTPs) have collectively contributed over £2 billion to the UK economy in the decade leading up to 2020.

The collective economic impact of Yorkshire universities, with £5.3 billion in GVA and £8 billion in gross output, supporting 56,000 jobs, is a powerful indicator of the region's academic and economic strength. This collective contribution is comparable to, or in some cases exceeds, the individual economic impact of several institutions selected for the GTF (e.g., the University of Bath's local GVA of £510 million ). The detailed individual data for the University of Leeds, University of Sheffield, University of York, University of Hull, and Sheffield Hallam University further underscore their substantial contributions to local GDP, employment, and investment attraction. This robust evidence of regional economic vitality, despite the region's complete exclusion from the GTF, strongly suggests a significant missed opportunity for the fund to leverage and amplify existing regional assets for broader national benefit. The absence of any Yorkshire university from the GTF, given this compelling evidence, reinforces concerns about geographic bias or a selection process that fails to adequately recognize the economic and innovation potential outside of established southern hubs.

**Table 3: Economic Impact of Key Yorkshire Universities (Individual Contributions)**

| University | Total Economic Impact (UK/Regional) | Jobs Supported (Total/Regional FTE) | Research & Knowledge Exchange Impact | Spin-outs/Investment Attraction | Relevant Academic Year |
|---|---|---|---|---|---|
| University of Leeds | £1.23bn (local economy), £211m (student spending) | 8,700 staff (3rd largest employer in Leeds) | £190.9m (research grants & contracts income) | N/A | 2019-2024 |
| University of Sheffield | £4.82bn (UK), £1.24bn (Yorkshire & Humber) | 22,990 (UK total) | £1.8bn | 138 spin-outs/start-ups (60% in South Yorkshire) | 2022-23 |
| University of York | £1.78bn (UK), £980m (York & North Yorkshire) | 9,795 (UK total), 8,645 (York & North Yorkshire) | £828m | BioYorkshire project, XR Stories partnership | 2023-24 |
| University of Hull | £900m+ (UK), £370m (local Humber region) | ~8,000 (UK total), 6,000+ (Hull/Humber) | World-class expertise in flooding, renewable energy, environment, | Aura Innovation Centre, SparkFund (130+ jobs, 63 new products) | 2020 |

| University | Total Economic Impact (UK/Regional) | Jobs Supported (Total/Regional FTE) | Research & Knowledge Exchange Impact | Spin-outs/Investment Attraction | Relevant Academic Year |
|---|---|---|---|---|---|
| | | | slavery | | |
| Sheffield Hallam University | £400m+ (Sheffield city region) | N/A | KTPs: £2bn+ to UK economy (decade to 2020) | Significant campus masterplan (£220m) | Various (KTPs up to 2020, economic impact annual) |

## 3.3 R&D Spending and Government Funding Comparison

The overall landscape of UK R&D highlights the significant role of the higher education sector. In 2023, the higher education sector performed £16.3 billion of the UK's total R&D, accounting for 23% of the national expenditure. However, a persistent challenge for universities is the funding gap: in 2020-21, UK universities spent £15.1 billion on research delivery but received only £10.9 billion in funding, resulting in a £4.2 billion deficit. This shortfall is frequently covered by other income sources, notably international student fees, which currently subsidize university-based research. The Office for Students has warned that 72% of providers could face deficits by 2025/26, with a total deficit of £1.6 billion, and a proposed 6% levy on international student fees could further exacerbate financial pressures, potentially leading to less research.
A comparative analysis of R&D funding for GTF institutions versus major Northern and Yorkshire universities reveals notable disparities:
**GTF Institutions (latest available data):**

- **University of Bath:** Received £4.35 million from the GTF. Its total Quality-related research (QR) and Higher Education Innovation Funding (HEIF) grant for 2023-24 was £9,540,310. In 2023-24, its total income was £391.13 million, with research grants and contracts contributing £50.65 million.
- **Queen's University Belfast:** Awarded £4.35 million from the GTF. The university has £173 million allocated to support global research engagement.
- **University of Cambridge:** A GTF recipient. While specific total R&D expenditure for Cambridge is not detailed in the provided information, the UK's overall R&D expenditure was £70.7 billion in 2022, with the HE sector performing 23%. Cambridge benefits from significant philanthropic funding, such as the Gates Cambridge Scholarship, which covers full study costs , and participates in numerous university-wide funding competitions.
- **Cardiff University:** A GTF recipient. In 2023-24, its total income was £649.1 million, including £126.5 million from research grants and contracts and £83.2 million from funding body grants.
- **Imperial College London:** A GTF recipient. Its total income grew to £1,329.4 million in 2023-24. Research grant and contract income increased to £396.7 million in 2023-24, and funding body grants amounted to £165.4 million. Total expenditure was £1,327.2 million in 2023-24.
- **John Innes Centre:** Awarded an equal share of the GTF. The majority of its funding comes from UK government sources, primarily as a UKRI-BBSRC strategically supported institute. Its total gross income for 2023-24 was £74.41 million, with £33.73 million from government grants. Its research is estimated to have a UK-level impact of £1.578 billion over 10 years, with a return on investment of £15.29 per £1 invested.
- **MRC Laboratory of Molecular Biology:** A GTF recipient. Its main funding source is the

Medical Research Council (MRC), part of UKRI, which provides a fixed single budget over five years, allowing for flexible allocation. Its technology transfer activities have generated over £700 million in commercial income for UK science.

- **University of Oxford:** A GTF recipient. Its total research income for 2023/24 was £944.9 million, of which £778.9 million was from externally funded grants and contracts. Research Council funding accounted for £181.8 million and UK and overseas industry for £148.0 million.
- **University of Southampton:** Secured £4.35 million from the GTF.
- **University of Strathclyde:** A GTF recipient. Its annual income for 2023-24 was £432.5 million, with £118.6 million from research grants and contracts.
- **University of Warwick:** Awarded £4.35 million from the GTF. Its research grants and contracts income was £146.5 million in 2023/24, and total QR and HEIF grant was £44,697,530 for 2025-26.

**Major Northern and Yorkshire Universities (latest available data):**

- **University of Manchester:** Research income was £268 million in 2023/24, with government funding at £139 million. Total expenditure was £1,323.2 million, with £213 million spent directly on research.
- **University of Liverpool:** Total income of £675 million in 2022/23, including £118 million in research income.
- **Newcastle University:** Total annual income of £475 million in 2014-15, with £105 million in research awards.
- **University of Leeds:** Had an income of £1.05 billion in 2023-24, with £190.9 million from research grants and contracts, and an expenditure of £748.1 million.
- **University of Sheffield:** Its annual income for 2023-24 was £887.9 million, of which £185.8 million was from research grants and contracts, with an expenditure of £651.4 million. It attracted the highest engineering research funding in the UK for two consecutive years (2021/22: £121m, 2022/23: £110m), with over £70 million from industry and UK government each.
- **University of York:** Its research generated £97 million income in 2023/24.
- **University of Hull:** Total QR and HEIF grant was £9,540,310 for 2023-24. Its average annual income from charities was £1,869,250 and from businesses was £1,423,500.
- **Sheffield Hallam University:** Its research income comes from a variety of bids granted by EU governments, charities, industries, and public corporations.

**Table 4: Comparative R&D Funding: Selected GTF Institutions vs. Major Northern/Yorkshire Universities (2022/23-2023/24)**

| Institution | Total Income (approx.) | Research Grants & Contracts Income (approx.) | Total Expenditure (approx.) | Government Funding (direct/QR/HEIF) (approx.) | GTF Award |
|---|---|---|---|---|---|
| **GTF Institutions** | | | | | |
| University of Bath | £391.1m | £50.65m | £315.9m | £9.54m (QR/HEIF) | £4.35m |
| Cardiff University | £649.1m | £126.5m | £680m | £83.2m | £4.35m (equal share) |
| Imperial | £1,329.4m | £396.7m | £1,327.2m | £165.4m | £4.35m (equal |

| Institution | Total Income (approx.) | Research Grants & Contracts Income (approx.) | Total Expenditure (approx.) | Government Funding (direct/QR/HEIF) (approx.) | GTF Award |
|---|---|---|---|---|---|
| College London | | | | | share) |
| University of Oxford | £944.9m (total research income) | £778.9m (external research income) | N/A | £181.8m (Research Council) | £4.35m (equal share) |
| University of Warwick | £855.4m | £146.5m | N/A | £44.7m (QR/HEIF) | £4.35m |
| **Major Northern/Yorkshire Universities** | | | | | |
| University of Manchester | £1.4bn | £268m | £1,323.2m | £139m | £0 |
| University of Leeds | £1.05bn | £190.9m | £748.1m | N/A | £0 |
| University of Sheffield | £887.9m | £185.8m | £651.4m | £70m+ (industry/govt for engineering R&D) | £0 |
| University of York | N/A | £97m (research income) | N/A | N/A | £0 |
| University of Hull | N/A | N/A | N/A | £9.54m (QR/HEIF) | £0 |
| Sheffield Hallam University | N/A | N/A | N/A | N/A | £0 |

*Note: Data years vary slightly based on available information (mostly 2022/23 or 2023/24). "N/A" indicates data not explicitly found in the provided snippets.*

The comparison reveals a significant disparity in direct, targeted government funding for talent attraction. While Northern and Yorkshire universities demonstrate substantial research income and expenditure, comparable to or exceeding some GTF recipients in overall financial scale, they received no direct allocation from the Global Talent Fund. For instance, the University of Manchester's research income of £268 million and total expenditure of over £1.3 billion are on par with, or greater than, several GTF institutions. Similarly, the University of Sheffield's £185.8 million in research grants and contracts and its leading position in UK engineering research funding underscore its capacity for world-class R&D.

This pattern suggests that the GTF's selection criteria, by focusing on specific indicators of international engagement and competitive funding success, overlooks the broader R&D capacity and economic contributions of major regional universities. The absence of these institutions from the GTF implies that a significant portion of the UK's research landscape, particularly outside the South East, is not directly benefiting from this targeted talent investment,

potentially reinforcing existing regional imbalances in research funding and opportunity.

## 3.4 Notable Research Achievements from Northern and Yorkshire-based Universities

Despite their exclusion from the Global Talent Fund, universities in the North of England, and particularly in Yorkshire, possess a rich history and ongoing record of world-class research achievements that demonstrate their capacity for groundbreaking discoveries and innovation.
**Northern Universities (beyond Yorkshire):**

- **The University of Manchester** boasts an academic heritage marked by 26 Nobel Prize winners. It is recognized as the birthplace of nuclear physics, where Ernest Rutherford first split the atom. The world's first stored-program computer was developed there, and Alan Turing pioneered artificial intelligence during his tenure. The Jodrell Bank Observatory, home to the iconic Lovell Telescope, is set to become the central control hub for the Square Kilometre Array, the world's largest radio telescope.
- **The University of Liverpool** has made groundbreaking discoveries in therapeutics innovation, transforming current research in infectious diseases and global health into real-world medical solutions. Its researchers are exploring cutting-edge AI-driven drug discovery approaches for critical illness treatments.
- **Newcastle University** is a world-leader in rare disease research, consistently pushing the boundaries of genomic medicine. Recent landmark studies have identified 69 previously unidentified genetic determinants of rare diseases, including uncommon forms of epilepsy and schizophrenia, using novel analytical approaches. Newcastle also leads national and international collaborations, such as the LifeArc Centre for Acceleration of Rare Disease Trials, to improve clinical trials and speed up treatment development for rare diseases.

**Yorkshire-based Universities (Deep Dive):**

- **University of Leeds:** Has made significant strides in **advanced manufacturing**, particularly in polymer composites. Its research led to a cost-effective process for manufacturing lightweight, high-impact resistant polymer composites through "hot compaction," which has been commercialized for diverse applications including luggage (Samsonite's Curv® material), car parts, and anti-ballistic body armor. This innovation has revolutionized industries and generated substantial commercial success. The university is also involved in radical advancements in composite materials for high-volume carbon fiber reinforced parts for automotive and aerospace sectors.
- **University of Sheffield:** Demonstrates leadership in **digital health** and **advanced manufacturing**. In digital health, its researchers have developed a pioneering AI tool to personalize treatment plans for depression, showing significantly improved outcomes in clinical trials. Another AI tool automatically detects heart chambers on MRI scans, saving doctors up to 30 minutes per scan and aiding earlier diagnosis. Sheffield leads the South Yorkshire Digital Health Hub, a £4 million initiative exploring data analytics and AI for patient care. In advanced manufacturing, the University of Sheffield's Advanced Manufacturing Research Centre (AMRC) has a 24-year partnership with Boeing, leading to Boeing's only manufacturing site in Europe being built in Sheffield. The AMRC has attracted over £260 million of inward investment, trained over 1,700 apprentices, and created 520 high-value jobs in South Yorkshire, with potential for 3,000 UK jobs long-term. The university also leads the National Alternative Protein Innovation Centres (NAPIC), a

£38 million initiative for planet-friendly protein alternatives.

- **University of York:** Excels in **arts and humanities** research. Its Humanities Research Centre provides leadership for research, impact, and public engagement across the Faculty of Arts & Humanities. The university's History of Art department is ranked first in the UK for its impact and research environment. Notable projects include the conservation of the Great East Window at York Minster ("Stained Glass Apocalypse") and research on "De Stijl and the Netherlands' Cultural Canon". The university also focuses on creative industries through partnerships like XR Stories and the CoSTAR Live Lab.
- **University of Hull:** Is a research center of excellence in **renewable energy** and environmental challenges. Its Energy & Environment Institute leads cutting-edge advances in the offshore wind sector and is establishing a national center for chronic wound care research. The university offers an MSc Master's Degree Apprenticeship in Offshore Wind Energy Engineering and a new MSc Flood Risk Management course, demonstrating its commitment to tackling climate change threats and increasing flood resilience. Its Aura Innovation Centre works with SMEs to develop renewable energy technologies and strengthen the low-carbon supply chain.
- **Sheffield Hallam University:** Has a strong record in applied research and partnerships. Its Biomolecular Sciences Research Centre, in partnership with Paxman, achieved a breakthrough in preventing chemotherapy-induced hair loss by combining scalp cooling with antioxidants, a discovery with significant patient impact. The university's Sport Industry Research Centre (SIRC) conducts studies on the economic impact of major events, such as The Open golf championship, which generated over £300 million for Scotland. Hallam's Knowledge Transfer Partnerships (KTPs) have a clear impact, contributing over £2 billion to the UK economy in the decade leading up to 2020 by helping businesses innovate and grow, such as developing the "Gripple fastener" and heat recovery solutions for commercial kitchens. Its Advanced Wellbeing Research Centre (AWRC) develops devices for early stroke detection and uses virtual reality for pain reduction and rehabilitation.

These extensive and diverse research achievements from Northern and Yorkshire-based universities unequivocally demonstrate their capacity for world-class research, significant societal impact, and substantial contributions to the UK's innovation landscape. Their exclusion from the Global Talent Fund, despite these proven capabilities, highlights a critical oversight in the fund's distribution and reinforces concerns about a selection process that does not fully recognize or leverage the distributed excellence across the entire UK research base.

# 4. Broader Context of Regional Investment Disparity

## 4.1 Major Public Infrastructure Projects (Past 10-15 years): London/South East vs. North

An examination of major public infrastructure projects over the past 10-15 years reveals a consistent pattern of disproportionate investment favoring London and the South East over the North of England.

**London and the South East:**

- **Crossrail (Elizabeth Line):** This project, connecting Reading in the west to Abbey Wood in the east across London, has been one of the largest regulated procurements in the UK. Its cost has been cited between £14.8 billion and £18.8 billion. The project involved

digging 42km of new tunnels under London, navigating existing underground infrastructure, and boosting the economy by connecting more people to more places in and around the capital.

- Other significant projects in London and the South East include the Lower Thames Crossing (estimated £10 billion, connecting Kent and Essex) , Brent Cross Town regeneration (£8 billion) , London Gatwick Airport Northern Runway (£2.2 billion) , and London Gateway Port Building Extensions (£1 billion). Historically, large-scale projects like the Thames Barrier, Canary Wharf Development, and the Olympic Park have also concentrated investment in the capital.

**The North of England:**

- **Northern Powerhouse Rail (NPR):** This project, intended to better connect Liverpool and Manchester, has been allocated £12 billion in rail investment for the North. However, the scope of NPR has been significantly impacted by the truncation of HS2. The government is adapting the High Speed Rail (Crewe-Manchester) Bill to deliver NPR only, removing the scope south of the Parish of Millington and Rostherne, which was originally included for HS2.
- **High Speed 2 (HS2):** Initially conceived as a Y-shaped network connecting London to Birmingham, Manchester, and Leeds, its estimated cost ranged from £32.7 billion to £98 billion for the full network. However, the eastern leg from Birmingham to Leeds was scrapped in March 2023, and construction of Phase 2a (Birmingham to Crewe) was delayed. The overall cost for the truncated line has been estimated as high as £80 billion at current prices, with significant uncertainty remaining. The truncation of HS2's northern legs represents a substantial reduction in planned high-speed rail investment for the North, impacting connectivity and economic benefits that were initially envisioned.
- Other notable projects in the North include the Eastern Green Link 2, a £5 billion subsea cable connecting Aberdeenshire to North Yorkshire. While smaller-scale construction projects occur (e.g., Rectory Lane Energy Storage System at £60m in Cheshire West & Chester, Phoenix Works Flats and Houses at £28m in Manchester) , they do not match the scale or transformative impact of the major, multi-billion-pound schemes concentrated in the South East.

The disparity in public infrastructure spending is evident. While London benefits from massive, transformative projects like Crossrail, designed to enhance its already robust transport network and economic activity, the North has seen significant reductions or delays in its major rail projects, particularly with the curtailment of HS2's northern legs. This pattern of investment reinforces the economic imbalance, as large-scale infrastructure projects are crucial for improving connectivity, stimulating regional economies, and attracting further private investment. The continued concentration of such high-value projects in the South East, while the North faces scaled-back ambitions, creates a structural disadvantage that hinders the "levelling up" agenda.

## 4.2 Overall Public and Private Investment Trends: North vs. London/South East

Beyond specific infrastructure projects, broader public and private investment trends in the UK consistently demonstrate a significant disparity between the North of England and London and the South East. Data from March 2025 indicates London's intensifying dominance, holding 31.9% of the UK's high-growth companies, a 5.7% rise, while most other regions experienced

drops in proportion. The South East maintains its position as the second-most concentrated region for high-growth companies, benefiting from the "golden triangle" of universities in Oxford, Cambridge, and London. When collated, London and the South (including South East, South West, and East of England) account for a combined 60.8% of high-growth companies, leaving the North with just 16.6% and the Midlands with 10.6%.

In terms of investment value, London accounts for the lion's share of growth, with a net increase of £70.2 billion. While some Northern regions, like the North East, saw an increase in fundraising events and investment value (nearly tripling from £788 million to £2.31 billion), their share of total UK deals declined from 2.6% to 1.9%, indicating slower relative growth compared to the South. The average value of fundraisings in the North West (£2.8 million) and West Midlands (£2.3 million) is respectable, but still trails London (£3.3 million) and the East of England (£2.9 million).

Disparities are also evident in grant distribution. London has experienced a sharp rise in grant funding, with its share increasing from 16.4% in 2015 to 23.0% in 2025, contrasting with other UK regions where the proportion of grants remained stable or decreased. The North East, despite receiving high-value grants historically, saw its share of UK grants decline from 5.3% to 4.3%. This suggests that while the region still benefits from some high-value grants, its overall funding allocation has been deprioritized relative to the capital.

Reports from think tanks like IPPR North and the Centre for Cities consistently highlight these regional inequalities. IPPR North emphasizes that the "levelling up" challenge is significant, noting that the £0.5 billion allocated to the North from the Levelling Up Fund represents an investment of just £32 per person, starkly contrasting with a £413 per person fall in annual council service spending from 2009/10 to 2019/20. The Centre for Cities points out that London's economic output is 2.5 times that of the North East, and that the ability of cities to attract and grow innovative, cutting-edge businesses, which drives prosperity, varies significantly. For instance, Cambridge and London have three times more cutting-edge businesses than Middlesbrough and Doncaster. The Centre for Cities argues that sustained investment in high-value-added jobs and firms, coordinated by regional bodies, is crucial for increasing wealth in poorer regions.

The overarching trend is clear: investment, innovation, and business growth remain disproportionately concentrated in London and the South East. The gradual increase in funding to some Northern regions has not been sufficient to counterbalance the overwhelming flow of capital towards the South. This persistent imbalance in public and private investment creates a challenging environment for regional rebalancing, as it limits the capacity of Northern regions to attract and retain talent, develop high-growth industries, and ultimately achieve the economic parity envisioned by the "levelling up" agenda.

## 4.3 Public Opinion on "Levelling Up" Agenda

Public perception of the government's "levelling up" agenda reveals a complex mix of understanding, support in principle, and skepticism regarding its effectiveness. A YouGov poll found that 42% of the public understood what "levelling up" meant, a relatively high figure for a government policy. Understanding was particularly high in the North and Midlands, the regions where the policy is most needed.

However, despite this understanding, public confidence in the government's ability to achieve its "levelling up" goals is considerably lower. Almost half (49%) of people living in Conservative-voting former "Red Wall" seats expressed a lack of confidence that their area would be levelled up. This suggests a disconnect between the policy's stated aims and the

perceived reality on the ground.
There is also a clear North-South divide in perceptions of the economic benefits of "levelling up." While 45% of people in the Midlands and North believe their local economy will benefit, this figure drops significantly to only 16% in London and the South East. In regions like the North East, North West, Yorkshire and the Humber, and the East Midlands, between 40% and 48% of people anticipate economic benefits from "levelling up". This regional variation in optimism underscores the differing expectations and experiences across the country regarding the policy's impact.
The public's priorities for "levelling up" often align with practical economic improvements, such as better employment prospects and local transport links. There is a recognition that creating new, good private sector jobs is vital, a task acknowledged as difficult and potentially taking decades. The skepticism surrounding the "levelling up" agenda's implementation, particularly in the regions it aims to benefit most, indicates that current policies, including funding distributions like the Global Talent Fund, are not yet translating into tangible improvements or fostering widespread belief in a more equitable future.

# 5. International Comparisons

Examining how other developed nations approach regional science funding and talent attraction provides valuable context and potential alternative models for the UK.

## 5.1 Regional Science Funding Models: Germany and United States

**Germany: Decentralized University System** Germany operates a highly decentralized university system, where educational and research autonomy largely rests with the individual states (Länder). This structure contrasts with the more centralized approach often seen in the UK. The German science landscape is characterized by a high number of diverse players, including both higher education institutions and non-university research institutions, which collectively drive excellence.

- **Funding Structure:** Research funding is a joint responsibility of the Federal Government and the Länder. Key funding bodies include the Deutsche Forschungsgemeinschaft (DFG) and various departmental research institutions. This dual-level funding system allows for both national strategic priorities and regional specificities to be addressed.
- **Diversity and Collaboration:** The diversity of institutions is considered an explicit strength, with different entities complementing each other through specialized tasks and activities. Strong emphasis is placed on manifold forms of cooperation between institutions and with industry.
- **Autonomy and Freedom:** Freedom of science is a cornerstone, ensuring both individual academic freedom and institutional autonomy. This decentralized model encourages a distributed network of research excellence rather than concentrating it in a few major hubs.

**United States: State-by-State Funding Structures** The United States employs a state-by-state funding structure for its universities, with significant federal funding also playing a crucial role, often distributed across states based on competitive grants.

- **Federal Funding:** Federal agencies, such as the National Institutes of Health (NIH) and the National Science Foundation (NSF), award substantial research grants to universities across all states. This federal funding is a primary driver of higher education R&D

expenditure.

- **State-Level Investment:** Each state also has its own public university system, which receives funding from state legislatures. This state-level investment contributes to regional research capacity and economic development.
- **Concentration and Disparity:** While funding is distributed across states, there is still a notable concentration of R&D activity in a few top-performing states. For instance, in FY 2016, California ($8.2 billion), New York ($5.3 billion), and Texas ($4.7 billion) led all states in R&D funding at colleges and universities. These states also saw the largest dollar amount increases in R&D expenditures. This indicates that while the system is decentralized, existing strengths tend to attract more funding, similar to the "rich get richer" phenomenon observed in the UK. However, the sheer scale and breadth of the US system mean that even states with lower R&D activity still receive significant funding compared to many UK regions.

These international models suggest that while a degree of funding concentration may be inevitable in competitive research environments, a more decentralized system, as seen in Germany, or a large-scale federal funding mechanism combined with state-level investment, as in the US, can foster a broader distribution of research capabilities across a wider geographic area. This contrasts with the UK's GTF, which appears to reinforce existing centralizations.

## 5.2 EU and France Talent Attraction Schemes

The European Union and France have implemented various schemes to attract research talent, often with substantial funding and broad objectives. These programs emphasize mobility, collaboration, and career development.

**European Union Schemes:**

- **"Choose Europe for Science" Initiative:** The European Commission has consolidated a "Choose Europe for Science" package, highlighting billions of euros in opportunities for researchers at all career stages. This initiative is backed by a new €500 million package for 2025-27, aiming to make Europe a magnet for researchers by promoting a values-driven research environment and high living standards.
- **Horizon Europe:** This is the EU's flagship funding program for research and innovation, with an indicative budget of €93.5 billion for 2021-2027. It facilitates collaboration, strengthens research impact, and aims to develop and implement EU policies while tackling global challenges. A proposed Horizon Europe Framework Programme for 2028-2034 has a budget of €175 billion.
- **Marie Skłodowska-Curie Actions (MSCA):** MSCA supports exceptional research and innovation through competitive grants and mobility schemes for researchers at all career stages. Key calls for 2025 include:
    - **MSCA Doctoral Networks:** Worth €597.8 million, for recruiting and training doctoral candidates in academia and other sectors.
    - **MSCA & Citizens:** A smaller scheme (€16 million) aimed at bringing science to the public through events and campaigns.
    - An additional €10 million is allocated to support displaced Ukrainian researchers through a fellowship scheme.
    - MSCA promotes cross-border mobility, interdisciplinary training, and cross-sector collaboration, building Europe's research capacity and fostering long-term career growth.
- **European Research Council (ERC):** With a budget of over €16 billion from 2021 to

2027, the ERC funds creative researchers of any nationality and age across Europe. Notably, for Advanced Grants, researchers moving from non-EU countries can apply for an additional €2 million to cover eligible start-up costs, including personnel, equipment, and access to large facilities.

**France's Talent Attraction Programs:** France utilizes a multi-year "passeport talent" residence permit designed to attract foreign employees, self-employed individuals, researchers, and investors to develop France's economic attractiveness.

- **"Passeport Talent" for Researchers:** This permit is issued to researchers with an employment contract exceeding three months, directly linked to a company's R&D project, or coming to conduct research/teach at university level. It requires a diploma equivalent to at least a Master's degree and a hosting agreement with an accredited institution. For those under EU or multilateral mobility programs, a "researcher - mobility" visa is issued, potentially valid for up to four years.
- **ANR (French National Research Agency):** The ANR offers various funding instruments to support and strengthen research partnerships between public and private sectors. This includes programs like "LabCom" for joint public-private laboratories, "Industrial Chairs" for ambitious research programs with industrial applications (co-funded by ANR and companies), and "Challenge" programs for exploring multiple research approaches to complex problems. The ANR also collaborates with foreign funding agencies on international calls for proposals to promote cooperation between French and international teams.
- **Scholarships and Grants:** The French Foreign Ministry awards numerous scholarships to foreign students, including the prestigious Eiffel (Master's/Doctoral) and Major programs. The Ministry of Higher Education also provides scholarships based on social criteria and funds doctoral contracts. Regional authorities in France also allocate scholarships and doctoral/postdoctoral grants to foreign students. Campus France provides a comprehensive directory of available scholarships.

These international schemes demonstrate a multifaceted and substantial commitment to attracting global research talent, often with significant financial backing and a clear emphasis on fostering broad collaboration and mobility. The EU's approach, in particular, with its large-scale, cross-border programs and explicit provisions for non-EU researchers, offers a model of integrated talent attraction that aims to strengthen research capacity across a wider geographical area than the UK's GTF appears to achieve. France's "passeport talent" system streamlines the immigration process for skilled individuals, complementing its national research funding initiatives.

# 6. Conclusions

The analysis of the UK's Global Talent Fund (GTF) within the broader context of regional inequality reveals a significant tension between national policy aspirations and practical implementation. While the GTF's objective to attract world-leading researchers for economic growth is commendable, its distribution mechanism appears to reinforce, rather than mitigate, existing geographical disparities in research funding and talent concentration.

The selection of the twelve GTF recipient institutions demonstrates a clear bias towards London and the South East, particularly the established "Golden Triangle" of Oxford, Cambridge, and London. Six of the twelve institutions are located in this region, with no universities from the North of England receiving funding. This geographic concentration is a direct outcome of the

GTF's selection criteria, which prioritize quantitative indicators such as success in securing competitive international funding (ERC/MSCA), existing international academic staff percentages, and Global Talent Visa usage. These criteria, while seemingly objective, inherently reward institutions with pre-existing strengths, extensive infrastructure, and established international networks. This creates a self-reinforcing cycle where already well-resourced institutions continue to attract a disproportionate share of high-value funding, perpetuating a "rich get richer" dynamic in the research ecosystem. This approach, by focusing on existing excellence rather than fostering distributed capacity, fundamentally misaligns with the government's stated "levelling up" agenda.

In stark contrast to their exclusion from the GTF, universities in the North of England, and specifically within Yorkshire, demonstrate substantial and quantifiable economic and academic contributions. Collectively, Yorkshire universities contribute billions in GVA and support tens of thousands of jobs, acting as powerful economic engines for their regions. Individual institutions like the University of Manchester, University of Leeds, University of Sheffield, University of York, University of Hull, and Sheffield Hallam University exhibit world-class research capabilities in critical areas such as advanced manufacturing, digital health, renewable energy, and arts and humanities. Their significant R&D income and impactful research achievements underscore their capacity to attract and cultivate top talent, yet they were entirely overlooked by the GTF. This represents a substantial missed opportunity to leverage and amplify existing regional strengths for broader national benefit.

The observed disparities in GTF allocation are not isolated but reflect a broader pattern of regional investment imbalance. Analysis of major public infrastructure projects over the past 10-15 years reveals a consistent concentration of multi-billion-pound investments in London and the South East (e.g., Crossrail), while major Northern projects (e.g., HS2 Northern legs) have faced truncation or delays. Similarly, overall public and private investment trends show London's increasing dominance in high-growth companies and grant funding, further widening the economic gap with Northern regions. Public opinion polls reflect this reality, with significant skepticism in Northern "Red Wall" constituencies about the effectiveness of the "levelling up" agenda, despite a general understanding of its aims.

International comparisons offer valuable insights into alternative models for regional science funding and talent attraction. Germany's decentralized university system, with joint federal and state funding, fosters a distributed network of excellence. The United States, while still exhibiting some concentration, utilizes a vast federal funding mechanism combined with state-level investment to support research across a wider geographic spread. European Union initiatives like "Choose Europe for Science" and the Marie Skłodowska-Curie Actions, with their substantial budgets and emphasis on mobility and broad collaboration, demonstrate a commitment to attracting talent across the continent. France's "passeport talent" system also streamlines talent immigration, complemented by diverse national research funding.

In conclusion, the UK's Global Talent Fund, as currently implemented, appears to be a missed opportunity to genuinely advance regional rebalancing. By exclusively rewarding established research hubs based on past performance, it risks exacerbating existing inequalities and failing to harness the full, distributed potential of the UK's academic landscape. A more strategic, regionally sensitive approach to science funding and talent attraction, perhaps drawing lessons from international models, is imperative to ensure that the "levelling up" agenda translates from rhetoric into tangible, equitable investment across all parts of the United Kingdom.

## Works cited

1. 'Levelling Up' the UK: Reinforcing the Policy Agenda - ePrints Soton - University of Southampton, https://eprints.soton.ac.uk/482193/1/Reinforcing_Levelling_Up_REVISED_.pdf 2. Why does the Global Talent Fund miss out the North of England? Chair writes to Science Minister about plans to attract overseas talent - Committees, https://committees.parliament.uk/committee/135/science-innovation-and-technology-committee/news/208893/why-does-the-global-talent-fund-miss-out-the-north-of-england-chair-writes-to-science-minister-about-plans-to-attract-overseas-talent/ 3. Why does the Global Talent Fund miss out the North of England? Chair writes to Science Minister about plans to attract overseas talent - Key updates - PolicyMogul, https://policymogul.com/key-updates/47537/why-does-the-global-talent-fund-miss-out-the-north-of-england-chair-writes-to-science-minister-about-plans-to-attract-overseas-talent?topic-id=none 4. UK universities and research institutes delivering the Global Talent Fund announced, https://www.ukro.ac.uk/news/uk-universities-and-research-institutes-delivering-the-global-talent-fund-announced/ 5. Leading lights of UK research spearhead search for world's best ..., https://www.gov.uk/government/news/leading-lights-of-uk-research-spearhead-search-for-worlds-best-talent 6. Correspondence to the Committee from Minister of State, relating to ..., https://committees.parliament.uk/publications/49085/documents/258612/default/ 7. Queen's awarded £4.35 million in new funding to recruit world's top researchers | Staff Gateway | Queen's University Belfast, https://www.qub.ac.uk/sites/StaffGateway/News/queens-awarded-funding-recruit-worlds-top-researchers.html 8. Major funding boost to bring world leading researchers to the John Innes Centre, https://www.jic.ac.uk/press-release/major-funding-boost-to-bring-world-leading-researchers-to-the-john-innes-centre/ 9. University of Warwick awarded £4.35 million to attract world-leading research talent, https://ebs.publicnow.com/view/DFBAB80389740B02D8A71E5FE4AD012774C2DA82 10. University of Bath to receive £4.35m from Global Talent Fund to attract world-leading researchers, https://www.bath.ac.uk/announcements/university-of-bath-to-receive-4-35m-from-global-talent-fund-to-attract-world-leading-researchers/ 11. Research - University of Bath, https://www.bath.ac.uk/topics/research/ 12. Global | Research - Queen's University Belfast, https://www.qub.ac.uk/Research/our-research/global/ 13. Queen's University Belfast awarded £4.35 million in new funding to recruit world's top researchers - Sync NI, https://syncni.com/article/13795/queen-s-university-belfast-awarded-4-35-million-in-new-funding-to-recruit-world-s-top-researchers 14. Research with global reach - University of Birmingham, https://www.birmingham.ac.uk/international/impact/research-global 15. Support Cambridge - University of Cambridge, https://www.philanthropy.cam.ac.uk/ 16. Cardiff University | Study In Wales, https://www.studyinwales.ac.uk/universities/cardiff-university 17. Our research environment - Cardiff University, https://www.cardiff.ac.uk/research/our-research-environment 18. Our research environment - Imperial College London, https://www.imperial.ac.uk/research-and-innovation/about-imperial-research/research-culture/ 19. Our approach | Research - Imperial College London, https://www.imperial.ac.uk/research-and-innovation/about-imperial-research/enduring-excellence-in-research/our-approach/ 20. Research & Impact | John Innes Centre, https://www.jic.ac.uk/research-impact/ 21. John Innes Centre - Norwich Research Park, https://www.norwichresearchpark.com/partner/john-innes-centre 22. Research - MRC Laboratory of Molecular Biology - University of Cambridge, https://www2.mrc-lmb.cam.ac.uk/research/ 23. Goals and Research Focus - MRC Laboratory of

Molecular Biology, https://www2.mrc-lmb.cam.ac.uk/research/goals-and-research-focus/ 24. Research Assistant: Character Strengths and Neurodiversity at University of Oxford, https://www.jobs.ac.uk/job/DNX787/research-assistant-character-strengths-and-neurodiversity 25. Southampton secures £4.35m to attract world-leading research talent, https://www.southampton.ac.uk/news/2025/07/southampton-secures-435m-to-attract-worldleading-research-talent.page 26. Strathclyde 2030 World-leading research, https://www.strath.ac.uk/whystrathclyde/strathclyde2030/world-leadingresearch/ 27. Our Expertise | Research - Warwick Business School, https://www.wbs.ac.uk/research/our-expertise/ 28. N8 economic impact report - Durham University, https://www.durham.ac.uk/news-events/latest-news/2025/05/n8-economic-impact-report/ 29. londoneconomics.co.uk, https://londoneconomics.co.uk/blog/publication/the-economic-and-social-impact-of-the-university-of-manchester-february-2025/#:~:text=London%20Economics%20were%20commissioned%20to,at%20approximately%20%C2%A37.3%20billion. 30. University of Manchester is economic and social powerhouse of the North in latest impact report, https://www.manchester.ac.uk/about/news/university-of-manchester-is-economic-and-social-powerhouse-of-the-north-in-latest-impact-report/ 31. University contributes £1.2bn to the Liverpool City Region - Articles, https://alumni.liv.ac.uk/news/articles/university-contributes-1-2bn-to-the-liverpool-city-region 32. www.ncl.ac.uk, https://www.ncl.ac.uk/media/wwwnclacuk/pressoffice/files/The%20new%20report.pdf 33. New report reveals economic impact of Newcastle University, https://www.ncl.ac.uk/press/articles/archive/2017/02/economicimpact/ 34. Impact of Higher Education in Yorkshire, https://yorkshireuniversities.ac.uk/impact-of-higher-education/ 35. Generating growth and opportunity in Yorkshire and the Humber - Universities UK, https://www.universitiesuk.ac.uk/sites/default/files/field/downloads/2024-07/generating-growth-and-opportunity-yorkshire-07-24.pdf 36. University of Leeds - Wikipedia, https://en.wikipedia.org/wiki/University_of_Leeds 37. New report indicates University of Sheffield generates billions for local and UK economy, https://thetab.com/2025/03/31/new-report-indicates-university-of-sheffield-generates-billions-for-local-and-uk-economy 38. University of Sheffield generates £4.82 billion for South Yorkshire and UK economies, https://sheffield.ac.uk/news/university-sheffield-generates-ps482-billion-south-yorkshire-and-uk-economies 39. Our economic and social impact | About us - The University of Sheffield, https://sheffield.ac.uk/about/economic-impact-assessment 40. The economic and social impact of the University of Sheffield, https://sheffield.ac.uk/sites/default/files/2025-03/LE%20-%20Economic%20impact%20of%20University%20of%20Sheffield%20-%20Final%20Report.pdf 41. Our economic impact - University of York, https://www.york.ac.uk/about/economic-impact/ 42. The economic impact of the University of York's activities, https://www.york.ac.uk/media/abouttheuniversity/londoneconomicsreport/University-of-York-Economic-Impact-Report-Updated-March-2025.pdf 43. Huge economic impact of University of Hull revealed in new study, https://www.hull.ac.uk/work-with-us/more/media-centre/news/2020/huge-economic-impact-of-university-of-hull-revealed-in-new-study 44. Sheffield Hallam University - Knowledge Exchange Framework, https://kef.ac.uk/data/10005790 45. New data values international students' benefit to Sheffield economy at £770m, https://www.shu.ac.uk/news/all-articles/latest-news/international-students-benefit-sheffield-econ

omy 46. When lightbulb moments become reality: how academics at Sheffield Hallam University are helping firms innovate and grow | Driving Future Economies | The Guardian, https://www.theguardian.com/driving-future-economies/2025/jun/09/sheffield-hallam-innovation-academics-helping-business-grow 47. University of Bath generates over half a billion pounds for local economy – new report, https://www.bath.ac.uk/announcements/university-of-bath-generates-over-half-a-billion-pounds-for-local-economy-new-report/ 48. Research and development expenditure - Office for National Statistics, https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/researchanddevelopmentexpenditure 49. Funding - Universities UK, https://www.universitiesuk.ac.uk/what-we-do/policy-and-research/publications/features/research-and-innovation-facts-and/funding 50. The true cost of the Government's proposed levy on international students - HEPI, https://www.hepi.ac.uk/2025/08/08/the-true-cost-of-the-governments-proposed-levy-on-international-students/ 51. Higher education finances and funding in England - The House of Commons Library, https://commonslibrary.parliament.uk/research-briefings/cbp-10037/ 52. University of Hull grant data tables 2023 to 2024 - Funding - UKRI, https://funding.re.ukri.org/files/html/grant-data-tables-2023-to-2024/hull 53. What is the expenditure of HE providers? - HESA, https://www.hesa.ac.uk/data-and-analysis/finances/expenditure 54. Investment in Innovation - Cambridge Industrial Innovation Policy, https://www.ciip.group.cam.ac.uk/innovation/investment-in-innovation-2025/ 55. The scholarship | Gates Cambridge, https://www.gatescambridge.org/programme/the-scholarship/ 56. Funding - MRC Laboratory of Molecular Biology - University of Cambridge, https://www2.mrc-lmb.cam.ac.uk/students/international-phd-programme/funding/ 57. Financial information - Public information - Cardiff University, https://www.cardiff.ac.uk/public-information/corporate-information/financial-information 58. Income | Administration and support services | Imperial College London, https://www.imperial.ac.uk/finance/annual-report/financial-summary/income/ 59. Expenditure | Administration and support services | Imperial College London, https://www.imperial.ac.uk/finance/annual-report/financial-summary/expenditure/ 60. Where our funding comes from | John Innes Centre, https://www.jic.ac.uk/about-us/our-funding-annual-reports-accounts/where-our-funding-comes-from/ 61. JOHN INNES CENTRE - 223852 - Charity Commission, https://register-of-charities.charitycommission.gov.uk/en/about-the-register-of-charities/-/charity-details/223852/full-print 62. Impact of the John Innes Centre 2022, https://www.jic.ac.uk/app/uploads/2023/10/JIC-Impact-Report-2022.pdf 63. About LMB - MRC Laboratory of Molecular Biology, https://www2.mrc-lmb.cam.ac.uk/about-lmb/ 64. External research income - Research Support - University of Oxford, https://researchsupport.admin.ox.ac.uk/information/income 65. University of Strathclyde - Wikipedia, https://en.wikipedia.org/wiki/University_of_Strathclyde 66. Annual Review and Financial Statements - University of Warwick, https://warwick.ac.uk/services/finance/resources/accounts/accounts2324_-_with_cover.pdf 67. University of Warwick - Funding - UKRI, https://funding.re.ukri.org/files/html/grant-data-tables-2025-to-2026/warwick 68. The University's finances at a glance 2023/24 - The University of Manchester, https://www.manchester.ac.uk/about/governance/corporate-documents/university-finances-at-a-glance/ 69. ECONOMIC & WIDER IMPACTS - University of Liverpool,

https://www.liverpool.ac.uk/media/livacuk/redbrick/University_of_Liverpool_Economic_and_Wider_Impact_Report.pdf 70. University of Sheffield - Wikipedia, https://en.wikipedia.org/wiki/University_of_Sheffield 71. University of Sheffield leads the UK in engineering research income and investment, https://www.scci.org.uk/news/university-of-sheffield-leads-the-uk-in-engineering-research-income-and-investment/ 72. Postgraduate research - University of York, https://www.york.ac.uk/study/postgraduate-research/ 73. OUR INCOME AND HOW WE SPEND IT - Sheffield Hallam University, https://www.shu.ac.uk/-/media/home/about-us/our-services/finance-directorate/files/our-income-and-how-we-spend-it-22-23.pdf 74. Academic heritage at The University of Manchester, https://www.manchester.ac.uk/study/postgraduate-research/why-manchester/academic-heritage/ 75. Latest 'Original Ideas' Podcast explores groundbreaking Therapeutics Innovation at Liverpool - News, https://news.liverpool.ac.uk/2025/07/17/latest-original-ideas-podcast-explores-groundbreaking-therapeutics-innovation-at-liverpool/ 76. Medical breakthrough unlocks rare disease discovery - Newcastle University, https://www.ncl.ac.uk/press/articles/latest/2025/02/rarediseaseresearch/ 77. How Newcastle experts are advancing rare disease research - From Blog, https://from.ncl.ac.uk/newcastle-rare-disease-research 78. Advances in polymer composites: Paving the way for product innovation | University of Leeds, https://www.leeds.ac.uk/dir-record/profiles/14948/advances-in-polymer-composites-paving-the-way-for-product-innovation 79. Pioneering data and AI advancements helping to deliver the NHS's future vision | News, https://sheffield.ac.uk/news/pioneering-data-and-ai-advancements-helping-deliver-nhss-future-vision 80. £4m innovative Digital Health Hub will support patients across South Yorkshire - Sheffield Teaching Hospital, https://www.sth.nhs.uk/news/2023/06/13/gbp4m-innovative-digital-health-hub-will-support-patients-across-south-yorkshire/ 81. Humanities Research Centre University of York, https://chcinetwork.org/members/humanities-research-centre 82. Research - Department of History of Art, University of York, https://www.york.ac.uk/history-of-art/research/ 83. Annual Report and Statement of Accounts 2024 - University of Hull, https://www.hull.ac.uk/choose-hull/university-and-region/key-documents/docs/2024-uoh-annual-report-web.pdf 84. New partnership launches study to boost flood resilience for UK businesses | RSA Insurance, https://www.rsainsurance.co.uk/news/rsa-updates/partnership-launches-study-to-boost-flood-resilience/ 85. Renewable Energy - Masters Degree at University of Hull 9854 - Postgraduate Studentships, https://www.postgraduatestudentships.co.uk/masters-course/renewable-energy/9854 86. New breakthrough in preventing chemotherapy-induced hair loss | Sheffield Hallam University, https://www.shu.ac.uk/news/all-articles/latest-news/scalp-cooling-research 87. The 152nd Open at Royal Troon generated over £300m – new study | Sheffield Hallam University, https://www.shu.ac.uk/news/all-articles/latest-news/the-open-economic-impact-2024 88. Research | Sheffield Hallam University, https://www.shu.ac.uk/research 89. Crossrail project: procuring infrastructure for London's Elizabeth line, https://learninglegacy.crossrail.co.uk/wp-content/uploads/2017/09/2A-003-Procuring-Infrastructure-for-Londons-Elizabeth-line.pdf 90. Crossrail: Transforming London's Rail Network | Institution of Civil Engineers (ICE), https://www.ice.org.uk/what-is-civil-engineering/infrastructure-projects/crossrail 91. Top 10 Mega Infrastructure Projects Under Construction in UK (2025),

https://www.blackridgeresearch.com/blog/latest-list-new-upcoming-mega-infrastructure-construction-projects-uk-united-kingdom 92. Largest UK Construction Projects - Bridgit Bench, https://gobridgit.com/blog/largest-uk-construction-projects/ 93. Northern Powerhouse Rail between Liverpool and Manchester - GOV.UK, https://www.gov.uk/government/speeches/northern-powerhouse-rail-between-liverpool-and-manchester 94. Manchester Piccadilly Station - Written questions, answers and statements - UK Parliament, https://questions-statements.parliament.uk/written-questions/detail/2024-04-15/21654 95. HS2: 16 years of high hopes, bruising reality and burgeoning costs - The Guardian, https://www.theguardian.com/uk-news/2025/jun/18/hs2-16-years-of-high-hopes-bruising-reality-and-burgeoning-costs 96. HS2: update following the Northern leg cancellation - Parliament UK, https://publications.parliament.uk/pa/cm5901/cmselect/cmpubacc/357/report.html 97. Top Construction Projects in the North West 2025 - Barbour ABI, https://barbour-abi.com/top-construction-projects-north-west/ 98. How Big is the North-South Divide? - Beauhurst, https://www.beauhurst.com/blog/how-big-is-the-north-south-divide/ 99. STATE OF THE NORTH 2021/22 - LocalGov, http://files.localgov.co.uk/IPPRNorth.pdf 100. Cities Outlook 2025 | Centre for Cities, https://www.centreforcities.org/publication/cities-outlook-2025/ 101. Levelling up the UK's regional economies | Centre for Cities, https://www.centreforcities.org/wp-content/uploads/2021/03/levelling-up-the-uks-regional-economies.pdf 102. What does the public think about levelling up? - Centre for Cities, https://www.centreforcities.org/blog/what-does-the-public-think-about-levelling-up/ 103. YouGov-Cambridge Centre - Bennett Institute, https://www.bennettinstitute.cam.ac.uk/wp-content/uploads/2020/12/What_Matters_to_the_English_after_Covid_polling_paper.pdf 104. Education in Germany - Wikipedia, https://en.wikipedia.org/wiki/Education_in_Germany 105. Science System - BMFTR, https://www.bmbf.de/EN/Research/ScienceSystem/sciencesystem_node.html 106. Useful Stats: R&D expenditures at colleges and universities, by state | SSTI, https://ssti.org/blog/useful-stats-rd-expenditures-colleges-and-universities-state 107. NIH In Your State - United For Medical Research, https://www.unitedformedicalresearch.org/nih-in-your-state/ 108. Choose Europe for Science: EU comes together to attract top research talent, https://www.eitdeeptechtalent.eu/calls-and-opportunities/choose-europe-for-science-eu-comes-together-to-attract-top-research-talent/ 109. Horizon Europe - European Commission - Research and innovation, https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe_en 110. Horizon Europe: Marie Skłodowska-Curie Actions - European Research Executive Agency, https://rea.ec.europa.eu/funding-and-grants/horizon-europe-marie-sklodowska-curie-actions_en 111. European Commission plans new funding to attract researchers, https://www.europeaninterest.eu/european-commission-plans-new-funding-to-attract-researchers/ 112. International talents - France-Visas, https://france-visas.gouv.fr/en/france-visas/international-talents-and-economic-attractiveness 113. Researcher in France - European Commission - Migration and Home Affairs, https://home-affairs.ec.europa.eu/policies/migration-and-asylum/eu-immigration-portal/researcher-france_en 114. Funding instruments - ANR, https://anr.fr/en/anrs-role-in-research/values-and-commitments/funding-instruments/ 115. Scholarships for foreign students in France - Campus France,

https://www.campusfrance.org/en/bursaries-foreign-students 116. Where can I apply for a scholarship? - Campus France, https://www.campusfrance.org/en/faq/where-can-i-apply-for-a-scholarship 117. Grants, Scholarships, and Fellowships | Campus France USA, https://www.usa.campusfrance.org/grants-scholarships-and-fellowships